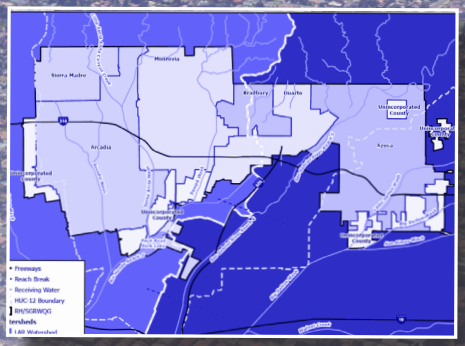
Enhanced Watershed Management Program

Rio Hondo/San Gabriel River Water Quality Group



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Attachments

Acronyms

AB	Assembly Bill
ACS	Alternative Compliance Strategy
APWA	American Public Works Association
ASCE	American Society of Civil Engineers
ATP	Active Transportation Program
BMP	Best Management Practice
BPA	Basin Plan Amendment
BSAF	Biota-Sediment Accumulation Factor
BSI	Bacteria Source Identification
CAMS	Countywide Address Management System
CARE	Community Action for a Renewed Environment
CASQA	California Stormwater Quality Association
CBI	Clean Beaches Initiative
C.C.	Coefficient of Correlation
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CGP	Construction General Permit
CIMP	Coordinated Integrated Monitoring Program
CMP	Coordinated Monitoring Program
CREST	Cleaner Rivers through Effective Stakeholder-led TMDLs
CTR	California Toxics Rule
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund
DO	Dissolved Oxygen
DSA	Division of the State Architect
DTSC	Department of Toxic Substances Control
EEM	Environmental Enhancement and Mitigation
EIR	Environmental Impact Report
EMC	Event Mean Concentration
ESCP	Erosion and Sediment Control Plan
ET	Evapotranspiration
EWMP	Enhanced Watershed Management Program
EWRI	Environmental and Water Resources Institute
FCG	Fish Contaminant Goals
FHWA	Federal Highway Administration
FWC	Flow-Weighted Composite
GIS	Geographic Information System
GLAC	Greater Los Angeles County
HCF	Habitat Conservation Fund
HFS	High Flow Suspension
HRU	Hydrologic Response Unit
HSG	Hydrologic Soil Group

HSIP	Highway Safety Improvement Program
HSPF	Hydrologic Simulation Program-FORTRAN
IBD	International BMP Database
IC/ID	Illicit Connection/Illicit Discharge
IGP	Industrial General Permit
IPM	Integrated Pest Management
IRWMP	Integrated Regional Water Management Plan
ISRF	Infrastructure State Revolving Fund
JPA	Joint Powers Authority
LAC	Los Angeles County
LACSD	Los Angeles County Sanitation Districts
LACDPW	Los Angeles County Department of Public Works
LACFCD	Los Angeles County Flood Control District
LADPW	Los Angeles Department of Power and Water
LAR	Los Angeles River
LARWQCB	Los Angeles Regional Water Quality Control Board
LID	Low Impact Development
LRP	Local Resources Program
LRS	Load Reduction Strategy
LSPC	Loading Simulation Program in C++
LUST	Leaking Underground Storage Tank
LWCF	Land and Water Conservation Fund
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MTA	Metropolitan Transportation Authority
MWD	Metropolitan Water District
NCDC	National Climatic Data Center
NDMA	N-Nitrosodimethylamine
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NPS	Non-Point Source
O&M	Operation and Maintenance
OWTS	Onsite Wastewater Treatment System
P2	Pollution Prevention
PAH	Polycyclic Aromatic Hydrocarbons
PET	Pan Evapotranspiration
PIPP	Public Information and Participation Program
POC	Pollutant of Concern
POTW	Publicly Owned Treatment Works
PTMISEA	Public Transportation Modernization, Improvement, and Service Enhancement Account
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis

RCP	Reinforced Concrete Pipe
RH/SGRWQG	Rio Hondo/San Gabriel River Water Quality Group
RMSE	Root Mean Square Error
ROS	Regression-on-Order Statistics
ROWD	Report of Waste Discharge
RPA	Reasonable Potential Analysis
RTP	Recreational Trails Program
RWL	Receiving Water Limitation
SB	Senate Bill
SBPAT	Structural BMP Prioritization and Analysis Tool
SCCWRP	Southern California Coastal Water Research Project
SGR	San Gabriel River
SIC	Standard Industrial Classification
SLOD	Sample Limits of Detection
SMARTS	Storm Water Multiple Application and Report Tracking System
SMB	Santa Monica Bay
SRPE	Steel Reinforced Polyethylene
SSO	Site-Specific Objectives
SUSMP	Standard Urban Stormwater Mitigation Plan
SUSTAIN	System for Urban Stormwater Treatment and Analysis Integration
SWAMP	Surface Water Ambient Monitoring Program
SWGP	Stormwater Grant Program
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TDS	Total Dissolved Solids
TEC	Threshold Effect Concentration
TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
VOC	Volatile Organic Compound
WBPC	Water Body-Pollutant Combination
WCB	Wildlife Conservation Board
WDR	Waste Discharge Requirement
WER	Water Effects Ratios
WERF	Water Environment Research Foundation
WLA	Waste Load Allocation
WMA	Watershed Management Area
WMMS	Watershed Management Modeling System
WMP	Watershed Management Program
WQBEL	Water Quality-Based Effluent Limitation
WQO	Water Quality Objective
WRP	Water Reclamation Plant

WRRDA Water Resources Reform and Development Act

Executive Summary

In response to the Phase I Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit, Order No. R4-2012-0175, the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG or the Group) decided to collaborate in the development of an Enhanced Watershed Management Program (EWMP). This Group is comprised of the Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, the County of Los Angeles, and the Los Angeles County Flood Control District (LACFCD). This EWMP describes the compliance path the Group will utilize to achieve water quality objectives by specified milestone dates.

Several of the Group members participating in this EWMP are in both the Los Angeles River (LAR) and San Gabriel River (SGR) Watersheds. The Group is located in the eastern portion of the LAR Watershed Management Area and the upper portion of the urban SGR Watershed Management Area. The area included in the EWMP encompasses approximately 42 square miles of predominately residential and open space land use. Of the total LAR and SGR Watershed areas, the Group members have jurisdiction over four and three percent of the total watersheds, respectively. The Group area is illustrated in **Figure ES-1**.

This EWMP identifies the water quality priorities relevant to the Group based on limited available water quality data. These priorities are the focus of various implementation efforts required to be in compliance with interim and final water quality objectives. Additionally, the EWMP identifies the existing structural and non-structural Best Management Practices (BMPs) implemented by the Group. Potential regional project sites were identified and evaluated to determine which would be proposed and included in the EWMP's Reasonable Assurance Analysis (RAA). An approach for selecting distributed BMPs, such as green streets, is also included and proposed streets are identified so that required load reductions can be achieved.

The EWMP outlines the approach used for the RAA, detailing the modeling system, calibration process, and estimated baseline conditions. Once the baseline conditions were estimated, the proposed control measures were modeled to demonstrate that applicable water quality objectives will be achieved based on the 85th percentile storm and 90th percentile load criterions. Based on the proposed control measures, potential implementation costs and schedules are also identified. Major components of this EWMP include:

Water Quality Priorities

The water quality priorities were identified by characterizing the water bodies using limited available monitoring data and Water Body Pollutant Combinations were then developed. Separate categories of Water Body Pollutant Combinations have been established and are expected to be addressed through the implementation of various control measures proposed in this EWMP. In addition, a source assessment was undertaken and a prioritization was developed based on Total Maximum Daily Loads (TMDLs) and other receiving water considerations. The identification of water quality priorities directed the selection of control measures and future implementation efforts included in the EWMP.

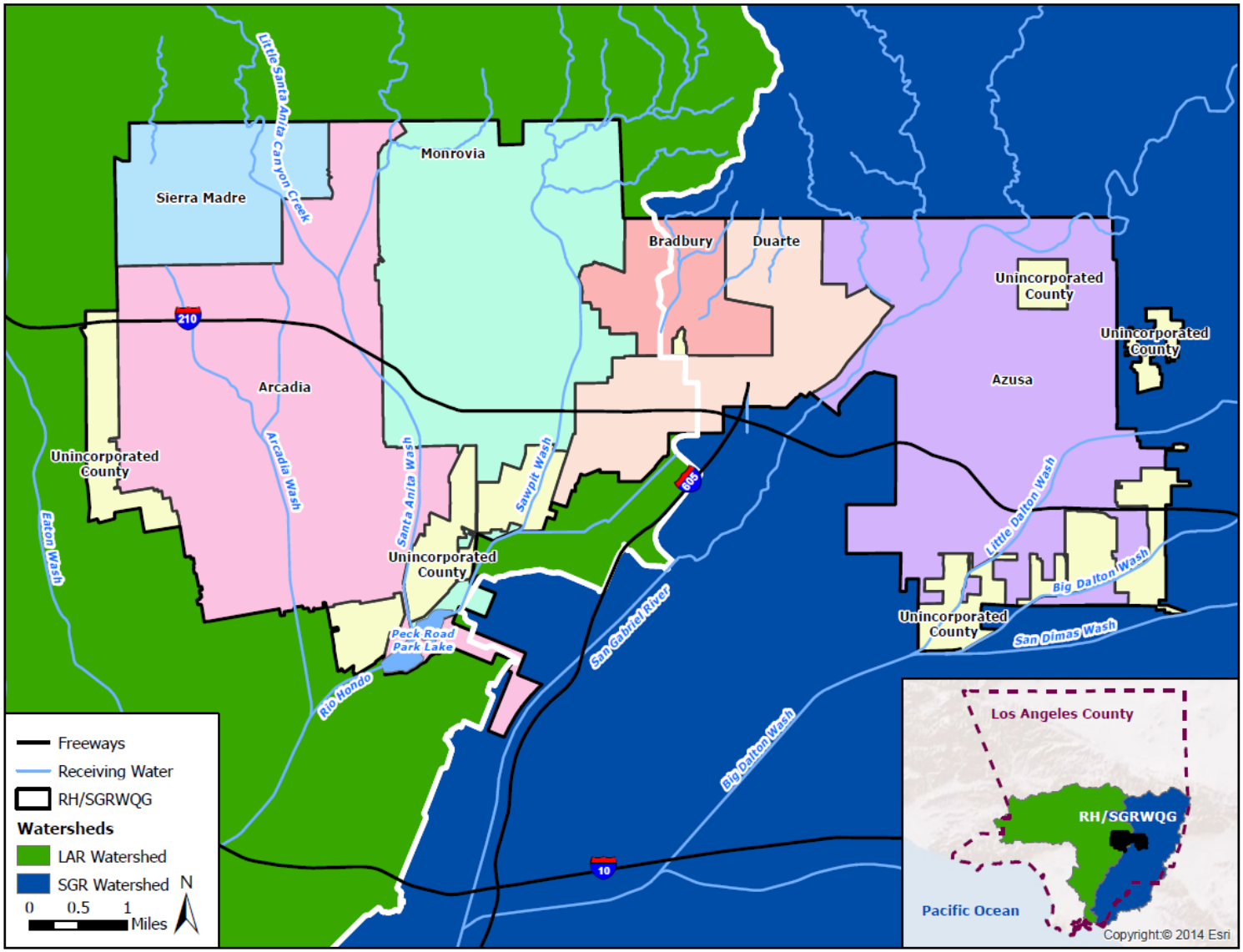


Figure ES-1 EWMP Group Area

Watershed Control Measures

This EWMP identifies both the various control measures that currently exist within the Group area and control measures that will need to be addressed to comply with the applicable objectives within the given timeframe. Various non-structural control measures along with structural control measures (distributed and regional BMPs) are proposed and included in the RAA to demonstrate compliance with water quality objectives.

The MS4 Permit also defines Minimum Control Measures (MCMs) and includes a variety of non-structural control measures. Requirements based on the current MS4 Permit are more stringent than those implemented under the previous permit, and the differences between the two are further discussed in the EWMP. As an example, the 2012 MS4 Permit requires that construction sites under one acre be inspected based on water quality threat, while the 2001 MS4 Permit did not have any inspection requirements for sites under one acre. Some Group members intend to implement enhanced programs beyond what is required in the MS4 Permit. Due to the proposed non-structural control measure implementation, a 5.2 percent load reduction is being credited in the RAA process. The new and redevelopment program requires developers to mitigate stormwater based on predefined criteria. Projected development rates based on land use were used to quantify the volume reduction associated with new and redevelopment to take credit in the RAA.

Potential regional project sites were identified and evaluated using a tailored screening process. The evaluation of regional projects started with 652 potential parcels and was narrowed down to 41 potential sites which were then analyzed in greater detail. Of these proposed sites, Peck Road Park Lake was considered for a potential regional project; however, this location is considered a Water of the United States and receiving water body, and cannot be considered as a treatment site. Further discussions with the Regional Water Quality Control Board (Regional Board) would be required to fully evaluate this potential site for future possible regional projects.

The catchment areas draining to the proposed regional EWMP projects, which are those projects that capture the 85th percentile, 24-hour storm volume, are considered compliant with the MS4 Permit while the RAA was used to demonstrate compliance in other areas. **Table ES-1** contains a list of the proposed regional BMPs identified, the jurisdiction in which the project is located, and whether the project is considered a regional EWMP project (captures the full 85th percentile, 24-hour storm event) or a regional project (does not capture the full volume of a 85th percentile, 24-hour storm event). The table also lists the jurisdictions that would benefit from the proposed projects. Projects are listed in the order in which they ranked after the screening process. The responsible jurisdiction for implementing the projects identified is the jurisdiction in which the project is located. The responsible agency does not imply financial responsibility. Funding agreements will be formed to determine financial responsibility. The contributing jurisdictions identified in the table are the jurisdictions other than the responsible jurisdiction that contribute flow to the project. The locations of the proposed regional projects along with their percent capture compared to the 85th percentile, 24-hour storm event volume are illustrated in **Figure ES-2**.

Table ES-1 Proposed Regional Project BMP Sites			
Proposed Project Site	**Project Type**	**Responsible Jurisdiction**	**Contributing Jurisdiction(s)**
LAR Watershed			
Recreation Park	Regional EWMP	Monrovia	-
Arboretum of LAC	Regional EWMP	Arcadia	-
Sierra Vista Park	Regional EWMP	Sierra Madre	-
Royal Oaks Trail (LAR)	Regional EWMP	Bradbury/Duarte	Monrovia and County
L. Garcia Park	Regional EWMP	Monrovia	-
Eisenhower Park	Regional	Arcadia	Monrovia and Sierra Madre
SGR Watershed			
LADWP Easement	Regional	Azusa/County	-
Encanto Park	Regional EWMP	Duarte	Azusa
Memorial Park (Azusa)	Regional EWMP	Azusa	-
Royal Oaks Trail (SGR)	Regional EWMP	Bradbury/Duarte	County

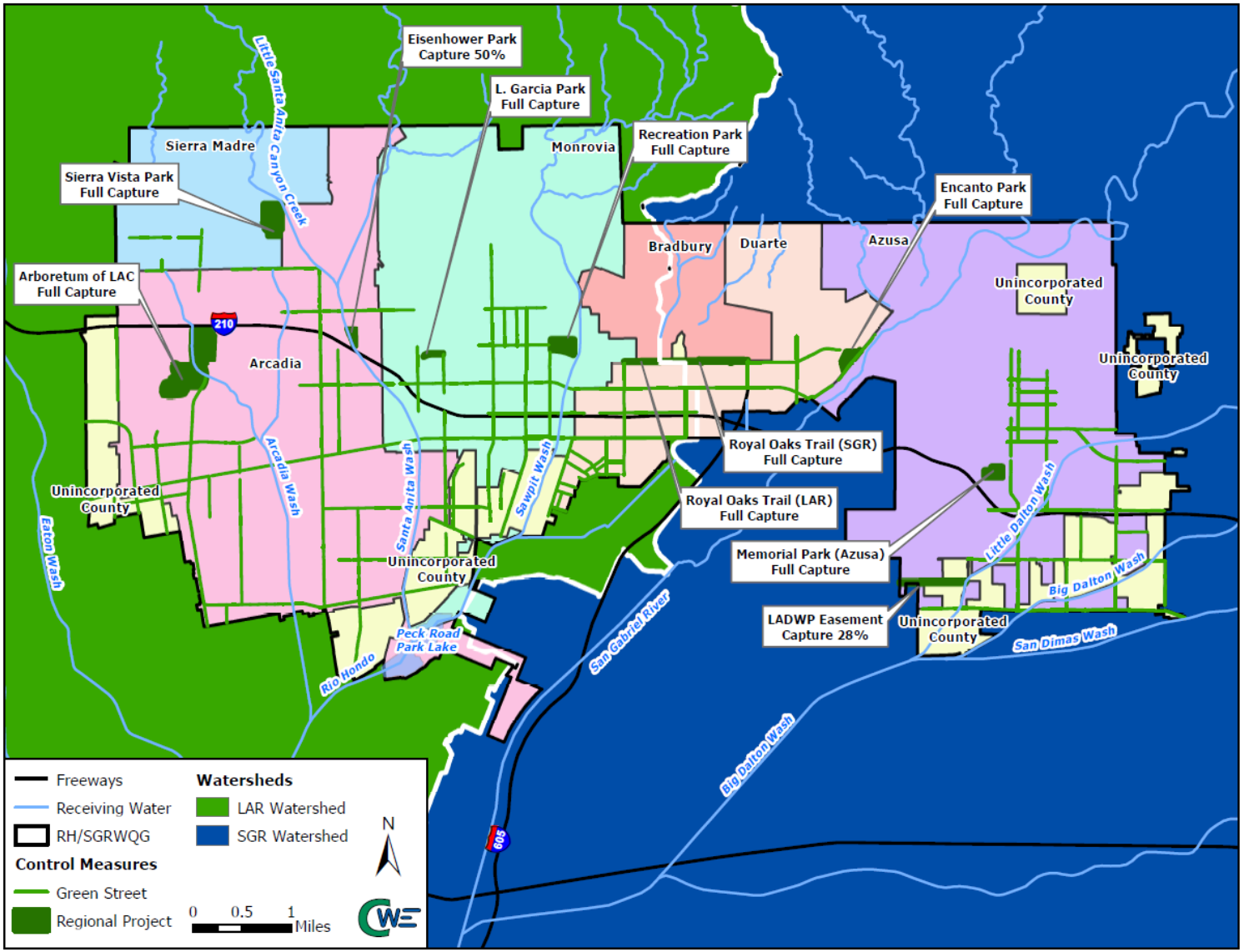


Figure ES-2 Control Measure Implementation Summary

Distributed BMPs, such as green streets, were also evaluated and proposed as part of this EWMP to address the estimated load and volume reductions to achieve compliance with water quality objectives. EWMP area roadways were screened to determine the feasibility of implementing green streets. Green streets may also be replaced with alternative distributed BMPs with an equivalent volume. Alternate distributed BMPs may include bioretention systems that collect runoff from impervious surfaces and infiltrate onsite. The Group's subareas were analyzed and streets were selected to achieve the estimated volume and load reductions. The proposed implementation of green streets in lane miles by jurisdiction is summarized in **Table ES-2**. **Figure ES-2** illustrates the proposed distributed control measures within the EWMP area.

Table ES-2 Green Street Implementation Summary by Jurisdiction

Jurisdiction	Green Street Lane Miles			
	LAR Watershed	SGR Watershed	Total	Percent by Agency
Arcadia	123	0	123	28%
Azusa	0	112	112	26%
Bradbury	0	0	0	0%
Duarte	38	16	54	12%
Monrovia	68	0	68	16%
Sierra Madre	6	0	6	1%
County Unincorporated	38	35	73	17%
Total:	**273**	**163**	**436**	**100%**

Reasonable Assurance Analysis

The objective of the RAA was to demonstrate the ability of the control measures identified in the EWMP to achieve applicable water quality objectives and not cause or contribute to exceedances. The water quality model was calibrated based on land use, geography, estimated baseline water quality, and other parameters and was used to simulate the runoff and corresponding water quality generated within the EWMP area. The EWMP provides details of the modeling approach, calibration, and baseline simulation.

The average annual stormwater capture was determined for the modeled years (2002-2011) and compared to the total average annual volume of runoff. The model demonstrated that based on control measure implementation, the average annual stormwater capture is 14,158 acre-feet and 9,372 acre-feet in the LAR and SGR Watersheds, respectively. Capturing this volume during an average year will allow the Group to address the 90th percentile load as required by the MS4 Permit.

An analysis was done to determine the 85th percentile storm event volume and the critical storm defined as the 90th percentile load event within both the LAR and SGR Watersheds. The 90th percentile load event criterion was used to establish the limiting priority pollutant. The selection of the limiting pollutant is based on the concept that if the constituent with the highest volume associated with the 90th percentile load, or that is most difficult to capture, is captured, then all other constituent requirements will be achieved. It was determined that zinc is the limiting pollutant in the LAR Watershed and lead is the limiting pollutant in the SGR Watershed. Based on the proposed control measures, simulations were run to demonstrate that the target load reductions will be met by the predefined milestone dates. **Table ES-3** and **Table ES-4** demonstrate the target load reductions associated with the limiting pollutant will be met by the milestone dates in the LAR and SGR Watersheds, respectively.

Table ES-3 Zinc Load Reduction Based on Control Measure Implementation in the LAR Watershed		
Control Measure Implementation	**Zinc Load Reduction (kg)**	
	2024 (50% Metals)	**2028 (100% Metals)**
Enhanced MCMs	35.20	35.20
New and Re-Development	4.28	16.44
Green Streets	207.50	543.76
Regional BMPs		
Recreation Park	6.73	6.73
Sierra Vista Park	11.76	11.76
Arboretum of LAC	7.14	7.14
Royal Oaks Trail (LAR)	35.86	35.86
L. Garcia Park	15.07	15.07
Eisenhower Park	24.88	24.88
Target Load Reduction:	348.42	696.84
Total Load Reduction:	348.42	696.84
Percent of Final Target:	50%	100%

Table ES-4 Lead Load Reduction Based on Control Measure Implementation in the SGR Watershed				
Control Measure Implementation	**Lead Load Reduction (kg)**			
	2017 (10% Metals)	**2020 (35% Metals)**	**2023 (65% Metals)**	**2026 (100% Metals)**
Enhanced MCMs	2.45	2.45	2.45	2.45
New and Re-Development	0.16	0.40	0.63	0.89
Green Streets	2.30	13.53	24.32	41.26
Regional BMPs				
LADWP Easement	-	0.34	0.34	0.34
Encanto Park	-	0.48	0.48	0.48
Memorial Park (Azusa)	-	-	1.21	1.21
Royal Oaks Trail (SGR)	-	-	2.50	2.50
Target Load Reduction:	4.91	17.20	31.93	49.13
Total Load Reduction:	4.91	17.20	31.93	49.13
Percent of Final Target:	10%	35%	65%	100%

Control Measure Implementation Schedule

Control measures were modeled in the RAA to demonstrate compliance at each of the milestones, which correspond with TMDL schedules. The schedule associated with the required implementation efforts is proposed in this EWMP. The regional projects modeled for the LAR Watershed portion of the RAA must all be addressed prior to the 2024 milestone. The SGR Watershed must address two regional projects prior to the 2020 milestone and the other two projects must be addressed prior to the 2023 milestone. **Table ES-5** summarizes the anticipated completion year for each of the proposed regional projects.

Table ES-5 Regional Project Schedule	
Proposed Project Site	**Completion Year**
LAR Watershed	
Recreation Park	2020
Arboretum of LAC	2021
Sierra Vista Park	2020
Royal Oaks Trail (LAR)	2023
L. Garcia Park	2024
Eisenhower Park	2024
SGR Watershed	
LADWP Easement	2020
Encanto Park	2020
Memorial Park (Azusa)	2023
Royal Oaks Trail (SGR)	2023

The schedule for green street (distributed BMP) implementation was determined and is based on the volume/load reductions that are not satisfied by other control measures at each of the compliance deadlines associated with TMDL schedules. **Table ES-6** summarizes the proposed green street implementation schedule and **Figure ES-3** illustrates the distribution over time.

Table ES-6 Proposed Green Street Implementation Timeline		
Implementation Year	**Lane Miles of Green Streets**	
	LAR Watershed	**SGR Watershed**
2017	-	17.0
2018	-	-
2019	-	-
2020	-	41.0
2021	-	16.0
2022	39.6	16.0
2023	39.7	16.0
2024	39.7	19.0
2025	38.5	19.0
2026	38.5	19.0
2027	38.5	-
2028	38.5	-
Total:	**273.0**	**163.0**

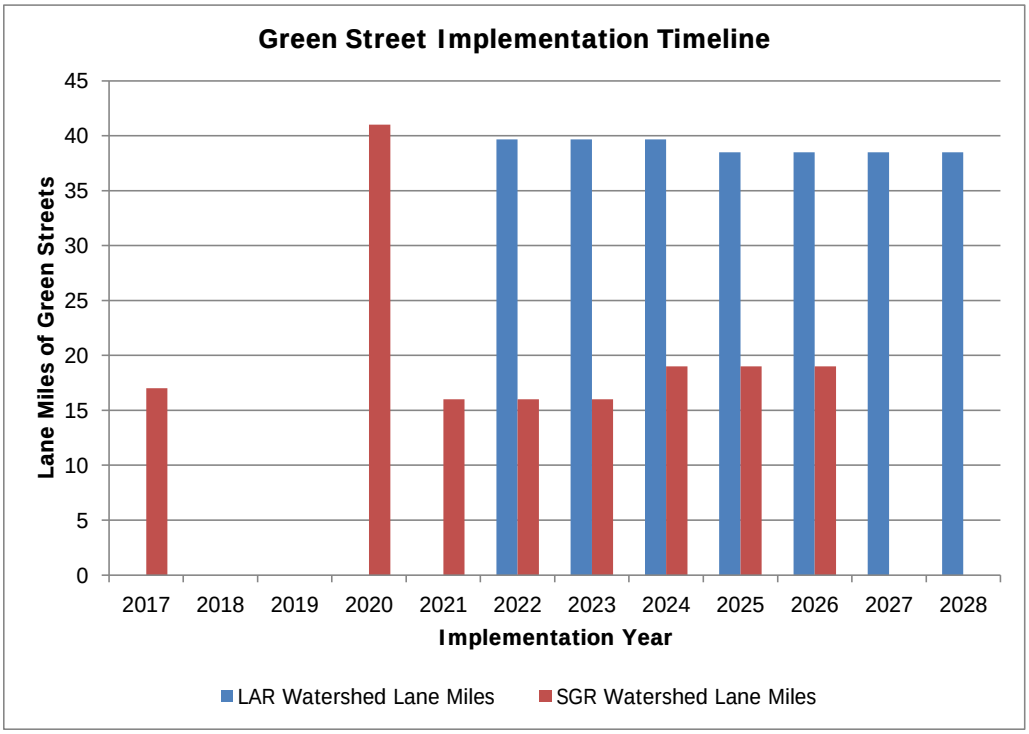


Figure ES-3 Green Street Implementation Summary

Control Measure Implementation Cost

A preliminary cost analysis was performed based on the implementation schedule. Implementation costs were spread out whenever possible keeping in mind that compliance with the water quality objectives must be demonstrated through the RAA. All of the costs are presented in today's dollars, assuming no inflation. The cost increase associated with non-structural control measure implementation is small in comparison to regional and distributed BMP implementation costs; therefore, costs associated with non-structural BMP implementation are not included in the subsequent summary. The capital and operation and maintenance (O&M) cost associated with each of the proposed regional BMPs is summarized in **Table ES-7**.

Table ES-7 Regional Project Cost		
Proposed Project Site	**Capital Cost**	**Annual O&M Cost**
LAR Watershed		
Recreation Park	$10,251,000	$125,205
Arboretum of LAC	$15,097,000	$369,060
Sierra Vista Park	$4,818,000	$117,330
Royal Oaks Trail (LAR)	$53,109,000	$500,000
L. Garcia Park	$23,323,000	$285,270
Eisenhower Park	$38,402,000	$469,905
LAR Watershed Subtotal:	**$145,000,000**	**$1,866,770**
SGR Watershed		
LADWP Easement	$6,436,000	$156,960
Encanto Park	$16,255,000	$198,720
Memorial Park (Azusa)	$43,830,000	$500,000
Royal Oaks Trail (SGR)	$88,076,000	$500,000
SGR Watershed Subtotal:	**$154,597,000**	**$1,355,680**
Total:	**$299,597,000**	**$3,222,450**

A cost estimate was done for green street implementation in order to determine a unit cost. The unit cost was determined to be $486 per linear foot per lane mile of green streets. Green streets will also require maintenance throughout the year to make sure they function as intended. The capital and O&M costs associated with the proposed green street implementation is summarized in **Table ES-8**.

Table ES-8 Green Street Implementation and Maintenance Costs						
Year	**LAR Watershed**			**SGR Watershed**		
	Lane Miles	**Capital Cost**	**O&M Cost**	**Lane Miles**	**Capital Cost**	**O&M Cost**
2017	-	-	-	17.0	$43,596,432	-
2018	-	-	-	-	-	$435,964
2019	-	-	-	-	-	$435,964
2020	-	-	-	41.0	$105,144,336	$435,964
2021	-	-	-	16.0	$41,031,936	$1,487,408
2022	39.6	$101,554,042	-	16.0	$41,031,936	$1,897,727
2023	39.7	$101,810,491	$1,015,540	16.0	$41,031,936	$2,308,046
2024	39.7	$101,810,491	$2,033,645	19.0	$48,725,424	$2,718,366
2025	38.5	$98,733,096	$3,051,750	19.0	$48,725,424	$3,205,620
2026	38.5	$98,733,096	$4,039,081	19.0	$48,725,424	$3,692,874
2027	38.5	$98,733,096	$5,026,412	-	-	$4,180,128
2028	38.5	$98,733,096	$6,013,743	-	-	$4,180,128
2029	-	-	$7,001,074	-	-	$4,180,128

The annual costs associated with EWMP implementation for the Group is illustrated in **Figure ES-4**. The costs will be high during initial implementation and then be reduced such that only the O&M costs are applied until the BMPs require replacement. The replacement costs are not included in the estimates

provided in this EWMP but would be anticipated within 30 to 50 years depending on the type of BMP selected.

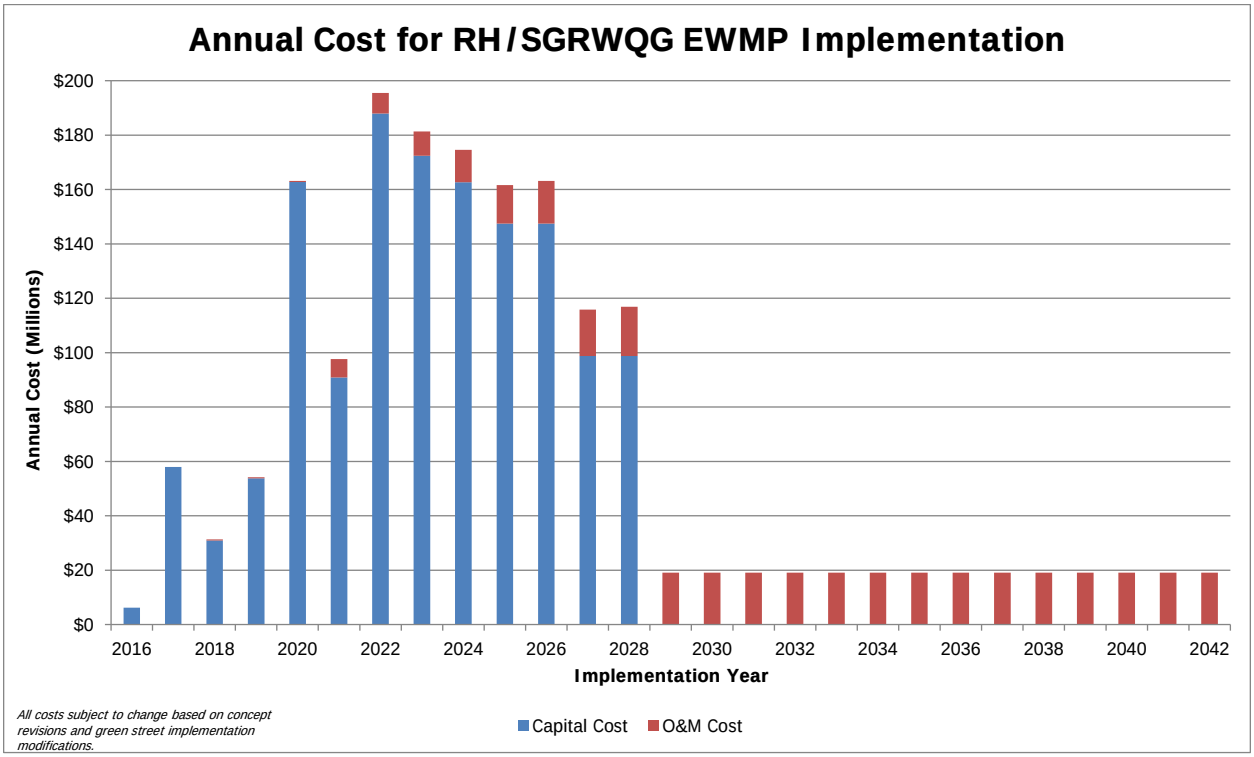


Figure ES-4 Estimated Annual Cost for RH/SGRWQG EWMP Implementation

For funding strategy purposes, the costs were broken down by jurisdictions based on the control measures anticipated within each jurisdictional boundary. For regional projects, the cost share was determined based on the ratio of each jurisdiction within the catchment area tributary to the proposed project. The cost sharing formula will ultimately be determined by the member agencies based on monitoring results and associated project priorities. **Table ES-9** summarizes the implementation cost. The funding strategies discussed in this EWMP include:

- Grants and loans;
- Fees and charges;
- Legislative and policy;
- Partnerships; and
- Investment opportunities.

Table ES-9 RH/SGRWQG EWMP Implementation Costs

Control Measures	Cost
Regional Projects	$299,597,000
Green Streets	$1,118,120,256
Total:	**$1,417,717,256**

Adaptive Management Process

Lastly, this EWMP highlights the adaptive management process. The adaptive nature of the EWMP allows the process to be iterative, allowing the Group to identify a plan that is successful in improving water quality in the region. Through the adaptive management process, the EWMP will be updated two years after the Regional Board Executive Officer approval and every two years thereafter, while the RAA will need to be revised and updated by 2021. The data collected through implementation of the Coordinated Integrated Monitoring Program (CIMP) will be used when revising the EWMP as part of the adaptive management process.

1. Introduction

This document describes how the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) developed an Enhanced Watershed Management Program (EWMP) per the requirements set forth in the Los Angeles County (LAC) National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit (Permit), Order No. R4-2012-0175. This document also describes the path Permittees utilized to complete the EWMP process required in the MS4 Permit. The EWMP addresses water quality priorities in portions of the Rio Hondo and San Gabriel River, and their respective tributaries. A comprehensive stormwater management plan that optimizes stormwater and financial resources has been produced through this EWMP process. The EWMP integrates existing planning efforts and identifies additional opportunities for water quality enhancement through both programmatic and structural controls. In addition, the EWMP incorporates multi-benefit projects that not only improve water quality, but also provide aesthetic, recreational, water supply, and/or community enhancements.

1.1 Applicability of EWMP

Permittees participating in the RH/SGRWQG EWMP include the County of Los Angeles, Los Angeles County Flood Control District (LACFCD), and the Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre, several of which are in both the Los Angeles River (LAR) and San Gabriel River (SGR) Watersheds. A description of the LACFCD and their involvement in the EWMP process is provided in **Attachment A**. **Figure 1-1** provides a map illustrating the LAR and SGR Watersheds and the jurisdictional boundaries of the RH/SGRWQG members participating in this EWMP. **Table 1-1** describes the size and percentage of each participating member's jurisdiction within the group and the percent contribution to the LAR and SGR Watersheds.

Table 1-1 Jurisdictions within RH/SGRWQG

RH/SGRWQG Member	Area Inside RH/SGRWQG (square miles)	Total Percent of RH/SGRWQG	Percent in LAR Watershed	Percent in SGR Watershed
Arcadia	11.1	27%	98%	2%
Azusa	9.3	22%	0%	100%
Bradbury	1.9	5%	41%	59%
Duarte	3.6	9%	37%	63%
Monrovia	7.9	19%	99%	1%
Sierra Madre	2.8	7%	100%	0%
Los Angeles County	4.6	11%	54%	46%

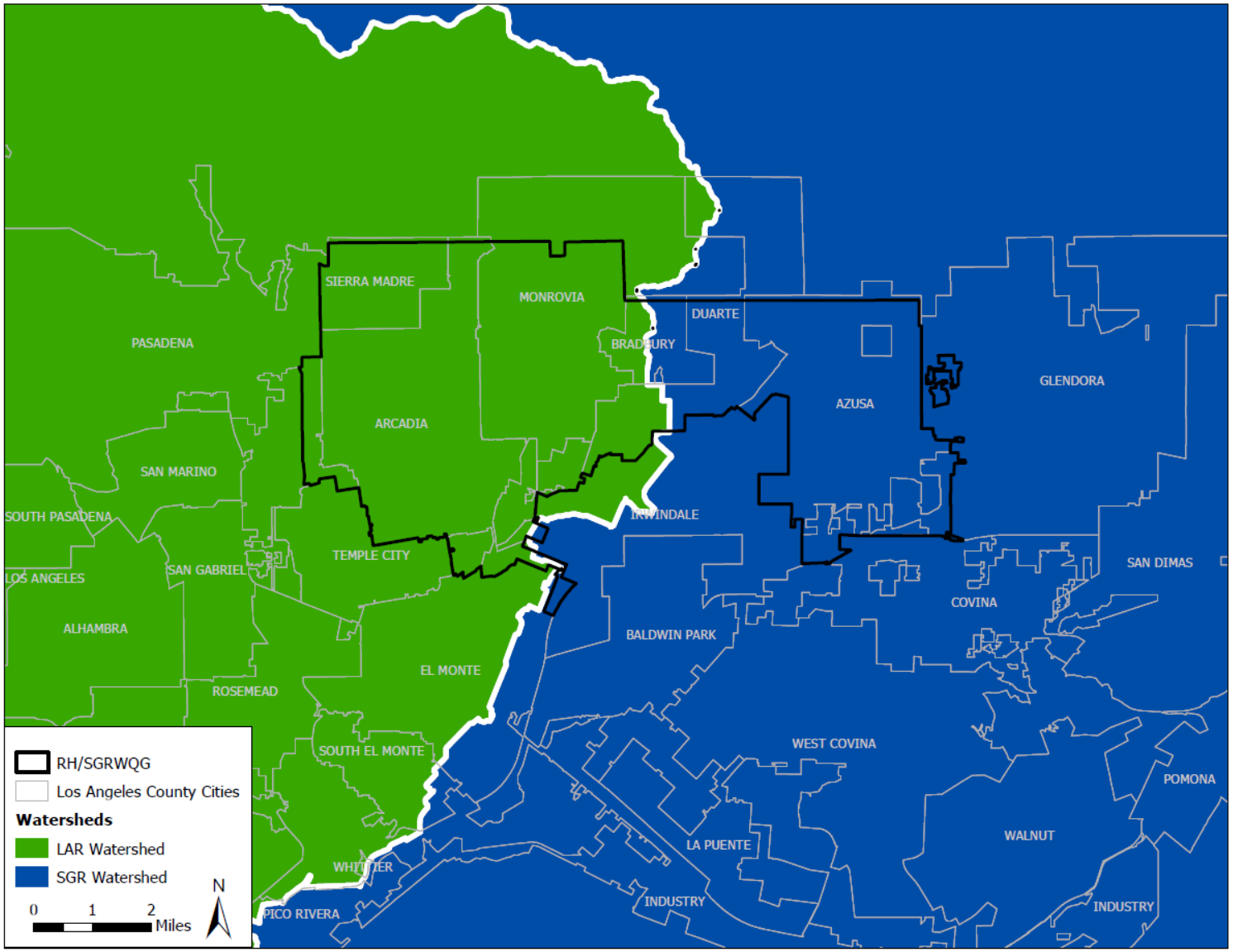


Figure 1-1 RH/SGRWQG and Major Watersheds

1.2 Geographic Scope and Characteristics

The RH/SGRWQG watershed characteristics, including the physical and hydrological conditions, are unique to the area and are presented below, including the extent of the MS4 and receiving waters addressed by this EWMP.

1.2.1 Watershed Characteristics

The RH/SGRWQG is located in the eastern portion of the LAR Watershed and the upper portion of the urban SGR Watershed. The area included in the RH/SGRWQG EWMP encompasses approximately 41 square miles of predominately residential and open space land use and excludes areas in the Angeles National Forest. The RH/SGRWQG members have jurisdiction over four and three percent of the total LAR and SGR Watersheds, respectively. **Table 1-2** depicts the watershed land use categories within the RH/SGRWQG area, corresponding with **Figure 1-2**.

Table 1-2 RH/SGRWQG Land Use Summary

Land Use Category	Area (square miles)	Percentage
Agriculture	1.1	3%
Commercial	3.5	8%
Education	1.1	3%
Industrial	2.8	7%
Multi-Family (MF) Residential	2.8	7%
Single Family (SF) Residential	19.3	47%
Transportation	0.7	1%
Vacant	9.9	24%
Total	**41.2**	**100%**

The hydrologic characteristics of the RH/SGRWQG include:

- Soil types based on the LAC Hydrology Manual (2006), (**Figure 1-3**);
- Storm depth that increases from south to north and has higher depths in the center of the RH/SGRWQG area with a peak in the City of Bradbury, as indicated by the 85th percentile, 24-hour rainfall depth distribution (**Figure 1-4**);
- Storm intensity that increases from south to north, as indicated by the 50-year, 24-hour rainfall intensity distribution (**Figure 1-5**); and
- MS4 outfalls along the Rio Hondo and SGR being identified and investigated through Coordinated Integrated Monitoring Program (CIMP) efforts (**Figure 1-6**).

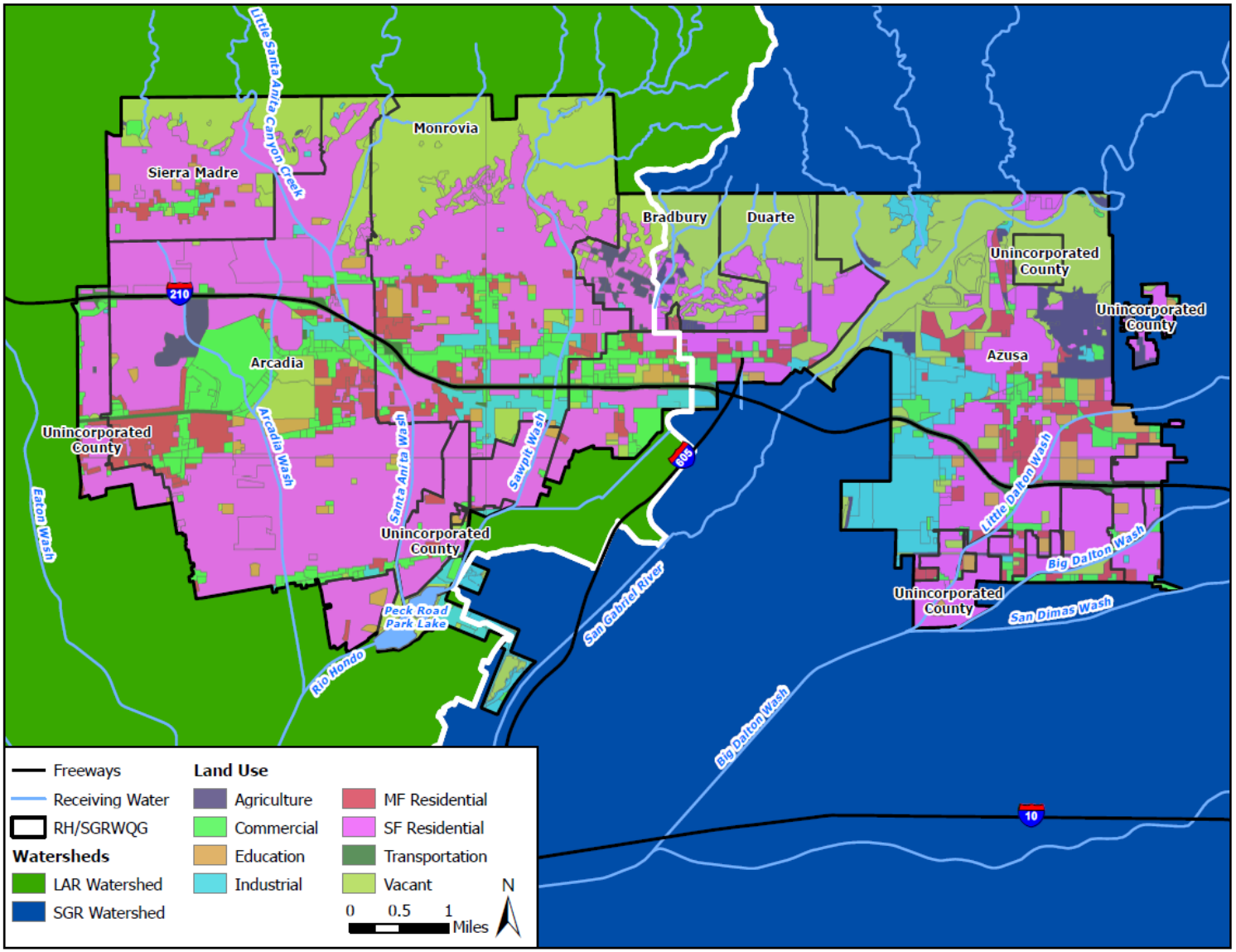


Figure 1-2 RH/SGRWQG Land Use

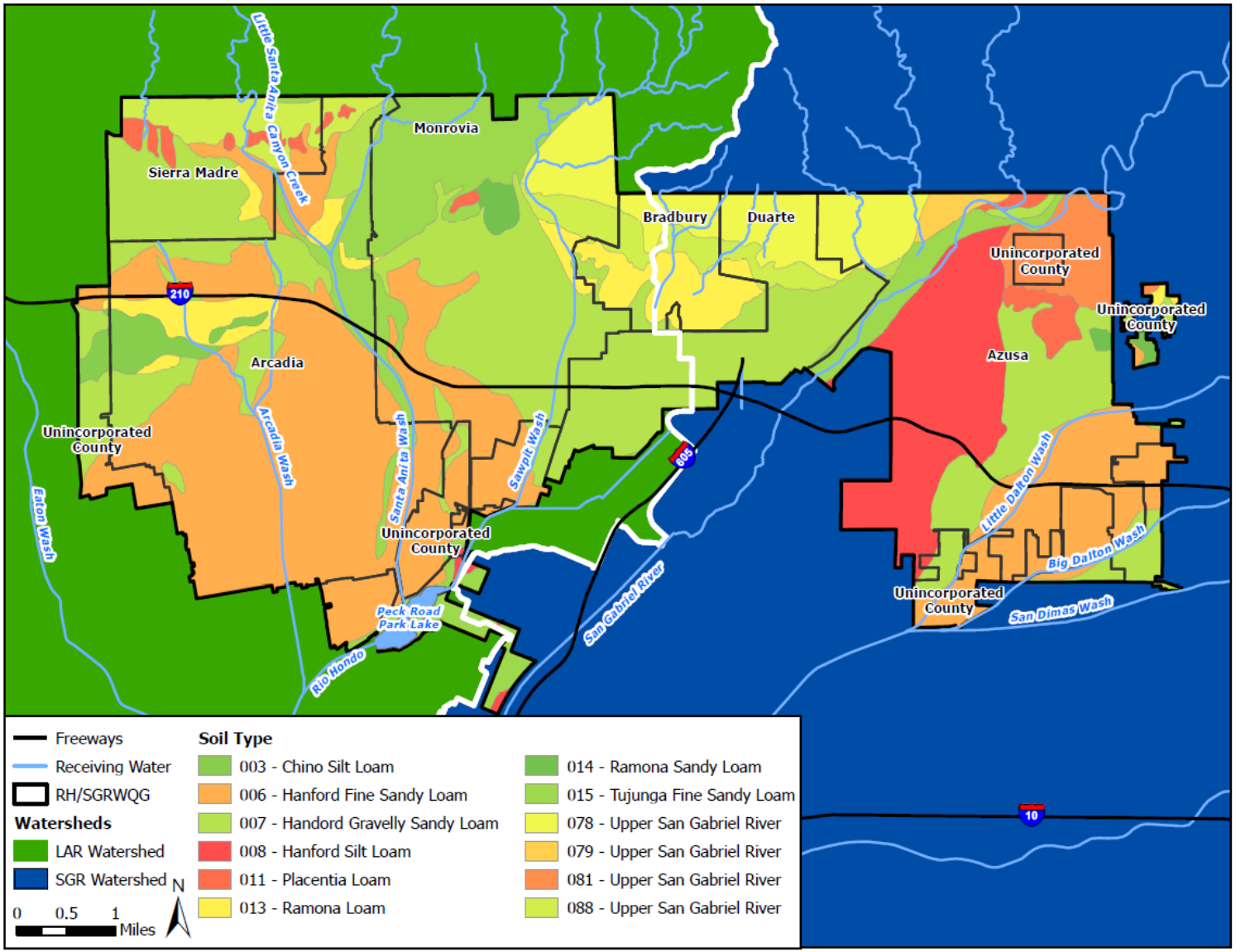


Figure 1-3 RH/SGRWQG Soil Types

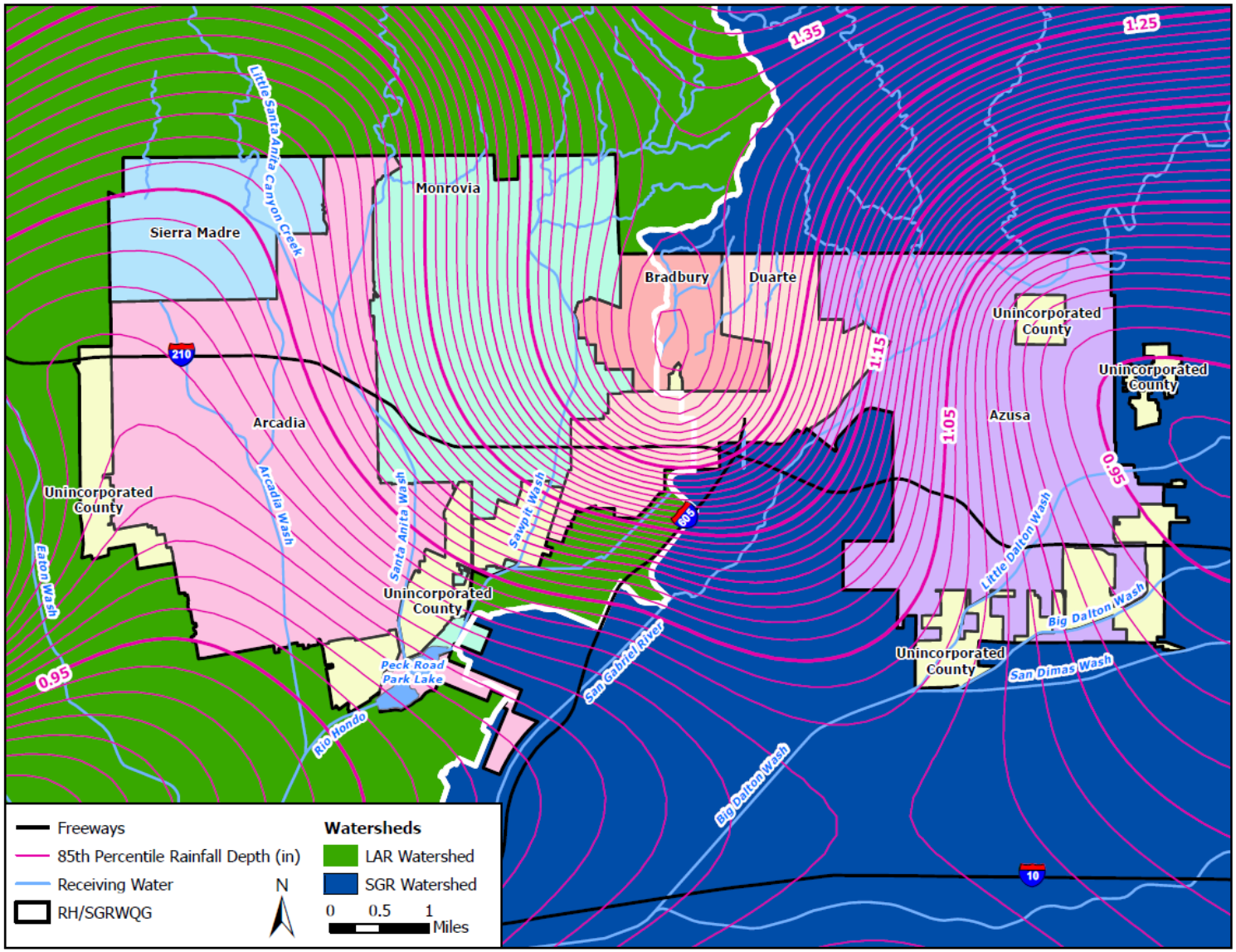


Figure 1-4 85th Percentile, 24-Hour Rainfall Depths

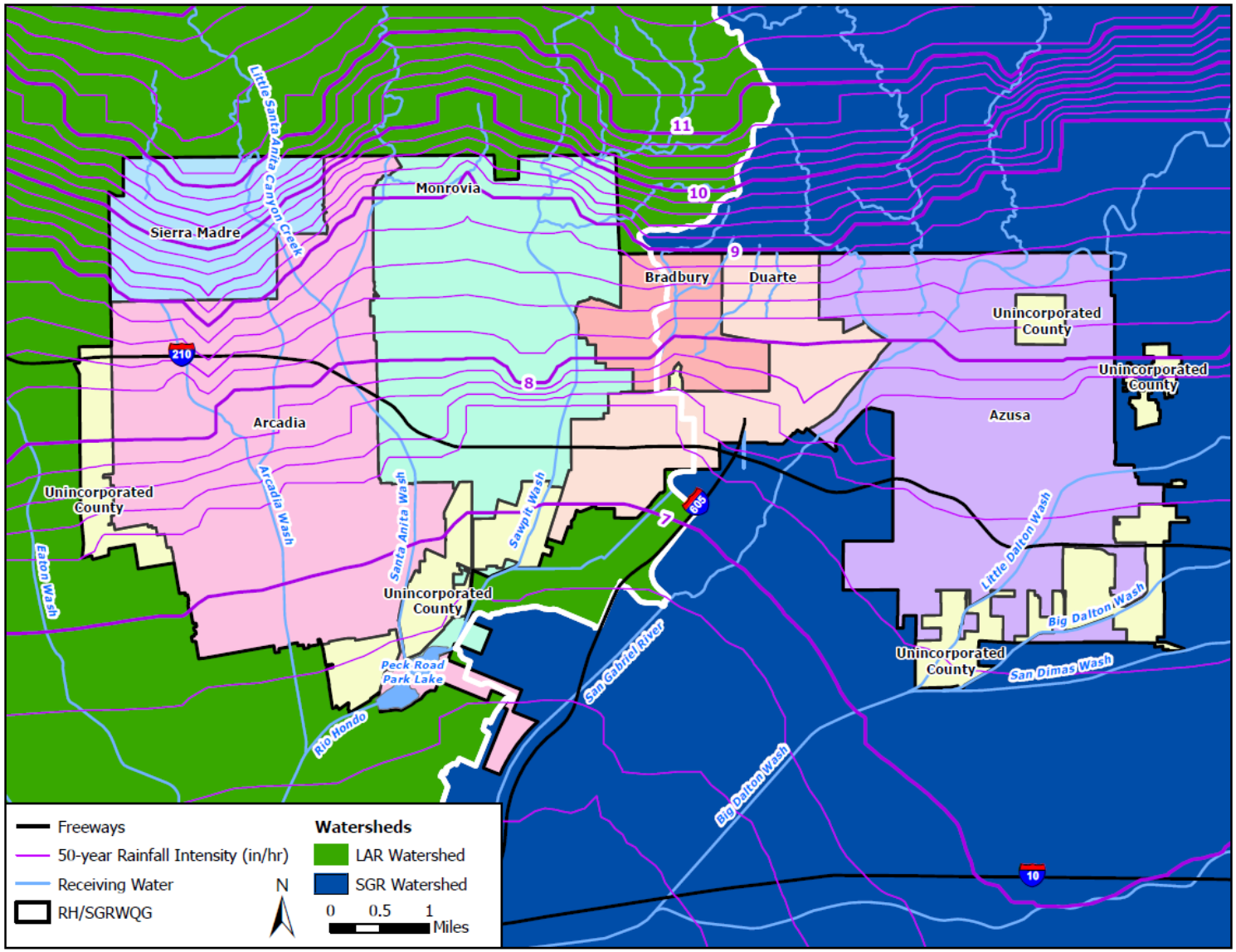


Figure 1-5 50-Year, 24-Hour Rainfall Intensity

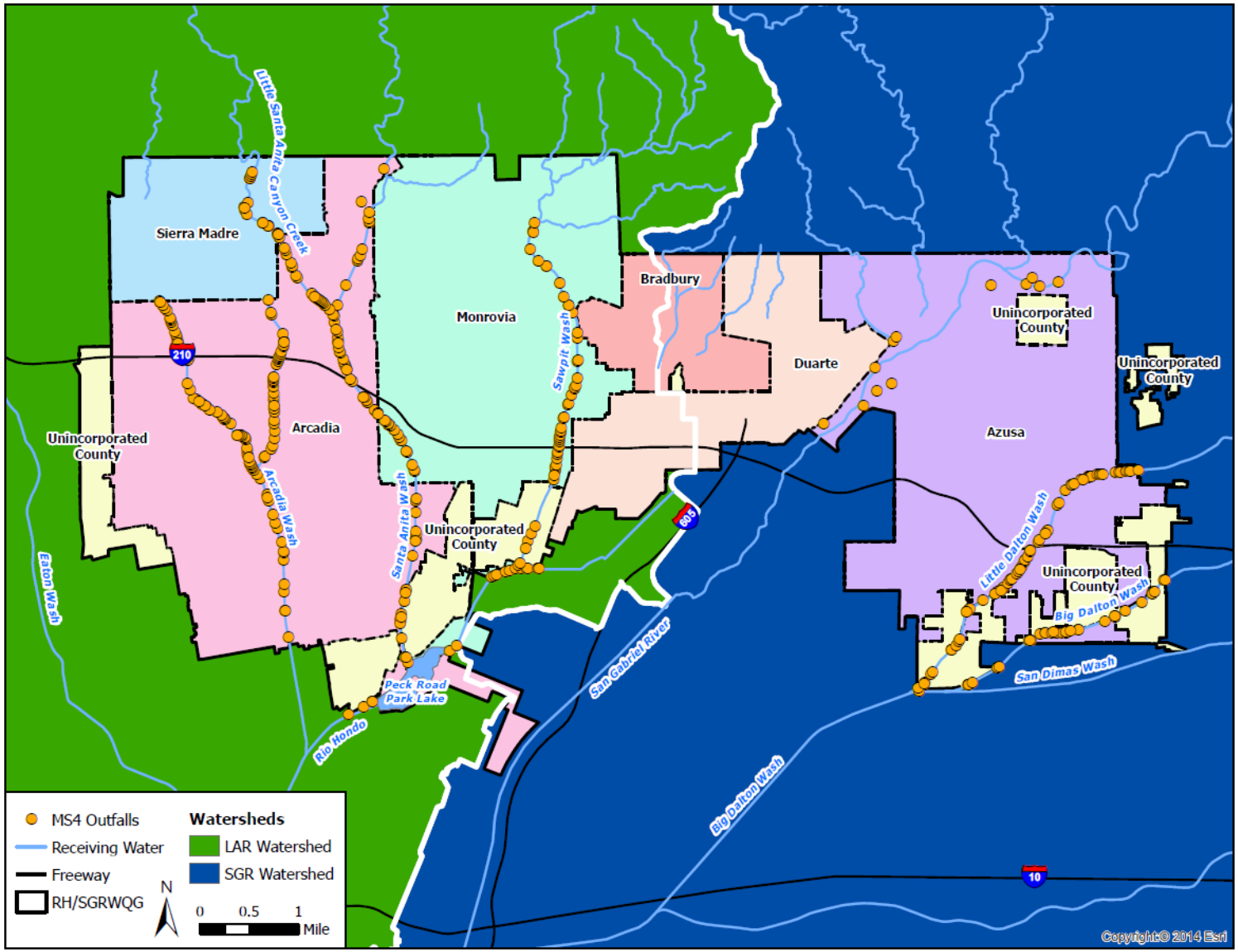


Figure 1-6 MS4 Outfalls

1.2.2 Water Body Characteristics

The RH/SGRWQG area is in both the LAR and SGR Watersheds. Major receiving water bodies located in the RH/SGRWQG area are identified in **Figure 1-7**. The RH/SGRWQG area is hydraulically connected to the downstream reaches in wet-weather, but disconnected in dry-weather as a result of water conservation efforts by the LACFCD at various groundwater recharge facilities and natural infiltration in the soft bottom reaches of the SGR. Future monitoring as part of the CIMP will provide additional evidence as to the level of connection between the RH/SGRWQG area and downstream reaches. Receiving waters within the RH/SGRWQG area include:

- LAR Watershed Water Bodies (tributary to Rio Hondo)
  - Arcadia Wash
  - Little Santa Anita Canyon Creek
  - Santa Anita Wash
  - Monrovia Canyon Wash
  - Sawpit Wash
  - Rio Hondo Reach 3
- SGR Watershed Water Bodies (tributary to SGR)
  - SGR Reach 5
  - Little Dalton Wash
  - Big Dalton Wash
  - San Dimas Wash

Lakes and reservoirs in the EWMP area include:

- LAR Watershed Lake
  - Peck Road Park Lake
- SGR Watershed Lake
  - Santa Fe Dam Park Lake

The Santa Fe Dam Park Lake is included in the list of major water bodies in the RH/SGRWQG area; however, there are no MS4 discharges to the lake, thus it will not be included in the EWMP. The water quality associated with these water bodies is discussed in **Section 2**.

The beneficial uses for the applicable water bodies are summarized in **Table 1-3**. The Basin Plan for LAC identifies the following applicable beneficial uses:

1. **Municipal and Domestic Supply (MUN)** – Uses of water for community, military, or individual water supply systems including, but not limited to, drinking water supply.
2. **Industrial Service Supply (IND)** – Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.
3. **Industrial Process Supply (PROC) –** Uses of water for industrial activities that depend primarily on water quality.
4. **Agricultural Supply (AGR) –** Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.
5. **Groundwater Recharge (GWR)** – Uses of water for natural or artificial recharge of groundwater for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.
6. **Water Contact Recreation (REC-1)** – Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.

7. **Non-contact Water Recreation (REC-2)** – Uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
8. **Warm Freshwater Habitat (WARM) –** Uses of water that support warm water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.
9. **Wildlife Habitat (WILD) –** Uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
10. **Rare, Threatened, or Endangered Species (RARE) –** Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened, or endangered.
11. **Wetland Habitat (WET) –** Uses of water that support wetland ecosystems including, but not limited to, preservation or enhancement of wetland habitats, vegetation, fish, shellfish, or wildlife and other unique wetland functions which enhance water quality.

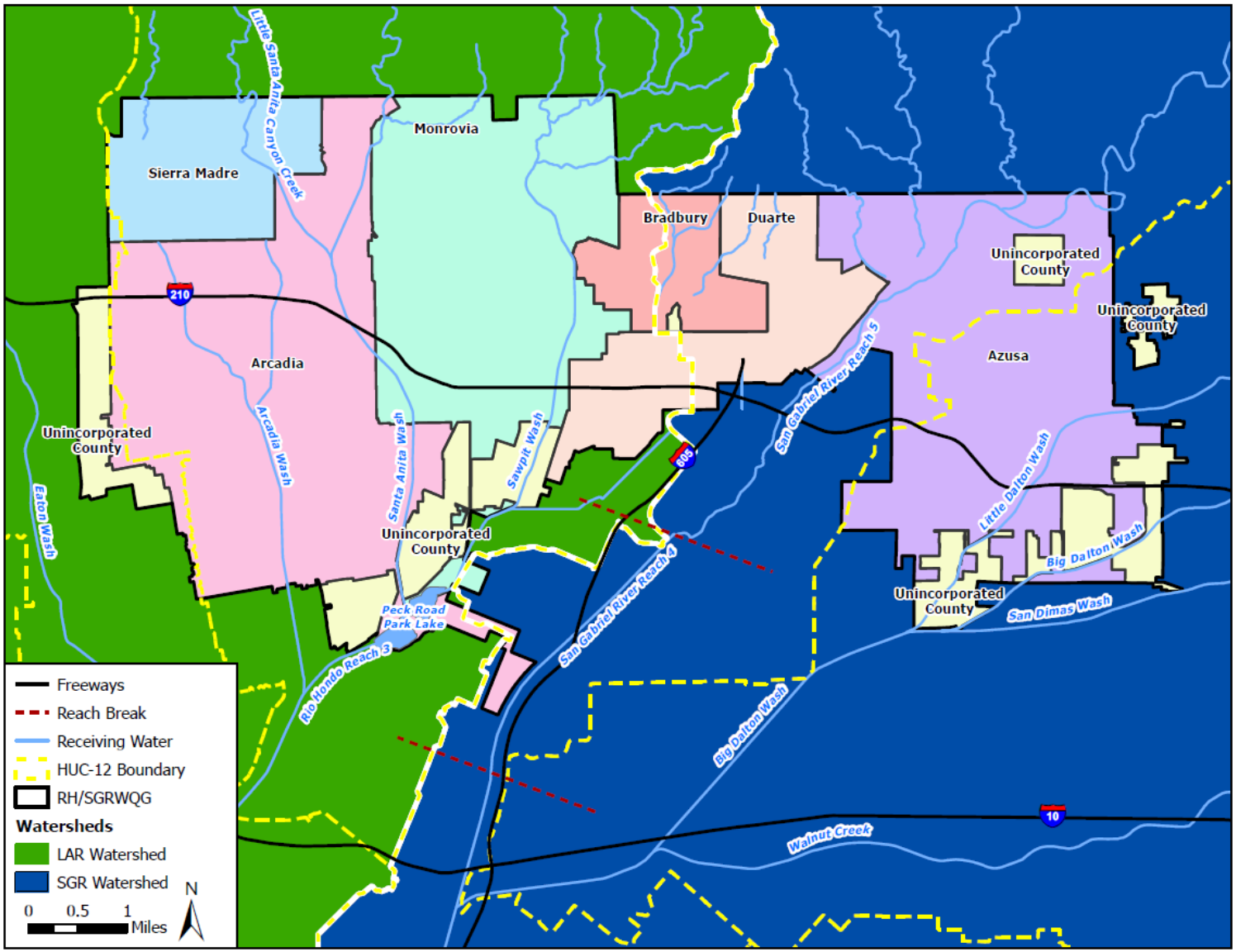


Figure 1-7 RH/SGRWQG Nearby Water Bodies and Regional Board Reaches

Table 1-3 Beneficial Use Summary of RH/SGRWQG Water Bodies

Water Body		Existing Beneficial Uses	Intermittent Beneficial Uses	Potential Beneficial Uses
LAR Watershed Water Bodies	Arcadia Wash	---	GWR, REC-2	MUN*, REC-1, WARM, WILD
	Little Santa Anita Canyon Creek	WILD	GWR, WARM	MUN*
	Santa Anita Wash	GWR[1], REC-1[1], REC-2, WARM[1], WILD[1], RARE	GWR[2]	MUN*, REC-1[2], WARM[2], WILD[2]
	Monrovia Canyon Wash	WILD, WET	MUN, GWR, REC-1, REC-2, WARM	---
	Sawpit Wash	WILD	MUN, GWR, REC-1, REC-2, WARM	---
	Rio Hondo Reach 3	REC-2, RARE, WET	GWR, REC-1, WILD	MUN*, WARM
LAR Watershed Lake	Peck Road Park Lake[4]	REC-2	GWR, WILD	MUN*, REC-1[3], WARM
SGR Watershed Water Bodies	SGR Reach 5	MUN, IND, PROC, AGR, GWR, REC-1, REC-2, WILD, WARM, COLD	---	---
	Little Dalton Wash	---	GWR, REC-2	MUN*, REC-1[3], WARM, WILD
	Big Dalton Wash	---	GWR, REC-2	MUN*, REC-1[3], WARM, WILD
	San Dimas Wash	GWR[1], WILD, RARE[2]	GWR[2], REC-1[3], REC-2, WARM	MUN*
SGR Watershed Lake	Santa Fe Dam Park Lake	WILD, WET	GWR, REC-2, WARM	REC-1, MUN*

*MUN designations are designated under SB 88-63 and RB 89-03. Some designations may be considered for exemptions at a later date.

[1] Only applies to upper portion of the corresponding water body.

[2] Only applies to lower portion of the corresponding water body.

[3] Access prohibited by Los Angeles County Department of Public Works in concrete-channelized areas.

[4] Beneficial uses were not identified in the Basin Plan for Peck Road Park Lake. Therefore the downstream segment's uses (Rio Hondo Reach 1) apply based on Regional Board input (USEPA, 2012b).

1.3 Regulatory Framework

In 1972, provisions of the Federal Water Pollution Control Act, referred to as the Clean Water Act (CWA), were amended so that the discharge of pollutants to Waters of the United States from any point source is effectively prohibited, unless the discharge is in compliance with an NPDES permit. In 1987, the CWA was amended, also called the Water Quality Act of 1987, to require the United States Environmental Protection Agency (USEPA) to establish a program to address stormwater discharges. In response, USEPA promulgated the NPDES stormwater permit application regulations. These regulations required that facilities with stormwater discharges "...from a large or medium municipal storm sewer system; or (3) a discharge which USEPA or the state/tribe determines to contribute to a violation of a water quality standard..." apply for an NPDES permit. On November 16, 1990, the USEPA published final regulations that established application requirements for stormwater permits for MS4s serving a population of over

100,000 (Phase I communities) and certain industrial facilities, including construction sites greater than five acres. On December 8, 1999, the USEPA published the final regulations for communities under 100,000 (Phase II MS4s) and operators of construction sites between one and five acres.

The State of California Porter-Cologne Water Quality Control Act (Water Code 13000, et seq.) is the principal legislation for controlling stormwater pollutants in California, requiring the development of Basin Plans for drainage basins within the state. Each plan serves as a blueprint for protecting water quality within the various watersheds. These basin plans are used in turn to identify more specific controls for discharges (e.g., wastewater treatment plant effluent, urban runoff, and agriculture drainage). Under Porter-Cologne, specific controls are implemented through permits called Waste Discharge Requirements (WDRs) issued by the nine Regional Water Quality Control Boards. For discharges to surface waters, the WDRs also serve as an NPDES permit.

The Los Angeles Regional Water Quality Control Board (LARWQCB or Regional Board) adopted WDRs for MS4 discharges within the Coastal Watersheds of LAC, except those discharges originating from the City of Long Beach MS4 (Order No. R4-2012-0175; NPDES Permit No. CAS004001) on November 8, 2012. The MS4 Permit became effective on December 28, 2012. The MS4 Permit contains effluent limitations, Receiving Water Limitations (RWLs), minimum control measures (MCMs), Total Maximum Daily Load (TMDL) provisions, and outlines the process for developing Watershed Management Programs (WMPs), including the EWMP. The MS4 Permit incorporates the TMDL Waste Load Allocations (WLAs) applicable to dry- and wet-weather as Water Quality-Based Effluent Limitations (WQBELs) and/or RWLs. Part V.A of the MS4 Permit requires compliance with the WQBELs as outlined by the respective TMDLs.

1.3.1 MS4 Permit Requirements

Part VI.C.1.g of the MS4 Permit states that Permittees may elect to develop an EWMP that comprehensively evaluates opportunities within the participating watershed management area (WMA) for collaboration among Permittees and other partners on multi-benefit regional projects, referred to as regional EWMP projects, that wherever feasible retain all non-stormwater and stormwater runoff from the 85th percentile, 24-hour storm event for drainage areas tributary to the project. These regional EWMP projects are also to incorporate other benefits including flood control and water supply enhancements. In the drainage areas where regional EWMP projects are not feasible, a Reasonable Assurance Analysis (RAA) is to be included to demonstrate that applicable Water Quality Objectives (WQOs), including WQBELs and RWLs, will be achieved through the implementation of watershed control measures. According to Parts VI.C.1.g.i.-ix of the MS4 Permit the EWMP must:

i. Be consistent with the provisions in Part VI.C.1.a.-f and VI.C.5-C.8;
ii. Incorporate applicable State agency input on priority setting and other key implementation issues;
iii. Provide for meeting water quality standards and other CWA obligations by utilizing provisions in the CWA and its implementing regulations, policies, and guidance;
iv. Include multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in Part VI.E of the MS4 Permit and do not cause or contribute to exceedances of RWLs in Part V.A of the MS4 Permit by retaining through infiltration or capture and reuse the stormwater volume from the 85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects;
v. In drainage areas where retention of the stormwater volume from the 85th percentile, 24-hour storm event is not technically feasible, include other watershed control measures to ensure that MS4 discharges achieve compliance with all interim and final WQBELs set forth in Part VI.E of the MS4 Permit with compliance deadlines occurring after approval of an EWMP and to ensure that MS4 discharges do not cause or contribute to exceedances of RWLs in Part V.A of the MS4 Permit;

vi. Maximize the effectiveness of funds through analysis of alternatives and the selection and sequencing of actions needed to address human health and water quality related challenges and non-compliance;
vii. Incorporate effective innovative technologies, approaches and practices, including green infrastructure;
viii. Ensure that existing requirements to comply with technology-based effluent limitations and core requirements (e.g., including elimination of non-stormwater discharges of pollutants through the MS4, and controls to reduce the discharge of pollutants in stormwater to the maximum extent practicable [MEP]) are not delayed; and
ix. Ensure that a financial strategy is in place.

Part VI.C.4.c.iv of the MS4 Permit states that Permittees that elect to collaborate and develop an EWMP, shall submit the Work Plan for development of the EWMP no later than June 28, 2014, 18 months from the effective date of the MS4 Permit. The draft EWMP is to be submitted no later than June 28, 2015, 30 months from the effective date of the MS4 Permit. These deadlines stand true if the conditions described in Parts VI.C.4.c.iv.(1)-(3) of the MS4 Permit are met in greater than 50 percent of the land area in the watershed. In summary, the conditions require demonstrating there are Low Impact Development (LID) ordinances in place and/or commence development of LID ordinances that meet the requirements of the Planning and Land Development Program as described by Part VI.D.7 of the MS4 Permit, demonstrating that green streets policies are in place and/or commence development of a policy, and a Notice of Intent (NOI) to develop an EWMP is submitted, all within six months of the MS4 Permit's effective date. The RH/SGRWQG NOI is provided in **Attachment B**.

1.3.2 Relevant TMDLs

TMDLs applicable to the RH/SGRWQG are listed in **Table 1-4**. The resolutions and effective dates reflect the most recent amendments to the LAR nitrogen and metals TMDLs. Revised WQBELs and RWLs are incorporated into the MS4 Permit by the Regional Board after adoption and approval of the TMDL amendment. TMDL impacted reaches are highlighted in **Figure 1-8** and a detailed summary of the numeric WLAs specified in the MS4 Permit is in **Attachment C**.

The LAR bacteria TMDL is complex, considering dry- and wet-weather conditions, differing implementation strategies, many river segments, allowing for tributary based diversion strategies, and differing implementation schedules that accompany each permutation. Within the RH/SGRWQG area, water operations and management are equally complex and varied. Much of the dry-weather base flow appears to have its origin in rising groundwater or spring flows, which commingle with permitted and non-permitted non-stormwater discharge flows. When these comingled base flows generated in the LAR Watershed portion of the group arrive at Peck Road Park Lake, they are understood to infiltrate and not contribute to the downstream dry-weather impairments that resulted in the adoption of the TMDL. Similarly, base flows emanating from Arcadia Wash, are understood to comingle with flows from other Permittees along the Rio Hondo, primarily members of the Upper Los Angeles River Watershed Group, then infiltrate in unlined river sections behind the western Whittier Narrows Dam or at the downstream County operated Rio Hondo Spreading Grounds. These complexities warrant development of a LAR Bacteria TMDL Alternative Compliance Strategy (ACS) for the RH/SGRWQG, which may include elements of the permit identified Load Reduction Strategy (LRS), but also uniquely different water conservation concepts specific to the particular characteristics of the RH/SGRWQG area. Representatives of the group continue to meet among themselves and with Regional Board staff to identify a cost effective and timely approach to developing such an ACS. While this effort proceeds and the more complex implications of potential water conserving alternatives are identified and better understood, the RH/SGRWQG will attempt to follow the primary milestone dates identified during the first cycle LAR Bacteria TMDL Rio Hondo LRS implementation schedule. Noting that base flows and dry-weather discharges from the group are unlikely to have contributed to the impairments identified in the TMDL, nearly all water bodies within

the greater Los Angeles region, have periodic exceedances for bacteria and it is likely that this pollutant can be best addressed along with other impairments.

Table 1-4 TMDLs Applicable to the RH/SGRWQG and Downstream Areas

TMDL	LARWQCB Resolution	Effective Date and/or USEPA Approval Date
Los Angeles River Nitrogen Compounds and Related Effects TMDL	2003-009	March 23, 2004
	2012-010	August 7, 2014
Los Angeles River Trash	2007-012	September 23, 2008
	R15-006	June 11, 2015[1]
Los Angeles River Metals TMDL	2007-014	October 29, 2008
	2010-003	November 3, 2011
	R15-004	April 9, 2015[1]
Los Angeles River Bacteria TMDL	2010-007	March 23, 2012
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	2011-008	March 23, 2012
TMDL for Indicator Bacteria in San Gabriel River, Estuary, and Tributaries	R15-005	June 10, 2015[1]
Los Angeles Area Lakes TMDLs for Peck Road Park Lake	N/A (USEPA TMDL)	March 26, 2012
San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL		March 26, 2007

[1] Approved by the LARWQCB (effective date not identified)

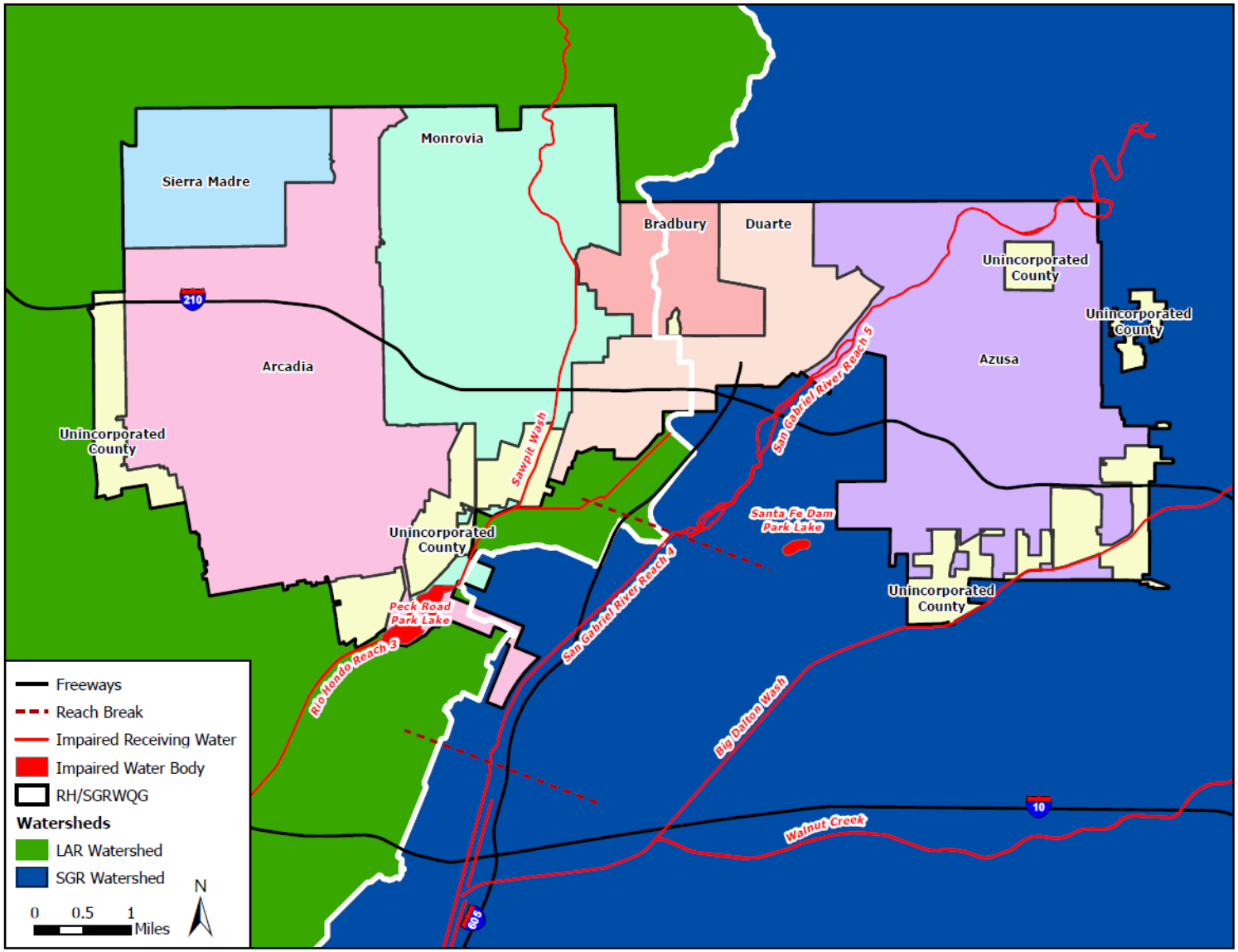


Figure 1-8 RH/SGRWQG Nearby Impaired Water Bodies

Table 1-5 demonstrates which RH/SGRWQG members are affected by each of the TMDLs per Attachment K, Tables K-5, K-6, K-9, and K-10, of the MS4 Permit and applicable TMDL staff reports for TMDLs approved after the MS4 Permit was adopted.

Table 1-5 RH/SGRWQG TMDLs and Applicability

RH/SGRWQG Member	LAR Watershed Trash TMDL	LAR Nitrogen Compounds and Related Effects TMDL	LAR and Tributaries Metals TMDL	LAR Watershed Bacteria TMDL	Los Angeles Area Lakes TMDLs for Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxics TMDL[1]	SGR and Impaired Tributaries Metals and Selenium TMDL	TMDL for Indicator Bacteria in the SGR, Estuary, and Tributaries
Arcadia	X	X	X	X	X		X	X
Azusa							X	X
Bradbury	X	X	X	X	X		X	X
Duarte	X	X	X	X	X		X	X
Monrovia	X	X	X	X	X		X	X
Sierra Madre	X	X	X	X	X			
County of Los Angeles	X	X	X	X	X	X	X	X
LACFCD		X	X	X	X	X	X	X

[1] The Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre have a TMDL obligation to monitor at the mouth of the LAR and SGR Estuaries for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxics TMDL.

Regional Board adopted TMDLs include implementation plans providing interim and final compliance dates. **Table 1-6** lists the interim and final compliance dates relevant to the RH/SGRWQG. There are two compliance paths for the LAR dry-weather bacteria TMDL, based on whether or not each jurisdiction, or the group, develops and implements a LRS. The LRS must quantitatively demonstrate that outfall specific actions are sufficient to result in attainment of the final WQOs. Additionally, there are required dry-weather "snapshot" monitoring events where, for each event, every flowing outfall is sampled for bacterial indicators. Six snapshot monitoring events are required prior to LRS implementation and three after to assess effectiveness. Completing the LRS process provides regulatory relief by providing seven additional years before final effluent limitations become effective. The LRS due date and corresponding interim and final compliance milestones for the dry-weather bacteria TMDL for the LAR side of the RH/SGRWQG are included in **Table 1-6**. The RH/SGRWQG plans to develop an LRS for the LAR Watershed, which is subject to the LAR Bacteria TMDL, or an ACS that includes elements of the an LRS as further discussed in the beginning of this subsection.

The Regional Board approved an implementation plan for the SGR Metals TMDL on March 4, 2014. For Peck Road Park Lake there is no established implementation plan; therefore, the milestones and ultimate compliance dates for Peck Road Park Lake have been established through the EWMP process. The compliance dates and milestones for the TMDLs applicable to the RH/SGRWQG are listed in **Table 1-6**, including those for Peck Road Park Lake. **Table 1-7** identifies the WQBELs and WLAs for discharges to Peck Road Park Lake.

Table 1-6 Schedule of TMDL Compliance Milestones Applicable to the RH/SGRWQG

TMDL	Water Bodies	Constituents	Compliance Goal	Weather Condition	Compliance Dates and Milestones (Bolded **numbers** indicate milestone deadlines within the current MS4 Permit term)[1]													
					2012	2013	2014	2015	2016	2017	2020	2023	2024	2026	2028	2030	2036	2037
LAR Nitrogen[2]	All	Ammonia, Nitrate, Nitrite, Nitrate+Nitrite	Meet WQBELs	All	**Pre 2012**													
					Final													
LAR Trash	All	Trash	% Reduction	All	**9/30**	**9/30**	**9/30**	**9/30**	**9/30**									
					70%	**80%**	**90%**	**96.7%**	**100%**									
LAR Metals	All	Copper, Lead, Zinc, Cadmium	% of MS4 area Meets WQBELs	Wet	**1/11**								1/11		1/11			
					25%								50%		100%			
SGR Metals	All	Copper, Lead, Zinc	% of MS4 area Meets WQBELs[3]	Wet						**9/30**	9/30	9/30		9/30				
										10%	35%	65%		100%				
LAR Bacteria	All	*E. Coli*	Meet WQBELs	Dry w/o LRS								9/23						
												Final						
				Dry w/ LRS					**3/23**			9/23				3/23		
									LRS Due[4]			Interim				Final		
				Wet														3/23
																		Final
SGR Bacteria[5]	All	*E. Coli*	Meet WQBELs	Dry										12/1				
														Final				
				Wet													12/1	
																	Final	
LA Area Lakes	Peck Road Park Lake	Total-P, Total-N, Trash Water and Sediment: PCBs, Chlordane, DDT, Dieldrin	Meet WLAs	All	USEPA TMDLs, which do not contain interim milestones or implementation schedule. The MS4 Permit (Part VI.E.3.c, page 145) allows MS4 Permittees to propose a schedule as part of this EWMP. See **Section 2.5** for established schedule.													

[1] The MS4 Permit term is assumed to be five years from the MS4 Permit effective date or December 27, 2017.
[2] See Section "Key Findings Related to the Los Angeles River Nitrogen TMDL" in **Attachment D** for a summary of existing water quality.
[3] Alternatively may be demonstrated as percent of required reduction.
[4] LRS requires coordinated effort by all MS4 Permittees within a segment or tributary. An LRS must quantitatively demonstrate that the actions for specific outfalls are sufficient to result in attainment of the *final* WLAs. Requires six snapshot sampling events prior to LRS and three post-LRS snapshot sampling events. The RH/SGRWQG is investigating an Alternative Compliance Schedule which may include LRS elements.
[5] Anticipated schedule assumes TMDL will become effective December 1, 2016. The schedule will be revised through the Adaptive Management Process depending on the effective date.

Table 1-7 Applicability of WQBELs and WLAs for Peck Road Park Lake			
Constituent	**Water Column**	**Suspended Sediment**	**Fish Tissue**
Total Nitrogen	W		
Total Phosphorus	W		
Trash	W		
Total PCB	W	W	Alt
Total Chlordane	W	W	Alt
Dieldrin	W	W	Alt
Total DDT*	W	W	Alt

W = WLA established by TMDL.
Alt = Alternate compliance options if fish tissue targets are met.
*Total DDT measured in suspended sediment, 4-4' DDT measured in water column.

1.4 EWMP Development Process

According to Part VI.C.1.f.v of the MS4 Permit, each EWMP must provide appropriate opportunity for meaningful stakeholder input, including, but not limited to, a permit-wide WMP Technical Advisory Committee (TAC) that will advise and participate in the development of the EWMP from month six through the date of approval. The MS4 Permit requires that the TAC include at least one Permittee representative from each WMA for which an EWMP is being developed and one public representative from a non-governmental organization with public membership, and staff from the Regional Board and USEPA Region IX. The RH/SGRWQG has been part of the TAC and provided input on the various topics discussed. Additionally, the RH/SGRWQG is working with local and regional stakeholders to receive input on the EWMP process.

The RH/SGRWQG members have held bi-monthly meetings since the project's initiation and continued to do so throughout the EWMP development process. Two workshops were held to bring together interested parties to provide input and insight into the approach and findings of this EWMP. These workshops solicited input and ideas from stakeholders, specifically in regards to potential multi-benefit regional projects.

The RH/SGRWQG conducted its first stakeholder outreach meeting on May 5, 2014, in collaboration with the Upper San Gabriel River Group. Thirty-nine (39) participants attended the outreach event, including non-governmental organizations, an assembly member representative, Regional Board staff, and other interested stakeholders. The second stakeholder outreach meeting was held on March 9, 2015, also in collaboration with the Upper San Gabriel River Group. This meeting was held at the Los Angeles County Arboretum and ninety-five (95) participants attended the meeting. Similar to the first outreach event, attendants included non-governmental organizations, an assembly member representative, Regional Board staff, news reporters, and other interested stakeholders. This outreach event focused on the potential regional projects being selected for inclusion in the EWMP and allowed stakeholders to provide feedback.

1.5 EWMP Overview

The EWMP details the water quality priorities within the RH/SGRWQG and identifies the existing control measures in place to address those priorities. Additional control measures are proposed over the implementation timeframe so that WQOs can be achieved by the milestones specified in the MS4 Permit or established as part of this EWMP. Regional EWMP projects have been identified and a RAA has been conducted for the areas that are not tributary to regional EWMP projects to demonstrate compliance at each of the applicable milestone dates. Additionally, the control measure implementation schedule and cost have been developed. The EWMP includes the following sections:

- **Section 2 – Water Quality Priorities**
  Receiving water bodies are identified and characterized based on limited available water quality data. Water Body-Pollutant Classifications are developed so that categories can be assigned to each water body-pollutant combination and they can be prioritized. The water quality priorities are the primary "driver" of the EWMP.

- **Section 3 – Watershed Control Measures**
  This section outlines the existing control measures implemented by the RH/SGRWQG. Potential control measures are also identified. Existing structural Best Management Practices (BMPs) are identified and planning documents were reviewed to identify potential regional projects. In addition, the methodology for identifying and selecting additional regional and distributed BMPs is included. The current MCMs are also described. The proposed watershed control measures, both structural and non-structural, are identified and will be implemented to address the water quality priorities.

- **Section 4 – Reasonable Assurance Analysis**
  The details regarding the RAA modeling are presented in this section, including the modeling software and the dry- and wet-weather modeling approaches. The model calibration and validation are presented. The baseline simulation and the estimated volume and load reductions based on the 85^{th} percentile volume analysis and the 90^{th} percentile load analysis are discussed and the limiting priority pollutant is established. The pollutant load reductions based on control measure implementation are also identified to demonstrate compliance at each of the applicable milestone dates.

- **Section 5 – Control Measure Implementation Schedule**
  This section identifies the schedule for implementation of the selected watershed control measures. The implementation schedule is such that the interim and final WQOs will be satisfied by the applicable milestone dates.

- **Section 6 – Control Measure Implementation Cost**
  The control measure implementation cost for the proposed control measures is presented in this section. The capital costs and operation and maintenance costs are discussed. The annual cost for the group is identified over the implementation timeframe. Additionally, the funding strategies proposed are identified.

- **Section 7 – Adaptive Management Process**
  The EWMP is part of an adaptive management process laid out in the MS4 Permit. This section discusses future iterations as part of this process.

1.6 2012 MS4 Permit Process and EWMP Implementation

Following Regional Board adoption of the 2012 MS4 Permit as Order R4-2012-0175 on November 8, 2012, thirty-seven cities and three non-governmental organizations filed petitions for review with the State Water Resources Control Board (SWRCB), which were acknowledged in a January 30, 2013 letter, and deemed complete on July 8, 2013. Five of the filing Cities also simultaneously filed Request for Stays, which were denied on June 14, 2013. On April 1, 2014, the SWRCB adopted an Own Motion Review and thirty-five of the petitioners agreed to have their petitions for review placed in abeyance. The SWRCB adopted the new Order on June 12, 2015, and the Regional Board posted revisions to the MS4 Permit shortly thereafter. The following reservation is included as a contingency in the EWMP, while the review processes proceed.

> *The Cities of Duarte and Huntington Park filed a Petition for Writ of Mandate and Complaint on July 2, 2015, in the Los Angeles Superior Court, in that case entitled The Cities of Duarte and Huntington Park v. State Water Resources Control Board, et al., Los Angeles Superior Court Case No. BS156303 (hereafter, the "Duarte Case"), challenging, among other things, the propriety of the various Permit terms and the subsequently issued State Board Order, Order No. WQ-2015-0075 (issued on June 16, 2015 -hereafter, "State Board Order"). The Duarte Case challenges, among other issues, those Permit terms and State Board Order requirements designed to require that the Permittees strictly comply with numeric effluent limits, either directly by meeting all such numeric limitations, including both interim and final numeric limits, or indirectly through the implementation of "Watershed Management Programs" ("WMPs") or "Enhanced Watershed Management Programs" ("EWMPs") that are to be designed to meet all such numeric effluent limitations.*
>
> *On July 24, 2015, the City of Gardena also filed a Petition for Writ of Mandate and Complaint in Los Angeles Superior Court entitled City of Gardena v. Regional Water Quality Control Board, et al., Los Angeles Superior Court Case No. BS156342 (hereafter the "Gardena Case") asserting similar claims to those raised in the Duarte Case, among others.*
>
> *In spite of the pending Duarte and Gardena Cases, the Cities under this EWMP are acting in good faith and moving forward to attempt to comply with all of the applicable terms of the Permit, and look forward to working with the Regional Board to assess and implement the strategies and requirements necessary for compliance. Nevertheless, the Cities believe that many of the terms of the 2012 Permit are invalid, including the terms involving compliance with numeric limits. The Cities hereby expressly reserve and are not waiving, with this submission or otherwise, any of their rights to challenge the need for any EWMP or CIMP, or any other part or portion of the Permit or the State Board Order. In addition, the Cities are not waiving, and hereby expressly reserve, any and all rights they have or may have to seek to recover the costs from the State to develop and implement any EWMP, or CIMP, on the grounds that such requirements are unfunded State mandates, and if funds are not provided by the State, to reimburse the Cities for such programs, to assert that all such requirements are invalid.*

2. Water Quality Priorities

The identification of water quality priorities is an important first step in the EWMP process. Water quality priorities provide the basis for implementation and monitoring activities within the EWMP, CIMP, and the selection and scheduling of BMPs during the RAA. Part VI.C.5.a of the MS4 Permit outlines the pertinent elements of the prioritization process as follows:

1. Water quality characterization based on available monitoring data, TMDLs, 303(d) lists, stormwater annual reports, etc.
2. Water body-pollutant classification to identify water body-pollutant combinations (WBPCs) that fall into three MS4 Permit defined categories.
3. Source assessment for the WBPCs in the three categories.
4. Prioritization of the WBPCs.

Based on available information and data analysis, WBPCs are classified into one of the three MS4 Permit categories: Category 1 if WBPCs are subject to established TMDLs; Category 2 if they are on the 303(d) list, or have sufficient measured exceedances of objectives to be listed; and Category 3 if observed exceedances are too infrequent to be listed. The categories are further described in **Table 2-1**. To support development of the EWMP scheduling, subcategories were developed for each of the WBPCs in Category 1, 2, and 3, and are discussed in **Section 2.2**.

Table 2-1 Water Body-Pollutant Combination Categories

Category	Priority	Water Body-Pollutant Combinations (WBPCs)
1	Highest Priority	WBPCs for which TMDL WQBELs and/or RWLs are established in Part VI.E and Attachments O and P of the MS4 Permit.
2	High Priority	WBPCs for which data indicate water quality impairment in the receiving water according to the State's Listing Policy, regardless of whether the pollutant is currently on the 303(d) list and for which the MS4 discharges may be causing or contributing.
3	Medium Priority	WBPCs for which there are insufficient data to indicate impairment in the receiving water according to the State's Listing Policy, but which exceed applicable RWLs contained in the MS4 Permit and for which MS4 discharges may be causing or contributing to the exceedance.

The following sections describe the characterization and prioritization of those WBPCs found to be issues in the RH/SGRWQG area.

2.1 Water Quality Characterization

Per Part VI.C.5.a.i of the MS4 Permit, each EWMP shall include an evaluation of existing water quality conditions, including characterization of stormwater and non-stormwater discharges from the MS4 and receiving water quality, to support identification and prioritization/sequencing of management actions. This section provides a summary of the information considered and analyses conducted to support the classification of WBPCs into the three priority categories. The characterization process consisted of the following steps, which are discussed in the following sections:

1. Identifying the water bodies within the EWMP area.
2. Compiling WBPCs with applicable TMDLs listed in the MS4 Permit.
3. Compiling 303(d) listings from the 2010 303(d) list, the most recent approved list.

4. Gathering additional relevant data and information (e.g., water quality data).
5. Conducting data analysis to evaluate attainment of WQOs (relevant to TMDL requirements, 303(d) impairment listings, and existing water quality data).

Data was obtained from sources including: established TMDLs, 303(d) listings, WQBELs, RWLs, Surface Water Ambient Monitoring Program (SWAMP), and annual reports. The RH/SGRWQG gathered and used the following information to assess water quality and identify water quality priorities:

- Findings from Illicit Connections and Illicit Discharge (IC/ID) Elimination Programs;
- Findings from the Industrial/Commercial Facilities Programs;
- Findings from the Development Construction Programs;
- Findings from the Public Agency Activities Programs;
- TMDL source investigations;
- Findings from monitoring programs, such as TMDL compliance monitoring and receiving water monitoring; and
- Any other pertinent data, information, or studies related to constituent sources and conditions that contribute to the highest water quality priorities.

Monitoring data for sites within the LAR and SGR Watersheds was obtained from the following sources:

- Los Angeles County Department of Public Works (LACDPW) provided long-term monitoring data from the SGR Mass Emission Station (S14) and the tributary monitoring performed on the Rio Hondo (TS06);
- The Council for Watershed Health provided monitoring data from their monitoring activities throughout the watershed;
- The California Environmental Data Exchange Network (CEDEN); and
- Los Angeles County Sanitation Districts (LACSD) provided long-term receiving water monitoring data.

Locations of sites with available water quality data are shown on **Figure 2-1**. Data received from the Council for Watershed Health and CEDEN largely consisted of short term monitoring activities and many sites from these programs were only used for a single sampling event or had a limited number of constituents tested at the sites. All data were screened to identify potential WQO exceedances.

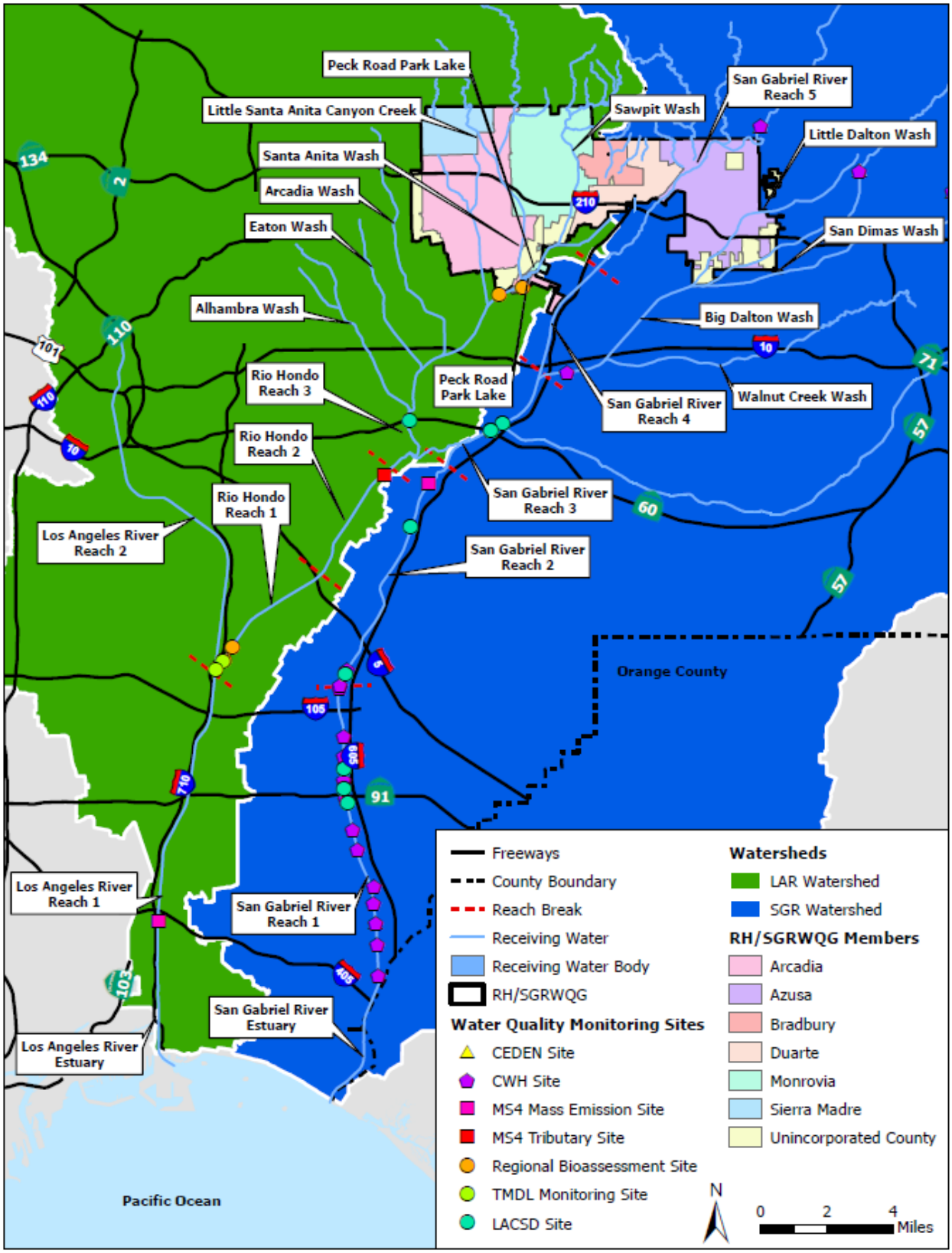


Figure 2-1 RH/SGRWQG Water Bodies, Regional Board Reaches, and Site Locations with Available Water Quality Data

2.1.1 Characterization of Receiving Water Quality

Per Part VI.C.4.a.i of the MS4 Permit, each EWMP must include an evaluation of existing water quality conditions, including a characterization of receiving water quality. **Attachment D** includes additional details on the data analysis and results.

Data were compiled to identify constituents exceeding applicable WQOs. Applicable WQOs were compiled from the California Toxics Rule (CTR), the Basin Plan, and relevant TMDLs. Applicable WQOs were selected based on the beneficial uses identified in **Table 1-3** and identified in **Attachment D**. These WQOs were used to assess exceedance frequency and determine the WBPC categorization.

Reported monitoring data was analyzed to determine constituents exceeding WQOs. The data was screened to ensure each record contained at a minimum the following information: water body identification, an identifiable site location (i.e., GPS coordinates), date of sampling, name of constituent, minimum detection level, reporting level, the result (or in cases where the level was below detection level for the analysis, a flag indicating not detected), units of measurement, sample matrix, sample collection, and an indication of dissolved or total where appropriate. **Table 2-2** quantifies the amount of water quality monitoring data that was obtained and used for water quality prioritization. The data summary is provided for all available data collected within the past 10 years, and for recent data collected within the past 5 years. Water quality data collected through the CIMP will be used to update **Table 2-2** and re-characterize applicable water bodies as part of the adaptive management process, especially Little Santa Anita Canyon Creek, Santa Anita Wash, Monrovia Canyon Wash, Sawpit Wash, and Little Dalton Wash, where water quality data does not currently exist.

Table 2-2 Summary of Available Data

Water Body	All Data (2002-2012)			Previous 5 Years (2007-2012)		
	Total Analyses	Number Detected[1]	Number of Constituents[2]	Total Analyses	Number Detected[1]	Number of Constituents[2]
Rio Hondo Reach 3	12,985	5,796	311	3,658	1,690	218
SGR Reach 5	146	146	53	37	37	37
Big Dalton Wash	20	18	18	0	0	0
San Dimas Wash	17	15	17	0	0	0
Peck Road Park Lake[3]	28	28	17	0	0	0
Totals:	**13,196**	**6,003**	**---**	**3,695**	**1,727**	**---**

[1] Number of analyses where the constituent was present in the sample above the minimum detection level.
[2] Number of distinct constituents. Total copper and dissolved copper are counted as distinct constituents.
[3] Including tributaries to the named water body.

Impaired water bodies and constituents identified in the initial screening were individually evaluated based on the frequency, timing, and magnitude of exceedances within the data based on the category. Constituents subject to a TMDL underwent data review to determine the status of compliance. Constituents on the 303(d) list for a watershed were reviewed to identify the basis for the listing and the current status of exceedances. Constituents potentially exceeding receiving water limits but not already accounted for in a TMDL or the 303(d) list were analyzed based on applicable WQOs.

Based on the data review, constituents that had no observed exceedances in the past five years or would not meet the 303(d) listing criteria for impairment could potentially be delisted. The exceedance frequency over the past five years for the identified constituents is presented in **Table 2-3**. The water quality data are compared to the WQBELs where available or the WQOs to calculate the percent exceeding the limitations. For each WBPC, the number of exceedances and total number of samples analyzed are presented.

Attachment D includes a summary of the key findings from the receiving water data analysis. The key findings highlight outcomes of the data analysis that affected the constituents addressed by the EWMP and the way the constituent is addressed.

Table 2-3 Exceedances Based on Water Quality Data Analysis

Constituent	Data Range	Number of Exceedances/Number of Samples			
		Rio Hondo Reach 3	SGR Reach 5	San Dimas Wash	Big Dalton Wash
Aluminum	All	0/32	---	---	0/1
	5-yrs	---	---	---	---
Ammonia	All	1/187	0/2	0/1	0/1
	5-yrs	0/13	---	---	---
2,3,7,8-TCDD	All	0/6	---	---	---
	5-yrs	0/6	---	---	---
Benzo(a)Pyrene	All	1/54	---	---	---
	5-yrs	1/11	---	---	---
Benzo(b)Fluoranthene	All	2/30	---	---	---
	5-yrs	1/11	---	---	---
Benzo(k)Fluoranthene	All	3/54	---	---	---
	5-yrs	2/11	---	---	---
Bis(2-Ethylhexyl) Phthalate	All	5/11	---	---	---
	5-yrs	---	---	---	---
Chloride	All	3/123	0/1	0/1	0/2
	5-yrs	1/58	0/1	---	
Chrysene	All	1/54	---	---	---
	5-yrs	1/11	---	---	---
Diazinon	All	6/72	---	---	---
	5-yrs	2/19	---	---	---
Dibenzo(a,h)Anthracene	All	3/54	---	---	---
	5-yrs	2/11	---	---	---
Copper	All	11/117	1/4	---	---
	5-yrs	3/52	0/1	---	---
Total Dissolved Solids	All	0/117	0/3	---	---
	5-yrs	0/52	0/1	---	---
Dissolved Oxygen	All	82/220	---	0/1	0/1
	5-yrs	23/59	---	---	---
pH	All	47/222	0/3	0/1	0/1
	5-yrs	5/52	---	---	---
E. coli	All	43/59	---	---	---
	5-yrs	36/52	---	---	---
Fecal Coliform	All	158/220	---	---	---
	5-yrs	35/52	---	---	---

Table 2-3 Exceedances Based on Water Quality Data Analysis

Constituent	Data Range	Number of Exceedances/Number of Samples			
		Rio Hondo Reach 3	SGR Reach 5	San Dimas Wash	Big Dalton Wash
Total Coliform	All	220/220	---	---	---
	5-yrs	52/52	---	---	---
Indeno(1,2,3-cd)Pyrene	All	3/47	---	---	---
	5-yrs	3/9	---	---	---
Mercury	All	2/74	---	---	---
	5-yrs	1/43	---	---	---
N-Nitrosodimethylamine	All	4/51	---	---	---
	5-yrs	0/9	---	---	---
Lead	All	4/117	0/3	---	---
	5-yrs	0/52	0/1	---	---
Nitrate	All	0/192	0/5	0/1	---
	5-yrs	0/24	0/1	---	---
Nitrite	All	0/192	0/1	0/1	---
	5-yrs	0/24	---	---	---
Total Nitrogen	All	1/246	---	---	---
	5-yrs	0/90	---	---	---
Selenium	All	---	0/2	---	---
	5-yrs	---	---	---	---
Cyanide	All	6/92	---	---	---
	5-yrs	0/27	---	---	---
Zinc	All	1/117	0/3	---	---
	5-yrs	0/52	---	---	---

2.1.2 Characterization of Discharge Quality

Per Part VI.C.5.a.i of the MS4 Permit, each EWMP must include a characterization of stormwater and non-stormwater discharges from the MS4. Data is very limited for MS4 discharges within the RH/SGRWQG area. Regional studies, monitoring data, and/or land use data will be further evaluated in the future to characterize discharge quality. In addition, data will become available through CIMP implementation, which will be utilized through the adaptive management process.

2.2 Water Body-Pollutant Classification

Based on available information and data analysis, WBPCs were classified in one of the three MS4 Permit categories described in **Table 2-1**. To reflect the sub-categorization outlined in the Regional Board's RAA Guidelines, subcategories are defined to facilitate scheduling decision support for watershed actions determined as part of the RAA and EWMP process. The subcategories are defined in **Table 2-4** and the categorization is summarized in **Table 2-5**.

Table 2-4 Water Body-Pollutant Combination Subcategory Definitions		
Category	**Water Body-Pollutant Combinations (WBPCs)**	**Description**
1	**Category 1A:** WBPCs with past due or current MS4 Permit term TMDL deadlines.	WBPCs with TMDLs with past due or current MS4 Permit term interim and/or final limits. These pollutants are the highest priority for the current MS4 Permit term.
	Category 1B: WBPCs with TMDL deadlines beyond the MS4 Permit term.	The MS4 Permit does not require the prioritization of TMDL interim and/or final deadlines outside of the MS4 Permit term or USEPA TMDLs, which do not have implementation schedules. To ensure EWMPs consider long term planning requirements and utilize the available compliance mechanisms these WBPCs should be considered during BMP planning and scheduling, and during CIMP development.
	Category 1C: WBPCs addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan.	
2	**Category 2A:** 303(d) listed WBPCs or WBPCs that meet 303(d) listing requirements.	WBPCs with confirmed impairment or exceedances of RWLs. WBPCs in a similar class[1] as those with TMDLs are identified. WBPCs currently on the 303(d) list are differentiated from those that are not to support utilization of EWMP compliance mechanisms.
	Category 2B: 303(d) listed WBPCs or WBPCs that meet 303(d) listing requirements that are not a "pollutant"[2] (i.e., toxicity).	WBPCs where specific actions may not be identifiable because the cause of the impairment or exceedances is not resolved. Either routine monitoring or special studies identified in the CIMP should support identification of a "pollutant" linked to the impairment and re-prioritization in the future.
3	**Category 3A:** All other WBPCs with exceedances identified through CIMP implementation.	Pollutants that are in a similar class[1] as those with TMDLs are identified.
	Category 3B: All other WBPCs that are not a "pollutant"[2] (i.e., toxicity).	WBPCs where specific actions may not be identifiable because the cause of the impairment or exceedances is not resolved. Either routine monitoring or special studies identified in the CIMP should support identification of a "pollutant" linked to the impairment and re-prioritization in the future.
	Category 3C: WBPCs identified by the RH/SGRWQG members.	The RH/SGRWQG members may identify other WBPCs for consideration in EWMP planning.

[1] Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the EWMP for the TMDL. (MS4 Permit Part VI.C.2.a.i).

[2] While pollutants may be contributing to the impairment, it currently is not possible to identify the *specific* pollutant/stressor.

Table 2-5 Summary of RH/SGRWQG WBPC Categories								
Class[1]	**Constituents**	**Rio Hondo Reach 3**	**Monrovia Wash**	**Sawpit Wash**	**SGR Reach 5**	**San Dimas Wash**	**Big Dalton Wash**	**Peck Road Park Lake**
Category 1A: WBPCs with past due or current term TMDL deadlines.								
Nutrients[2]	Ammonia	F	F	F				
	Nitrate	F	F	F				
	Nitrite	F	F	F				
	Nitrate + Nitrite	F	F	F				
Metals[2]	Copper (Wet)	I	I	I				
	Lead (Wet)	I	I	I	I[3]	I[3]	I[3]	
	Zinc (Wet)	I	I	I				
	Cadmium (Wet)	I	I	I				
Trash[2]	Trash	I/F	I/F	I/F				
Category 1B: WBPCs with TMDL deadlines beyond the current MS4 Permit term.								
Metals[2]	Copper (Wet)	F	F	F				
	Lead (Wet)	F	F	F	F[3]	F[3]	F[3]	
	Zinc (Wet)	F	F	F				
	Cadmium (Wet)	F	F	F				
Bacteria[2]	Fecal Coliform	I/F	I/F[4]	I/F[4]				I/F[4]
	E. coli	I/F	I/F[4]	I/F[4]	I/F	I/F	I/F	I/F[4]
Category 1C: WBPCs addressed in USEPA TMDL without an Implementation Plan.[5]								
Nutrients	Total Nitrogen							X
	Total Phosphorus							X
Legacy	PCB (Sediment)							X
	PCB (Water)							X
	Chlordane (Sediment)							X
	Chlordane (Water)							X
	Dieldrin (Sediment)							X
	Dieldrin (Water)							X
	DDT (Sediment)							X
	DDT (Water)							X

Table 2-5 Summary of RH/SGRWQG WBPC Categories

Class[1]	Constituents	Rio Hondo Reach 3	Monrovia Wash	Sawpit Wash	SGR Reach 5	San Dimas Wash	Big Dalton Wash	Peck Road Park Lake
Trash	Trash							X
Category 2B: 303(d) listed WBPCs.								
Metals	Lead (Dry)		303(d)[6]					
Other	Bis(2-ethylhexyl) phthalate			303(d)				
Category 3: WBPCs without a TMDL or 303(d) listing.[7,8]								

[1] Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the EWMP for the TMDL (MS4 Permit, Part VI.C.2.a.i).
[2] MS4 discharges from Sawpit Wash, Santa Anita Wash, and direct MS4 discharges to Peck Road Park Lake are subject to the LAR Metals TMDL and the LAR Bacteria TMDL.
[3] Grouped wet-weather WLA, expressed as total recoverable metals discharged to all upstream reaches and tributaries of the SGR Reach 2.
[4] WLA and categorization applies during extreme wet-weather events only, as these water bodies are hydrologically disconnected from the Rio Hondo and thus the LAR during dry-weather and during some wet-weather events.
[5] USEPA Los Angeles Area Lakes TMDL states that lead is currently meeting numeric targets for water and sediment during wet- and dry-weather; therefore no WLA has been assigned and it has not been identified as a WBPC.
[6] Monrovia Wash is 303(d) listed for lead; however, the LAR Metals TMDL only assigns a dry-weather load allocation for non-point sources and therefore no WLA is assigned for MS4 sources.
[7] Monitoring of Monitoring and Reporting Plan Table E-2 constituents in the first year at Long Term Assessment sites will identify the Category 3 WBPCs.
[8] Pollutants noted with exceedances in **Table 2-3** that are not associated with an existing TMDL or 303(d) listing have not been identified as Category 3 pollutants because the data analyzed is from areas downstream of the RH/SGRWQG (downstream monitoring sites shown in **Figure 2-1**). Once CIMP data has been collected for the group area, Category 3 pollutants will be identified as WBPCs through the Adaptive Management Process, as appropriate. Based on the first CIMP wet-weather monitoring event, exceedances were not detected for potential Category 3 WBPCs.

Notes:
Unless explicitly stated as sediment, constituents are associated with the water column.
The City of Azusa is in the Santa Fe Dam Park Lake subwatershed. The USEPA Los Angeles Area Lakes TMDL for nitrogen, phosphorus, mercury, trash, organochlorine pesticides, and PCBs states that there are no MS4 discharges to Santa Fe Dam Park Lake; therefore, there are no applicable WBPCs.
I/F = Denotes where the MS4 Permit or newly approved TMDL includes interim (I) and/or final (F) effluent and/or RWLs.
X = Identification of a WBPC, but no corresponding MS4 Permit implementation.
303(d) = WBPC on the 2010 303(d) list where the listing was confirmed during data analysis.

2.3 Source Assessment

After the WBPCs were categorized, the next step in the prioritization process was to conduct a source assessment. The MS4 Permit requires that a source assessment be conducted to identify potential sources within the RH/SGRWQG area for the WBPCs in Categories 1 through 3, utilizing existing information. The source assessment, contained herein, draws on readily available information to characterize potential sources of pollutants and assesses whether MS4 discharges are likely to be significant sources of these constituents. Pollutant sources may come from point or non-point sources, described below. Utilizing existing information, the constituents in **Table 2-5** were evaluated to determine if MS4 discharges could be a potential source. Many constituents are typically associated with MS4 discharges and additional investigations are not required. However, for some constituents, MS4 discharges are either not known as significant sources of the constituent or other potential sources are more likely.

2.3.1 Potential Point Sources

Point sources are defined as discrete sources or conveyances that may carry pollutants to surface waters. Point sources are also a primary way pollutants are introduced into the environment. In California, point source discharges are regulated under Federal CWA NPDES Permits and California's Porter-Cologne Water Quality Control Act WDRs. The NPDES Permits in the RH/SGRWQG area include an MS4 Permit, California Department of Transportation (Caltrans) MS4 Permit, Construction General Permit (CGP), Industrial General Permit (IGP), major and minor NPDES Permits, and other general NPDES Permits. Combined NPDES/WDR Permits are issued by the Regional Board for discharges to surface waters. The NPDES Permit types that fall within the Los Angeles Regional Board jurisdiction for the LAR and SGR Watersheds are presented in **Table 2-6**.

The significance of these permitted discharges with respect to their potential contributions of pollutants to the watershed is a function of flow volumes and associated water quality discharge characteristics. The contribution of discharges from dry- or wet-weather runoff also varies. For example, Caltrans, Construction and Industrial General stormwater Permittee discharges can deliver contaminated storm runoff directly into the watershed rivers and tributaries, as well as through the MS4. However, during dry-weather, their pollutant contribution potential is generally low. A broad assessment of the relative potential for pollutant contribution and runoff condition (wet- or dry-weather) of the discharges typically associated with each of the permit types is also presented in **Table 2-6**.

Table 2-6 NPDES Permits for Watersheds within the RH/SGRWQG

Type of NPDES Permit	LAR Watershed Number of Permits[1]	SGR Watershed Number of Permits[2]	Potential for Pollutant Contribution
Publicly Owned Treatment Works	6	5	High (dry-weather)
Municipal Stormwater	3	2	High (wet/dry-weather)
Caltrans Stormwater	-	1	High (wet/dry-weather)
Industrial Stormwater	1,307	526	High (wet-weather)
Construction Stormwater	204	203	High (wet-weather)
Other Major Industrial NPDES Discharges	3	2	High (wet-weather)
Minor NPDES Discharges	15	6	Medium (wet/dry-weather)
General NPDES Permits:			
Construction and Project Dewatering	35	16	Medium (wet-weather)

Table 2-6 NPDES Permits for Watersheds within the RH/SGRWQG			
Type of NPDES Permit	**LAR Watershed Number of Permits[1]**	**SGR Watershed Number of Permits[2]**	**Potential for Pollutant Contribution**
Petroleum Fuel Cleanup Sites	7	5	Medium (dry-weather)
Volatile Organic Compound (VOC) Cleanup Sites	6	4	Medium (dry-weather)
Hydrostatic Test Water	8	4	Low (wet/dry-weather)
Non-Process Wastewater	9	3	Medium (dry-weather)
Potable Water	25	81	Low (wet/dry-weather)

[1] (USEPA, 2005)
[2] (RWQCB, 2015)

2.3.2 Potential Non-Point Sources

Nearly all discharges to the Los Angeles and San Gabriel Rivers, and their tributaries, are regulated as point sources and are predominantly comprised of discharges from water reclamation plants and storm drains. Pollutants from non-point sources are conveyed to surface waters in a diffused manner (i.e., not directly from point source conveyances). However, when contaminants from such non-point sources reach the MS4, they become regulated through the MS4 Permit.

Non-point sources in the RH/SGRWQG area include:

- Atmospheric deposition
- Natural background loading (i.e., metals)
- Onsite Wastewater Treatment Systems (OWTS, a.k.a. septic systems)
- Runoff from the National and State forests in the headwaters of many tributaries
- Sources that occur within the channels of the LAR, SGR, and tributaries ("in-channel sources") such as:
  - Groundwater discharges
  - Transient population
  - Pet waste
  - Sanitary sewer leaks/spills
  - Illicit/illegal discharges
  - Wildlife and birds
  - Suspension and/or re-growth of sediment-associated pollutants

2.3.3 Specific Constituents

The source assessment for RH/SGRWQG Category 1 through 3 WBPCs was conducted to identify whether MS4 discharges are likely to be causing or contributing to impairments or exceedances. The assessment criteria was evaluated based on the following facts or findings:

- Findings from RH/SGRWQG Illicit Connections and Illicit Discharge Elimination Programs;
- Findings from RH/SGRWQG Industrial/Commercial Facilities Programs;
- Findings from RH/SGRWQG Development Construction Programs;
- Findings from RH/SGRWQG Public Agency Activities Programs;
- TMDL source investigations;
- Watershed model results;

- Findings from RH/SGRWQG monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and
- Other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest water quality priorities.

During the EWMP development, the RH/SGRWQG compiled summary data from the Illicit Discharge Elimination Program, Industrial/Commercial Facilities Program, Development and Construction Program, and Public Agencies Activities Program to identify whether pollutant sources or trends were apparent. While minimal data is available for these programs in the Individual Annual Reports from each City in response to the 2001 MS4 Permit, the data does not present conclusions or identify sources. For example, the number of illicit connections/discharges eliminated is identified, but the source was unknown.

During the last six years of the 2001 MS4 Permit implementation, inspections were not required as part of the Industrial/Commercial Facilities Program, so the available data was limited, dated, and rudimentary in content. The primary emphasis of the Industrial/Commercial Facilities Program is to inspect whether the industrial/commercial facilities are implementing good housekeeping practices and protective measures. The inspection reports emphasize on the correction of these measures rather than the actual pollutants or monitoring results. Future inspection initiated under 2012 MS4 Permit, Part VI.D.6, will produce more focused and specific source assessment information.

As noted in **Section 2.1**, monitoring data specific to this EWMP area are sparse and through the data analysis it is currently unknown if MS4 discharges from the EWMP area are contributing to water quality issues observed downstream. Monitoring data from non-MS4 Permittees in the RH/SGRWQG were also reviewed; however, not all Industrial General Permittees submitted data to the Storm Water Multiple Application and Report Tracking System (SMARTS) website. Initially, this data was briefly reviewed and appeared to have little diagnostic value in predicting pollutant sources or loads. Following receipt of the Regional Board EWMP comment letter, the analysis was repeated and again the data was found to be of limited value in guiding current pollutant source assessments. In the majority of cases, the monitoring data appeared variable and inconsistent, reported with mistaken concentration units, and the analytical parameters tracked were unrelated to likely facility pollutants or observed watershed impairments.

As apparent from the following subsections, TMDL pollutant source assessments and models reviewed during preparation of the EWMP were inconclusive and overly broad upon which to take actionable source determinations or source control efforts. This follows past Regional Board studies, and the majority of environmental data, which suggest that a few sources are responsible for a significant share of environmental problems. At this time, models are not specific enough to accommodate a few specific sources, let alone the impact of a major source such as copper in brake pads. Current models are inadequate for distinguishing copper loads from a residential area adjacent to a freeway with those from a rural area. Such sources will likely be identified through implementation of the CIMP and the Adaptive Management Process.

2.3.3.1 Nitrogen Compounds, pH, and Phosphorous

The LAR Nitrogen Compounds and Related Effects TMDL asserted that:

> *The principal source of nitrogen compounds to the Los Angeles River is discharges from the Donald C. Tillman WRP, the Los Angeles-Glendale WRP, and the Burbank WRP. During dry-weather period, the major POTWs contribute 84.1 percent of the total dry-weather nitrogen load. Urban runoff, stormwater, and groundwater discharge may also contribute nitrate loads. Further evaluation of these sources is set forth in the Implementation Plan.*

2.3.3.2 Trash

The Trash TMDL for the LAR Watershed asserted the following in the source analysis section of the technical TMDL:

> *The major source of trash in the river results from litter, which is intentionally or accidentally discarded in watershed drainage areas. Transport mechanisms include the following:*
>
> 1. *Storm drains: trash is deposited throughout the watershed and is carried to the various reaches of the river and its tributaries during and after significant rainstorms through storm drains.*
> 2. *Wind action: trash can also blow into the waterways directly.*
> 3. *Direct disposal: direct dumping also occurs.*
>
> *Extensive research has not been done on trash generation or the precise relationship between rainfall and its deposition in waterways. However, it has been found that the amount of gross pollutants entering the stormwater system is rainfall dependent but does not necessarily depend on the source (Walker and Wong, December 1999). The amount of trash which enters the stormwater system depends on the energy available to re-mobilize and transport deposited gross pollutants on street surfaces rather than on the amount of available gross pollutants deposited on street surfaces. The exception to this finding of course would be in the event that there is zero gross pollutants deposited on the street surfaces or other drainages tributary to the storm drain.*
>
> *Where gross pollutants exist, a clear relationship between the gross pollutant load in the stormwater system and the magnitude of the storm event has been established. The limiting mechanism affecting the transport of gross pollutants, in the majority of cases, appears to be remobilization and transport processes (i.e., stormwater rates and velocities).*
>
> *Several studies conclude that urban runoff is the dominant source of trash. The large amount of trash conveyed by urban stormwater to the Los Angeles River is evidenced by the amount of trash that accumulates at the base of storm drains. The amount and type of trash that is washed into the storm drain system appears to be a function of the surrounding land use.*

While this assessment may have been correct several years ago, the RH/SGRWQG Permittees within the LAR Watershed have installed full capture certified devices where ever possible within the jurisdictions. Most of the cities are 90 percent or more compliant with the trash TMDL and are investigating opportunities to complete this implementation effort.

2.3.3.3 Metals

LAR Watershed

The LAR Metals TMDL Coordinated Monitoring Program (CMP) Plan stated the following regarding sources of metals to MS4 discharges:

> *There are significant differences in the sources of metals loadings during dry-weather and wet-weather. During dry-weather, most of the metals loadings are in the dissolved form. The three major publicly owned treatment works (POTWs) that discharge to the river (Tillman WRP, LA-Glendale WRP, and Burbank WRP) constitute the majority of the flow and metals loadings during dry-weather. The storm drains also contribute a large percentage of the loadings during dry-weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. The remaining portion of the dry-weather flow and metals loadings*

represents a combination of tributary flows, groundwater discharge, and flows from other permitted NPDES discharges within the watershed.

During wet-weather, most of the metals loadings are in the particulate form and are associated with wet-weather stormwater flow. On an annual basis, stormwater contributes about 40 percent of the cadmium loading, 80 percent of the copper loading, 95 percent of the lead loading and 90 percent of the zinc loading. This stormwater flow is permitted through two MS4 permits, a separate Caltrans MS4 permit, a general construction stormwater permit and a general industrial stormwater permit.

Non-point sources of metals may include tributaries that drain the open space areas of the watershed. Direct atmospheric deposition of metals on the river is also a small source. Indirect atmospheric deposition on the land surface that is washed off during storms is a larger source, which is accounted for in the estimates of stormwater loadings.

As summarized in the LAR Metals TMDL CMP Annual Reports, dry-weather monitoring data from stations downstream of the RH/SGRWQG were rarely in exceedance for metals. The exceedances associated with the Rio Hondo monitoring station were generally associated with very low flows and the observation of very high hardness. Either of these observations alone might suggest the MS4 Permit identified concentrations are not relevant to impairments or daily loads. The RH/SGRWQG will continue to monitor for dry-weather metal concentrations, as proposed in the Approved CIMP, and implement the watershed control measures identified in **Section 3.4** to further identify and control the sources of metals in runoff and RH/SGRWQG receiving waters.

SGR Watershed

The SGR and Impaired Tributaries Metals and Selenium TMDL stated the following regarding the sources of metals:

Sources of metals in stormwater include automobile brake pads, vehicle wear, building materials, pesticides, erosion of paint and deposition of air emissions from fuel combustion and industrial facilities.

A Southern California stormwater study conducted between 2001-2005 found that industrial land use sites contributed substantially higher fluxes and event mean concentrations (EMCs) of copper and zinc relative to other land use site categories (e.g., residential, commercial, etc.) (Tiefenthaler et al., 2007, pp. 13-29.). In contrast, the highest fluxes for lead were associated with agriculture, high density residential, and recreational land use sites, while the highest EMCs for lead related to high density residential and industrial land use sites. Industrial sites typically have >70% impervious cover as well as on-site sources of metals which may explain the higher loadings of copper and zinc from industrial land use sites observed in the study. In addition, industrial land use sites were found to contribute substantially higher fluxes of Total Suspended Solids (TSS) relative to other land uses (along with agriculture land use sites). In the Los Cerritos Channel Freshwater Watershed and San Gabriel River Watershed, industrial land use only constitutes 8% and 4% of total land use, respectively.

The contribution of automobile brake pads to copper levels in Los Cerritos Channel and the San Gabriel River could be significant. Deposited onto roads by vehicles, copper from brake pad use is transported by stormwater into water bodies. The Brake Pad Partnership, a multi-stakeholder effort to understand the environmental impacts that may arise from brake pad wear debris from passenger vehicles, conducted a watershed modeling study of copper from brake pads affecting water quality in South San Francisco Bay, as an example area. The study determined that copper from brake pads accounts for up to half of the anthropogenic copper

discharged from highly urbanized areas to the San Francisco Bay (Brake Pad Partnership Update, 2007). It is likely that brake pads are a major contributor to copper in stormwater runoff from urbanized areas.

While this may be true for the potential pollutant sources of lead to the MS4 within the SGR Watershed portion of the RH/SGRWQG area, further source assessment of the MS4 discharge will be conducted to determine the primary source within the RH/SGRWQG MS4s.

2.3.3.4 Bacteria

LAR Watershed

The LAR Watershed Bacteria TMDL made the following assertions regarding the identification of indicator bacteria sources to the LAR:

Dry-weather urban runoff and stormwater conveyed by storm drains are the primary sources of elevated bacterial indicator densities to the Los Angeles River Watershed during dry- and wet-weather. The linkage between the numeric targets and the allocations is supported by the following scientific findings:

1. *In Southern California, in dry-weather, local sources of bacteria principally drive exceedances (LARWQCB, 2002b; 2003b; 2004a).*
2. *Tiefenthaler et al. found that in natural streams bacteria levels were generally higher during lower flow condition (Tiefenthaler et al., 2008).*
3. *Ackerman et al. found that storm drains contribute roughly 13 percent of the flow in the Los Angeles River in dry-weather, while Water Reclamation Plants (WRPs) account for roughly 72 percent of the flow in the river during dry-weather. With this flow, storm drains were contributing almost 90 percent of the E. coli loading (Ackerman et al., 2003). E. coli concentrations were found to be as much as four orders of magnitude higher from storm drains than from the WRP discharges.*
4. *In the BSI study, the CREST team found that approximately 85 percent of the storm drain samples collected exceeded the E. coli objective. In the reaches investigated, E. coli loading from storm drains and tributaries greatly exceeded the allowable instream loading. The study also found that some of the loading in Reach 2 could not be attributed to the measured storm drain inputs.*
5. *In Southern California, in wet-weather, upstream or watershed sources principally cause the bacteria exceedances (LARWQCB, 2002b; 2003c; 2004a).*
6. *During wet-weather, WRP discharges may account for as little as 1 percent of the total flow in the river (CREST, 2009a).*
7. *Based on three experiments conducted by Noble et al. (1999) to mimic natural conditions in or near Santa Monica Bay (SMB), two in marine water and one in fresh water, bacteria degradation was shown to range from hours to days (Noble et al., 1999). Based on the results of the marine water experiments, the model assumes a first-order decay rate for bacteria of 0.8 d-1 (or 0.45 per day). Degradation rates were shown to be as high as 1.0 d-1 (Noble et al., 1999). These studies show that bacterial degradation and dilution during transport through the watershed do not significantly affect bacterial indicator densities in receiving waters.*

Based on these findings, further source assessment of the MS4 discharges will need to be conducted to determine the primary source of bacteria within the RH/SGRWQG MS4s.

SGR Watershed

The SGR, Estuary and Tributaries Indicator Bacteria TMDL made the following assertions regarding the identification of indicator bacteria sources to the SGR:

> *There are many sources of indicator bacteria to the MS4s. Discharges from MS4s are the primary source of bacteria to SGR in both dry- and wet-weather (Ackerman et. al., 2005 and Grifith et al., 2014.)*
>
> *Based on available data surface runoff (stormwater and non-stormwater discharges) from urbanized areas conveyed via the MS4 is a significant source of bacteria to the SGR and its tributaries. Mass emissions data collected under the Los Angeles County MS4 Permit show elevated levels of bacteria in the river. SCCWRP's data from storm drains and channels draining urban areas also show elevated levels of bacteria, indicating that urban areas are the primary source of bacteria to SGR and its tributaries. Data from throughout the Los Angeles Region further demonstrate that bacteria concentrations are significantly greater in developed areas.*
>
> *The monitoring data show that bacteria loadings from WRPs are significantly less than stormwater loadings. Based on mass emission station data, watershed-wide monitoring data, and SCCWRP's studies, the Los Angeles Water Board staff concludes that stormwater and non-stormwater runoff from urban areas served by the storm drain system (MS4s) is a significant source of bacteria. Storm drain system discharges may have elevated levels of bacteria indicators due to sanitary sewer leaks and spills, illicit connections of sanitary sewer lines to the storm drain system, runoff from homeless encampments, pet waste, and illegal discharges from recreational vehicle holding tanks, among others. Other point sources were analyzed and found to be less significant or there were not enough data to quantify their contribution. Existing point source discharges that have permits containing effluent limits for bacteria will continue to have effluent limits for bacteria. Existing point source discharges that do not have effluent limits for bacteria in their permits are not assigned WLAs. Any future point source discharges must be evaluated to determine whether reasonable potential exists for the discharge to be a source of bacteria that could cause or contribute to an exceedance of the applicable water quality standards. If reasonable potential analysis (RPA) during permitting process does not indicate reasonable potential then effluent limits do not need to be included in the permit. All non-point sources are assigned LAs.*

Similar to the LAR Watershed portion of the RH/SGRWQG area, further source assessment of the MS4 discharge will need to be conducted to determine the primary source of bacteria within the RH/SGRWQG area.

2.3.3.5 Legacy Pollutants – Nutrients, PCB, Chlordane, Dieldrin, and DDT

The Los Angeles Area Lakes TMDLs for Peck Road Park Lake states the following regarding the sources of nutrients for Peck Road Park Lake TMDL impairments:

> *Peck Road Park Lake has been sampled several times over the past two decades. Slight exceedances of the pH target have been observed in the lake and may be due to natural conditions. DO levels in the epilimnion are typically greater than 7 mg/L and impairment due to low DO is not evident in either the historic or recent sampling events (DO levels do approach zero in the deeper waters but no exceedances have been observed relative to the target depths). Readings collected in December 2008 were collected with an uncalibrated meter. Chlorophyll a concentrations are relatively low and no measurements greater than 19 µg/L (historic data) have been reported. The maximum chlorophyll a concentration measured recently is 13.4 µg/L and the average concentration is 6.2 µg/L. It does not appear, based on these data, that excessive*

nutrient loading is causing an impairment. It is unlikely that the source of the odor reported at Peck Road Park Lake is due to elevated nutrient and algal biomass levels. They are likely associated with the trash impairment.

Based on historic and recent monitoring data, Peck Road Park Lake is not impaired by low DO or excessive nutrient loading. Though odor has been noted as a problem at the lake, it is likely not due to eutrophication as no algal blooms have been observed in the lake and chlorophyll a concentrations are relatively low. To protect Peck Road Park Lake from degradation, nutrient loading should remain at or below existing levels as an antidegradation measure to ensure future loading does not increase the chlorophyll a concentration.

Much of the Peck Road Park Lake watershed remains in forested and other undisturbed land uses. As development occurs in this watershed, BMPs will be required such that loading rates are consistent with the allocations established by these TMDLs. Therefore, no load allocation has been set aside for future growth. It is unlikely that any dischargers of significant nutrient loading will be permitted in the watershed. If any sources currently assigned load allocations are later determined to be point sources requiring NPDES permits, those load allocations are to be treated as wasteload allocations for purposes of determining appropriate water quality-based effluent limitations pursuant to 40 CFR 122.44(d)(1).

The TMDL states the sources of PCB for Peck Road Park Lake TMDL impairments are as follows:

PCBs in Peck Road Park Lake are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet-weather loads. Dry-weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed PCB concentrations on sediment near inflows to the lake.

Watershed loads of PCBs may arise from spills from industrial and commercial uses, improper disposal, and atmospheric deposition. Industrial and commercial spills will tend to be associated with specific land areas, such as older industrial districts, junk yards, and transformer substations. Improper disposal could have occurred at various locations (indeed, waste PCB oils were sometimes used for dust control on dirt roads in the 1950s). Atmospheric deposition occurs across the entire watershed.

There is no definitive information on specific sources of elevated PCB load within the watershed at this time. Therefore, an average concentration of sediment is applied to all contributing areas. The average concentration of PCBs on incoming sediment was estimated to be 15.38 µg/kg dry weight and the estimated annual sediment load to Peck Road Park Lake is 990.3 tons/yr, including sediment delivered through the water diversion (see Appendix D, Wet Weather Loading). The resulting estimated wet-weather load of PCBs is approximately 13.8 g/yr.

Lake sediments are often the predominant source of PCBs in biota. The bottom sediment serves as a sink for organochlorine compounds that can be recycled through the aquatic life cycle. PCBs are strongly sorbed to sediments and have long half-lives in sediment and water. Incoming loads of PCBs will mainly be adsorbed to particulates from stormwater runoff (eroded sediments from legacy contamination sites or from atmospheric deposition).

The existing sediment PCB concentrations in Peck Road Park Lake are lower than the consensus-based TEC target, and existing fish tissue concentrations are higher than the fish tissue target. Therefore, a sediment target to achieve FCGs is calculated based on biota-sediment bioaccumulation (a BSAF approach), using the ratio of the FCG to existing fish tissue

concentrations of 3.6/34.4 = 0.105. This ratio is applied to the observed in-lake sediment concentration of 12.28 µg/kg dry weight to obtain the site-specific sediment target concentration to achieve fish tissue goals of 1.29 µg/kg dry weight. The fish tissue-based target concentrations were calculated using only recent data (collected in the past 10 years) because the loads and exposure concentrations of PCBs are likely to have declined steadily since the cessation of production and use of the chemical.

The BSAF-derived sediment target is less than the consensus-based sediment quality guideline TEC of 59.8 µg/kg dry weight. (The consensus-based sediment quality guideline is for the protection of benthic organisms, and explicitly does not address bioaccumulation and human-health risks from the consumption of contaminated fish.) The lower value of the consensus-based TEC target or the BSAF-derived target is selected as the final sediment target. In addition, the CTR criterion for human health (0.17 ng/L) is the selected numeric target for the water column and protects both aquatic life and human health.

The toxicant loading model can be used to estimate the loading rate that would be required to yield the existing sediment concentration under steady-state conditions. This yields an estimate that a load of 1,005 g/yr would be required to maintain observed sediment concentrations under steady-state conditions. The estimated current watershed loading rate is 13.8 g/yr, or 1.4 percent of this amount. Therefore, impairment due to elevated fish tissue concentrations of PCBs in Peck Road Park Lake is primarily due to the storage of historic loads of PCBs in the lake sediment.

The sources of Chlordane for Peck Road Park Lake TMDL impairments are as follows:

Chlordane in Peck Road Park Lake is primarily due to historical loading and storing within the lake sediments, with some ongoing contribution by watershed wet-weather loads. Dry-weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed chlordane concentrations on sediment near inflows to the lake. Watershed loads of chlordane may arise from past pesticide applications, improper disposal, and atmospheric deposition. Pesticide applications were most likely associated with agricultural, commercial, and residential areas. Improper disposal could have occurred at various locations, while atmospheric deposition occurs across the entire watershed.

There is no definitive information on specific sources within the watershed at this time. Therefore, an average concentration of sediment is applied to all contributing areas. The average concentration of chlordane on incoming sediment was estimated to be 3.15 µg/kg dry weight, and the annual sediment load to Peck Road Park Lake is 990.3 tons/yr, including sediment delivered through the water. The resulting estimated wet-weather load of chlordane is approximately 2.83 g/yr.

Lake sediments are often the predominant source of total chlordane in biota. The bottom sediment serves as a sink for organochlorine compounds that can be recycled through the aquatic life cycle. Chlordanes are strongly sorbed to sediments and have long half-lives in sediment and water. Incoming loads of total chlordane will mainly be adsorbed to particulates from stormwater runoff (eroded sediments from legacy contamination sites or from atmospheric deposition).

The existing sediment chlordane concentrations in Peck Road Park Lake are lower than the consensus-based TEC target, and existing fish tissue concentrations are higher than the fish tissue target. Therefore, a sediment target to achieve FCGs is calculated based on biota-

sediment bioaccumulation (a BSAF approach), using the ratio of the FCG to existing fish tissue concentrations of 5.6/13.44 = 0.417. This ratio is applied to the observed sediment concentration of 4.14 µg/kg dry weight to obtain the site-specific sediment target concentration to achieve fish tissue goals of 1.73 µg/kg dry weight. The fish tissue-based target concentrations were calculated using only recent data (collected in the past 10 years) because the loads and exposure concentrations of chlordane are likely to have declined steadily since the cessation of production and use of the chemical.

The BSAF-derived sediment target is less than the consensus-based TEC of 3.24 µg/kg dry weight. (The consensus-based sediment quality guideline is for the protection of benthic organisms, and explicitly does not address bioaccumulation and human-health risks from the consumption of contaminated fish.) The lower value of the consensus-based TEC target or the BSAF-derived target is selected as the final sediment target. In addition, the CTR criterion for human health (0.59 ng/L) is the selected numeric target for the water column and protects both aquatic life and human health.

The toxicant loading model can be used to estimate the loading rate required to yield the existing sediment concentration under steady-state conditions. This yields an estimate that a load of 696 g/yr would be required to maintain observed sediment concentrations under steady state conditions. The estimated watershed loading rate is 2.83 g/yr, or 0.4 percent of this amount. Therefore, impairment due to elevated fish tissue concentrations of chlordane in Peck Road Park Lake is primarily due to the storage of historic loads of chlordane in the lake sediment.

The TMDL states the sources of DDT for Peck Road Park Lake TMDL impairments are as follows:

Total DDTs present in Peck Road Park Lake are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet-weather loads. Dry-weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed DDT concentrations on sediment data near inflows to the lake. Watershed loads of DDT may arise from past pesticide applications, improper disposal, and atmospheric deposition. Pesticide applications were most likely associated with agricultural, commercial, and residential areas. Improper disposal could have occurred at various locations, while atmospheric deposition occurs across the entire watershed.

There is no definitive information on specific sources of elevated DDT load within the watershed at this time. Therefore, an average concentration on sediment is applied to all contributing areas. The average concentration of total DDTs on incoming sediment was estimated to be 5.57 µg/kg dry weight, and the annual sediment load to Peck Road Park Lake is 990.3 tons/yr, including sediment delivered through the water diversion. The resulting estimated wet-weather load of total DDTs is approximately 5.0 g/yr.

Lake sediments are often the predominant source of DDT in biota. The bottom sediment serves as a sink for organochlorine compounds that can be recycled through the aquatic life cycle. DDT is strongly sorbed to sediment and has a long half-life in sediment and water. Incoming loads of DDT will mainly be adsorbed to particulates from stormwater runoff (eroded sediments from legacy contamination sites or from atmospheric deposition).

A sediment target to achieve FCGs is calculated based on biota-sediment bioaccumulation (a BSAF approach), using the ratio of the FCG to existing fish tissue concentrations of 21/15.5 = 1.355. This ratio is applied to the estimated lake sediment concentration of 5.09 µg/kg dry weight to obtain the site-specific sediment target concentration to maintain fish tissue goals of

6.90 µg/kg dry weight. The BSAF-derived sediment target is greater than the estimated existing sediment concentration because the average recent fish tissue concentration does not exceed the fish tissue based target concentration.

The fish tissue-based target concentrations were calculated using only recent data (collected in the past 10 years) because the loads and exposure concentrations of total DDT are likely to have declined steadily since the cessation of production and use of the chemical.

The BSAF-derived sediment target is greater than the consensus-based TEC for total DDTs of 5.28 µg/kg dry weight. The consensus-based TEC of 5.28 µg/kg dry weight is therefore the most restrictive target and is used as the target in this TMDL. Selection of the consensus-based TEC target protects the benthic biota and ensures continued attainment of the fish tissue based target concentration. The estimated existing concentration in lake of 5.09 µg/kg is less than the TEC, which would imply that no reduction from existing in-lake sediment concentrations may be needed. However, the estimated influent concentration is greater than the TEC.

The toxicant loading model can be used to estimate the loading rate that would be required to yield the existing sediment concentration under steady-state conditions. This yields an estimate that a load of 84 g/yr would be required to maintain observed sediment concentrations under steady-state conditions. The estimated current watershed loading rate is 5 g/yr, or 6 percent of this amount. Thus, concentrations of total DDTs in fish tissue in Peck Road Park Lake appear to be primarily due to the storage of historic loads of DDT in the lake sediment.

The TMDL states the sources of Dieldrin for Peck Road Park Lake TMDL impairments are as follows:

Dieldrin in Peck Road Park Lake is primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet-weather loads. Dry-weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed could not be directly estimated because all sediment and water samples were below detection limits. Watershed loads of dieldrin may arise from past pesticide applications, improper disposal, and atmospheric deposition. Pesticide applications were most likely associated with agricultural, commercial, and residential areas. Improper disposal could have occurred at various locations.

There is no definitive information on specific sources within the watershed at this time. Therefore, an average concentration of sediment is applied to all contributing areas.

An upper-bound analysis for dieldrin is performed using the simulated sediment load and detection limit to determine the maximum potential loading rate of dieldrin from the watershed. The dieldrin sediment concentration is assigned as the upper bound estimate of concentration on influent sediment (0.91 µg/kg dry weight, calculated with non-detects set equal to the individual sample detection limits). The annual sediment load to Peck Road Park Lake, including sediment delivered through the water diversion is 990.3 tons/yr. The resulting estimated upper bound on wet-weather load of dieldrin from the watershed is 0.82 g/yr or less.

Lake sediments are often the predominant source of dieldrin in biota. The bottom sediment serves as a sink for organochlorine compounds that can be recycled through the aquatic life cycle. Dieldrin is strongly sorbed to sediments and has a long half-life in sediment and water. Incoming loads of dieldrin will mainly be adsorbed to particulates from stormwater runoff (eroded sediments from legacy contamination sites or from atmospheric deposition).

The estimated existing sediment dieldrin concentrations in Peck Road Park Lake are lower than the consensus-based TEC target, and existing fish tissue concentrations are higher than the fish

tissue target. Therefore, a sediment target based on biota-sediment bioaccumulation (a BSAF approach) is calculated using ratio of the FCG to existing fish tissue concentrations in largemouth bass of 0.46/1.06 = 0.434. Sediment concentrations of dieldrin in Peck Road Park Lake are reported as below detection limits ranging from 0.7 to 1.44 µg/kg dry weight. However, dieldrin is highly bioaccumulative, and low sediment concentrations can lead to unacceptable fish tissue concentrations. Using an estimated concentration of 0.98 µg/kg dry weight based on the average of the sample detection limits, the resulting target concentration would be 0.43 µg/kg dry weight to obtain FCGs. Calculation with a literature-based BSAF suggests that even lower concentrations might be needed. However, the literature based BSAF is highly uncertain and may not be directly applicable to conditions in Peck Road Park Lake. Therefore, the target based on the detection limits is used, with acknowledgment that the estimate may need to be refined if additional data are collected at lower detection limits.

2.3.3.6 Source Assessment Summary

Nutrients, metals, indicator bacteria, and trash are commonly measured in MS4 discharges. While there are no specific measurements for outfalls in the RH/SGRWQG area, it is reasonable to assume the MS4 may contain these constituents. Additionally, where historic contamination exists, legacy pollutants such as PCBs and chlorinated pesticides may be found in MS4 discharges. These classes of compounds represent the Category 1 pollutants, where TMDLs have identified the MS4 as potential sources.

Two constituents identified in the receiving water assessment, cyanide and bis(2-ethylhexyl) phthalate have been associated with potential laboratory Quality Assurance/Quality Control (QA/QC) issues, as it is a known laboratory contaminant. While clear evidence of laboratory contamination is not available, the fact that no exceedances have been observed in the last 5 years suggests that MS4 discharges are unlikely to be a significant source of bis(2-ethylhexyl) phthalate. As a result, bis(2-ethylhexyl) phthalate is not considered to be a water quality priority based on the initial source assessment.

The LACSD and other laboratories have identified concerns with the preservation of cyanide samples for analysis. Analysis of different preservation and analytical methods for cyanide has indicated that artificial increases in cyanide concentrations can be introduced through the preservation and analytical process for cyanide (Stanley, 2012). As a result, LACSD has modified their sampling collection and cyanide analysis procedures to reduce the potential for artificially increasing cyanide concentrations. A review of the cyanide data used in the analysis determined that all samples with exceedances were from the MS4 mass emission station using sample processing methods that could potentially exacerbate cyanide concentrations. As a result, it is possible that some or all of the cyanide exceedances result from the analytical process. However, cyanide is also released from some industrial and commercial activities that could be present in the watershed.

Diazinon was used as an insecticide for agriculture and also as an all-purpose indoor and outdoor commercial pest control product. The majority land use designation within the RH/SGRWQG is residential. In addition, agricultural land use designation within the RH/SGRWQG is located within the City of Bradbury. With these two land use designations, MS4 discharges cannot be excluded as a potential source of diazinon. With the ban on diazinon for commercial use, diazinon receiving water concentrations and exceedances may decrease through the years. Further investigation pertaining to the source of exceedances is necessary to assess if discharges from MS4s are a potential source in the future.

Based on the source assessment and pollutant linkages to the MS4, the water quality priorities were generated and summarized in **Table 2-7**. The table also indicates the potential linkage to the MS4, defined as follows:

- **High** – where TMDLs exist (Category 1 pollutants) that have identified WLAs for the MS4;
- **Medium** – not a clear determination of positive or negative attribution to the MS4; and
- **Low** – where it is likely a source other than the MS4 that contributes to the water quality exceedances.

The EWMP identifies control measures to address the water quality priorities, except for those pollutants where the source is attributed to a non-MS4 source, such as water reclamation plants.

Table 2-7 Water Quality Priorities for the RH/SGRWQG

Category	Class	Pollutant	Water Body	MS4 Linkage
Category 1	Bacteria	Fecal Coliform and *E. Coli*	Rio Hondo Reach 3, Monrovia Wash, Sawpit Wash, and Peck Road Park Lake	High
		E.Coli	SGR Reach 3, San Dimas Wash, and Big Dalton Wash	High
	Legacy	PCBs, Chlordane, Dieldrin, DDT	Peck Road Park Lake	High
	Metals	Cadmium, Copper, Zinc	Rio Hondo Reach 3, Monrovia Wash, and Sawpit Wash	High
		Lead	Rio Hondo Reach 3, Monrovia Wash, Sawpit Wash, SGR Reach 5, San Dimas Wash, and Big Dalton Wash	High
	Nutrients	Ammonia, Nitrate, Nitrite, Nitrate + Nitrite	Rio Hondo Reach 3, Monrovia Wash, and Sawpit Wash	Low
		Total Nitrogen, Total Phosphorus	Peck Road Park Lake	Low
	Trash	Trash	Rio Hondo Reach 3, Monrovia Wash, Sawpit Wash, and Peck Road Park Lake	High
Category 2	Metals	Lead	Monrovia Wash	High
	Other	Bis(2-ethylhexyl) phthalate	Sawpit Wash	Low

2.4 Prioritization

The MS4 Permit outlines a prioritization process that defines how pollutants in the various categories will be considered in scheduling as part of the EWMP. Based on compliance pathways outlined in the MS4 Permit, the scheduling factors considered include the following:

- TMDLs with past due interim and/or final limits and those with interim and/or final limits within the MS4 Permit term (schedule according to TMDL schedule)
- TMDLs with interim and/or final limits outside the MS4 Permit term (schedule according to TMDL schedule)
- Other receiving water exceedances
    - Pollutants in the same class as those addressed in a TMDL (evaluate ability to consider on same timeframe as TMDL)
    - Pollutants on the 303(d) list or in the same class as those on the 303(d) listings (develop schedule to address as soon as possible with milestones)
    - Pollutants with exceedances that are not in the same class as 303(d) listing (conduct monitoring under CIMP to confirm exceedances and if confirmed develop schedule with milestones)
    - Pollutants without exceedances in last 5 years (not prioritized for BMPs, but included in monitoring)

Evaluating whether or not a pollutant is in the same class as either a TMDL or a 303(d) listed pollutant is a critical decision for prioritization and scheduling. The MS4 Permit definition of class is as follows:

> "Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the EWMP for the TMDL."

As part of EWMP development and the RAA, prioritizing and sequencing of BMPs considered the aforementioned factors.

2.5 Milestone Schedule for Non-TMDL Pollutants

For WBPCs not addressed through a Regional Board adopted compliance schedule, development of interim milestones and final compliance dates must conform to one of the three MS4 Permit defined schemes (MS4 Permit Parts VI.C.2.i-iii):

1. Pollutants that are in the same class as those addressed in a TMDL for the watershed and for which the water body is identified as impaired on the 303(d) list as of December 28, 2012;
2. Pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the 303(d) list as of December 28, 2012; or
3. Pollutants for which there are exceedances of RWLs, but for which the water body is not identified as impaired on the 303(d) list as of December 28, 2012.

Pollutants having similar fate and transport mechanisms (e.g., particle associated), making them amenable to treatment using the same control measures, can be referred to as a "BMP class." Alternatively pollutants may be addressed following an existing TMDL timeline, referred to as a "scheduling class." The remaining WBPCs were segregated into these classes as shown in **Table 2-8**. The interim and final compliance schedules identified in **Table 1-6** in **Section 1.3.2** for the Category 1 WBPCs are the backbone upon which numeric milestones and schedule dates for other water quality priorities are proposed.

Table 2-8 Initial Classification for USEPA TMDLs, 303(d) Listings, and Other Exceedances of RWLs

Pollutants	Water Body	Sub-category	BMP Class	RB TMDL in RH/SGRWQG with Same BMP Class?	Scheduling Class	RB TMDL in RH/SGRWQG with Same Scheduling Class?	Initial Classification
Total Nitrogen	Peck Road Park Lake	1C	Nutrients	Yes	Machado Lake Nutrients	Yes	USEPA TMDL
Total Phosphorus	Peck Road Park Lake	1C	Nutrients	Yes	Machado Lake Nutrients	Yes	USEPA TMDL
Trash	Peck Road Park Lake	1C	Trash	Yes	LAR Trash TMDL	Yes	USEPA TMDL
PCBs	Peck Road Park Lake	1C	Sediment	Yes	Machado Lake Toxics[1]	Yes	USEPA TMDL
Chlordane	Peck Road Park Lake	1C	Sediment	Yes	Machado Lake Toxics[1]	Yes	USEPA TMDL
Dieldrin	Peck Road Park Lake	1C	Sediment	Yes	Machado Lake Toxics[1]	Yes	USEPA TMDL
DDT	Peck Road Park Lake	1C	Sediment	Yes	Machado Lake Toxics[1]	Yes	USEPA TMDL
Bis (2-ethylhexyl) phthalate	Sawpit Wash	2C	Sediment	Yes	Machado Lake Toxics[1]	Yes	303(d) listed and same class as pollutants addressed in a TMDL in the watershed

[1] Machado Lake Pesticides and PCBs (Toxics) TMDL

2.5.1 Constituent Relationships

Subcategory 1C WBPCs include those identified in the Peck Road Park Lake TMDLs issued by USEPA. As stated in the technical TMDL, recent monitoring data suggest that nutrient loads and related WQOs are being met, but need to be monitored into the future. Although the nutrient WQOs were being met at the time the TMDL was being developed, a timeline consistent with the Machado Lake Nutrients TMDL is most appropriate so that necessary measures are implemented in the event an exceedance was to occur. The Machado Lake TMDLs will serve as the basis for determining the schedule/timeline for the Peck Road Park Lake TMDLs, as both Machado Lake and Peck Road Park Lake are lakes developed in the early 1970s in urban areas with comparable environments, impairments, and sources (as identified in the TMDLs). As was the case with Machado Lake, the schedule/timeline presented in this EWMP is for MS4 discharges into the lake and do not address polluted bed sediments. Once the MS4 discharges have been addressed, the bed sediment will be assessed and addressed as needed. The trash component of this TMDL is being addressed as a requirement of the Los Angeles River Trash TMDL and the schedule for that TMDL also addresses the Los Angeles Area Lakes TMDLs.

Based on pollutant fate and transport characteristics, Peck Road Park Lake legacy pollutant WBPCs milestone schedules/timelines are most appropriately based upon those identified in the Machado Lake TMDLs. At both locations, the pollutants include organochlorine pesticides and PCBs (or Aroclors) which are no longer in commercial use and typically bind to sediment particles which settle out in non-flowing receiving waters. Their environmental fate is typically through natural attenuation or bioremediation, although sediment removal and disposal may be necessary to more rapidly achieve water and sediment quality objectives.

Subcategory 2C WBPCs include State 2010 Integrated Report, or CWA 303(d) list, identified impairments for bis(2-ethylhexyl) phthalate in Sawpit Wash. Phthalates are common plastizers and laboratory contaminants. Although it is unlikely to still be present, the most appropriate scheduling corollary would be with the Machado Lake Toxics TMDL as the fate and transport of this compound is typical of many organic compounds which tend to bind to particulates and be degraded through natural attenuation. Utilizing the Machado Lake Toxics TMDL timeline will also be consistent with the Peck Road Park Lake timelines discussed above, which is beneficial as Sawpit Wash is tributary to Peck Road Park Lake.

If WBPCs are not assigned to existing TMDL schedules, then the RH/SGRWQG would be required to develop a detailed time schedule, of specific actions to undertake, that will achieve compliance with the numeric WLAs. For such pollutants, the time schedule requested must be as short as possible, taking into account the time since establishment of the TMDL, technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLAs. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and numeric milestones and the date(s) for their achievement. In assessing appropriate schedules for WBPCs, similar, adopted, Regional Board TMDL implementation schedules will be used to the extent possible based on the rationale that they would meet the requirements in as short a time as is possible and considering other factors identified in the MS4 Permit.

2.5.2 Milestones and Schedules

The preferred approach for developing USEPA TMDL, 303(d) listed, or RWL exceedance WBPCs milestone and compliance schedules is to determine whether the pollutants are in the same class as those already being addressed in a Regional Board developed TMDL applicable to the RH/SGRWQG and, if so, align the proposed WBPC milestone and compliance schedule with that developed for the Regional Board TMDL. As previously discussed and summarized in **Table 2-8**, these WBPCs all align with developed Regional Board TMDLs.

2.5.2.1 USEPA Peck Road Park Lake TMDLs

The majority of WBPCs, which may be suitable for milestone identification based on Regional Board TMDL schedules, are associated with the USEPA Peck Road Park Lake TMDLs (2012b); approved by USEPA Region IX on March 26, 2012. Although each USEPA TMDL identified constituent must be evaluated individually, their similarity in fate, transport, source control, and BMP implementation mechanisms, as compared to existing TMDLs, substantiates the assertion that their scheduling should track that of similar TMDLs already being implemented in the region.

Peck Road Park Lake Nutrient TMDL

The nutrient portion of the Peck Road Park Lake TMDLs can be difficult to intuitively translate for EWMP planning purposes, in that its objectives are to control summer in-lake eutrophication, primarily by controlling storm and seasonal diversion flows containing nitrogen and phosphorous. In Section 4.10.1 of the USEPA Los Angeles Area Lakes TMDL, the USEPA asserts that "*The nutrient-response analysis for Peck Road Park Lake indicates that existing levels of nitrogen and phosphorus loading are resulting in attainment of the summer average chlorophyll a target concentration of 20 µg/L and are not significantly impacting dissolved oxygen levels in the waterbody. As an anti-degradation measure, nitrogen and phosphorus TMDLs are allocated based on existing loading.*" While this assertion advocates for overlooking the need to develop a TMDL implementation milestone schedule, variance in flow volumes, especially flows diverted to San Gabriel River, significantly drive the annual pollutant load estimates. The TMDL notes that, as an annual average, over 41 percent of the nitrogen load is attributed to the SGR flows from above urban Reach 4, diverted by LACDPW for water conservation and recharge purposes; however, in many years the actual diversion volume is negligible, while infrequently those flows overwhelmingly predominate. While the TMDL rationally anticipates potential diversion volume aberrations by allowing for three year averaging, it is unclear how comingled spring diversion flows, along with those from non-MS4 NPDES discharges, would be cost-effectively segregated and accounted for during these conditions, nor how they would be integrated to potentially result in unanticipated summer impairments. Therefore this EWMP proposes that the Peck Road Park Lake nutrient TMDL milestone schedule follow the timeline of the Machado Lake Nutrients TMDL, which assumes final compliance 9.5 years after the effective date of the TMDL. Based on this timeline, the final compliance date for nutrients would be January 1, 2026. Ultimately, the RH/SGRWQG concurs with the clarity of the USEPA, that this TMDL is aimed at demonstrating compliance with MS4 Permit anti-degradation requirements. The proposed compliance schedule is summarized in **Table 2-8**.

Peck Road Park Lake PCBs, DDT, Chlordane, and Dieldrin TMDLs

PCBs and organochloride pesticides like DDT, chlordane, and dieldrin bind to suspended sediments and organic particulates, which are then mobilized and transported by storm flows, before settling in quiescent receiving water bodies. As with the other legacy pollutants, commercial sources have been eliminated and controls are mostly targeted at the elimination of sediment sources, runoff reduction, and sediment settling or soil filtration associated with runoff infiltration. Their environmental fate (elimination) is mostly through natural attenuation and augmented biodegradation, although sediment dredging and disposal is a potential engineered alternative. The Peck Road Park Lake PCBs, DDT, Chlordane, and Dieldrin TMDLs established WLAs for inflowing water and suspended sediment based on the CTR water column target. The TMDL determined MS4 discharge baseline load, or sediment-bound concentration, for each of the TMDLs is identified in **Table 2-9** along with the suspended sediment WLA and percent reduction in load or concentration. This EWMP includes an implementation schedule determined by the RH/SGRWQG for control measures to achieve proposed interim numeric milestones and dates, as well as final compliance date(s) that meet the identified sediment borne WQOs. As identified in **Table 2-8**, the Peck Road Park Lake PCBs, DDT, Chlordane, and Dieldrin TMDLs are in the sediment pollutant class for the purpose of scheduling watershed controls.

Table 2-9 Target Load Reductions for Peck Road Park Lake TMDLs			
Peck Road Park Lake TMDL	**Baseline Load (µg/kg dry weight)**	**Suspended Sediment WLA (µg/kg dry weight)**	**Percent Reduction**
PCBs	15.38	1.29	91.6
DDT	5.57	5.28	5.2
Chlordane	3.15	1.73	45.1
Dieldrin	0.91	0.43	53.0

Although the LAR Bacteria TMDL contains a potentially suitable alternative schedule, the most appropriate backbone upon which to build the Peck Road Park Lake PCBs, DDT, Chlordane, and Dieldrin TMDLs schedule is the Machado Lake Pesticides and PCBs (Toxics) TMDL, since it includes PCBs, DDT, and other organochlorine pesticides having similar fate, transport, and BMP class characteristics. The Machado Lake Pesticides and PCBs (Toxics) TMDL identifies a timeline of 7.5 years from the effective date of the TMDL. Using this timeline, the final compliance date is January 1, 2024. However, this proposed date may be modified through the adaptive management process as the effectiveness of proposed control measures to control sediment and associated pollutants are assessed.

Peck Road Park Lake Trash TMDL

The RH/SGRWQG members subject to the Peck Road Park Lake Trash TMDL are concurrently implementing control measures to address the Los Angeles River Trash TMDL and by necessity will follow that TMDL implementation schedule and the interim numeric milestones and final compliance dates identified in **Table 1-6** in **Section 1.3.2**.

2.5.2.2 303(d) Listed WBPCs

The MS4 Permit requires that 303(d) listed WBPCs, in the same class as those addressed by a watershed TMDL, be assigned interim milestone and final compliance schedules corresponding to those for that TMDL. Like many organics, bis(2-ethylhexyl) phthalate binds to suspended sediments and organic particulates, which are then mobilized and transported by storm flows, before settling in quiescent receiving water bodies. Controls are mostly targeted at the elimination of plastic debris, sediment sources, runoff reduction, and sediment settling, or soil filtration, associated with runoff infiltration. Their environmental fate (elimination) is mostly through natural attenuation and augmented biodegradation. For Sawpit Wash and bis(2-ethylhexyl) phthalate the most similar pollutant class characteristics are sediments as found in the Machado Lake Toxics TMDL. The Machado Lake Toxics TMDL has a final compliance date of January 1, 2024, therefore the final compliance date for bis(2-ethylhexyl) phthalate will be the same. However, this proposed date may be modified through the adaptive management process as the effectiveness of proposed control measures to control sediment and associated pollutants are assessed.

2.5.3 Interim Milestones and Compliance Schedule

Interim and final compliance dates in the Machado Lake Nutrients and Machado Lake Pesticides and PCBs (Toxics) TMDLs are the foundation for selecting interim and final milestone dates for WBPCs that do not have a Regional Board approved TMDL. The dates proposed are subject to the procurement of grants or other financial support commensurate with the existing and future fiduciary responsibilities of the RH/SGRWQG members. The dates may be further adjusted based on evolving information developed through the iterative adaptive management process identified in the MS4 Permit or similar Parts within future Permits, LAR Metals TMDL, Water Effect Ratio (WER) Site-Specific Objectives (SSO) BPA approved by the Regional Board in February 2015, the proposed Zinc WER SSO, and new monitoring and impairment data.

Table 2-10 presents the compliance schedule for WBPCs not included in a Regional Board approved TMDL, including USEPA TMDLs and 303(d) listings. **Table 2-11**, **Table 2-12** and **Table 2-13** present the numeric milestones which must be achieved by the dates presented in **Table 2-10**. Note that the compliance WLAs are presented per jurisdiction in the tables, to match the presentation in the MS4 Permit. However, compliance will be established across jurisdictions to the extent covered by monitoring site catchment areas. The schedule identified in this EWMP is subject to change based on changing data, information, legislation, law, and fiscal priorities through the adaptive management process. Any schedule modifications will be consistent with TMDL related compliance schedules and submitted to the Regional Board for review and approval based on the requirements of the MS4 Permit.

Table 2-10 Schedule of WBPCs without a Regional Board Approved TMDL

TMDL	Water Bodies	Constituents	Compliance Goal	Weather Condition	Compliance Dates and Milestones (Bolded **numbers** indicate milestone deadlines within the current Permit term)[1]						
					2016	2017	2018	2020	2022	2024	2026
LA Area Lakes	Peck Road Park Lake	Total-P, Total-N	Meet WLAs	All							1/1
											Final
LA Area Lakes	Peck Road Park Lake	Water and Sediment: PCBs, DDT, Chlordane, Dieldrin	Meet WLAs	All						1/1	
										Final	
LA Area Lakes	Peck Road Park Lake	Trash	Meet WLAs	All	**9/30**						
					100%						
N/A	Sawpit Wash	Bis(2-ethylhexyl) phthalate	Meet RWL	All							3/23
											Final

[1] The current Permit term is assumed to end on December 27, 2017.

Table 2-11 Peck Road Park Lake Nutrients TMDL Milestones					
Subwatershed	**Milestone Date**	**Milestone Type**	**RH/SGRWQG Member**	**Total Nitrogen (lb/yr)[1]**	**Total Phosphorus (lb/yr)[1]**
All Weather					
Eastern	January 1, 2026	Final WLA	Arcadia	2,320	383
			Bradbury	3,223	497
			Duarte	9,616	1,540
			County of Los Angeles	5,532	924
			Monrovia	38,736	6,243
Near Lake	January 1, 2026	Final WLA	Arcadia	1,115	158
			County of Los Angeles	773	129
			Monrovia	415	60.4
Western	January 1, 2026	Final WLA	Arcadia	16,334	2,840
			County of Los Angeles	2,818	467
			Monrovia	2,678	425
			Sierra Madre	4,254	695

[1] Each WLA must be met at the point of discharge. A three year average will be used to evaluate compliance. However, if applicable water quality criteria for ammonia, dissolved oxygen and pH, and the chlorophyll a target are met in the lake, then the total nitrogen and phosphorus allocations are considered attained.

Note: WLAs are contingent of MS4 Permit Part VI.E.3.

Table 2-12 Peck Road Park Lake PCBs, Chlordane, DDT, and Dieldrin TMDLs Milestones					
Subwatershed	**Milestone Date**	**Milestone Type**	**RH/SGRWQG Member**	**Suspended Sediment Milestone**	**Water Column Milestone**
PCBs – All Weather					
Eastern	January 1, 2024	Final WLA	Arcadia	1.29 µg/kg dry weight	0.17 ng/L
			Bradbury		
			Duarte		
			County of Los Angeles		
			Monrovia		
Near Lake	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
Western	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
			Sierra Madre		
Chlordane – All Weather					
Eastern	January 1, 2024	Final WLA	Arcadia	1.73 µg/kg dry weight	0.59 ng/L
			Bradbury		
			Duarte		
			County of Los Angeles		
			Monrovia		
Near Lake	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
Western	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
			Sierra Madre		

Note: WLAs are contingent of MS4 Permit Part VI.E.3.

Table 2-12 Peck Road Park Lake PCBs, Chlordane, DDT, and Dieldrin TMDLs Milestones					
Subwatershed	**Milestone Date**	**Milestone Type**	**RH/SGRWQG Member**	**Suspended Sediment Milestone**	**Water Column Milestone**
DDT – All Weather					
Eastern	January 1, 2024	Final WLA	Arcadia	5.28 µg/kg dry weight	0.59 ng/L
			Bradbury		
			Duarte		
			County of Los Angeles		
			Monrovia		
Near Lake	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
Western	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
			Sierra Madre		
Dieldrin – All Weather					
Eastern	January 1, 2024	Final WLA	Arcadia	0.43 µg/kg dry weight	0.14 ng/L
			Bradbury		
			Duarte		
			County of Los Angeles		
			Monrovia		
Near Lake	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
Western	January 1, 2024	Final WLA	Arcadia		
			County of Los Angeles		
			Monrovia		
			Sierra Madre		

Note: WLAs are contingent of MS4 Permit Part VI.E.3.

Table 2-13 Milestones for WBPCs without Regional Board Approved TMDL			
Water Body	**Milestone Date**	**Milestone Type**	**Milestone**
Bis(2-ethylhexyl) phthalate – All Weather			
Sawpit Wash	January 1, 2024	Final RWL	1.8 µg/L

3. Watershed Control Measures

The EWMP provides the opportunity for Permittees to customize their stormwater programs to address water quality priorities through the implementation of stormwater BMPs, referred to in the MS4 Permit as watershed control measures. The overarching goal of BMPs in the EWMP is to reduce the impact of stormwater and non-stormwater on receiving water quality and address the water quality priorities. As part of the EWMP development process, various BMP types were evaluated and selected. This section describes the different types of BMPs that were considered for inclusion in the EWMP, with an emphasis on regional BMPs, which were critical to the EWMP development process. Additionally, this section discusses the evaluation process and watershed control measures selected for future consideration.

The three main categories of BMPs include structural, both regional or distributed, and institutional as defined below. The term "regional BMP" is different than "regional EWMP project" in that regional BMP projects are not necessarily able to capture the 85th percentile, 24-hour storm event.

Regional BMPs: Constructed structural practices intended to treat runoff from a contributing area of multiple parcels (normally on the order of 10s or 100s of acres or larger) (**Figure 3-1**)

Distributed BMPs: Constructed structural practices intended to treat runoff relatively close to the source and typically implemented at a single- or few-parcel level (normally less than one acre) (**Figure 3-2**)

Institutional BMPs: Policies, actions and activities intended to prevent pollutants from entering stormwater runoff thus eliminating the source of the pollutants. These BMPs are not constructed.

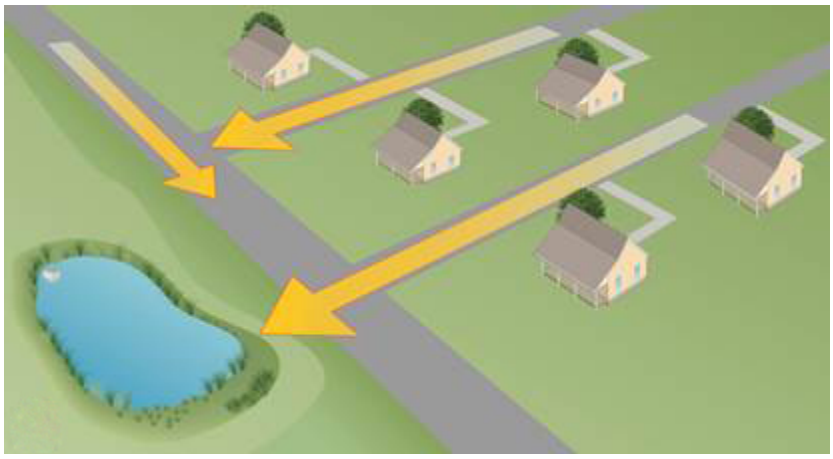


Figure 3-1 Conceptual Schematic of Regional BMP Implementation Approach

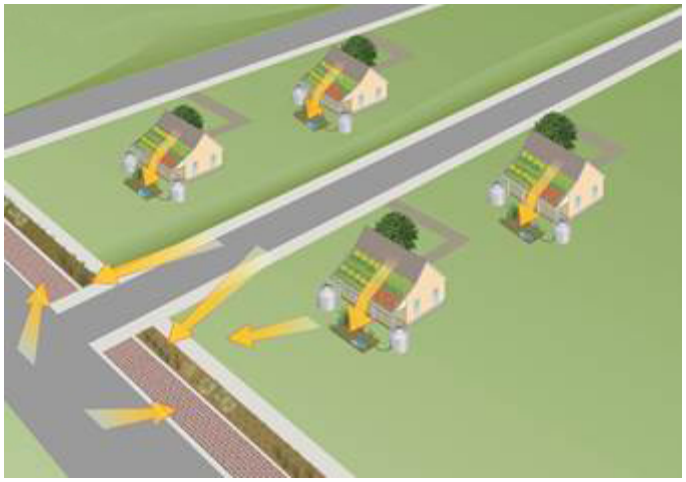


Figure 3-2 Conceptual Schematic of Distributed BMP Implementation Approach

This section summarizes existing and potential control measures by identifying existing BMPs and MCMs utilized by the RH/SGRWQG and evaluating performance data of the structural (regional and distributed) BMPs, and institutional (non-structural) control measures being implemented. Potential opportunities for customization of MCMs are identified and the information to support the modifications is also discussed. This section also summarizes the control measures that are proposed as part of this EWMP, which are included in the RAA discussed in **Section 4**.

To comply with the MS4 Permit requirements, an evaluation was performed that considers opportunities within the participating Permittees jurisdictions to utilize multi-benefit regional projects that, when feasible, detain all non-stormwater discharge and the flows produced by the 85th percentile, 24-hour storm event. A review of all relevant TMDL implementation plans and watershed management plans was performed to identify previously identified regional projects within the RH/SGRWQG EWMP area. An approach was developed and used to determine other potential regional project sites. The process was used to assess and select regional project sites for future consideration.

3.1 Non-Structural BMPs

Non-structural BMPs are non-constructed control measures that limit the amount of stormwater runoff or pollutants that are transported within the MS4 area. These control measures are also referred to as institutional BMPs. Most institutional BMPs are implemented to meet MCM requirements in the MS4 Permit.

MS4 Permit Part VI.C.5.b.iv.(1) directs that the MCMs identified in Parts VI.D.4 to VI.D.10 be incorporated as part of the EWMP. Permittees can evaluate the MCMs, identify potential modifications that will address water quality priorities, and provide justification for modification and/or elimination of any MCM that is determined to not be applicable, with the exception of MCMs in the Planning and Land Development Program which may not be eliminated. Customization may include replacement of an MCM for a more effective measure, reduced implementation of an MCM, augmented implementation of the MCM, focusing the MCM on the water quality priority, or elimination of an MCM. The MS4 Permit categorizes institutional BMPs and MCMs into the six program categories listed below. The programs that are applicable to the LACFCD are identified with an asterisk (*).

1. Development Construction Program
2. Industrial/Commercial Facilities Program
3. IC/ID Detection and Elimination Program*
4. Public Agency Activities Program*

5. Planning and Land Development Program
6. Public Information and Participation Program (PIPP)*

MCMs are considered a subset of institutional BMPs, which are non-constructed control measures that prevent the release of flow/pollutants or transport of pollutants within the MS4 area. Institutional BMPs include:

- Irrigation control
- Brake pad replacement
- Replacement of lead in wheel weights
- Street sweeping
- Catch basin cleaning
- Downspout disconnect program

3.1.1 Summary of Existing MCMs/Institutional BMPs

The following MCMs/institutional BMPs are already being implemented by the RH/SGRWQG members:

- Concrete Curing
- Compost Bin Sales and Workshops
- Dog Parks
- Dewatering Operations
- Dust Control
- Erosion Control
- Enhanced Street Sweeping
- Hardscape Design
- Hazardous Waste Management
- Landscape Design
- Liquid Waste Management
- Material Delivery and Storage
- Material Use
- Mulch Give Away
- Paving and Grinding Operations
- Potable Water/Irrigation
- Preserved Existing Vegetation
- Sanitary/Septic Waste Management
- Scheduling
- Solid Waste Management
- Spill Prevention and Control
- Stockpile Management
- Street Sweeping and Vacuuming
- Vehicle and Equipment Fueling
- Vehicle and Equipment Maintenance
- Waste Oil Recycling Center
- Water Conservation Practices
- Water Trucks
- Wind Erosion Control

Attachment P identifies the MCMs/institutional BMPs required by the MS4 Permit and summarizes the existing and planned implementation by RH/SGRWQG members. The new MCMs/institutional BMPs that were not required as part of the 2001 MS4 Permit, but are required as part of the current (2012) MS4 Permit, do not need to be implemented until this EWMP has been approved based on Part VI.D.a.b.ii of the MS4 Permit.

3.1.2 Modifying MCMs/Institutional BMPs

Part VI.C.5.b.iv.(1) of the MS4 Permit directs Permittees to assess MCMs to identify opportunities for focusing resources on the water quality priorities identified in **Section 2**. Each Permittee is encouraged to implement the requirements in Parts VI.D.4 through VI.D.10, or may implement customized actions within each category of control measures as set forth in this EWMP, once approved. Permittees can evaluate the MCMs, identify potential modifications that will address water quality priorities, and provide justification for modification or elimination of any MCM that is determined to be ineffective (with the exception of the Planning and Land Development Program, which may not be eliminated or modified). MCM customization may include replacement, reduced implementation, augmented implementation, focused implementation or elimination.

An approach was developed for evaluating MCMs and/or institutional BMPs for customization to better address the water quality priorities. The steps associated with this process are as follows:

Step 1. Summarize the Current MCM Implementation

The current MCM implementation as reported in the 2010-2011 and 2011-2012 LAC Unified Stormwater Annual Reports is summarized in **Attachment O**.

Step 2. Compare Current MCM Implementation to MS4 Permit

The 2001 MS4 Permit MCM requirements are compared to the requirements specified in the 2012 MS4 Permit in **Attachment P**. This comparison, along with the identification of existing MCM elements being implemented, allow for a general assessment of potential gaps in the current programs. In general, the 2001 MS4 Permit and 2012 MS4 Permit requirements are worded differently and contain different specific requirements that cannot easily be compared. Each of the RH/SGRWQG members implements different programs that comply with the same requirements. As part of this approach, each agency performed more specific assessments to determine if they would benefit from MCM customizations.

As shown in **Attachment P**, gaps between the current program implementation under the 2001 MS4 Permit and the 2012 MS4 Permit MCM requirements are primarily in the Planning and Land Development Program, Construction Program, and Public Agency Activities. For instance:

- *Planning and Land Development Program:* Extensive new requirements for LID and hydromodification control.
- *Construction Program:* New requirements for erosion and sediment control procedures, especially for sites less than 1 acre, and for Erosion and Sediment Control Plans (ESCPs).
- *Public Agency Activities:* MCMs for inventory of Permittee-owned facilities, determine retrofit opportunities, assessment of flood management projects, assessment of flood control facilities, demonstration of Integrated Pest Management (IPM), among others.

For the PIPP, Industrial/Commercial Program, and IC/ID Elimination Program, the 2012 MS4 Permit contains some modifications to existing MCMs and additional detail as compared to the 2001 MS4 Permit. One significant change is the elimination of the Principal Permittee which previously implemented the PIPP on behalf of all Permittees. Now each Permittee is individually responsible for the implementation of the PIPP. For these programs, no other significant new program elements are required as in the MCMs listed above. The MCM requirements and existing implementation served as the basis for further evaluation of MCMs.

Step 3. Develop a List of MCMs that are Candidates for Customization

The first step was to develop a list of the MCMs that may be evaluated for customization. There are two parallel approaches for developing the list:

- Identify MCMs that do not address or only partially address the water quality priorities; or
- Identify MCMs that the stormwater program staff would like to eliminate or customize based on implementation experience.

Each of the MCM programs that may be customized through the EWMP were evaluated to determine if the MCM addresses the water quality priorities identified in **Section 2**. In addition, the potential effectiveness of the MCM program regarding the water quality priorities was determined based on program goals, implementation, and experience. The evaluation also took into account the RH/SGRWQG preferences.

Step 4. Evaluate Existing Information and Data to Develop Justifications for MCM Customization

Based on the list of MCMs that were candidates for modification identified in Step 3, potential general approaches or opportunities for MCM customization were identified. Based on the general approaches or opportunities, the RH/SGRWQG members evaluated the customized MCMs to determine if potential modifications were warranted. **Table 3-1** summarizes the potential modifications identified through this approach. The table also includes non-structural control measures in addition to the MS4 Permit defined MCMs. This table only presents potential enhancements and the proposed non-structural control measures are discussed in **Section 3.4**.

Table 3-1 Summary of Potential Non-Structural BMP Enhancements

Potential Modification or Enhancement	Justification
PIPP	
Develop a Grassroots Committee.	Community leaders may have stronger community connections, thus a better platform to provide educational and outreach materials.
Additional school outreach programs.	Sending home in school packets educational materials to help educate the students and individuals in the household.
Industrial/Commercial Facilities Program	
Evaluate operations of industrial facilities inspected to verify whether their operations are subject to IGP.	Identifying activities at industrial/commercial facilities where the Standard Industrial Classification (SIC) code does not require coverage under IGP will require facilities to get coverage and comply with requirements in the IGP.
Development Construction Program	
Recommend monitoring and sampling as part of the Erosion and Sediment Control Plan requirements.	Requiring developer to conduct self-inspections and monitoring will most likely result in more thorough BMP implementation by developers and contractors.
Inspect construction sites where Erosion and Sediment Control Plans have been approved.	
Public Agency Activities Program	
More frequent street sweeping, especially in areas that lack full capture certified trash control devices.	Implementing a more vigorous street sweeping schedule will allow debris to be captured before it can be transported downstream.
Utilize regenerative air vacuum equipment for street cleaning in land use areas that generate high metals loads.	Vacuum street cleaners are more effective at removing metals compared to sweepers.
Set maximum street sweeper speeds to optimize effectiveness in removing trash, debris, and sediments.	Traveling at speeds recommended by street sweeping manufacturers will improve the sweeping effectiveness at removing pollutants.
Sweeping center median gutters, and "pork chop" islands at street intersections.	Sweeping areas that are not normally swept may capture additional pollutants.
Revise curb miles cleaned as an indicator to volume of trash collected.	Volume of trash collected provides a better indication of the program effectiveness.
Enhanced maintenance of catch basins, especially those with connector pipe screens.	Enhanced maintenance will prevent sediments and debris from accumulating and traveling downstream.

Table 3-1 Summary of Potential Non-Structural BMP Enhancements	
Potential Modification or Enhancement	**Justification**
IC/ID Program	
Municipal Codes that include enforcement action such as the issuance of Notice of Violations (NOVs) for illicit connections.	Utilizing violations will give the RH/SGRWQG a greater presence and the threat of a penalty may have a greater influence over developers and others.
Municipal Codes that require follow up inspections within ten days for illicit connections.	Implementing a time schedule for follow up inspections will ensure that the cleanup is completed in a timely manner.
Abatement and cleanup required within one day of discovery.	Current procedures allow for up to 72 hours, therefore a quicker response will positively correlate to a lower load contribution.
Other Institutional BMPs	
Enhanced Irrigation Control	
Promote replacement of grass with xeriscape vegetation.	Installing artificial turf and/or drought tolerant plants, or installing weather based irrigation controllers, will conserve water and reduce runoff associated with irrigation which is often the source of dry-weather flows, which are often the most concentrated with pollutants.
Promote replacement of grass with drought tolerant native plant species.	
Outreach that focuses on the installation of weather based irrigation controllers.	
Perform landscape irrigation audits.	Actions that require residents to become aware of their water usage as well as limiting it may reduce the amount of irrigation occurring, thus reducing runoff due to excess irrigation.
Implement water budgets.	
Inform residents on other types of BMPs or irrigation equipment that may be utilized.	
Downspout Disconnection Program	
Implement a downspout disconnect program.	Implementing a downspout disconnect program will promote water conservation and reuse, by capturing stormwater runoff for irrigation use, thus reducing the volume of water reaching the storm drain system.

3.1.3 Approaches to Additional Non-Stormwater Discharge Control Measures

Non-stormwater discharge is often the most polluted, as it is highly concentrated from an activity that generally consists of washing down something or over irrigating. In an attempt to capture what is referred to as the "first flush," water quality requirements often include the mitigation of the 85th percentile, 24-hour storm event or the 0.75-inch storm event, such as regional EWMP projects and SUSMP/LID projects. MCMs and other institutional BMPs are in place in an attempt to reduce non-stormwater discharges as well. Control measures are proposed to address large storm volumes generated within the RH/SGRWQG and it is safe to assume that the proposed control measures will also address non-stormwater discharges within those drainage areas. An analysis was performed to quantify the anticipated load reduction through the implementation of wet-weather controls, which is summarized in **Section 4.2**. Non-stormwater discharges throughout the RH/SGRWQG that are not addressed with wet-weather controls will be addressed through the CIMP non-stormwater discharge source assessment.

3.2 Structural BMPs

As part of the EWMP development process, BMPs that are considered sufficient in addressing water quality priorities and achieving compliance with MS4 Permit WQOs are identified. Structural BMPs vary in function and type, with each BMP providing unique design characteristics and benefits from implementation. The overarching goal of BMP implementation as part of the EWMP process is to reduce the impact of stormwater and non-stormwater flows on receiving water quality. This subsection focuses on the structural BMPs assessed and selected for future consideration to address the water quality priorities and demonstrate compliance through the RAA.

3.2.1 Categories of Structural BMPs

Regional and distributed BMPs are separated into subcategories as shown in **Table 3-2**. These categories are used to compile and describe information on existing, planned, potential, and proposed BMPs. The nomenclature was important for engaging stakeholders as the EWMP was developed.

Table 3-2 Summary of Structural BMP Categories and Major Functions

Category	Subcategory	Example BMP Types
Regional[1]	Infiltration	Surface infiltration basin, subsurface infiltration gallery
	Detention	Surface detention basin, subsurface detention gallery
	Constructed Wetland	Constructed wetland, flow-through/linear wetland
	Treatment Facility	Facilities designed to treat runoff from and return it to the receiving water
	Low Flow Diversion	Facilities designed to divert dry-weather flows to the sanitary sewer, or in some cases, to spreading grounds
Distributed	Site-Scale Detention	Dry detention basin, wet detention pond, detention chambers, etc.
	Green Infrastructure	**Bioretention** and **biofiltration** (vegetated practices with a soil filter media, and the latter with an underdrain)
		Permeable pavement
		Green streets (often an aggregate of bioretention/biofiltration and/or permeable pavement)
		Infiltration BMPs (non-vegetated infiltration trenches, dry wells, rock wells, etc.)
		Bioswales (vegetative filter strips or vegetated swales)
		Rainfall harvest (green roofs, cisterns, rain barrels)
	Flow-Through Treatment BMP	Media/cartridge filters, high-flow biotreatment filters, etc.
	Source Control Treatment BMPs	Catch basin inserts, screens, hydrodynamic separators, trash enclosures, etc.

[1] The term "Regional BMP" does not necessarily indicate the project can capture the 85th percentile storm, as used in the MS4 Permit. The term "Regional EWMP Projects" indicates those regional BMPs that are able (or expected to be able) to capture the 85th percentile storm.

The BMP performance functions that drive BMP performance are presented in each BMP Fact Sheet in **Attachment E**. The three major BMP functions for structural BMPs are infiltration, water quality treatment, and storage, as follows:

Infiltration: Runoff is directed to percolate into the underlying soils. Volume reduction and groundwater recharge occur in infiltration practices.

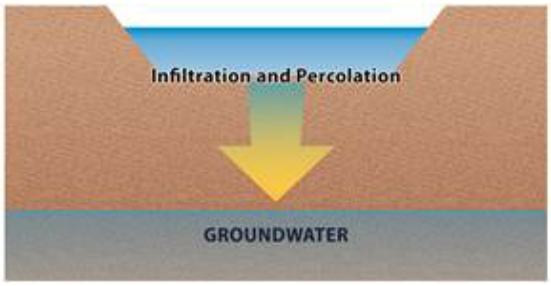


Figure 3-3 Conceptual Diagram Illustrating Infiltration

Storage: Runoff is captured, stored (detained), and slowly released into downstream waters. Storage can reduce the peak flow rate from a site but does not directly reduce runoff volume.

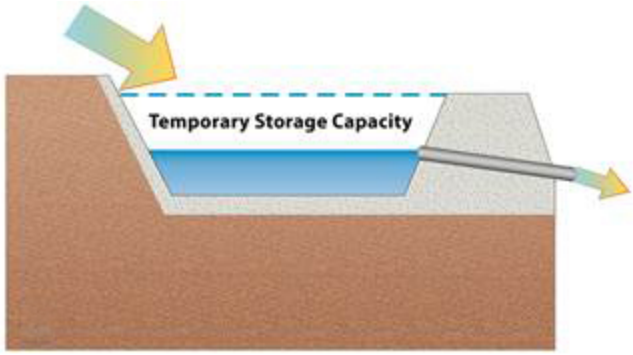


Figure 3-4 Conceptual Diagram Illustrating Storage

Water Quality (WQ) Treatment: Pollutants are removed through various unit processes, including filtration, settling, sedimentation, sorption, straining, and biological or chemical transformations.

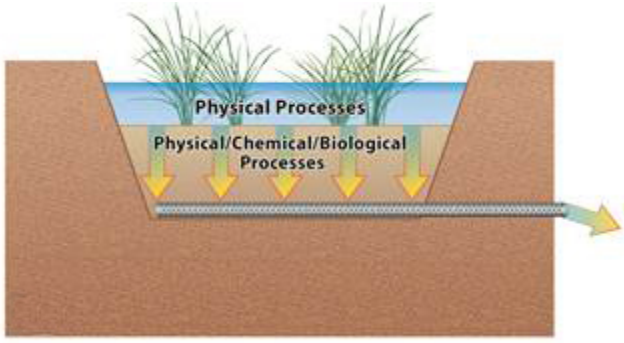


Figure 3-5 Conceptual Diagram Illustrating Water Quality Treatment

The preceding BMP functions were incorporated into relative performance gauges (**Figure 3-6**) to graphically represent the functions achieved by each BMP subcategory. Relative performance gauges are used in the BMP Fact Sheets, which are found in **Attachment E**. The circles represent the relative magnitude and range of each performance function for the particular BMP, in order to allow for comparison among different BMP types.

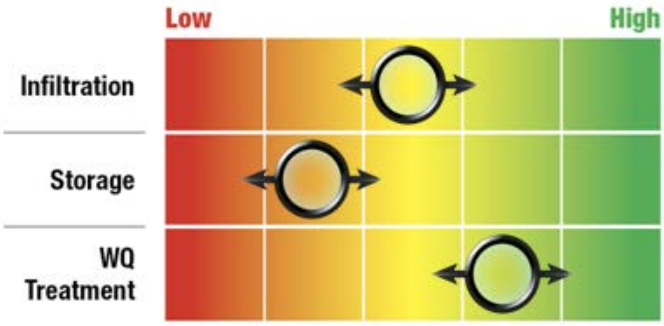


Figure 3-6 Example Relative Performance Gauge for Structural BMPs

Regional BMPs are constructed structural practices intended to treat runoff from a contributing area of multiple parcels (normally on the order of 10s or 100s of acres or larger). Regional practices include infiltration facilities that promote groundwater recharge and detention facilities that encourage settling. Infiltration and detention regional BMPs can be either constructed as open-surface basins or subsurface galleries. Regional practices also include constructed wetlands, which use engineered wetland environments to encourage pollutant removal, treatment facilities, which use conventional wastewater treatment processes to target pollutants of concern (POC), or low flow diversions, which divert flows to the sanitary sewer. Regional BMP Fact Sheets are found in **Attachment E**, and include the following BMPs:

- Infiltration facilities
- Detention facilities
- Constructed wetlands
- Treatment facilities

Distributed BMPs are constructed structural practices intended to treat runoff relatively close to the source and typically implemented at a single- or few-parcel level (normally less than one acre). As described in the BMP Fact Sheets, found in **Attachment E**, distributed BMPs include the following subcategories:

- Site-scale detention facilities
- Green infrastructure
- Flow-through treatment BMPs
- Source control structural BMPs

A major subcategory of distributed BMPs is green infrastructure. The MS4 Permit specifies that EWMPs should "incorporate effective technologies, approaches and practices, including green infrastructure." The primary goal of distributed green infrastructure BMPs is to intercept and treat runoff near its source using resilient natural systems. As opposed to traditional gray infrastructure, green infrastructure relies on contact between runoff, soils, and vegetation to accomplish volume and pollutant reduction. Green infrastructure has been shown to cost-effectively reduce the impacts of wet-weather flows while also reducing BMP maintenance requirements (Kloss et al. 2006). In addition, green infrastructure can provide multiple benefits to the surrounding community, including increased property values, increased enjoyment of surroundings and sense of well-being, increased safety, and reduced crime rate (Ward et

al. 2008; Shultz and Schmitz 2008; Wolf 2008; Northeastern Illinois Planning Commission 2004; Hastie 2003; Kuo 2003; Kuo et al. 2001a; Kuo et al. 2001b; Wolf 1998).

Structural BMPs incorporated into the green infrastructure subcategory include the following, as described in the BMP Fact Sheets:

- Bioretention and biofiltration
- Permeable pavement
- Green streets
- Bioswales
- Infiltration BMPs
- Rainfall harvest (green roofs, cisterns, and rain barrels)

3.2.2 Summary of Existing Structural BMPs

The following sources were used to compile information on existing control measures, including MCMs and BMP programs already in effect for each of the participating RH/SGRWQG members:

- Standard Urban Stormwater Mitigation Plan (SUSMP) plan check records
- 2011-2012 Unified Annual Stormwater Report
- Integrated Regional Watershed Management Plan (IRWMP) documents
- Amigos de los Rios website
- RH/SGRWQG NOI for development of an EWMP

Three existing regional BMP projects were identified within the RH/SGRWQG EWMP area and are discussed below. Existing projects include projects that were constructed prior to 2012, as the water quality measured in 2012 serves as the baseline water quality which controls implementation efforts. The three projects are illustrated in **Figure 3-7** and a detailed summary is included in **Attachment F**. A total of 74 existing distributed BMP projects were identified and are summarized in **Table 3-3** and illustrated in **Figure 3-8**. A detailed list of distributed BMPs is provided in **Attachment G**. In addition, the 2011-2012 Unified Annual Stormwater Report was reviewed and a summary of the reported BMPs, categorized based on the categorization described in **Table 3-2**, is in **Attachment H**. The summary was created based on the following assumption: the number of existing BMPs is the number of BMPs reported as maintained in 2011-2012.

Table 3-3 Summary of Existing Distributed BMPs

Jurisdiction	Number of Existing Distributed BMPs Reported by Jurisdiction									
		Green Infrastructure								
	Site-Scale Detention	Bioretention/ Biofiltration	Permeable Pavement	Green Street	Bioswale	Infiltration BMPs	Rainfall Harvest	Flow-Through Treatment BMP	Source Control Structural BMP	Unknown
LA County	--	4	--	--	--	--	6	--	6	3
Arcadia	--	--	--	--	--	--	2	--	1	1
Azusa	--	2	1	--	--	11	1	--	10	2
Bradbury	--	--	--	--	--	--	--	--	--	--
Duarte	--	--	--	--	--	--	1	--	2	1
Monrovia	--	--	--	--	--	8	--	--	2	10
Sierra Madre	--	--	--	--	--	--	--	--	--	--
Total:	**0**	**6**	**1**	**0**	**0**	**19**	**10**	**0**	**21[1]**	**17[1]**

Sources: City of Arcadia Plan Check Approvals, City of Monrovia SUSMP Records, Los Angeles County LID Developments GIS data, IRWMP, and RH/SGRWQG NOI

[1] Total does not match total illustrated in **Figure 3-8** because geographical information is not available.

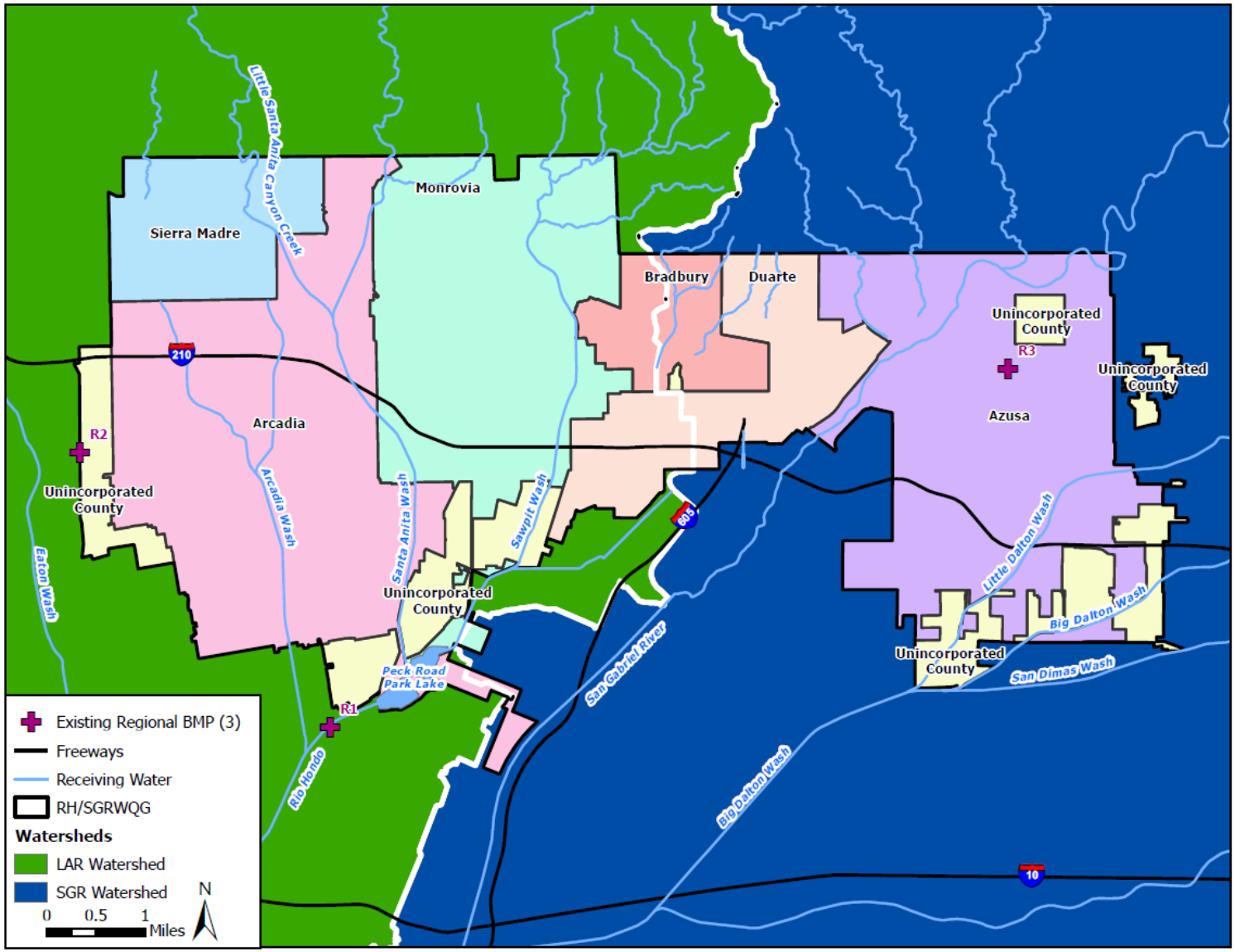


Figure 3-7 Existing Regional BMPs

Notes: BMPs with no spatial data are not shown. Numbering corresponds with project ID numbers listed in **Attachment F**.

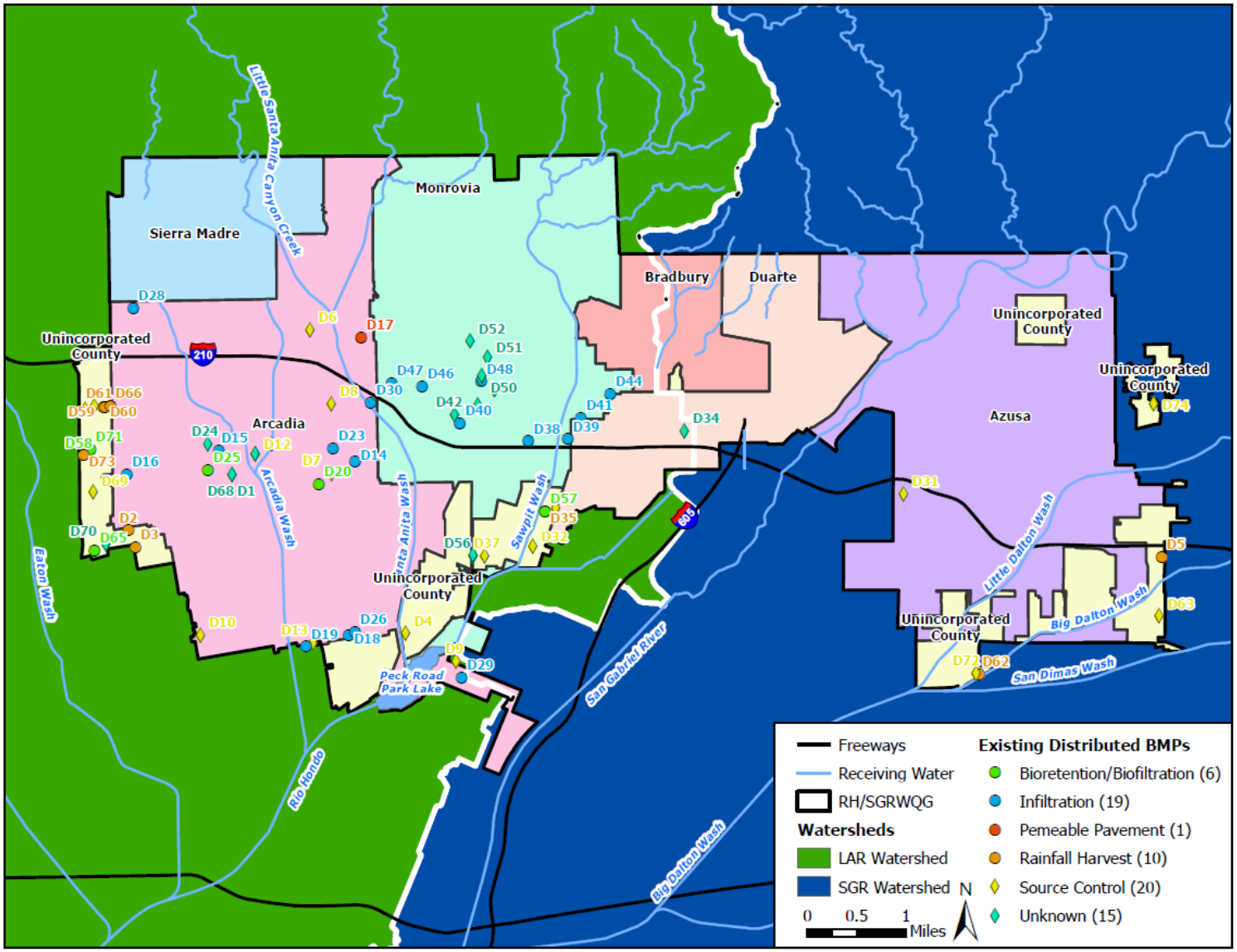


Figure 3-8 Existing Distributed BMPs

Notes: BMPs with no spatial data are not shown. Numbering corresponds with project ID numbers listed in **Attachment G**.

BMPs, including regional BMP projects, implemented prior to the baseline pollutant loads being used for the RAA calibration are considered part of the baseline, while those that were implemented after the baseline pollutant loads were established can be modeled in the RAA to demonstrate a load reduction. Three regional projects have been implemented by the RH/SGRWQG. The projects must be evaluated to determine if they meet EWMP criteria prior to determining if credit can be taken for water quality improvement. Part VI.C.1.g of the MS4 Permit states that wherever feasible, EWMP groups, such as the RH/SGRWQG, should identify and implement regional multi-benefit projects that retain (i) all non-stormwater runoff and (ii) all stormwater runoff from the 85th percentile, 24-hour storm event for the drainage area tributary to the project. The Rio Hondo Trail Enhancements Project, Rosemead Boulevard Improvement Project, and San Gabriel Forest Gateway Interpretive Center Project were constructed following the pollutant load baseline determination. These projects were evaluated to determine if credit towards load reduction from baseline conditions could be used to demonstrate compliance. These projects were identified in planning documents as described in **Section 3.2.3** and were identified as already being constructed or in the construction phase. Each of the projects provides water quality benefits, but not enough information was available to quantify those benefits such that credit could be taken towards demonstrating compliance in the RAA.

Rio Hondo Trail Enhancements

According to the Amigos de los Rios website, the Rio Hondo Trail Enhancement project was completed in 2013. The project included the greening and installation of new gates and signage along 2.1 miles of trail located on the east bank of the Rio Hondo, from Lower Azusa Road to Peck Water Conservation Park. The project incorporated the use of native plants and shrubs, permeable paving, and bioswales. These distributed BMPs enhance runoff water quality in the project area vicinity, but the overall water quality benefits of the project could not be assessed with the limited information available.

Rosemead Boulevard Improvement Project

The Rosemead Boulevard Improvement Project was proposed in late 2007 and completed in February 2012, prior to the issuance of the 2012 MS4 Permit. The project represents the first LAC road to incorporate water quality enhancements. The project incorporated 2.5 miles of roadway improvements along Rosemead Boulevard between Foothill Boulevard and the Temple City boundary. Improvements included, but were not limited to, median landscaping, decorative street lights, tree planting, utility undergrounding, and bioswales. The project installed 1,712 feet of bioswales, contributing to the capture and retention of runoff generated within the project's drainage area (Green Street, 2013).

San Gabriel Forest Gateway Interpretive Center

In 2008, the Forest Gateway Interpretive Center was constructed in coordination with Amigos de los Rios. The San Gabriel Canyon Forest Gateway is a 2.5-acre pocket park and interpretive center in Azusa that provides a unique interface between urban and Angeles National Forest environments marking the entrance to the National Forest. The project is part of Amigos de los Rios efforts to support the Emerald Necklace of East LAC and to make

a greener Los Angeles. The project incorporated various bioswales and utilized native plants and trees. Bioswales remove sediment-associated pollutants by settling and straining and improve water quality. The project received funding from Proposition A.

3.2.3 Planned Structural BMPs

Part VI.C.1.g of the MS4 Permit states that wherever feasible, EWMP groups, such as the RH/SGRWQG, should identify and implement regional multi-benefit projects that retain (i) all non-stormwater runoff and (ii) all stormwater runoff from the 85th percentile, 24-hour storm event for the drainage area tributary to the project. In drainage areas within the EWMP area where retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP must include an RAA to demonstrate that applicable WQBELs and RWLs will be achieved through the implementation of other watershed control measures including regional projects, enhanced MCMs, and distributed BMPs. Previously identified regional projects were identified and evaluated to determine if they would or could meet the above criteria. Documents were also reviewed to identify planned distributed BMPs.

The following documents and websites were reviewed to find previously identified structural BMP projects that address water quality:

- 2006 San Gabriel River Corridor Master Plan
- 2010 Multi-Pollutant TMDL Implementation Plan for the Unincorporated County Area of the Los Angeles River Watershed
- Amigos de los Rios website
- OPTI, part of the Greater Los Angeles County (GLAC) IRWMP online project database
- Los Angeles County Clean Water, Clean Beaches online project database
- Council for Watershed Health website
- Other local news articles

These reference documents include broad concepts, outlining the steps necessary to improve water quality. Recommendations include various BMP types for a range of different conditions; however, some documents do not provide specific BMP details to determine if they would meet EWMP project criteria as presented. Other references identify specific projects and locations, however insufficient detail is provided to evaluate if the project will retain all non-stormwater runoff and stormwater runoff from the 85th percentile, 24-hour storm event. Potential regional BMP projects introduced in the above references are in varying stages of planning, design, construction, or in some instances have already been constructed as identified in **Section 3.2.2**. In addition, valuable information was obtained from OPTI and the Los Angeles Clean Water, Clean Beaches online project databases.

The Implementation Plans relevant to the RH/SGRWQG TMDLs were reviewed in an effort to identify planned projects The planned regional projects identified were evaluated to determine if they satisfy regional EWMP project criteria. If implemented, the drainage areas tributary to projects that satisfy the regional EWMP project criteria will be in compliance with WQOs and those that do not will be modeled in the RAA to incorporate load reductions. Identified projects are listed in **Attachment I** and illustrated in **Figure 3-9**. The list of planned regional projects includes projects that are located downstream of the RH/SGRWQG EWMP area and adjacent to the Rio Hondo or SGR, as the group may be able to benefit from these projects.

Projects identified in **Attachment I** were evaluated to determine if they satisfied the regional EWMP project criteria specified in Part VI.C.1.g of the MS4 Permit or if they provide substantial water quality benefits. Each of the projects has the potential to be designed in a manner which incorporates water quality benefits. However, there is not enough information available to determine if these projects will satisfy EWMP criteria as presented. While regional projects are still in the planning phase, it is possible to modify concepts and designs to incorporate water quality and multi-use benefits to meet the EWMP

criteria. If the RH/SGRWQG decides to pursue these projects in the future, the concepts will be further investigated to determine if they satisfy EWMP criteria. If they do not, a feasibility study will be performed to determine how they could be modified. The following four projects exhibited the greatest potential of the planned regional BMP projects to possibly satisfy the regional EWMP project criteria:

- Buena Vista Wetlands
- Hugo Reid Park Infiltration Basin Project
- Monrovia Station Square Project
- Whittier Narrows Park Project

The Buena Vista Wetlands and Hugo Reid Park Infiltration Basin project sites were evaluated as part of the regional project screening further detailed in **Section 3.2.4**. Monrovia Station Square was recently improved and includes distributed water quality improvements (see discussion below); therefore, it was not evaluated as a regional EWMP project. The Whittier Narrow Park Project would benefit the RH/SGRWQG; however, the site is located outside the Group's jurisdiction. This site was not further evaluated for regional EWMP project implementation as part of the RH/SGRWQG EWMP.

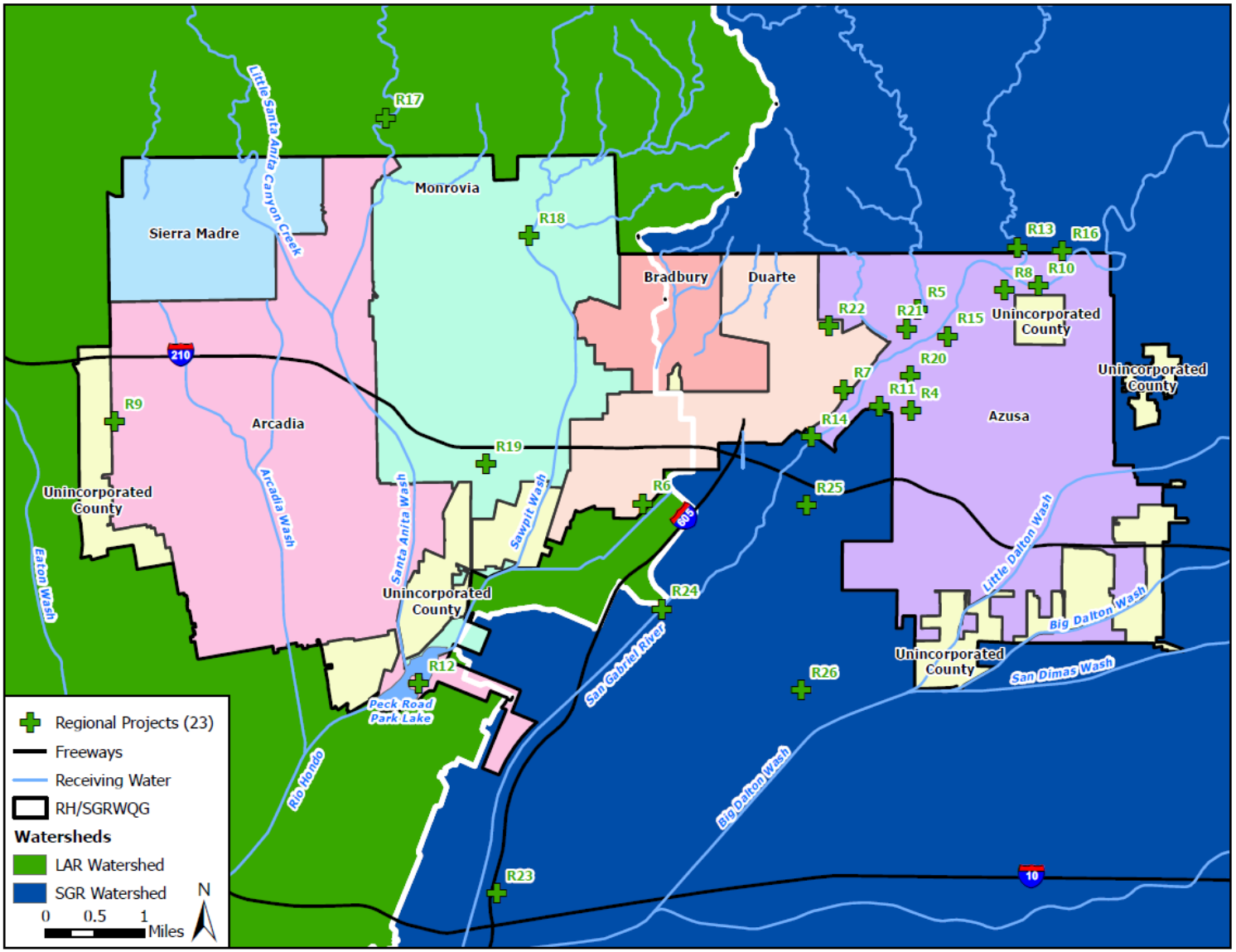


Figure 3-9 Regional BMPs Identified in Planning Documents

Notes: BMPs with no spatial data are not shown. Numbering corresponds with project ID numbers listed in **Attachment I**.

A total of four planned distributed BMP projects were identified and include:

- Azusa River Wilderness Park (City of Azusa)
- Metro Gold Line Infiltration Project (City of Azusa)
- Monrovia Station Square/Transit Village Multi-Benefit Park and Greenway Project (City of Monrovia)
- Santa Anita Park and Shopping Mall Parking Lot BMP (City of Arcadia)

Additionally, the Cities of Arcadia, Bradbury, Duarte, and Monrovia plan to implement full capture trash source control structural BMPs in all areas tributary to the Rio Hondo to comply with the Los Angeles River Trash TMDL. The City of Azusa also plans on implementing full capture trash source control structural BMPs throughout the City.

The planned distributed BMPs are illustrated in **Figure 3-10** and listed in **Attachment J**. In addition to the identified planned distributed BMP projects, the SUSMP requires post-construction structural or treatment control BMPs for new development and redevelopment. In addition, the Planning and Land Development Program in Part VI.D.7 of the MS4 Permit requires implementation of LID and Hydromodification Control BMPs, such as green streets, which are designed to minimize the percentage of impervious surfaces through infiltration, evapotranspiration (ET), and rainfall harvest and use. As development and redevelopment occur, additional structural BMPs will be constructed in accordance with the SUSMP and Planning and Land Development Program to treat or retain the runoff from public and private parcels.

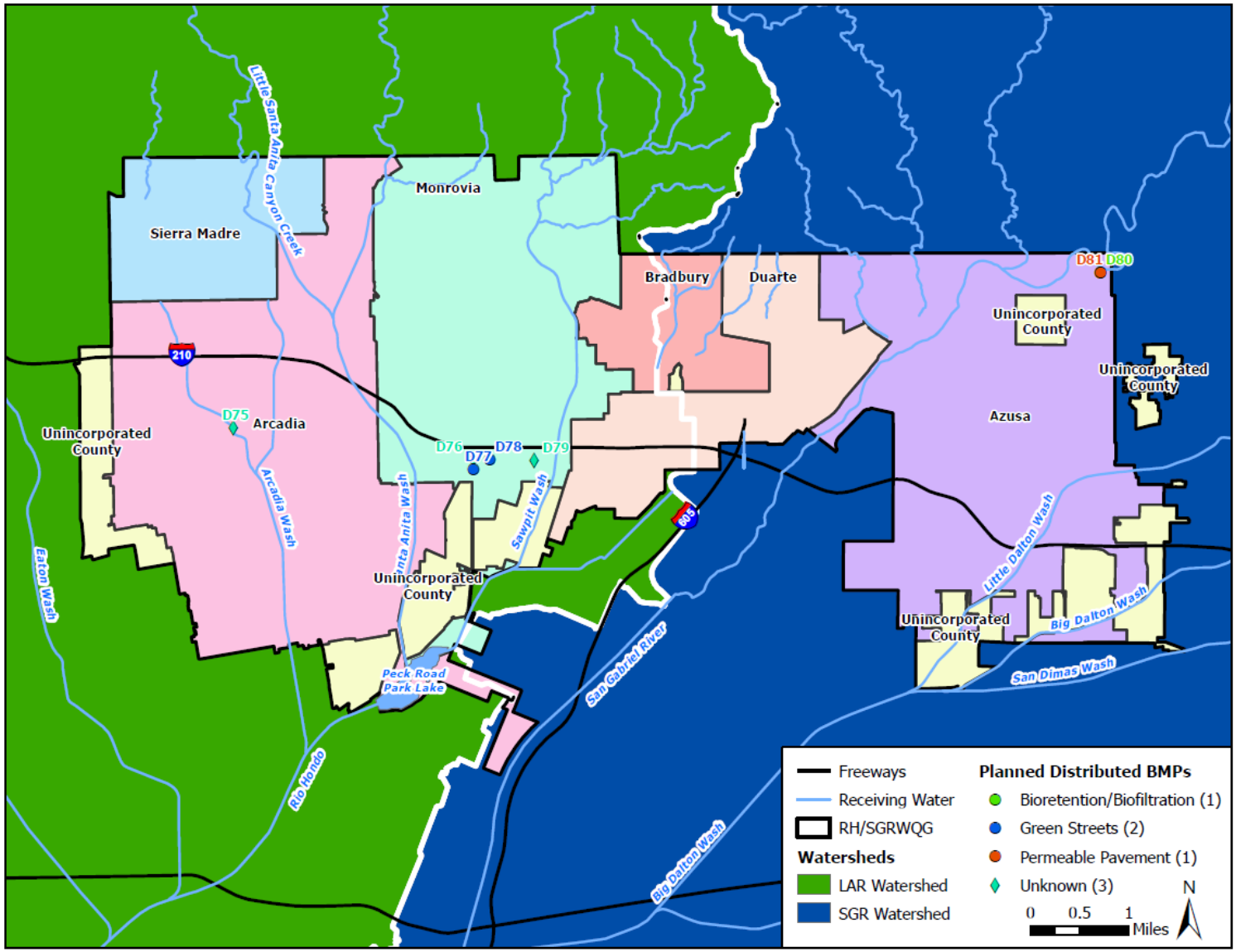


Figure 3-10 Planned Distributed BMPs

Notes: BMPs with no spatial data are not shown. Numbering corresponds with project ID numbers listed in **Attachment J**.

3.2.4 Identifying and Selecting Multi-Benefit Regional Projects

This section presents the approach and process used to identify and select regional projects, including, but not limited to regional EWMP projects. The approach was utilized to identify and screen preferred regional stormwater enhancement projects and support the evaluation of projects that will meet the objectives of the MS4 Permit. The process includes:

1. Compilation and evaluation of regional BMPs from existing planning documents;
2. Identification of additional regional BMPs/project sites;
3. Evaluation of all regional BMPs/project sites; and
4. Recommended projects for implementation.

This approach includes a Geographic Information System (GIS)-based assessment of publicly and privately-owned properties containing sufficient open space (e.g., large parking lots) and other conditions suitable to support a regional stormwater enhancement project. A ranking system was developed and used to screen each potential project sites using the same criteria. Both regional BMP and regional EWMP projects were identified using this process. Regional EWMP projects are able to retain all non-stormwater runoff and stormwater runoff generated by the 85th percentile, 24-hour storm event, whereas regional BMP projects are those stormwater enhancement projects that do not meet the EWMP criteria, but still provide regional water quality benefits. Regional BMP projects are constructed structural BMPs intended to collect and treat runoff from a contributing drainage area composed of multiple parcels, normally on the order of 10s or 100s of acres.

Potential project locations initially included open spaces, whether they are within parks, schools, large parking lots, or golf courses. These sites were identified using available aerial imagery and by utilizing available land use data, which includes these land use classifications. A GIS-based approach allowed the use of both aerial imagery and available map datasets. Once open areas were identified, the potential project sites were further refined and considered input from the group and interested stakeholders.

A GIS model was used to manage spatial data needed for the identification and screening of potential regional projects within the RH/SGRWQG area. Compiled data was used to support the prioritization of potential projects based on location specific criteria supporting the need and project implementation feasibility. The GIS analysis evaluated data critical in identifying high priority catchments, corresponding to those used for the RAA, for regional BMP installation within a watershed, such as land use, pollution generation, hydrology, topography, parcel ownership, existing storm drain flow direction, and infrastructure integration opportunities. The following subsection provides additional details on how this methodology was utilized to identify and rank potential project sites.

3.2.4.1 Potential Regional Project Sites

A list of potential regional BMP project locations within the RH/SGRWQG area was developed utilizing the approach described above. Using GIS land use layers and aerial imagery, several potential project sites were identified. The project sites were identified based on open space and their proximity to receiving water/MS4 infrastructure. Other criteria were evaluated during this phase, and the potential project sites identified represent the long list of potential locations that were narrowed down by using the ranking system described in the following section. The areas identified as potential project sites for regional BMPs within the RH/SGRWQG area are illustrated in **Figure 3-11**.

Based on a preliminary visual screening, the considered site size, proximity to a stormwater conveyance system, and location within the watershed, a list of projects to be further evaluated was determined. The list also includes project sites that were identified by members of the group and interested stakeholders. The 41 sites that were analyzed in greater detail are illustrated in **Figure 3-12** and listed in **Table 3-4**.

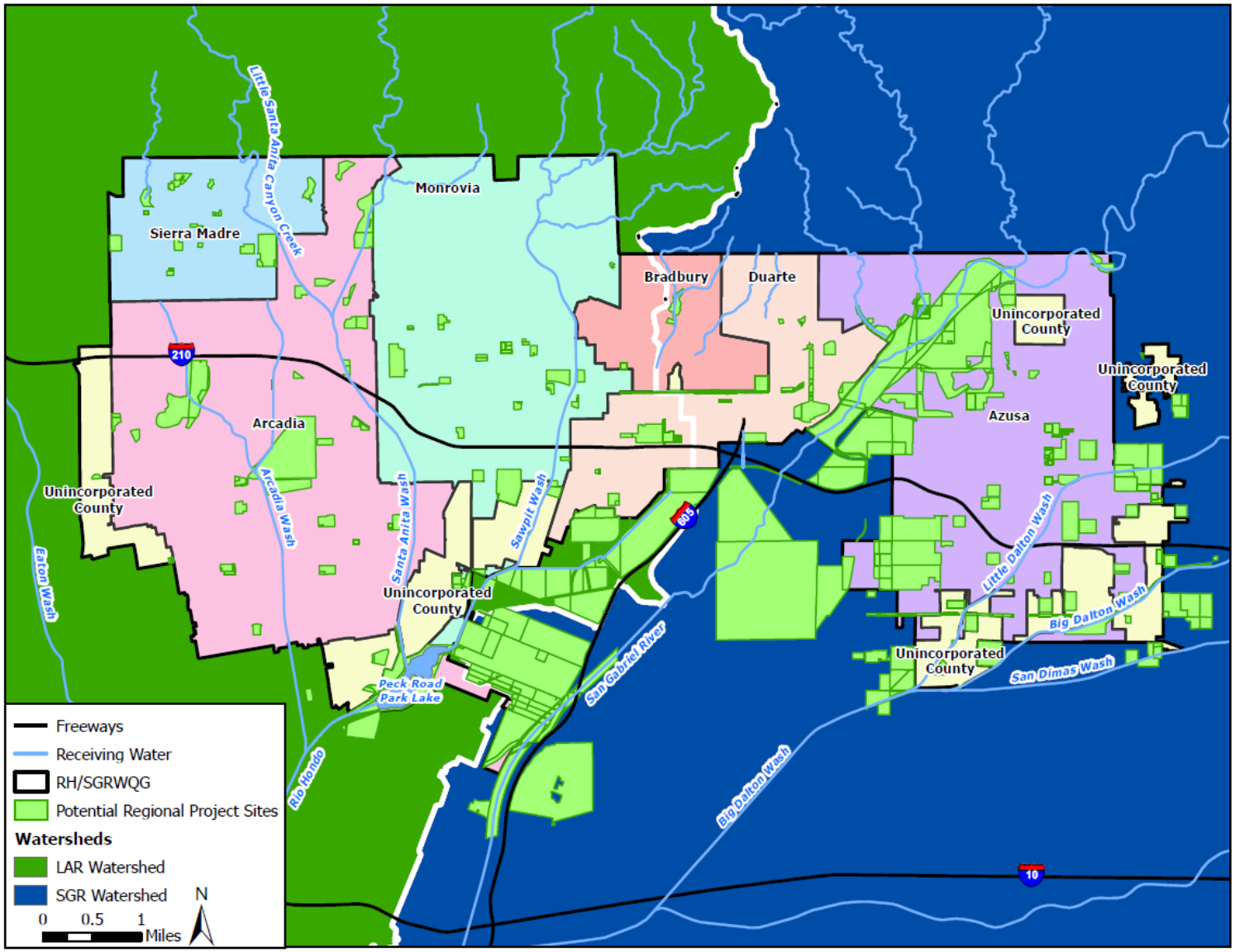


Figure 3-11 Potential Regional Project Sites within the RH/SGRWQG Area

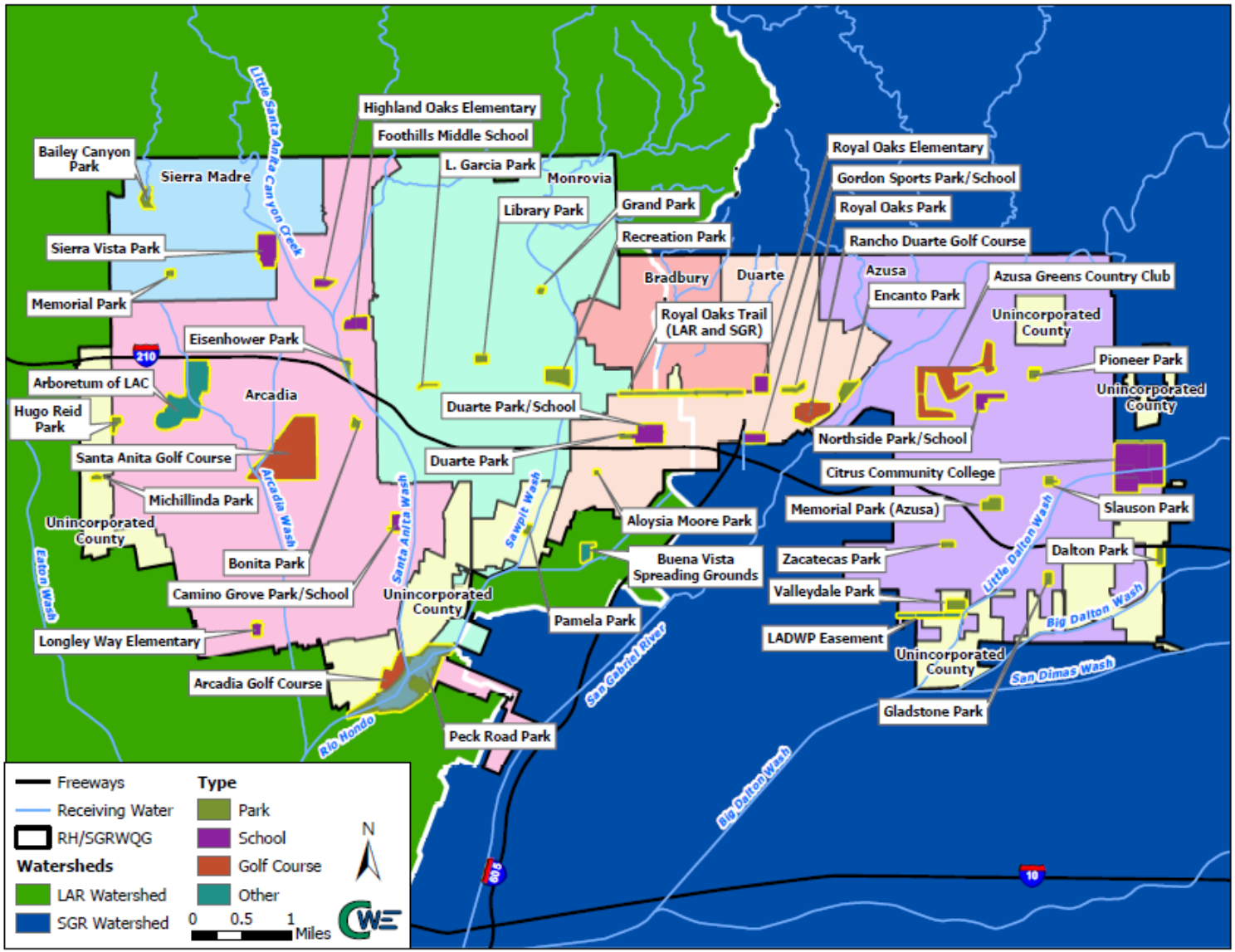


Figure 3-12 Potential Regional Project Sites Analyzed within the RH/SGRWQG Area

Table 3-4 Potential Regional Project Sites

- **Parks**
  - Aloysia Moore Park
  - Bailey Canyon Park
  - Bonita Park
  - Dalton Park
  - Duarte Park
  - Eisenhower Park
  - Encanto Park
  - Gladstone Park
  - Grand Park
  - Hugo Reid Park[1]
  - L. Garcia Park
  - Library Park
  - Memorial Park (Azusa)
  - Memorial Park (Sierra Madre)
  - Michillinda Park
  - Northside Park
  - Pamela Park
  - Peck Road Park
  - Pioneer Park
  - Recreation Park
  - Royal Oaks Park
  - Sierra Vista Park
  - Slauson Park
  - Valleydale Park
  - Zacatecas Park
- **Golf Courses**
  - Arcadia Golf Course*
  - Azusa Green Country Club
  - Rancho Duarte Golf Course
  - Santa Anita Golf Course*
- **Educational Facilities**
  - Camino Grove Park/School
  - Citrus Community College
  - Duarte Park/School
  - Foothills Middle School
  - Gordon Sports Park/School
  - Highland Oaks Elementary
  - Longley Way Elementary
  - Royal Oaks Elementary
- **Other Open Spaces**
  - Arboretum of LAC*
  - Buena Vista Spreading Grounds[1]
  - Los Angeles Department of Water and Power (LADWP) Easement
  - Royal Oaks Trail

* More than one alternative for site was evaluated

[1] Previously planned projects as described in **Section 3.2.3** (from existing implementation plans)

3.2.4.2 Project Screening

A system scaled from one to ten is utilized for scoring each of the ranking criteria with the best sites having the highest scores. Additionally, a weight coefficient is assigned to each criterion to make some criteria more influential in the overall ranking process. The definition of the ranking criteria used, scoring system developed, available information used for project evaluation, and the weight coefficient of each of the criteria is discussed in this section so it is clear how the results of the Regional BMP Projects Worksheet (included in **Attachment K**) were derived. The ranking criteria used to evaluate and screen projects are listed below.

- General Criteria
  - Proximity to receiving water/MS4 infrastructure
  - Ownership
  - Size of catchment area
  - Size of opportunity site
  - Jurisdictions
  - Catchment area land use and likely pollutants
  - Multi-use opportunities and connectivity

  - Funding opportunities
  - Local knowledge
- Underlying Soil Conditions Criteria
  - Seasonal high groundwater table depth
  - Proximity to groundwater production wells
  - Pollutants in soil or groundwater
  - Geotechnical hazards
  - Soil type

Table 3-5 summarizes the scoring system and weight of each of the criteria. Additional details are provided below.

Table 3-5 Ranking Criteria, Weight, and Scoring System Summary

Ranking Criteria	Weight	Scoring System (10 being best)									
		1	2	3	4	5	6	7	8	9	10
General Criteria											
Proximity to receiving water/MS4 infrastructure	**1**			> 1000 ft Surface		500-1000 ft		100-500 ft			< 100 ft
Ownership[1]	**3**	Private									Public
Size of catchment area	**1**	Currently not used									
Size of opportunity site	**3**	> 100%	80-100%		50-80%		30-50%		10-30%	5-10%	0-5%
Jurisdictions	**1**				1			2			3+
Catchment area land use and likely pollutants	**2**		< 20%			20-50%			50-80%		> 80%
Multi-use opportunities	**1**	Currently not used									
Funding opportunities	**1**					Potential funds			Potential partners/ funding		Already looking into it
Local knowledge	**2**	Varies based on local knowledge									
Underlying Soil Conditions Criteria											
Seasonal high groundwater table depth	**1**					> 30 ft					< 30 ft
Proximity to groundwater production wells	**1**					< 200 ft					> 200 ft
Pollutants in soil or groundwater	**1**	Superfund site[2]				2+ GT[3] sites			1 GT[3] site		0 GT[3] sites
Geotechnical hazards	**1**		Liq[4] and fault hazards			Liq[4] or fault hazards					No hazards
Soil type	**1**		> 0.9		0.8-0.9		0.6-0.8		0.4-0.6		< 0.4

[1] Schools scored zero (0)
[2] Superfund sites automatically eliminated
[3] Geotracker
[4] Liquefaction

Proximity to Receiving Water/MS4 Infrastructure

Definition

The "Proximity to Receiving Water/MS4 Infrastructure" criterion is beneficial to determining which regional projects are near a stormwater conveyance system so that runoff can be easily diverted and captured for infiltration. Potential project sites near a receiving water and/or MS4 infrastructure are more likely to be feasible to implement and less costly to divert runoff. In addition to proximity, it is preferred that the potential regional project sites are downstream of the conveyance system so that gravity systems can be used to capture and divert runoff.

Scoring System

The potential project sites located in close proximity to MS4 infrastructure received higher scores, as shown in **Figure 3-13**, because diversion is likely to be less costly due to lower pipe quantities and trenching lengths. The cost is also likely to be less due to shallower systems which require less excavation. Sites that are located upstream of MS4 infrastructure were classified as surface flow and received lower scores as these scenarios are often associated with higher construction costs and may cause more disruption around the project site which is seen as an inconvenience to the public.

Figure 3-13 Scoring System for Proximity to Receiving Water/MS4 Infrastructure

Weight Coefficient

A weight coefficient of one was given to this criterion.

Available Information

ArcGIS was used to determine the proximity to receiving water/MS4 infrastructure for each of the potential project sites. Data layers available online for LAC, along with other data provided by the group, were used to determine the location of existing infrastructure. Measurements were taken from the side of the potential project parcel closest to the adjacent conveyance system.

Ownership

Definition

The "Ownership" ranking criterion is noteworthy because potential project sites located on private property would be extremely expensive to implement; therefore, utilizing publically owned land represents a more feasible option.

Scoring System

The potential project sites located on publically owned parcels are given high scores and privately owned parcels are given low scores, as shown in **Figure 3-14**. Potential project sites located within schools are given a zero because extensive coordination would be involved and the Division of the State Architect (DSA) does not typically approve long-term infiltration projects on school properties.

Figure 3-14 Scoring System for Ownership

Weight Coefficient
A weight coefficient of three was given to this criterion to emphasize the benefits and cost savings associated with implementing projects on public property. Additionally, the weight coefficient helps lower the score of the projects associated with schools to emphasize the difficulty working with DSA, especially on infiltration projects.

Available Information
Assessor parcel maps available on the LAC, Office of the Assessor website were used to verify the ownership of the potential project parcels. During preliminary screening, ownership was assumed based on land use types (i.e., parks are generally publically owned, etc.); therefore, most of this information was known through the initial GIS screening. In the RH/SGRWQG area, it is common to find schools with adjacent parks and playgrounds. In these cases the parks are used by the school and therefore would require similar requirements and approval from the DSA.

Size of Catchment Area

Definition
The "Size of Catchment Area" ranking criterion was originally intended to measure and score the size of the catchment area tributary to the potential project. Other ranking criteria already take into account the size of the catchment, for example, the "Jurisdictions," "Size of Opportunity Site," and "Catchment Area Land Use and Likely Pollutants" criterion. These criteria take into account the size of the catchment relative to other criterion. This category is currently not being used to evaluate potential projects based on the narrative provided below in regards to the scoring system.

Scoring System
The scoring system for this criterion is not clear, in that a larger catchment area is not necessarily better than a smaller more manageable one. If a large catchment area is treated it is beneficial to the RH/SGRWQG because a large area would be considered in compliance with the MS4 Permit, but if the entire 85th percentile, 24-hour storm event is not treated then the area cannot be considered in compliance without additional control measures modeled through the RAA process. Other criteria, as specified above, have taken into account the size of the catchment and are able to provide more valuable information than the size alone. Potential project sites with a majority of their catchment area outside of a RH/SGRWQG jurisdiction were automatically taken off of the list for consideration.

Weight Coefficient
A weight coefficient was not provided for this criterion, as it was not used to assess potential project sites.

Available Information
The catchment area for each of the potential projects was delineated using GIS, with the Watershed Management Modeling System (WMMS) subwatershed data as a base. If the project site was situated in a downstream portion of a subwatershed, the subwatershed was cut based on available topography data and storm drain conveyance system routing. In some cases potential projects were located downstream of WMMS subwatershed(s); therefore, the whole subwatershed or multiple subwatersheds would be classified as tributary to the project site. Most projects have more than one option in terms of where

flows can be diverted from, thus changing the catchment area delineation. The values determined are based on the diversion scenario that seemed most feasible based on engineering judgment and experience. The subcatchments were delineated for all potential projects and used to score other ranking criteria, as it was determined that a larger catchment size does not necessarily correlate with a more feasible project site. In some cases, a site was assessed based on two different subwatershed delineations.

Size of Opportunity Site

Definition

The "Size of Opportunity Site" was used to identify how much of a parcel would be required to mitigate flows from the 85th percentile, 24-hour storm event based on preliminary calculations assuming the BMP provides ten feet of storage depth. This criterion helps assess the feasibility of implementation because constructing BMPs with storage depths larger than ten feet can be costly and using the entire footprint of a parcel is not feasible due to existing surface and subsurface infrastructure such as buildings and subterranean parking lots that take up portions of the parcel area.

Scoring System

Potential project sites that require less area compared to the total area available (i.e., parcel area) receive higher scores and represent more feasible options, as demonstrated in **Figure 3-15**. Based on standard practice, it is feasible to implement water quality enhancement projects on approximately five percent of a parcel.

Figure 3-15 Scoring System for Size of Opportunity Site

Weight Coefficient

A weight coefficient of three was given to this criterion because a project site that requires a twenty foot storage depth over the entire parcel is not desirable, or likely to be feasible, and should not be ranked high through this process.

Available Information

Using the rational method and procedures identified in the LAC Hydrology Manual (LACDPW, 2006) the flows generated by the 85th percentile, 24-hour storm event were approximated. The catchment delineations previously described and GIS data was used to identify the dominant soil types, land use, and rainfall depths within the catchment area. The land use composition within the drainage area provides information regarding the percent of impervious area tributary to the potential project site. Most projects have more than one option in terms of where flows can be diverted from, thus changing the catchment area delineation. The values determined are based on the diversion scenario that seemed most feasible based on engineering judgment and experience. GIS parcel data was used to identify the area of the potential project parcels, which was compared to the required BMP footprint assuming the BMP provides a storage depth of ten feet.

Jurisdictions

Definition

The "Jurisdictions" ranking criterion was used to identify how many of the group member's jurisdictions would benefit from project implementation; therefore, what jurisdictions are included within the drainage area tributary to the project site.

Scoring System

Potential project sites that accept flows from more jurisdictions are given higher scores, as shown in **Figure 3-16**, because these projects encourage collaboration, shared cost, better connectivity, and shared benefit.

Figure 3-16 Scoring System for Jurisdictions

Weight Coefficient

A weight coefficient of one was given to this criterion because a potential project site should not be ruled out if it only treats what is produced in that jurisdiction.

Available Information

Using the catchment delineation described previously, GIS was used to identify how many jurisdictions were included in the area tributary to the potential project site. Most projects have more than one option in terms of where flows can be diverted from, thus changing the catchment area delineation. The values determined are based on the diversion scenario that seemed most feasible based on engineering judgment and experience.

Catchment Area Land Use and Likely Pollutants

Definition

The "Catchment Area Land Use and Likely Pollutants" criterion was used to identify the land use categories tributary to the potential project site. This criterion is significant because it is beneficial to implement regional projects that will address the water quality priorities in the watershed. Based on the MS4 Permit, the area tributary to a regional EWMP project is considered in compliance with all water quality standards. By addressing the water quality priorities, not only will the area be in compliance, but it will also contribute to downstream receiving water compliance through load reductions.

Scoring System

The scoring system for this criterion is more complex than the others because the water quality priorities are different for the LAR and SGR Watersheds. The scoring system takes into account the watershed that the potential project is treating and land use categories that make up the catchment area. The scoring system is summarized in **Figure 3-17**. The percentages shown in the figure correspond to the summation of land use types associated with the water quality priorities. For the potential projects tributary to the LAR or SGR, the percentages of commercial, industrial, and transportation land uses are summed, as the priority pollutants are metals. For potential projects tributary to Peck Road Park Lake, the percentages of agricultural, commercial, educational, industrial, and open space land uses are summed because pesticides and nutrients are the water quality priorities. Potential sites that better address the water quality priorities are given higher scores.

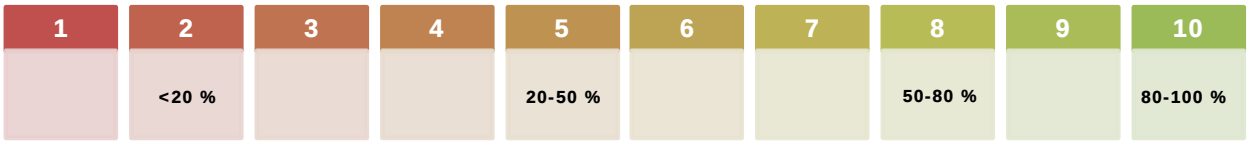


Figure 3-17 Scoring System for Catchment Area Land Use and Likely Pollutants

Weight Coefficient
A weight coefficient of two was given to this criterion because projects that address the water quality priorities should be given more consideration since they will additionally contribute to lower pollutant loads downstream, thus helping larger areas become compliant through the modeling process.

Available Information
Using the catchment delineation described previously, GIS was used to identify the land use composition within the catchment area. The LACDPW GIS land use data was used to define the following more distinct land use categories: agriculture, commercial, education, industrial, multi-family residential, single-family residential, transportation, and vacant. The land uses analyzed are consistent with those summarized in **Table 1-2** and **Figure 1-2**.

Multi-Use Opportunities and Connectivity

Definition
The "Multi-Use Opportunities and Connectivity" criterion was included to evaluate the potential projects for multi-use and connectivity opportunities. This criterion is important because these types of opportunities are encouraged in the MS4 Permit and maximize the use of public funds expended to design, implement, operate, and maintain an improvement project in the community. Potential project concepts and sites that utilize new or existing features such as public amenities (i.e., fishing, hiking trails, swimming, etc.), habitat and wildlife conservation, or stream restoration all have multi-use and connectivity opportunities. This criterion was not used in the screening process and will require a more extensive evaluation of the potential project concepts and existing habitat and environment. This ranking criterion may be used in the future to further evaluate and differentiate potential project sites.

Scoring System
The scoring system for this criterion has not yet been determined.

Weight Coefficient
A weight coefficient has not yet been defined because it is currently not being used to evaluate potential projects.

Available Information
Available information has not been evaluated for this ranking criterion. In the future, sites may be evaluated to determine if these opportunities exist. Existing site conditions will need to be evaluated to determine if the site already supports multi-use and connectivity or if these opportunities can be integrated through project implementation.

Funding Opportunities

Definition
The "Funding Opportunities" criterion was used to evaluate the potential projects for prospective funds which would be available for the project. This criterion is critical because having a funding partner makes implementation much more feasible. In addition to sharing cost, funding opportunities or partnerships may help the public perception of potential projects and help gain public support.

Scoring System
Potential project sites that have already pursued funds through available grant programs are scored the highest as demonstrated in **Figure 3-18**. Potential sites that have obvious potential partners were also scored high. All projects were given some points for this criterion because there are various grant programs that currently exist that would be applicable to regional water quality improvement projects and projects that involve watershed groups.

Figure 3-18 Scoring System for Funding Opportunities

Weight Coefficient
A weight coefficient of one was given to this criterion.

Available Information
Available information regarding funding opportunities and potential partners was collected. Once selected projects are further along in the planning stages, specific funding opportunities will be identified and project sites will be evaluated to determine if project concepts can be prepared in such a way to qualify for available grants and/or loans.

Local Knowledge

Definition
The "Local Knowledge" criterion is used to give potential project sites a set amount of points based on experience and local knowledge. This criterion requires firsthand knowledge and cannot be generated through a routine or spatial analysis.

Scoring System
The scoring system for this criterion is not standardized as it is with other ranking criterion. In the Regional BMP Projects Worksheet (included in **Attachment K**), a score is given to each project site along with an explanation which justifies the score assigned. If thoughts regarding the potential project sites were neutral, a score of five was assigned.

Weight Coefficient
A weight coefficient of two was given to this criterion because local knowledge and experience provides valuable insight that a computer or spatial analysis cannot determine.

Available Information
The RH/SGRWQG members have discussed the various potential project sites and agreed upon a score based on known site conditions and public perception. During the EWMP outreach events, participating stakeholders provided comments on regional project sites that were of interest to them. These comments were also incorporated into this scoring criterion.

Seasonal High Groundwater Table Depth

Definition
The "Seasonal High Groundwater Table Depth" ranking criterion was used to evaluate the groundwater table depth within the potential project site because high groundwater depths do not support infiltration, making retention and infiltration of the 85th percentile, 24-hour storm event difficult. The Los Angeles

County Stormwater BMP Design and Maintenance Manual (LACDPW, 2009) recommends a minimum separation of ten feet between the invert of an infiltration BMP and groundwater table to protect groundwater quality.

Scoring System
Potential project sites that have deep groundwater table depths are given higher scores as demonstrated in **Figure 3-19**. The minimum groundwater table depth recorded was used for this evaluation.

Figure 3-19 Scoring System for Seasonal High Groundwater Table Depth

Weight Coefficient
A weight coefficient of one was given to this criterion.

Available Information
LACDPW operates 60 groundwater wells within the RH/SGRWQG area based on information available on their groundwater well web page. Data is available for each of the wells dating back to at least the 1980s. The groundwater well in closest proximity to the potential project site was used as a reference and the average and minimum groundwater table depths were recorded for consideration.

Proximity to Groundwater Production Wells

Definition
The "Proximity to Groundwater Production Wells" criterion is used to identify whether the potential project site is located near a groundwater production well. The California Stormwater Quality Association (CASQA) BMP Handbook for New Development and Redevelopment (CASQA, 2003) explains that groundwater contamination should be considered as an adverse effect of infiltration BMPs; therefore, should not be close enough to contaminated groundwater drinking supplies. The Los Angeles County Stormwater BMP Design and Maintenance Manual (LACDPW, 2009) recommends a minimum of 100 feet of separation between infiltration BMPs and groundwater production wells unless sufficient pretreatment is provided.

Scoring System
Potential project sites that are more than 200 feet away from existing groundwater production wells are given higher scores, as shown in **Figure 3-20**. Sites are given a lower score if they are within 200 feet of a groundwater production well because further analysis may be required to determine if contamination will be a concern or the project would be limited to capture and use because infiltration would not be feasible.

Figure 3-20 Scoring System for Proximity to Groundwater Production Wells

Weight Coefficient
A weight coefficient of one was given to this criterion.

Available Information

The sources listed below were reviewed for the location of groundwater production wells. The locations identified in the documents listed below were then verified using aerial imagery. Aerial imagery was also reviewed independently of the various sources.

- Water Supply Assessment for the City of Arcadia "Caruso Affiliated/Magna Entertainment Corp" (City of Arcadia, 2006)
- Environmental Assessment: Water Supply Wells for the City of Arcadia, California *Longley Well No. 3 and Camino Real Well No. 3* (EPA, 2009)
- Urban Water Management Plans (UWMPs) from 2010 posted on the State of California's Department of Water Resources website (CA.gov) for:
  - Azusa Light & Water;
  - California American Water;
  - Cities of Arcadia, Monrovia, and Sierra Madre;
  - LADWP;
  - San Gabriel Valley Water Company;
  - Upper San Gabriel Valley Municipal Water District; and
  - West Basin Municipal Water District.
- Environmental Impact Reports (EIRs) from the surrounding area

Pollutants in Soil or Groundwater

Definition

The "Pollutants in Soil or Groundwater" criterion was used to assess soil and groundwater contamination within the potential project site and surrounding areas. Identifying existing contamination is vital because infiltration projects are not desirable in areas undergoing mitigation and it would not be beneficial to implement infiltration projects in these areas knowing they may have adverse effects on groundwater quality (LACDPW, 2009).

Scoring System

As shown in **Figure 3-21**, potential project sites that are within Superfund sites are given a low score and sites with little to no soil or groundwater contamination, based on GeoTracker, are given higher scores. Sites that are identified as Superfund sites were automatically considered infeasible and eliminated from further evaluation.

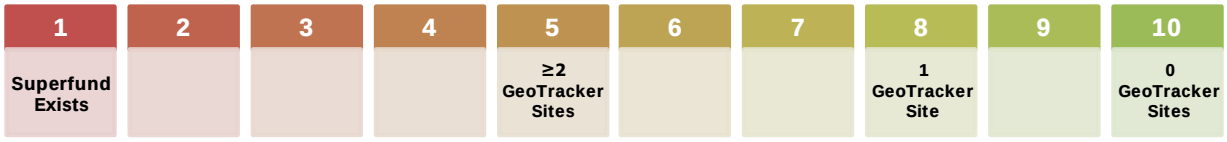


Figure 3-21 Scoring System for Pollutants in Soil or Groundwater

Weight Coefficient

A weight coefficient of one was given to this criterion.

Available Information

The location of existing Superfund sites was determined using the San Gabriel Valley Volatile Organic Compound (VOC) Contamination Maps (EPA, 2007). The California SWRCB operates a website called GeoTracker which was used to determine if soil or groundwater contamination exists near the potential project sites. GeoTracker provides information regarding the following cleanup sites: Leaking Underground Tanks (LUST), land disposal, military, Water Discharge Requirements (WDR), Department of Toxic Substances Control (DTSC), and "other." The location along with mitigation measures are provided through the website and documentation was reviewed for open sites located within

approximately 1,000 feet of a potential project site. Information was reviewed for nearby sites to determine if the mitigation is in progress or if it should have been closed, but was never officially reported as closed. Data used to determine a score for this criterion only considered open cases that are still mitigating contamination.

Geotechnical Hazards

Definition

The "Geotechnical Hazards" criterion was used to assess the geotechnical hazards in the area that may prohibit the implementation of regional projects. This criterion is included so that geotechnical hazards that may present a high risk of failure or costly implementation are identified and prioritized accordingly. Areas susceptible to liquefaction and earthquake-induced landslides were evaluated to assess existing geotechnical hazards. Fault zone areas were also examined.

Scoring System

Potential project sites that are not within liquefaction or earthquake-induced landslide zones were given high scores, as illustrated in **Figure 3-22**.

Figure 3-22 Scoring System for Geotechnical Hazards

Weight Coefficient

A weight coefficient of one was given to this criterion.

Available Information

The locations of liquefaction and earthquake-induced landslide zones were determined using maps available from the California Department of Conservation (State of California, 2014). The fault zones in the area were obtained from the California Department of Conservation, California Geological Survey (State of California, 2014). Both sources provided GIS data that was overlain with the potential project sites to determine their position relative to existing hazards. Geotechnical hazards were only noted if the potential project site was located within the hazard zone.

Soil Type

Definition

The "Soil Type" criterion was used to assess the type of soil within the potential project site and tributary catchment area, as it plays a critical role in the volume of runoff produced and the ability to infiltrate the runoff captured. The undeveloped runoff coefficient (C_u), the ratio of runoff rate to rainfall intensity, defined in the LACDPW Hydrology Manual (LACDPW, 2006), was used to score this criterion.

Scoring System

Figure 3-23 demonstrates potential project sites that have low undeveloped runoff coefficients are given higher scores, as they are associated with soils that minimize runoff and promote infiltration.

Figure 3-23 Scoring System for Soil Type

Weight Coefficient
A weight coefficient of one was given to this criterion.

Available Information
The LACDPW Hydrology Manual (LACDPW, 2006) classifies the existing soil types in LAC and provides soil curves that identify the relationship between the undeveloped runoff coefficient and rainfall intensity. The soil types used for this analysis are illustrated in **Figure 1-3**. The dominant soil type within the potential project catchment area was identified for each of the sites and the undeveloped runoff coefficient for a rainfall intensity of two inches per hour was obtained from the soil curves. The methodology for obtaining this coefficient is further discussed in the LACDPW Hydrology Manual (LACDPW, 2006).

3.2.4.3 Screening Results

The potential project sites identified in **Table 3-4** were screened based on the criteria outlined above. The results of the screening and data used to determine the ranking are summarized in the Regional BMP Projects Worksheet provided in **Attachment K**. The worksheet only includes projects that were fully evaluated, as some projects were eliminated from the analysis because they are located in the upper portion of the watershed, receive drainage from a catchment outside of the group's jurisdiction, or are located within a Superfund site. The worksheet was completed and each project site was scored. The sites were then ranked according to each watershed, i.e., the projects within the SGR Watershed were compared to each other and not to the potential sites located in the LAR Watershed. A figure identifying the potential project site and the respective catchment area and land use are provided in **Attachment L**, while the rankings are summarized in **Table 3-6** below. The sites selected for future implementation are identified in the table above the bold line. Not all of the sites will be used for Regional projects, as the costs would be too high. It is recommended that the top ranked sites be implemented in the future and were modeled in the RAA to demonstrate compliance, as detailed further in **Section 4**. These sites are further discussed in **Section 3.4.2**.

Table 3-6 Ranked Potential Regional Project Sites in the LAR Watershed

Potential Project Site	Score	Rank
Recreation Park	144	1
Arboretum of LAC	142	2
Sierra Vista Park	135	3
Royal Oaks Trail (LAR)	132	4
L. Garcia Park	129	5
Eisenhower Park	128	6
Santa Anita Golf Course Alternative 2	127	7
Hugo Reid Park[1]	126	8
Peck Road Park	125	9
Aloysia Moore Park	124	10
Bailey Canyon Park	123	11

Table 3-6 Ranked Potential Regional Project Sites in the LAR Watershed		
Potential Project Site	**Score**	**Rank**
Arcadia Golf Course	122	12
Arcadia Golf Course - Regional	122	12
Buena Vista Spreading Grounds[1]	119	14
Library Park	117	15
Arboretum of LAC – Regional	117	15
Duarte Park	114	17
Michillinda Park	114	17
Santa Anita Golf Course	112	19
Memorial Park (Sierra Madre)	101	20
Duarte Park/School	99	21
Camino Grove Park/School	95	22
Highland Oaks Elementary	94	23
Longley Way Elementary	87	24
Foothills Middle School	84	25

[1] Identified in planning documents as described in **Section 3.2.3**.

The results for the potential regional EWMP project sites in the SGR Watershed are summarized in **Table 3-7**. The results were separated by watershed because the estimated volume and load reductions are dependent on the watershed. A figure illustrating the potential project site with its catchment area and land use are provided in **Attachment L**. The sites selected for future implementation are identified in the table above the bold line. Not all of the sites will be used for Regional projects, as the costs would be too high. It is recommended that the top ranked sites be implemented in the future and were modeled in the RAA to demonstrate compliance, as detailed further in **Section 4**. These sites are further discussed in **Section 3.4.2**.

Table 3-7 Ranked Potential Regional Project Sites in the SGR Watershed		
Potential Project Site	**Score**	**Rank**
LADWP Easement	145	1
Encanto Park	139	2
Memorial Park (Azusa)	131	3
Royal Oaks Trail (SGR)	131	3
Northside Park	130	5
Pioneer Park	130	5
Royal Oaks Park	129	7
Gladstone Park	125	8
Azusa Greens Country Club	123	9
Slauson Park	113	10
Royal Oaks Elementary	98	11
Gordon Sports Park/School	80	12

In some instances the potential regional project sites being evaluated were eliminated if it was determined that additional information made the project infeasible or undesirable. The project sites eliminated through partial evaluation are summarized in **Table 3-8**. Project elimination was often a

result of insignificant catchment areas due to a location in the upstream portion of the catchment or contamination, including Superfund sites. Figures illustrating the potential project sites that were eliminated are provided in **Attachment L**.

Table 3-8 Eliminated Regional EWMP Project Sites

Potential Project Site	Watershed	Reason for Elimination
Parks		
Bonita Park	LAR	Upstream in subwatershed, no significant catchment
Dalton Park	SGR	Catchment area outside RH/SGRWQG
Grand Park	LAR	Upstream in subwatershed, no significant catchment
Pamela Park	LAR	Proximity to Superfund site
Valleydale Park	SGR	Proximity to Superfund site
Zacatecas Park	SGR	Proximity to Superfund site
Golf Course		
Rancho Duarte Golf Course	SGR	Existing contamination issues
Educational Facilities		
Citrus Community College	SGR	Catchment area outside RH/SGRWQG

3.2.5 Identifying Additional Distributed BMPs

Opportunities for additional distributed BMPs may exist at sites that do not fall under SUSMP, LID, or green streets policies. For example, road resurfacing often includes a grind and overlay back to existing grade, therefore SUSMP/LID and green streets may not be applicable. Since construction is occurring, the site could potentially be retrofitted to include distributed BMPs, if feasible, and if the location is in a high priority area. Distributed BMP options were also solicited through the stakeholder outreach events held during the EWMP development. For this EWMP, green street distributed BMPs were preferred. This section outlines the methodology for analyzing streets for their feasibility as green streets. The volume associated with green streets can also be reallocated to other distributed BMPs that capture an equivalent volume. Green streets were the focus, as roads are being repaired and maintained on a more regular schedule and funds are already available for street rehabilitation to help lessen the cost of implementation.

A green streets analysis was performed for the entire RH/SGRWQG area to determine which streets are most suitable for green street implementation. The following criteria were examined and ranked to establish a green street implementation hierarchy:

1. Slope
2. Soil infiltration capacity
3. Street type

Each criterion was analyzed based on the methodology described below. A ranking system was developed, which was used to classify streets in terms of their potential as green streets (high, medium, or low). The analysis was performed using ArcGIS and Microsoft Excel. Once the streets were ranked for their feasibility as green streets, a subarea analysis was conducted to determine which streets within each subarea would need to be implemented as a green street to satisfy the 85th percentile storm event volume criteria or 90th percentile load criteria, whichever is greater. Details regarding the subarea analysis are provided in **Section 3.4.3**.

Slope

Streets with milder slopes are more appropriate for green streets as they are able to provide a greater capacity than streets with a steeper slope. The slope of each street within the RH/SGRWQG was determined by first creating a raster defining the slopes throughout the area using a contour shapefile. The raster was then converted into a shapefile so that a slope could be assigned to each street. The streets were then ranked based on the slope values as described in **Table 3-9**. **Figure 3-24** illustrates the slopes found within the RH/SGRWQG. The slope ranking values were weighted by a factor of two, as this criterion is more influential in green street feasibility than the street type criteria discussed below.

Table 3-9 Slope Ranking Summary

Slope (%)	Ranking Value
0	10
1	9
2	8
3	6
4	4
5	2

*Note: Streets with slopes above five percent were excluded from the analysis.

Soil Infiltration Capacity

The soil type along each street was determined and the associated infiltration capacity, or saturated hydraulic conductivity (K_{sat}), was used to rank the streets. The streets with underlying soils with a higher infiltration capacity were assigned a higher score as these streets would offer more of a benefit as green streets than streets whose underlying soils are not conducive to infiltration. The soil types were determined based on the LAC Hydrology Manual (LACDPW, 2006) soil types and the associated infiltration capacities are based on the Structural BMP Prioritization and Analysis Tool (SBPAT). Each street was clipped using the soil shapefile, so that street segments did not cross multiple soil types, and were assigned a ranking value based on **Table 3-10**. **Figure 3-25** contains a figure illustrating the soil types found within the RH/SGRWQG. The soil infiltration capacity criterion was weighted by a factor of three as this is the most important criteria when determining the feasibility of green street implementation.

Table 3-10 Soil Ranking Summary

Soil Type	Infiltration Capacity (K_{sat})	Ranking Value
14	0.81	10
3	0.77	9
15	0.72	8
7	0.66	7
88	0.62	6
78	0.52	5
13	0.45	4
6	0.33	3

*Note: Soil types with an infiltration capacity lower than 0.33 were excluded from the analysis (Soil Types 8, 11, and 81).

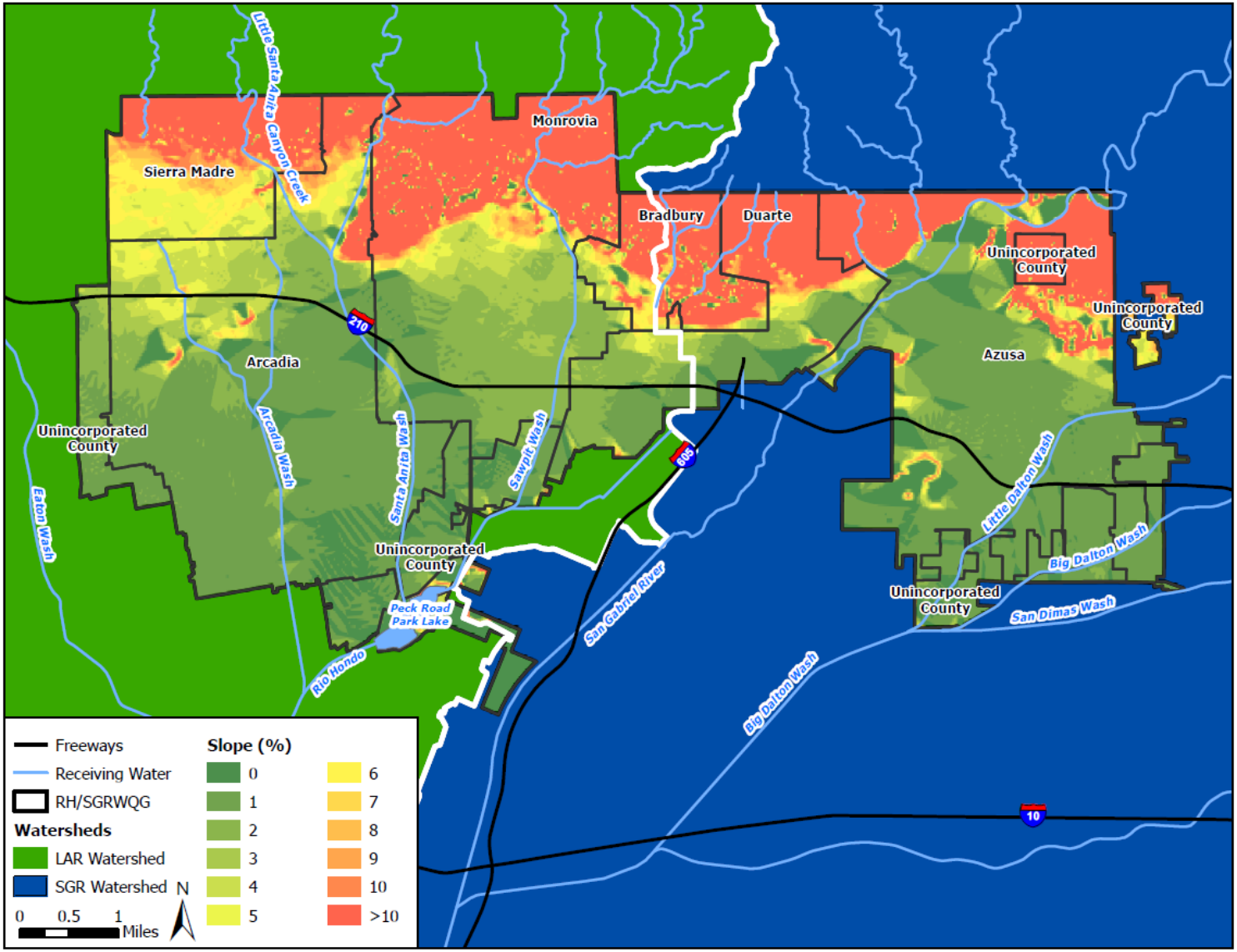


Figure 3-24 Slopes for Green Street Analysis

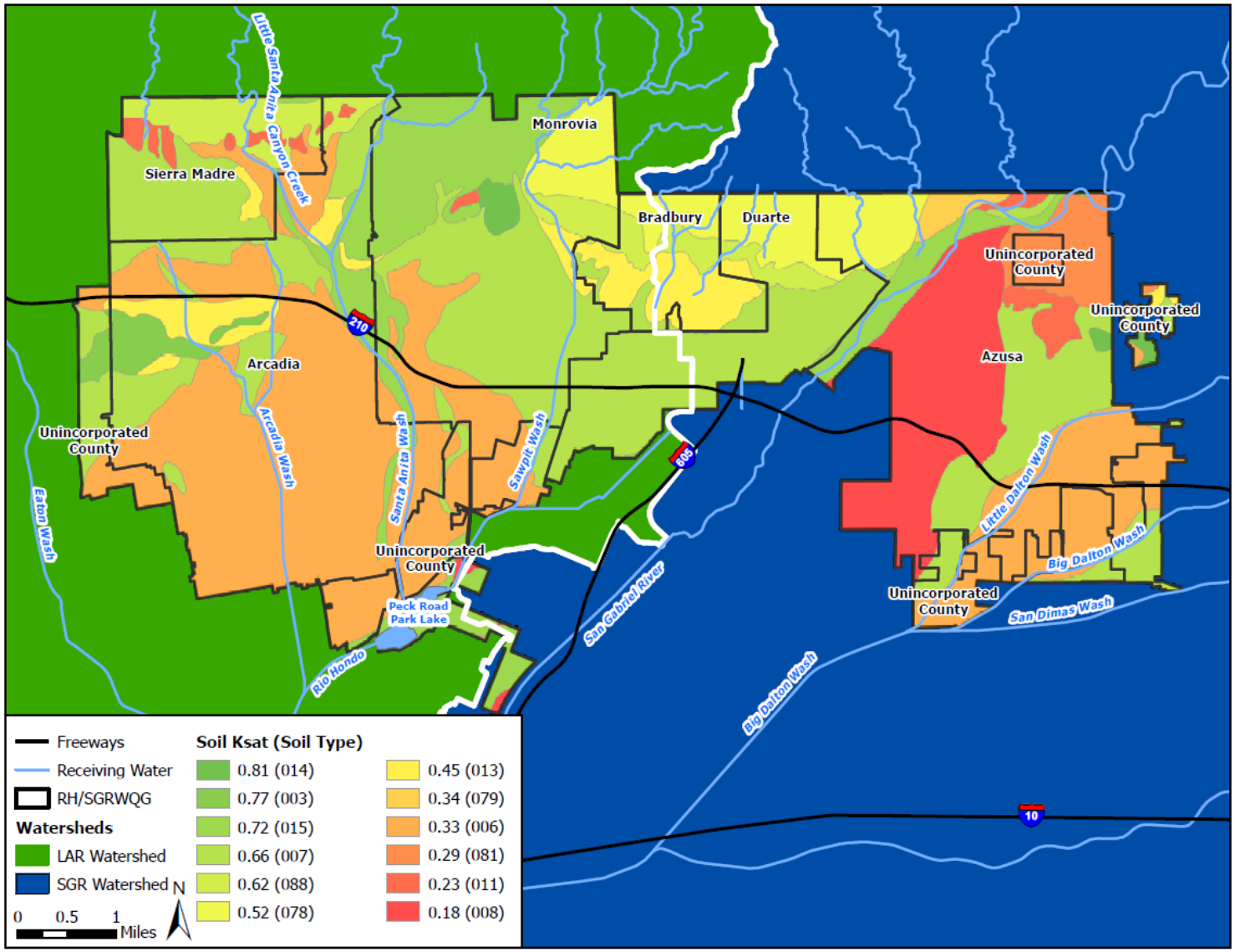


Figure 3-25 Soil Types for Green Street Analysis

Street Type

The street type was used to rank green street opportunities, as different types of streets offer different opportunities. Wider streets, such as major streets, provide a larger area which can be used to treat stormwater. Private streets and major freeways are some examples of streets that do not provide feasible opportunities. The Countywide Address Management System (CAMS) created a shapefile for street centerlines in Los Angeles County based on the 2010 TIGER roads file developed by the Census Bureau. The CAMS shapefile includes attributes, such as street type, which are not included in the TIGER roads. The attribute in the CAMS shapefile was used to define the street type for the streets within the RH/SGRWQG. Each street within the RH/SGRWQG was classified based on standard street types and were ranked as described in **Table 3-11.** The street type was not weighted as this criterion is not as crucial as the slope and soil infiltration capacity when determining the feasibility of green street implementation.

Table 3-11 Street Type Ranking Summary

Street Type	Ranking Value
Highway and/or Primary-Arterial	10
Secondary-Collector	8
Minor-Local	6
Alley	4

*Note: Street types not included in the list above were excluded from the analysis.

3.1.5.1 Green Street Ranking

During the green street analysis, streets were clipped at the jurisdictional boundaries and tagged with the jurisdiction within which it exists. This was not used to rank the streets, but simply to determine what jurisdiction the street was in so that it was easy to identify the green street needs within each jurisdiction.

After each street was clipped, tagged, and given a ranking value based on the slope, soil, and street type, the score was determined for each street by adding up the value for each of the criteria. As previously discussed, a weight factor was given to each of the criteria to make some more important than others. The slope was weighted by a factor of two, the soil type was weighted by a factor of three, and the street type was not weighted (one). The scores ranged from 19 to 57 and were further classified as described in **Table 3-12**. **Figure 3-26** illustrates the green street rankings within the RH/SGRWQG.

Table 3-12 Green Street Ranking Summary

Score Range	Green Street Ranking
45-57	High
32-44	Medium
19-31	Low

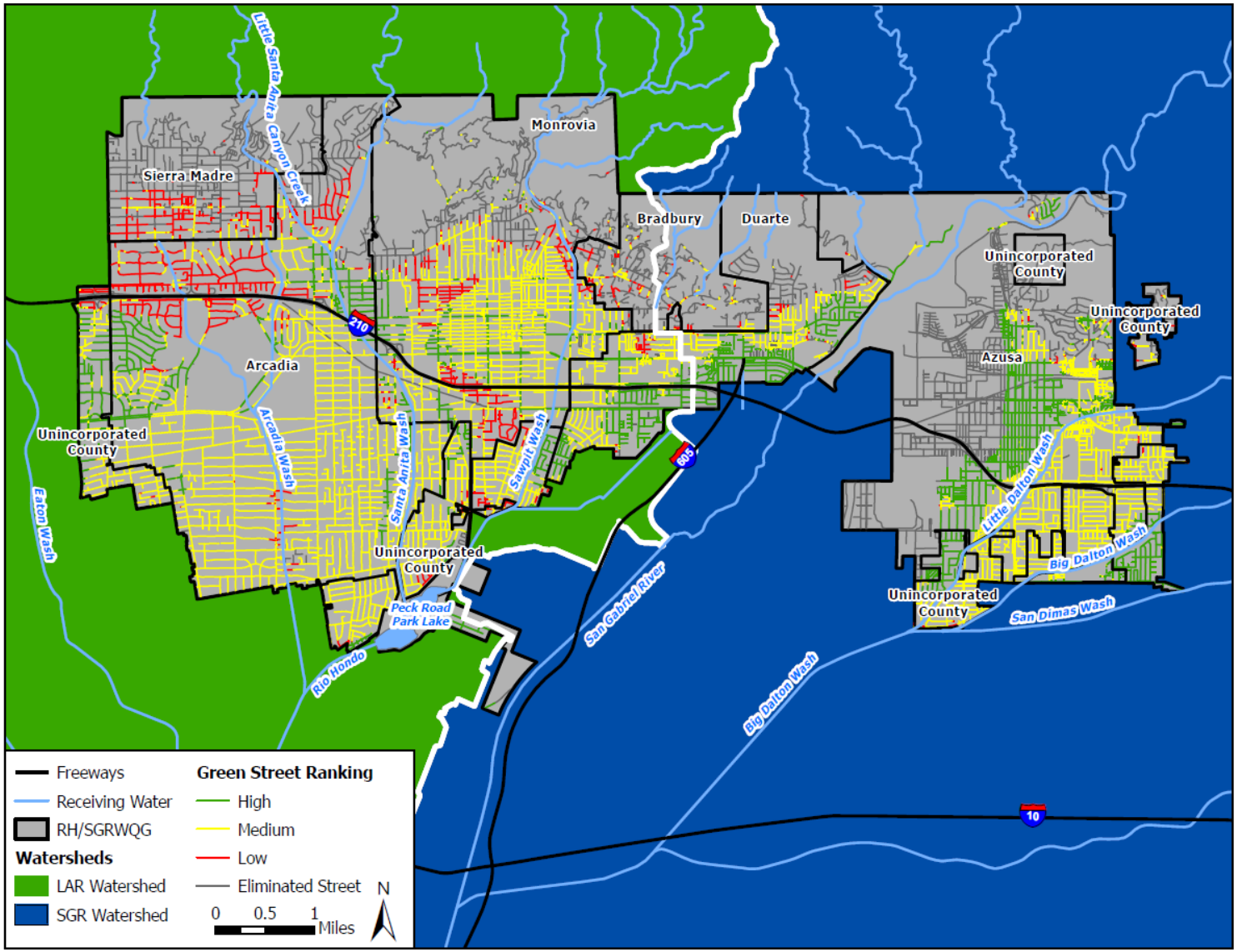


Figure 3-26 RH/SGRWQG Street Rankings for Green Street Analysis

3.3 Summary of BMP Performance Data

From BMP preferences to the RAA, data regarding performance of BMPs influenced many EWMP-related decisions. A statistical analysis was performed using available BMP performance data relevant to Southern California. The goal was to review and summarize data regarding performance of BMPs for reducing constituents of concern from stormwater flows. The data was reviewed and summarized based on constituents of concern from both stormwater and non-stormwater flows. The compiled dataset is extensive and can be found in **Attachment M** and **Attachment N**. The following sections provide an overview of the data sources, statistical methods, and results of the statistical analysis.

3.3.1 Data Sources

The BMP performance analysis used data collected from the International BMP Database (IBD), the most extensive effort to collect and distribute BMP performance data in the United States. The IBD is sponsored by the USEPA, Water Environment Research Foundation (WERF), the American Society of Civil Engineers (ASCE), the Environmental and Water Resources Institute (EWRI), the American Public Works Association (APWA), and the Federal Highway Administration (FHWA). The stated purpose of the database is "to provide scientifically sound information to improve the design, selection and performance of BMPs" (IBD, 2014).

Figure 3-27 illustrates the sites with available monitoring data in Southern California as of November 2013. There are 44 sites that have data within the mapped area and the sites have a total of 58 BMPs that were sampled. Each of these BMPs in the IBD was categorized to the categories and subcategories established in **Section 3.2.1** (see **Table 3-2**). Many of the BMPs, particularly bioswales, are owned and operated by the California Department of Transportation (Caltrans) and therefore implemented on roadways, maintenance stations, and park and ride facilities.

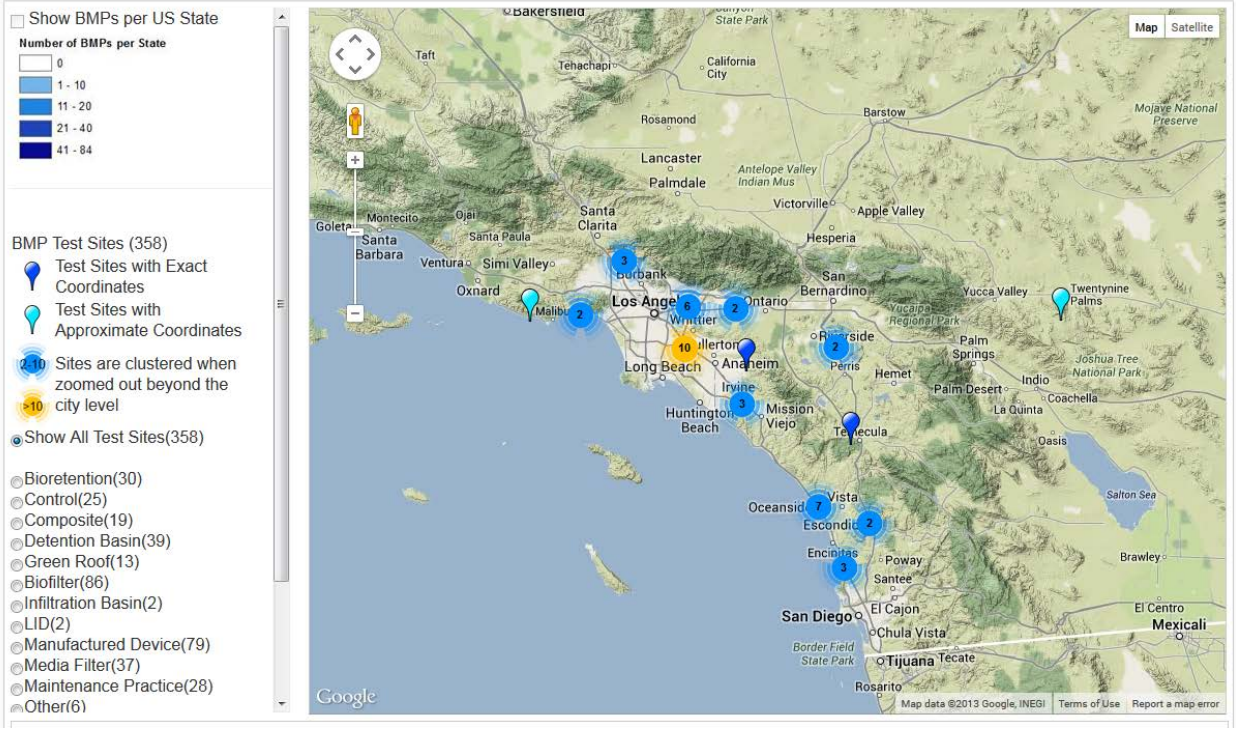


Figure 3-27 Southern California BMPs from the IBD (www.bmpdatabase.org)

3.3.2 Data Analyzed

Analysis of BMP data in the IBD collected from Southern California provides a cross-section of structural BMP results and constituents. The following provides an overview of the data characteristics:

- **BMP types:** the BMPs in the IBD were categorized according to those defined in **Section 3.2.1**, after review of the BMP design details. Five of the BMP subcategories were represented in the IBD within the Southern California region, including:
  - Constructed wetlands
  - Site-scale detention
  - Bioswales
  - Flow-through Treatment BMPs
  - Catch basin inserts

- **Constituents:** the IBD contains sample data for hundreds of constituents ranging from metals to pesticides. The analysis conducted emphasizes a subset of constituents referred to herein as "common constituents of concern," as follows:
  - Total suspended solids (TSS)
  - Fecal coliform
  - Total copper
  - Total lead
  - Total zinc

  Beyond these five constituents, the database was screened for additional constituents with sufficient data to perform analysis and obtain results. Based on this screening, an additional 18 constituents were identified, for a total of 23 constituents. To assist with organization and presentation of the results, each of the 23 constituents was categorized into four groups as follows (demonstrated in **Table 3-13**):
  - Metals
  - Bacteria
  - Solids
  - Nutrients

- **Land uses:** a majority of the BMPs are located within transportation related sites. Other major land use categories such as residential, commercial, and industrial are not heavily represented in the analysis. However, the effluent concentrations and performance metrics are generally considered applicable to non-transportation land uses. Many bioswales were included in the analysis. This allowed for grouping the bioswales into three categories: "all," "Caltrans," and "Non-Caltrans."

- **Monitoring methods:** the majority of the data from the IBD is based on flow-weighted composite (FWC) samples which is the generally preferred practice. FWC samples provide a better measurement of the total load from a storm event and most accurately portray the removal efficiency of BMPs. These types of samples can be used to generate good event mean concentrations (EMCs) that can be used to calibrate water quality models. The analysis emphasizes reduction in concentrations of constituents. Flow reduction is heavily site- and storm-specific (depending on rainfall intensity, soil types, antecedent conditions, etc.) and can be predicted through other means (e.g., modeling during the RAA).

3.3.3 Statistical Analysis

The statistical analysis performed is primarily based on three metrics:

- Tabular summary statistics of inflow and outflow from BMPs (mean, median, percentiles, etc.)
- Graphical presentation of the inflow and outflow using box plots
- Tabular presentation of constituent reductions and tests for statistical significance of differences between inflow and outflow

It is acknowledged that "percent reduction" is a BMP performance metric that deserves caveats (see the article "Voodoo Hydrology" in the July 2006 article of *Stormwater Magazine*). Percent reduction is a readily-understandable BMP performance metric, and it is also convenient for reporting a compact form (as shown in **Table 3-13**). However, BMP performance is ultimately characterized by both the reduction of pollutants from inflow to outflow and the concentration of constituents in the outflow. For this analysis, percent reduction is presented as a simple metric to compare different BMPs across different storm and land use conditions. In addition, inflow and outflow datasets were analyzed separately to characterize the quality of BMP outfalls and allow for future comparison to MS4 Permit limitations.

The approach to handling non-detects can greatly affect estimated summary statistics. For the BMP performance analysis, statistical analyses of measured concentrations were based on regression-on-order statistics (ROS). The primary advantage/purpose of the ROS approach is to account for sample limits of detection (SLODs) in samples that were non-detects (referred to as "censored"). An Excel add-in developed by Caltrans was used to generate ROS, for which the primary references for the statistical procedures are Shumway and Azari (2000) and Helsel (1990).

3.3.4 Results

The analysis performed produced thousands of statistical measures that can be used to evaluate BMPs. These results would support the RAA, by supporting assumptions regarding effluent concentrations from some BMPs. However, volume based BMPs were selected rather than treatment BMPs. The results can be used in future iterations through the adaptive management process if treatment-type BMPs are evaluated. The results are presented in formats that are designed to allow readers to focus on both absolute (inflow and outflow concentrations) and relative performance of BMPs (percent reductions) for individual constituents and groups of constituents. As mentioned previously, extensive datasets were generated and are available in **Attachment M** and **Attachment N**. The results of the analysis are presented as follows:

- **Percent removal:** the results in **Table 3-13** provide mean and median removal percentages for the BMPs and for each of the 23 POC analyzed. The table can be used to evaluate relative performance across constituent and BMP categories.

- **Inflow and outfall concentrations for common POCs:** shown in **Table 3-14** through **Table 3-18** are comparisons of standard statistics for the five available BMP categories across each of the common POCs. The corresponding box plots in **Figure 3-28** through **Figure 3-32** graphically represent the range of inflow versus outflow performance for the BMP categories.

- **Inflow and outflow concentrations for all 23 constituents:** standard statistics, including significance testing of percent reductions, for all constituents are included in **Attachment M**.

- **Performance statistics and box plots for all constituents:** extensive summary statistics and box plots of BMP performance across the BMP categories are included in **Attachment N**.

The presented box plots (**Figure 3-28** through **Figure 3-32**) include whiskers that span from the 10th to 90th percentiles and display outliers, defined as values that are more than 1.5 times the inner quartile range beyond the median. These outliers are included in all the generated summary statistics. This approach is consistent with technical memorandums on the IBD website.

Table 3-13 Mean and Median Percent Removal from Inflow to Outflow for All Pollutants and BMP Categories

Constituent Group	Pollutant	Bioswale (All)		Bioswale (Caltrans)		Bioswale (Non-Caltrans)		Constructed Wetland		Flow-Through Treatment BMP		Site Scale Detention	
		% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median	% Change, Mean	% Change, Median
Metals	Total Arsenic	-51.14%	-21.85%	21.19%	29.33%	**-70.90%**	-44.19%	**-64.23%**	-65.00%	-11.57%	-18.52%	-19.56%	-24.00%
	Total Cadmium	**-51.15%**	-58.47%	-15.99%	-49.52%	**-68.14%**	-66.32%	**-74.50%**	-62.40%	1.22%	-48.00%	**-53.72%**	-49.44%
	Total Chromium	-24.85%	-42.03%	-21.11%	-28.38%	-27.37%	-61.06%	**-81.54%**	-88.30%	**-35.10%**	-37.04%	-60.67%	-50.00%
	Total Copper	**-69.02%**	-68.29%	**-59.24%**	-60.98%	**-70.39%**	-60.32%	-98.02%	-85.81%	-55.03%	-38.89%	**-51.83%**	-48.04%
	Total Iron	-57.30%	-61.20%	-48.56%	-47.57%	---	---	---	---	---	---	---	---
	Total Lead	**-75.46%**	-77.05%	**-69.92%**	-75.02%	**-76.11%**	-67.68%	-98.11%	-97.41%	**-63.71%**	-76.15%	**-66.23%**	-59.26%
	Total Nickel	**-59.02%**	-64.38%	-41.24%	-46.58%	**-69.50%**	-72.97%	-48.11%	-36.78%	-21.04%	-28.57%	-62.53%	-45.21%
	Total Zinc	**-74.08%**	-75.66%	**-71.53%**	-76.14%	**-71.42%**	-68.65%	**-84.48%**	-85.56%	**-62.40%**	-74.89%	**-68.98%**	-64.64%
Bacteria	Fecal Coliform	-13.70%	-82.00%	---	---	-13.70%	-82.00%	-94.54%	-92.69%	-26.36%	-91.43%	99.1%	41.7%
	Total Coliform	---	---	---	---	---	---	-0.18%	-62.97%	**-99.91%**	-99.90%	---	---
Solids	Total Suspended Solids	**-50.46%**	-59.21%	-24.21%	-51.28%	-61.37%	**-58.33%**	**-94.55%**	-95.22%	**-65.0%**	-82.28%	**-62.82%**	-62.00%
	Total Dissolved Solids	-3.72%	7.32%	17.58%	12.36%	-17.36%	-2.50%	**+1169%**	1739%	12.12%	16.67%	-0.29%	0.00%
	Turbidity	**-62.65%**	-50.67%	**-62.65%**	-50.67%	---	---	---	---	---	---	---	---
Nutrients	Kjeldahl nitrogen (TKN)	-18.52%	-15.00%	29.02%	16.67%	**-31.74%**	-25.24%	-22.91%	8.33%	-24.22%	-30.97%	-14.86%	-20.21%
	Nitrogen, ammonia as N	15.93%	-25.50%	40.91%	-9.04%	---	---	-61.86%	-57.14%	28.35%	50.00%	---	---
	Nitrogen, Nitrate (NO_3) as N	-12.14%	-21.25%	13.77%	-1.31%	-22.54%	-23.29%	-66.90%	-87.87%	24.13%	41.41%	-13.89%	-10.59%
	Nitrogen, Nitrite (NO_2) as N	89.01%	31.91%	89.01%	31.91%	---	---	**-100%**	-100%	---	---	---	---
	Nitrogen, unionized ammonia (NH_3) as N	---	---	---	---	---	---	---	---	**-56.11%**	-62.50%	---	---
	Organic carbon, Dissolved	-10.96%	7.50%	17.74%	34.02%	-28.27%	-14.14%	-32.54%	-40.91%	-1.43%	-7.14%	6.92%	9.09%
	Organic carbon, Total	-13.17%	0.00%	15.30%	18.18%	-29.70%	-5.56%	-23.90%	-6.67%	-4.78%	-12.79%	0.68%	6.06%
	Phosphorus as P, Dissolved	+263%	+250%	---	---	+263.42%	+250.00%	+186.92%	90.18%	-7.14%	-11.11%	-3.15%	22.22%
	Phosphorus as P, Total	+125%	+100%	+219%	+269%	92.89%	68.18%	-19.33%	-14.29%	**-34.10%**	-25.00%	**-35.61%**	-19.44%
	Phosphorus, orthophosphate as P	+369%	+553%	+531%	+795%	59.09%	31.91%	---	---	---	---	---	---

[1] Bolded, orange values indicate statistically different inflow and outflow concentrations based on 95% confidence intervals.
[2] If insufficient data were available to calculate the % removal, then --- is shown.
[3] Catch basin inserts are not shown because effluent data were insufficient.

Table 3-14 Inflow/Outflow Summary Statistics for TSS (mg/L)

BMP Category	No. of BMP Sampling Locations		No. of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Site Scale Detention	5	5	76	69	75	23	100	38	169	59
Bioswales	31	31	159	103	45.0	18.0	76.0	31.0	130	54
Catch Basin Inserts	0	6	---	88	---	20	---	37.5	---	71
Flow-Through Treatment BMPs	13	13	230	218	8.875	2.875	39.5	7.00	89.25	22.25
Constructed Wetlands	1	1	13	14	140	3.50	230	11.0	255	13.5

IN = inflow; OUT = outflow

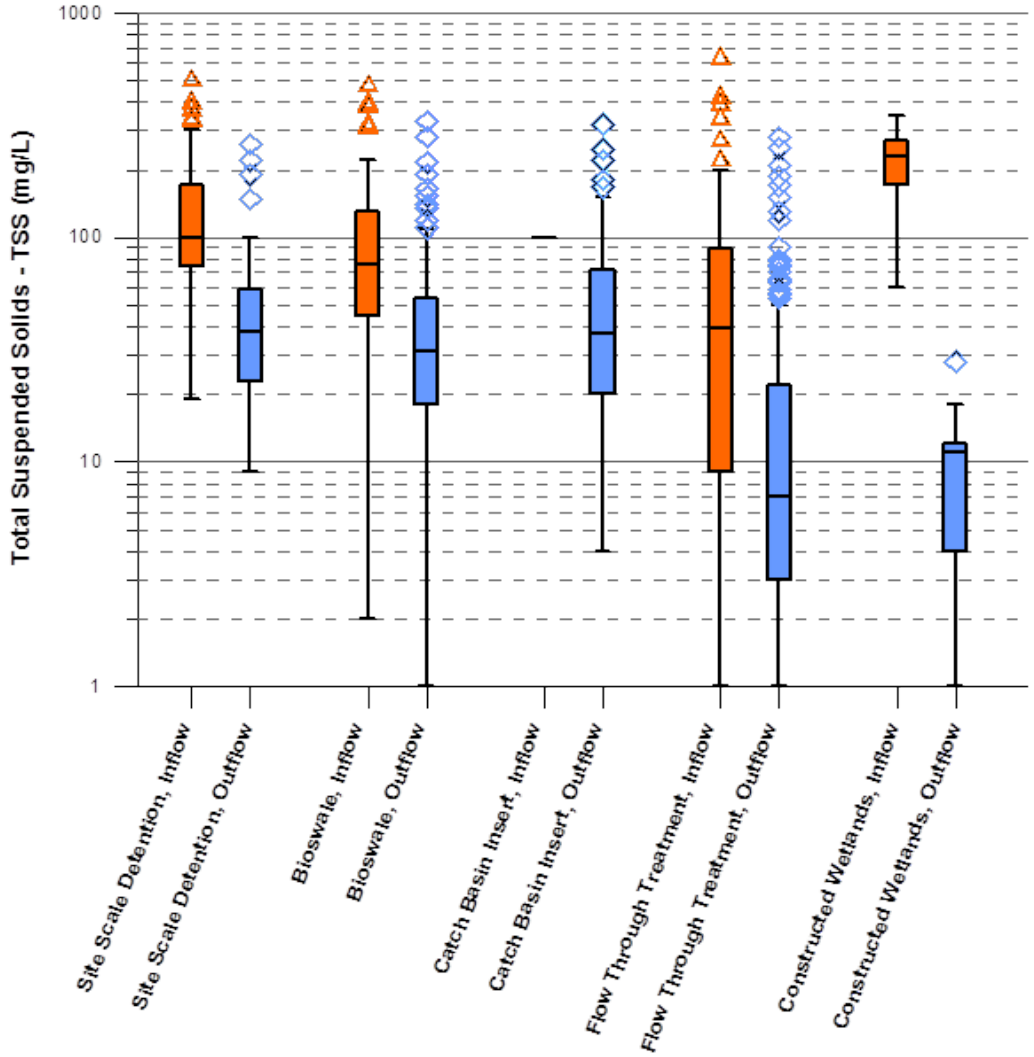


Figure 3-28 Box Plots of Inflow/Outflow TSS Concentrations in Southern California

Table 3-15 Inflow/Outflow Summary Statistics for Fecal Coliform (#/100mL)

BMP Category	No. of BMP Sampling Locations		No. of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Site Scale Detention	9	9	34	30	300	475	600	850	1700	3075
Bioswales	8	8	33	19	500	130	5000	900	16500	5000
Catch Basin Inserts	0	6	---	---	---	---	---	---	---	---
Flow-Through Treatment BMPs	11	11	172	152	300	7.47	900	77.1	3000	797
Constructed Wetlands	2	2	13	14	230	20.0	1300	95.0	3800	255

IN = inflow; OUT = outflow

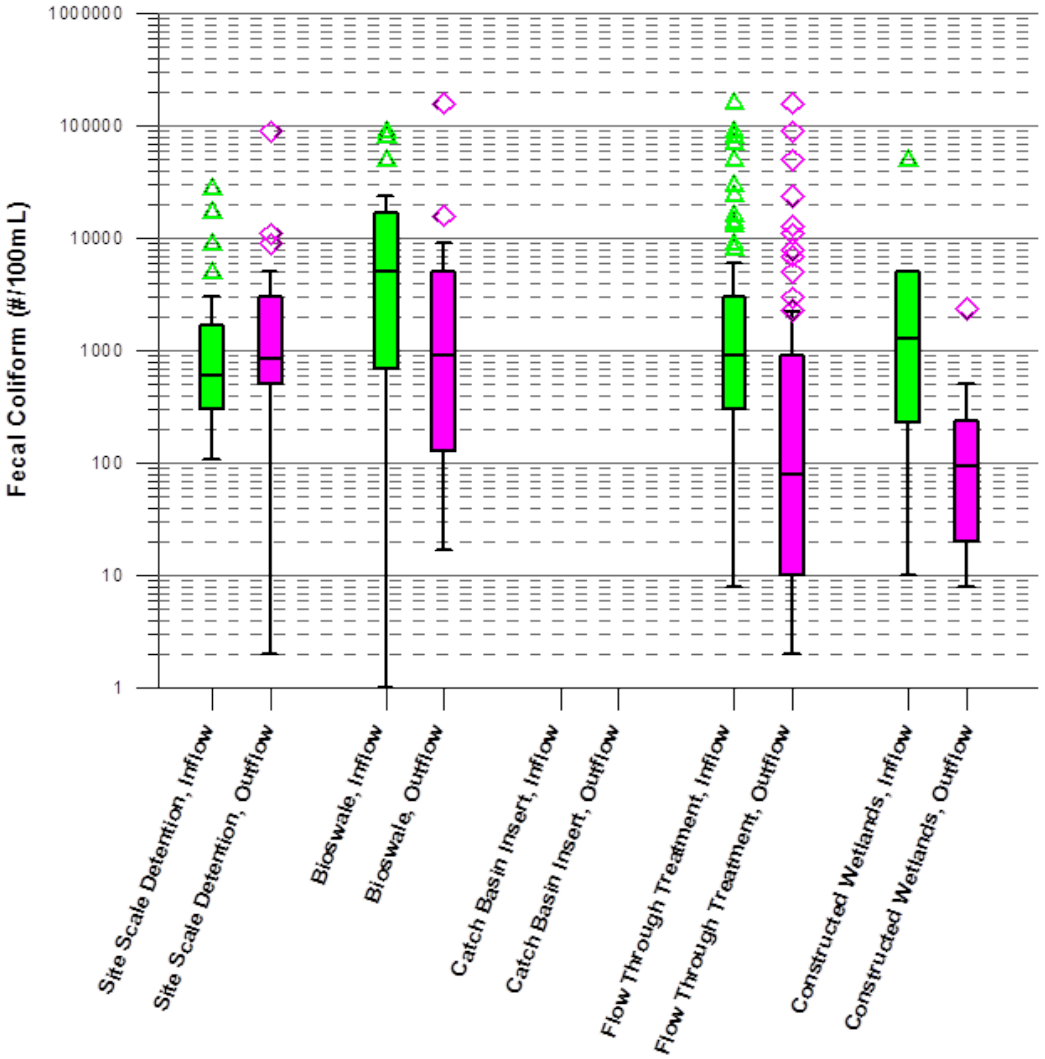


Figure 3-29 Box Plots of Inflow/Outflow Fecal Coliform Concentrations in Southern California

Table 3-16 Inflow/Outflow Summary Statistics for Copper (µg/L)

BMP Category	No. of BMP Sampling Locations		No. of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Site Scale Detention	5	5	76	68	26.25	15.00	39.45	20.50	63.75	28.00
Bioswales	31	31	150	100	22.00	8.23	41.00	13.00	70.50	19.90
Catch Basin Inserts	0	6	---	88	---	5.95	---	13	---	22
Flow-Through Treatment BMPs	11	11	150	146	11.98	6.20	18.00	11.00	33.00	21.25
Constructed Wetlands	2	2	21	22	11.15	5.55	62.00	8.80	110.0	14.75

IN = inflow; OUT = outflow

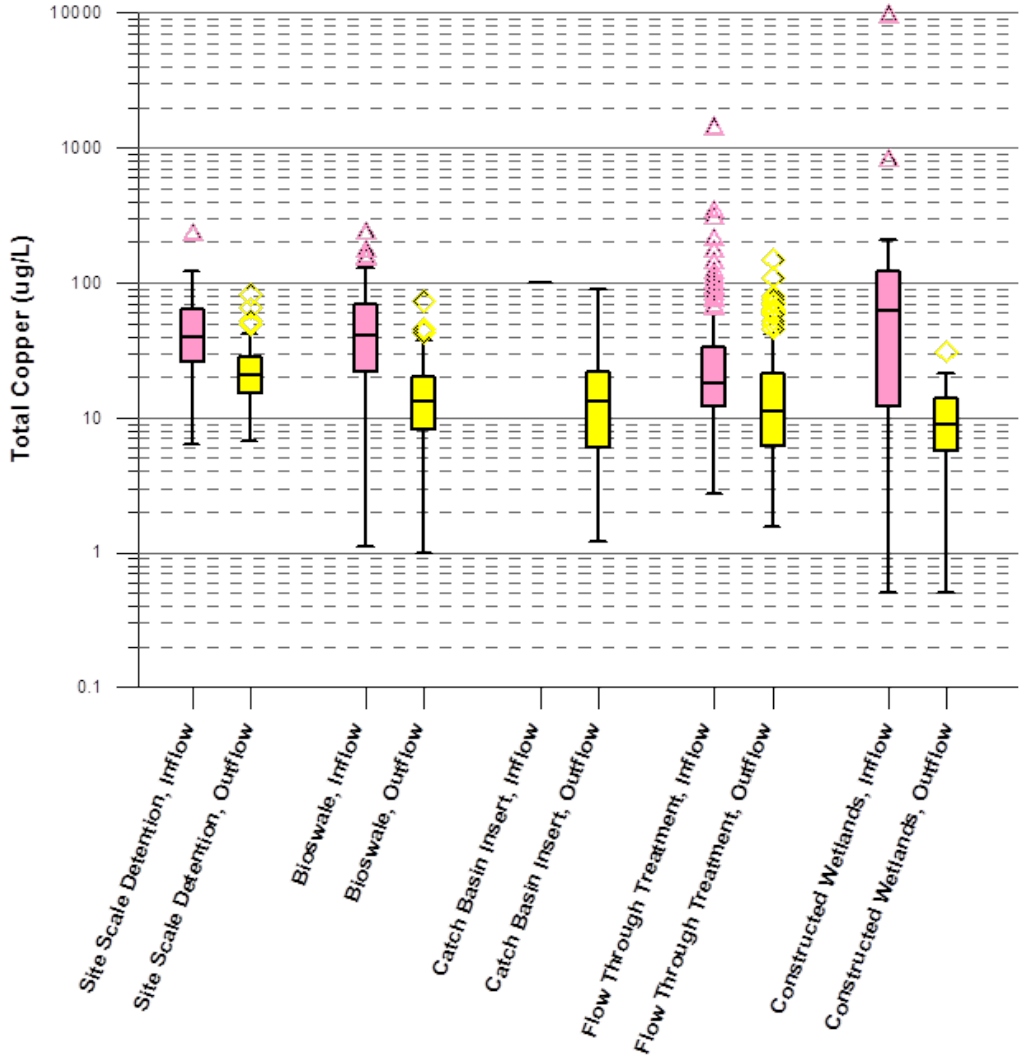


Figure 3-30 Box Plots of Inflow/Outflow Copper Concentrations in Southern California

Table 3-17 Inflow/Outflow Summary Statistics for Lead (µg/L)

BMP Category	No. of BMP Sampling Locations		No. of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Site Scale Detention	5	5	76	69	34.40	13.00	54.00	22.00	108.25	36.50
Bioswales	31	31	150	100	13.92	3.53	32.89	7.55	77.75	21.50
Catch Basin Inserts	0	6	---	88	---	2.3	---	6	---	12.45
Flow-Through Treatment BMPs	11	11	149	146	6.50	1.00	13.00	3.10	25.50	7.10
Constructed Wetlands	2	2	21	22	3.32	2.70	170.0	4.40	315.00	8.32

IN = inflow; OUT = outflow

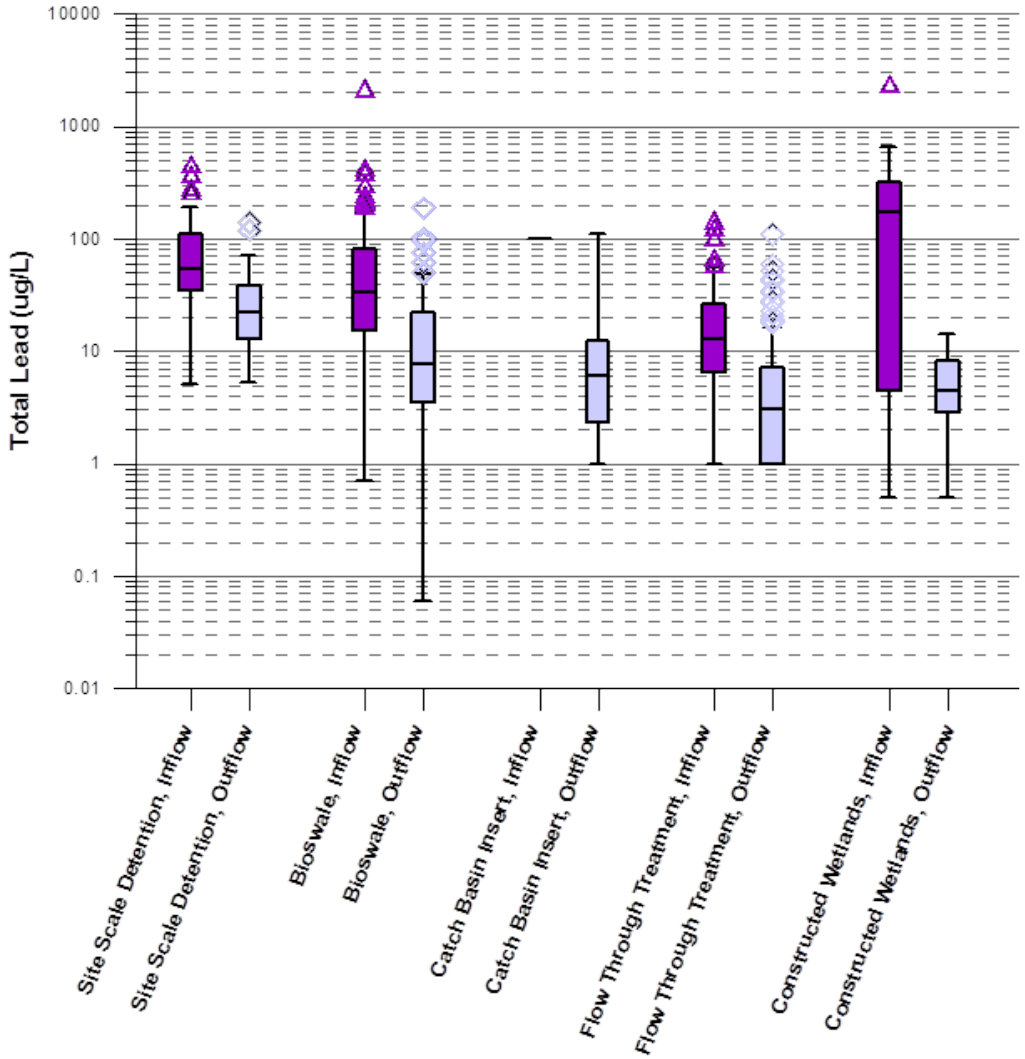


Figure 3-31 Box Plots of Inflow/Outflow Lead Concentrations in Southern California

Table 3-18 Inflow/Outflow Summary Statistics for Zinc (µg/L)

BMP Category	No. of BMP Sampling Locations		No. of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Site Scale Detention	5	5	76	68	152.75	68.25	280.00	99.00	504.75	150.00
Bioswales	31	31	150	100	110	29.5	228	55.5	360	82.5
Catch Basin Inserts	0	6	---	88	---	50.5	---	107	---	220
Flow-Through Treatment BMPs	11	11	150	146	110	23.00	221	55.5	400	131
Constructed Wetlands	2	2	21	22	109.00	28.53	270.00	39.00	450.00	84.35

IN = inflow; OUT = outflow

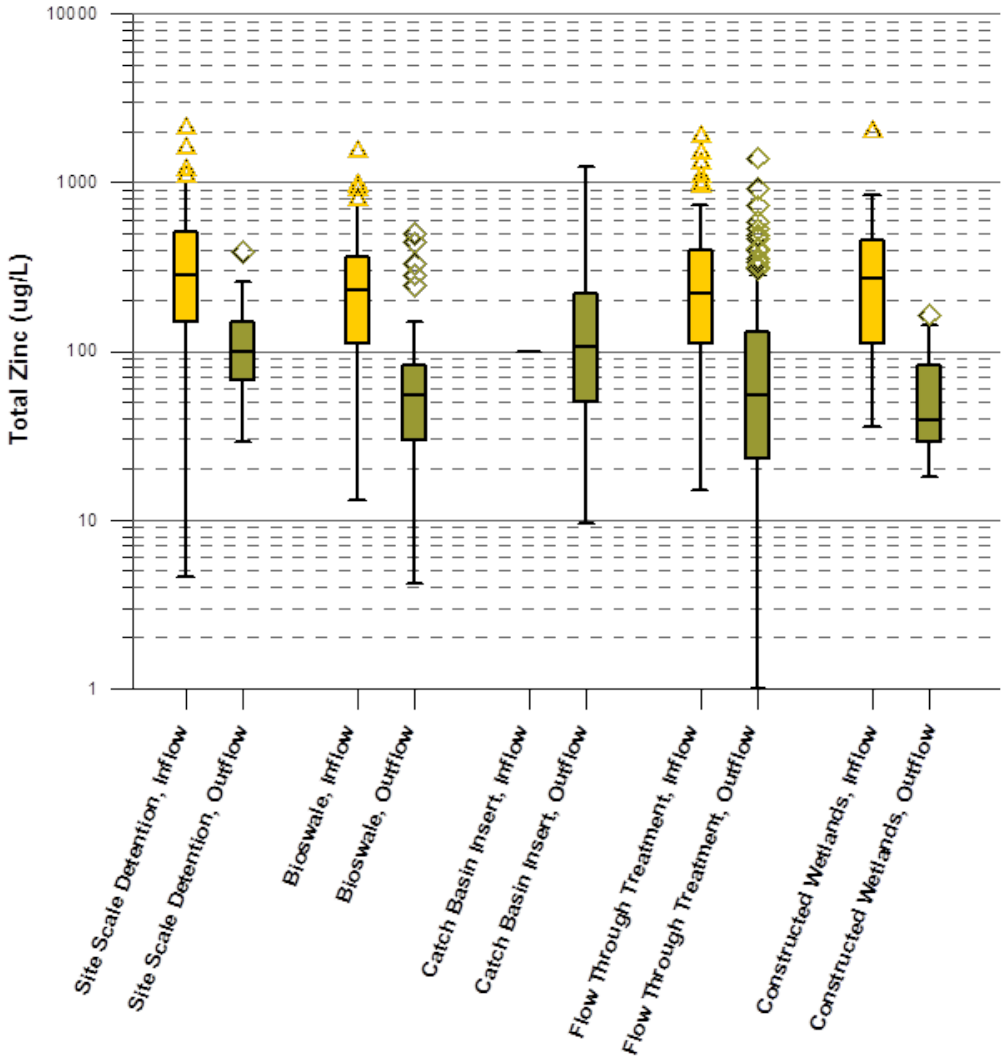


Figure 3-32 Box Plots of Inflow/Outflow Zinc Concentrations in Southern California

3.3.5 Key Observations

The statistical analysis presented has many applications, which include supporting the RAA as needed. As future applications are undertaken, the results can be analyzed in greater detail. The following general observations are highlighted:

- **Comparison of outflow quality among BMPs:** the constructed wetland (n = 2) and flow-through treatment BMPs (n = 31) generally exhibited the highest quality effluent. Reductions of TSS were generally higher compared to other BMPs and concentrations of TSS in outflows were generally lower (see **Table 3-14** and **Figure 3-28**). Elevated performance is also apparent for other constituents. The constructed wetlands exhibited exceptional reductions (>84%) of total copper, lead, and zinc. Constituents were likely reduced in the constructed wetlands by means of sedimentation, chemical and biological conversions, and uptake. The flow-through treatment BMPs in the dataset were mostly Caltrans BMPs including media filters and proprietary cartridge filters with a range of sand/peat and sand/gravel mixes.

- **BMP performance for individual constituents:** among the constituents analyzed, the percent removals were often the highest for total metals, especially lead and zinc (**Table 3-13**). The poorest performance was often for nutrients, with phosphorous concentrations increasing in some cases (likely due to leaching). For bacteria, only the constructed wetlands and flow-through treatment BMPs were able to generate outflows with median fecal coliform concentrations less than 235 MPN per 100mL (which is an applicable MS4 Permit limitation if fecal coliform is assumed equivalent to *E. coli*) (see **Table 3-15** and **Figure 3-29**).

- **Application of the data for the RAA effort:** in general, the majority of pollutant removal associated with potential stormwater BMPs in the RAA will be due to volume reduction (infiltration). The WMMS, which will be used for the RAA, is process-based and thus is able to estimate volume reduction and the proportion of inflow that is infiltrated, treated, and overflowed. Due to the model being dynamic, these proportions change from storm to storm (i.e., overflows are less frequent during small storms than large storms). Future inclusion of BMPs with a treatment component will require some assumptions regarding the quality of treated and discharged outflow (e.g., biofiltration BMPs, which have an underdrain). It is noted that only a subset of the potential BMP categories (defined in **Section 3.2.1**) had sufficient data for data analysis. As such, an important consideration will be whether BMP performance statistics of the BMPs analyzed are relevant to some of the other BMPs. For example, because biofiltration is vegetated filtration, it is reasonable to assume the performance data for the flow-through treatment (filtration) BMPs (and perhaps constructed wetlands) are applicable to biofiltration.

3.4 Proposed Control Measures

Various control measures were used to demonstrate compliance through the RAA including non-structural and structural BMPs. The selected control measures represent the volume and load reduction strategies used in the RAA. Control measures are addressed strategically throughout the compliance period at specific time steps so that the interim and final WQOs are met. The three control measures that are the focus of the volume and load reduction strategy are MCMs, regional projects, and distributed BMPs (green streets). The proposed schedule of implementation is discussed in **Section 5** and represents a feasible timeline, assuming adequate funding is obtained, considering regional BMP design and construction will take a long time while MCMs and distributed BMPs may be implemented with less of a planning, engineering, and design effort.

3.4.1 Non-Structural BMPs

Load reductions that result from non-structural BMP implementation were used in the RH/SGRWQG RAA. This section quantifies and justifies the load reductions included in the analysis. The various types of non-structural BMPs that result in load reductions are as follows:

- MCMs
- Other institutional BMPs
- LID for new and re-development projects

3.4.1.1 Minimum Control Measures

As discussed in **Section 3.1**, MCMs are defined in Part VI.D of the MS4 Permit and are often referred to as institutional BMPs. The MCMs identified in the MS4 Permit include:

- PIPP (VI.D.5)
- Industrial/Commercial Facilities Program (VI.D.6)
- Planning and Land Development Program (VI.D.7)
- Development Construction Program (VI.D.8)
- Public Agency Activities Program (VI.D.9)
- IC/ID Elimination Program (VI.D.10)

The requirements in the 2012 MS4 Permit are more stringent than those previously required, thus it is anticipated that through implementing the required control measures there will be a reduction in pollutant loading as compared to the water quality data used to establish the baseline conditions and calibrate the model, which was collected under the previous MS4 Permit. As previously mentioned, **Attachment P** includes a table outlining the differences between the 2001 and 2012 MS4 Permit requirements. **Table 3-1** in **Section 3.1** identifies potential modifications or enhancements to various MCMs. The enhancements identified in this section are currently being proposed as part of this EWMP. A baseline load reduction of five percent is credited based on the more stringent requirements of the current MS4 Permit as compared to the previous MS4 Permit.

All of the areas within the LAR Watershed will have full capture devices to address the LAR Trash TMDL. Additionally, pursuant to Part VI.D.9.h.vii of the MS4 Permit, the SGR Watershed jurisdictions which do not have a trash TMDL, will install trash excluders or other devices on or in Priority A catch basins or outfalls by December 2016. Once the devices are installed the catch basin cleaning frequency will increase, along with street sweeping implementation. These modifications to the currently implemented MCMs support the five percent load reduction previously discussed for changes in the MS4 Permit requirements.

The County Unincorporated Area plans on implementing an enhanced MCM program that involves switching street sweepers from traditional broom sweepers to regenerative air (or vacuum) sweepers. Regenerative air sweepers have a higher efficiency in terms of pollutant removal based on a study conducted in San Diego (San Diego, 2010). The Cities of Arcadia and Monrovia currently use vacuum sweepers. This is not considered an enhancement in these jurisdictions because they have been using vacuum sweepers since before 2012; therefore, the implementation is considered as part of the baseline. For the County Unincorporated Area, an additional 2 percent load reduction was credited for street sweeping enhancements.

It is difficult to model MCM implementation and other institutional BMPs in Loading Simulation Program in C++ (LSPC) because there is not numerical data to quantify actual load reductions or tools within the model to demonstrate the implementation. These control measures will contribute to some load reduction so an area-weighted reduction will be applied to the system based on enhanced MCM

implementation. **Table 3-19** identifies the load reduction in addition to the baseline five percent based on the more stringent MS4 Permit and the area-weighted load reduction based on MCM implementation for both the LAR and SGR Watersheds.

Table 3-19 Load Reductions Based on MCM Implementation

Jurisdiction	LAR Watershed		SGR Watershed	
	Percent Reduction	Reason	Percent Reduction	Reason
Arcadia	5%	MCM changes in Permit	5%	MCM changes in Permit
Azusa	-	-	5%	MCM changes in Permit
Bradbury	5%	MCM changes in Permit	5%	MCM changes in Permit
Duarte	5%	MCM changes in Permit	5%	MCM changes in Permit
Monrovia	5%	MCM changes in Permit	5%	MCM changes in Permit
Sierra Madre	5%	MCM changes in Permit	-	-
Unincorporated County	7%	MCM changes in Permit plus enhanced street sweeping	7%	MCM changes in Permit plus enhanced street sweeping
Weighted Average:	**5.2%**		**5.2%**	

3.4.1.2 Other Institutional BMPs

Other institutional control measures will also help reduce pollutant loading such as Senate Bill (SB) 346 which requires incremental reductions in the amount of copper in vehicle brake pads. SB 346 requires most brake pads sold in California to contain less than five percent copper by weight after January 1, 2021, and contain less than 0.5 percent copper by weight after January 1, 2025. This control measure is expected to create a 55 percent reduction in copper loads by 2032. This load reduction was not included in the model since copper is not the limiting priority pollutant in the RH/SGRWQG.

SB 757 is another control measure that will help reduce pollutant loading, as it requires that "no person shall manufacture, sell, or install a wheel weight in California that contains more than 0.1 percent lead by weight." Load reductions based on SB 757 were not modeled since the load reduction associated with implementation is currently unknown.

3.4.1.3 New and Re-Development

Part VI.C.4.c.i.(1) of the MS4 Permit requires Permittees to develop and implement an LID ordinance applicable to new and re-development projects meeting specified thresholds of disturbance to impervious areas. Average annual new/re-development rates released by the City of Los Angeles (LAR UR2 WMA, 2014) were used to project the area that is expected to be developed between the modeled milestone dates. The new/re-development rates are presented as percentages of an area with the specified land use. It can be assumed that the new and re-development projects will implement post-construction BMPs as required by the MS4 Permit, thus providing a load reduction based on the 85th percentile rainfall. **Table 3-20** summarizes the percent of area re-developed at each of the milestone dates. The milestone dates identified include those applicable to the LAR and SGR Watersheds.

Table 3-20 New/Re-Development Rates by Land Use

Land Use	Annual New/ Re-Development Rate (%)	Percent of Area to be Developed by Milestone Year						
		2017	2020	2023	2024	2026	2028	2037
Commercial	0.15	0.30	0.75	1.20	1.35	1.65	1.95	3.30
Education	0.16	0.32	0.80	1.28	1.44	1.76	2.08	3.52
Industrial	0.34	0.68	1.70	2.72	3.06	3.74	4.42	7.48
Residential	0.18	0.36	0.90	1.44	1.62	1.98	2.34	3.96
Transportation	2.70	5.40	13.50	21.60	24.30	29.70	35.10	59.40

Areas being developed as a result of the LID ordinances were modeled using volume reduction BMPs sized for the 85th percentile storm depth. **Table 3-21** and **Table 3-22** summarize the volume reduction associated with the new/re-developed area within each RH/SGRWQG jurisdiction at each of the compliance milestones in the LAR and SGR Watersheds, respectively. The volume identified at each milestone is cumulative starting with 2015. In the following tables, a volume reduction has not been identified based on transportation new/re-development, as it is expected that transportation development will involve green street design. It is not included in the expected volume reduction to avoid double counting of benefits.

Table 3-21 LAR Watershed Volume Reduction based on New and Re-Development

Jurisdiction	Land Use	Volume Reduction by Milestone Year (acre-feet)		
		2024 50% Metals	2028 100% Metals	2037 100% Bacteria
Arcadia	Commercial	1.1	1.6	2.6
	Industrial	0.4	0.6	1.0
	Residential	1.5	9.7	16.4
	Education	0.0	0.3	0.4
Bradbury	Commercial	0.0	0.0	0.0
	Industrial	0.0	0.0	0.0
	Residential	0.2	1.2	2.0
	Education	0.0	0.0	0.0
Duarte	Commercial	0.3	0.5	0.8
	Industrial	0.2	0.3	0.4
	Residential	0.2	1.0	1.7
	Education	0.0	0.1	0.1
Monrovia	Commercial	0.6	0.9	1.5
	Industrial	1.2	1.7	2.9
	Residential	0.9	5.6	9.5
	Education	0.0	0.2	0.4
Sierra Madre	Commercial	0.1	0.1	0.2
	Industrial	0.0	0.1	0.1
	Residential	0.4	2.3	3.9
	Education	0.0	0.1	0.1
Unincorporated County	Commercial	0.1	0.2	0.3
	Industrial	0.0	0.0	0.0
	Residential	0.5	3.0	5.0
	Education	0.0	0.1	0.1
Total:		**7.7**	**29.6**	**49.4**

Table 3-22 SGR Watershed Volume Reduction based on New and Re-Development

Jurisdiction	Land Use	Volume Reduction by Milestone Year (acre-feet)			
		2017 10% Metals	2020 35% Metals	2023 65% Metals	2026 100% Metals
Arcadia	Commercial	0.0	0.0	0.0	0.0
	Industrial	0.1	0.1	0.2	0.3
	Residential	0.0	0.0	0.0	0.0
	Education	0.0	0.0	0.0	0.0
Azusa	Commercial	0.1	0.2	0.4	0.5
	Industrial	0.6	1.5	2.4	3.3
	Residential	0.6	1.5	2.4	3.3
	Education	0.1	0.2	0.3	0.4
Bradbury	Commercial	0.0	0.0	0.0	0.0
	Industrial	0.0	0.0	0.0	0.0
	Residential	0.2	0.4	0.7	1.0
	Education	0.0	0.0	0.0	0.1
Duarte	Commercial	0.0	0.1	0.1	0.1
	Industrial	0.0	0.1	0.1	0.2
	Residential	0.3	0.7	1.1	1.5
	Education	0.0	0.0	0.0	0.0
Monrovia	Commercial	0.0	0.0	0.0	0.0
	Industrial	0.0	0.1	0.1	0.1
	Residential	0.0	0.0	0.0	0.0
	Education	0.0	0.0	0.0	0.0
Unincorporated County	Commercial	0.0	0.0	0.0	0.1
	Industrial	0.0	0.0	0.0	0.0
	Residential	0.3	0.8	1.2	1.7
	Education	0.0	0.0	0.0	0.1
Total:		**2.3**	**5.7**	**9.0**	**12.7**

3.4.2 Regional BMPs

Potential regional project sites were screened and evaluated in **Section 3.2.4**. The top ranked projects in both the LAR and SGR Watershed are recommended and a preliminary feasibility evaluation was performed. Concept drawings were prepared for the regional projects listed in **Table 3-23** and are provided in **Attachment Q**. **Table 3-23** identifies the jurisdiction responsible for implementation of the project, which is associated with the project location. The responsible jurisdiction does not imply financial responsibility. The table also identifies the contributing jurisdictions, which are those jurisdictions that contribute flow to the project in addition to the responsible jurisdiction. Descriptions of each of the selected projects are provided in **Section 3.4.2.1**

Table 3-23 Regional Project Sites

Recommended Project Site	Rank	Responsible Jurisdiction	Contributing Jurisdiction(s)
LAR Watershed			
Recreation Park	1	Monrovia	-
Arboretum of LAC	2	Arcadia	-
Sierra Vista Park	3	Sierra Madre	-
Royal Oaks Trail (LAR)	3	Duarte/Bradbury	Monrovia and County
L. Garcia Park	5	Monrovia	-
Eisenhower Park	6	Arcadia	Monrovia and Sierra Madre
SGR Watershed			
LADWP Easement	1	Azusa	-
Encanto Park	2	Duarte	Azusa
Memorial Park (Azusa)	3	Azusa	-
Royal Oaks Trail (SGR)	3	Duarte/Bradbury	County

Along with the regional BMP project sites identified in **Table 3-23**, the RH/SGRWQG also prioritizes ongoing inclusion of Peck Road Park Lake Water Conservation project as a multi-use, multi-benefit, facility dedicated primarily to water conservation, but providing valuable incidental backstop services in harvesting coarse sediments and, since the lake outlet and spillway are rarely used, precluding comingling with downstream discharges; allowing those areas to more precisely focus their local MS4 discharge source control efforts. This location is considered a Water of the United States and receiving water body; therefore, it cannot be considered as a treatment site. While the USEPA developed a legacy pesticides, PCBs, and nutrients TMDL for this lake, the TMDL also asserts that nutrient loads appear compliant and that the LACDPW annually diverts an average of 8,737 acre-feet of high quality surface waters to Peck Road Park Lake for groundwater replenishment, primarily through the basin sidewalls and around the basin sediments. Continued lake maintenance, water quality management, flow regulation, and potential future remediation activities will facilitate urban runoff from the Cities of Arcadia, Bradbury, Duarte, Monrovia, and Sierra Madre, along with unincorporated areas of Los Angeles County, to be blended with high quality surface waters, containing very low concentrations of legacy pollutants. Effective operation of Peck Road Park Lake would also allow the RH/SGRWQG to prioritize the implementation of regional BMPs in other areas, such as Arcadia Wash and the SGR, which would otherwise discharge additional runoff to downstream receiving waters. Furthermore, ongoing pollutant source control efforts, urban redevelopment, and green street implementation will have the opportunity to reduce potential runoff pollutant loads within the catchment to the lake, in a more cost-effective manner. Finally, from the public education standpoint, the facility is a large scale demonstrable example of what regional BMPs, LID, and green streets are intended to accomplish, in a far less visible way.

Further discussions with the Regional Board would be required to fully evaluate this potential site for future possible regional projects.

Table 3-24 summarizes the space available, drainage area size, and storage volume associated with the recommended regional projects. **Figure 3-33** illustrates the recommended project sites and their catchment areas along with the subareas used in the RAA. Descriptions of each of the selected projects are provided in **Section 3.4.2.1**.

Table 3-24 Regional Project Site Volume Reduction

Recommended Project Site	Parcel Size (acres)	Project Area[1] (acres)	Drainage Area (acres)	Storage Volume (ac-ft)	Storage Volume (M gal)	Percent of 85th Percentile Volume
LAR Watershed						
Recreation Park	19	0.92	106	7.43	2.42	100
Arboretum of LAC	110	3.44	207	9.32	3.04	100
Sierra Vista Park	17	N/A[2]	120	7.89	2.57	100
Royal Oaks Trail (LAR)	14	4.40	661	41.75	13.60	100
L. Garcia Park	2	1.28	265	18.21	5.93	100
Eisenhower Park	5	1.29	1,425	32.14	10.47	50
SGR Watershed						
LADWP Easement	9	3.17	240	3.93	1.28	28
Encanto Park	11	1.42	190	11.51	3.75	100
Memorial Park (Azusa)	12	3.09	387	30.20	9.84	100
Royal Oaks Trail (SGR)	14	4.12	722	67.01	21.84	100

[1] Area footprint in which infiltration will occur.
[2] Using existing spreading ground facilities.

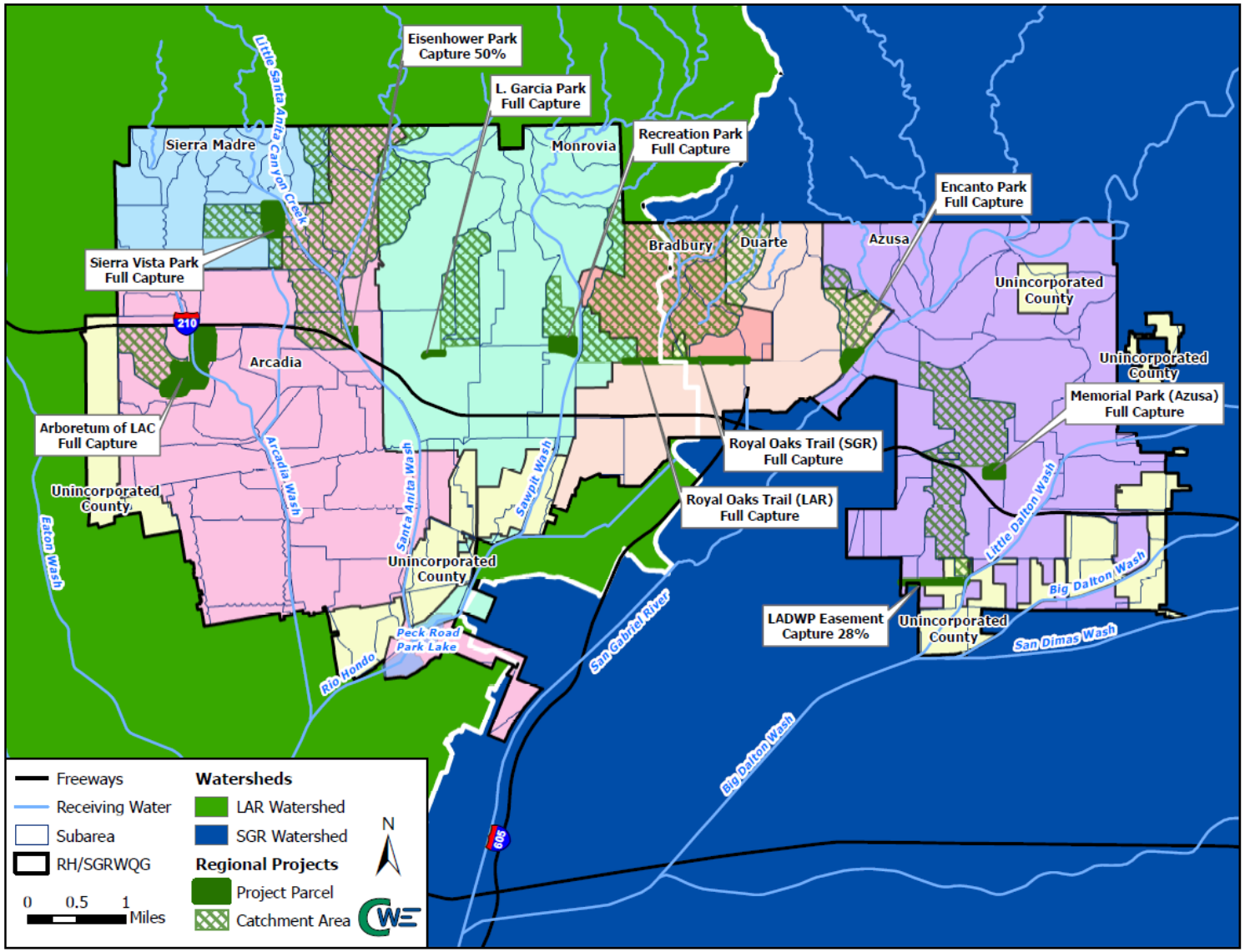


Figure 3-33 Planned Regional Projects and Catchment Areas

3.4.2.1 Regional BMP Descriptions

This section summarizes the regional BMPs proposed as part of this EWMP, as identified in **Table 3-23** and illustrated in **Figure 3-33.** These sites were selected based on the screening methodology described in **Section 3.2.4**. Concept drawings for each of the projects described below are provided in **Attachment Q**.

Recreation Park

Recreation Park was ranked the highest in the LAR Watershed and is located in the City of Monrovia near the intersection of Lemon Avenue and Shamrock Avenue. The project will receive drainage from an area of approximately 106 acres, generating a volume close to 7 acre-feet, or 2.4 million gallons. Flows will be diverted from the Canyon Boulevard Relief Drain within Shamrock Avenue, a 45-inch Reinforced Concrete Pipe (RCP). A subsurface storage system made up of 120-inch corrugated metal pipes will be located beneath the grass just north of the tennis courts and will facilitate retention and infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation.

Arboretum of LAC

The Arboretum of LAC ranked second highest in the LAR Watershed and is located in the City of Arcadia near the intersection of Baldwin Avenue and Hugo Reid Drive. The project will receive drainage from an area of approximately 207 acres, generating a volume close to 9 acre-feet, or 3 million gallons. The concept for the Arboretum of LAC is based on the Baldwin Lake Planning Study for the Los Angeles County Arboretum and Botanic Garden (Kornrandolph, Inc., 2012) and involves greening some of the lake features, dredging the lake, pumping flows from the lake to the existing waterfall and other water features, and modifications to the lake outlet. This project has received extensive public support, as many stakeholders have a personal connection with the arboretum. This project will help reduce discharges to Santa Anita Wash.

Sierra Vista Park

Sierra Vista Park ranked third highest in the LAR Watershed and is located in the City of Sierra Madre near the intersection of Sierra Madre Boulevard and Coburn Avenue. The project will receive drainage from an area of approximately 120 acres, generating a volume close to 7.9 acre-feet, or 2.5 million gallons. The concept for Sierra Vista Park is to divert stormwater from Bond Issue 7501 – Line C in Sierra Madre Boulevard, an existing 42-inch RCP. Flows will be partially treated and pumped into the existing spreading grounds. The flows will enter the existing spreading grounds at Basin 1, which is a settling basin for inflow from street runoff (Arcadia and Sierra

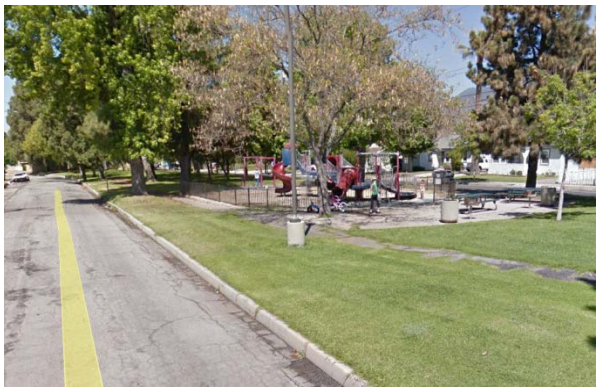
Madre, 2005). Flows will then be stored and infiltrated throughout the existing spreading grounds. This multi-use project emphasizes stormwater quality and water conservation.

Royal Oaks Trail (LAR)

Royal Oaks Trail (LAR) was ranked the fourth highest in the LAR Watershed and is located along the city boundary between Bradbury and Duarte, parallel to Royal Oaks Drive between Buena Vista Street and Woodlyn Lane. The project will receive drainage from an area of approximately 661 acres, generating a volume just over 40 acre-feet, or 13 million gallons. Flows will be diverted from Bond Issue 0030 – Duarte Drain within Buena Vista Street, an 81-inch RCP. A concrete vault subsurface storage system just over 9 feet deep is proposed beneath the trails and will facilitate retention and infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation. This site currently promotes recreational use and presents a great multi-benefit project opportunity that can be used to educate stakeholders.

L. Garcia Park

L. Garcia Park was ranked the fifth highest in the LAR Watershed and is located in the City of Monrovia near the intersection of West Olive Avenue and South Mayflower Avenue. The project will receive drainage from an area of approximately 265 acres, generating a volume just over 18 acre-feet, or just under 6 million gallons. Flows will be diverted from Bond Issue 5601 – Line G within South Mayflower Avenue, a 60-inch RCP. A concrete vault subsurface storage system just over 14 feet deep is proposed beneath the park bounded by Olive Avenue and will facilitate retention and infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation.



Eisenhower Park

Eisenhower Park was ranked the sixth highest in the LAR Watershed and is located in the City of Arcadia near the intersection of North 2nd Avenue and Forest Avenue. The project will receive drainage from an area of approximately 1,425 acres, generating a volume just over 64 acre-feet, or 21 million gallons. This project will only be able to capture approximately half of the flow generated within the tributary watershed and is considered a regional project rather than a regional EWMP project. Flows will be diverted from Santa Anita Wash, just north of the 210 freeway. A concrete vault subsurface storage system 25 feet deep is proposed beneath the baseball field and will facilitate retention and

infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation.

LADWP Easement

The LADWP Easement was the highest ranked project in the SGR Watershed and is located in the City of Azusa and Unincorporated County area mostly along Newburgh Street between Big Dalton Wash and Vincent Avenue. The project will receive drainage from an area of approximately 240 acres, generating a volume just over 14 acre-feet, or 4.5 million gallons. This project will only be able to capture approximately 28 percent of the flow generated within the tributary watershed (approximately 4 acre-feet or 1.3 million gallons) and is considered a regional project rather than a regional EWMP project. Flows will be diverted from Gladstone Street Drain, a 78-inch RCP, just upstream of the outfall into Big Dalton Wash. The concept for the LADPW Easement involves surface storage in the form of infiltration basins, as this is the preferred implementation strategy by LADWP. A series of four infiltration basins has been conceptualized and the level in each basin is to be controlled by a downstream weir.

Encanto Park

Encanto Park was ranked the second highest in the SGR Watershed and is located in the City of Duarte, adjacent to the San Gabriel River near the intersection of Royal Oaks Drive and Encanto Parkway. The project will receive drainage from an area of approximately 190 acres, generating a volume just over 11 acre-feet, or just under 4 million gallons. Flows will be diverted from the Encanto Park Storm Drain at the confluence with another storm drain within the park. At the diversion point, the Encanto Park Storm Drain is a 72-inch RCP. Flows will be pumped to a subsurface storage system made up of 120-inch corrugated metal pipes located beneath the grass and will facilitate retention and infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation.

Memorial Park (Azusa)

Memorial Park (Azusa) was ranked third highest in the SGR Watershed and is located in the City of Azusa near the intersection of Angeleno Avenue and Third Street. The project will receive drainage from an area of approximately 390 acres, generating a volume close to 30 acre-feet, or 10 million gallons. Flows will be diverted from Project Number 1119 – Unit 2 within Orange Avenue, a 78-inch RCP. A subsurface storage system made up of 144-inch corrugated metal pipes will be located beneath the baseball fields and will

facilitate retention and infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation.

Royal Oaks Trail (SGR)

Royal Oaks Trail (SGR) was ranked the fourth highest in the SGR Watershed and is located along the city boundary between Bradbury and Duarte, parallel to Royal Oaks Drive between Chimes Avenue and Mount Olive Drive. The project will receive drainage from an area of approximately 722 acres, generating a volume just over 67 acre-feet, or about 22 million gallons. Flows will be diverted from Bradbury Drain, a 14-foot by 9.5-foot reinforced concrete box, just upstream of where it daylights along the trail A concrete vault subsurface storage system just over 16 feet deep is proposed beneath the trails and will facilitate retention and infiltration. Opportunities for capture and use may exist and will be further evaluated prior to implementation. This site currently promotes recreational use and presents a great multi-benefit project opportunity that can be used to educate stakeholders.

3.4.3 Distributed BMPs (Green Streets)

The methodology for evaluating potential green street opportunities is detailed in **Section 3.2.5**. To determine the streets recommended for implementation, a green street subarea analysis was performed. Using the street rankings identified through the green street analysis, each subarea within the RH/SGRWQG was analyzed to determine a combination of streets that would satisfy the 85th percentile, 24-hour storm volume criteria and 90th percentile, 24-hour load criteria as determined by the LSPC and further discussed in **Section 4.7**. Subarea characteristics influenced which criteria controls implementation efforts. Green street implementation was determined based on the criteria that had the greater volume capture or load reduction requirement.

To perform this analysis, the green street rankings were clipped at the subarea level. The streets within the subarea were analyzed to determine the number of lanes, which was then associated with the lane miles provided by each street segment. Streets were then manually selected throughout the subarea until the number of lane miles selected for green streets satisfied the volume and load criterion. The lane mile needs were determined assuming a lane is ten feet wide and three feet of storage with thirty-three percent void space would be provided beneath the street. Using these assumptions, ten cubic feet of storage would be provided per foot of street length within each lane.

Streets were strategically selected throughout each subarea. High ranking streets are always the best alternative and then streets were compared with the existing topography, storm drain, and catch basin alignments. Streets that are ranked low were never selected, as they represent the least feasible options. Streets that run parallel to contours were selected over those that were perpendicular to contours. The streets parallel to the contours collect flows that are running downhill, similar to hillside drainage ditches. Capture on these streets allows infiltration prior to collection in storm drains. In some instances, the topography was not used as the determining factor. Streets that contained storm drains and catch basins were given preference since the drains show that they receive flow from the surrounding areas and would be beneficial as green streets. Also, major streets were preferred over residential streets, as they provide a greater number of lane miles, therefore less streets would be disturbed throughout the implementation process. Streets that are going to be rehabilitated or disturbed in some way in the near future were given preference as these streets offer cost saving solutions. Using

ArcGIS and Microsoft Excel, streets were chosen to be implemented as green streets until the 85th percentile volume and 90th percentile load criteria were satisfied.

Figure 3-34 illustrates one example of an individual subarea analysis, all of which are included in **Attachment R**. **Attachment S** contains summary tables for the LAR and SGR Watersheds demonstrating the streets analyzed and streets selected along with the associated subarea and the jurisdiction they will be implemented by. The streets that are to be implemented as green streets are shown in the figures as bold green lines and are marked "G" in the "Selected?" column in the table. In some instances there were not enough high and/or medium ranked streets within the subarea to satisfy the 85th percentile volume and/or the 90th percentile load criterion. When this was the case, the individual subarea was not analyzed and additional streets were selected in other subareas. These subareas are discussed further in **Section 3.4.3.1**.

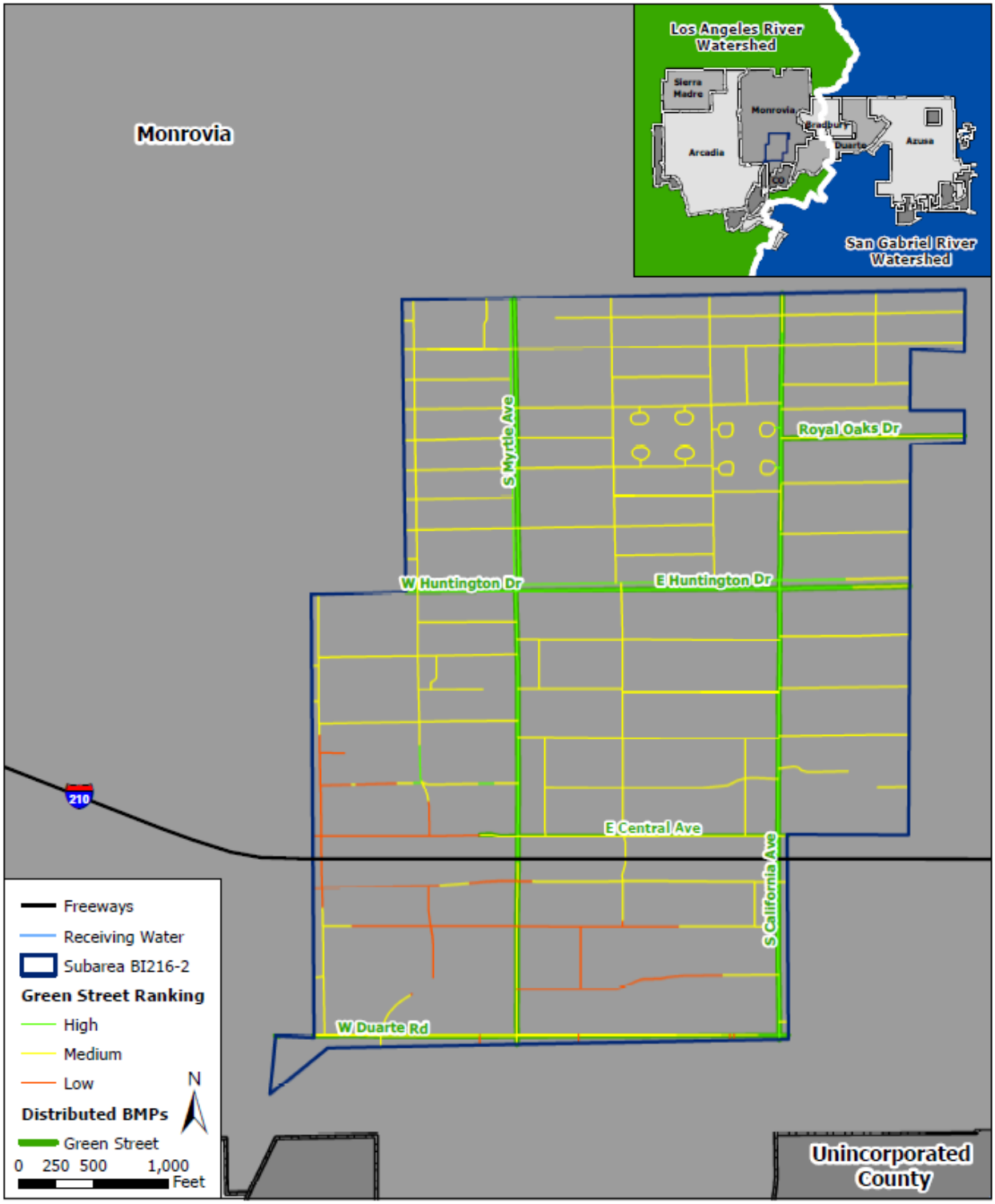


Figure 3-34 Green Street Analysis for Subarea BI216-2

3.4.3.1 Green Street Implementation Summary

The implementation needs based on the subarea analysis were analyzed to determine the quantity of green streets by jurisdiction and subarea. **Table 3-25** identifies the lane mile needs for each jurisdiction within the RH/SGRWQG.

Table 3-25 Green Street Implementation Summary by Jurisdiction

Jurisdiction	Green Street Lane Miles			
	LAR Watershed	SGR Watershed	Total	Percent by Agency
Arcadia	123	0	123	28%
Azusa	0	112	112	26%
Bradbury	0	0	0	0%
Duarte	38	16	54	12%
Monrovia	68	0	68	16%
Sierra Madre	6	0	6	1%
County Unincorporated	38	35	73	17%
Total:	**273**	**163**	**436**	**100%**

Figure 3-35 illustrates the lane miles needed throughout the RH/SGRWQG, compiling the information from the subarea analysis. Similar to the subarea maps, the green street recommendations are shown as bold green lines. The figure also shows the regional project catchments that are full capture, as green streets are not required in these subareas as they are fully mitigated by a regional EWMP project. Additionally, the subareas for which green streets are not selected are shown. The RH/SGRWQG plans to develop a Green Streets Master Plan document that evaluates area Capital Improvement Programs and the projected road repair and rehabilitation projects, street widening, resurfacing, and reconstruction so that green street implementation can be strategically planned and incorporated into upcoming projects. Streets that have been upgraded or rehabilitated in the last few years and selected as green streets will be scheduled for implementation towards the end of the implementation schedule.

Attachment T contains a subarea summary table listing the lane miles provided based on subarea. A figure is also included so that subareas names can be associated spatially. Where it is impractical to implement enough BMPs within a specific subarea, other BMPs are implemented throughout the watershed to provide the estimated volume and load reductions.

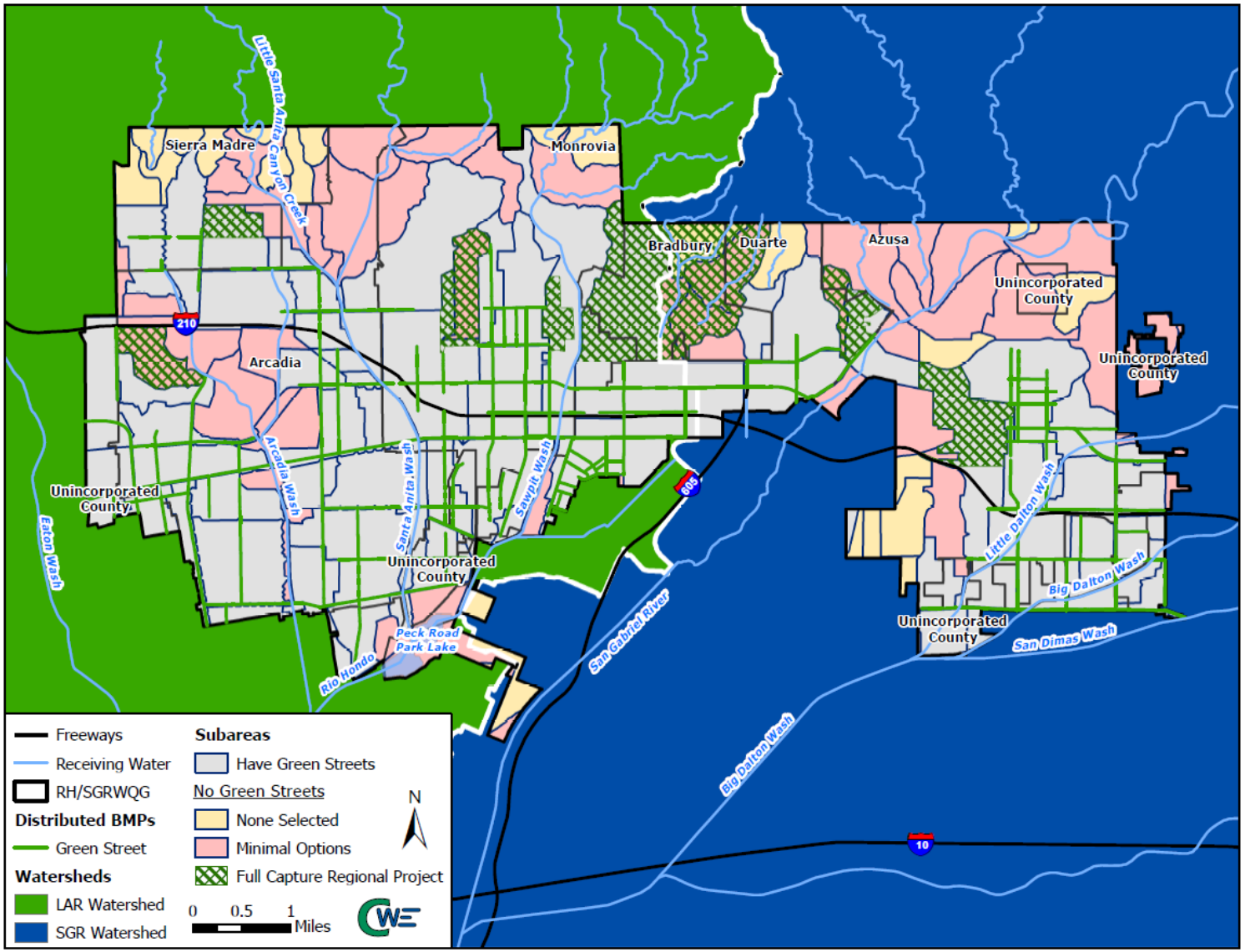


Figure 3-35 Green Street Implementation Summary

4. Reasonable Assurance Analysis

This section explains the methodology of the RAA for the RH/SGRWQG EWMP as summarized below. The RAA developed for the RH/SGRWQG is in conformance with the RAA Guidelines developed by the Regional Board.

- WMMS, developed by the LACFCD, was calibrated with flow and water quality data specific to the RH/SGRWQG and then used to estimate the current pollutant loads and provide an initial evaluation of the types and quantities of control measures needed to achieve MS4 Permit objectives.
- The LSPC software was used to estimate the pollutant load reductions expected from different control measure implementation scenarios through a calibration process. This step is part of an iterative process that helps estimate the implementation levels at various target time periods to demonstrate compliance with MS4 Permit objectives.

Additionally, this section discusses in detail the extensive calibration process associated with stormwater flow through the system and the corresponding water quality. The incremental approach for demonstrating compliance with MS4 Permit requirements is also discussed and includes the implementation of modified MCMs, industrial and other permitted sites, regional BMP projects, and distributed BMPs (green streets).

The purpose of the RAA is to demonstrate that the implementation scenarios proposed will meet the MS4 Permit effluent and receiving water limits for priority POC. This is done by demonstrating load reductions for the 85th percentile, 24-hour storm and the 90th percentile load. Load reductions are used instead of concentrations. This is necessary for two reasons: first, the entire watershed (both the LAR and SGR Watersheds) is not participating as part of the RH/SGRWQG and the approaches they are taking may be different; second, capture and infiltration systems will reduce the loads delivered, but may not change concentrations of flows that reach the regulated water bodies. Total loads in the water bodies will be tied to contributions from all entities within the watershed. For these reasons, load reductions are considered a better metric for analysis.

4.1 Modeling Software Used for the RAA

The RAA for the RH/SGRWQG uses WMMS, a regional model developed for the LAC region by the LACFCD. WMMS is comprised of two main components, LSPC and the Regional Optimization System. LSPC was developed from the Hydrologic Simulation Program – FORTRAN (HSPF) used for simulating hydrology, sediment, and general water quality. The model generates runoff based on rainfall, snow, and groundwater inputs and determines pollutant loading and transport based on point source data, aerial deposition, and non-point source loadings. Additionally, the model determines chemical and transport interactions within stream reaches and provides anticipated water quality data based on the interactions at specific locations. WMMS and the LSPC modeling component are included in the list of approved watershed models for conducting the RAA outlined in Part VI.C.5.b.iv.(5) of the MS4 Permit.

Additional information pertaining to WMMS and LSPC is available from the LACDPW (2008, 2010a, 2010b, 2010c, 2011, 2013) and the USEPA (2003). The documents can be found on the WMMS homepage (http://dpw.lacounty.gov/wmd/wmms) where the model can also be downloaded.

4.2 Dry-Weather Modeling Approach and Results

The approach to the dry-weather portion of the RH/SGRWQG RAA was to evaluate the volume reduction potential provided by proposed regional projects and green streets to determine how much of the

dry-weather flows would be addressed. The dry-weather flows being analyzed include only non-permitted stormwater discharges. Rising groundwater often contributes to non-stormwater flows and is not prohibited. This approach does not include the use of a model due to data set limitations and significant spatial variation throughout the RH/SGRWQG in terms of anticipated dry-weather flows. Data pertaining to measured dry-weather flow rates throughout Low Angeles County were compiled to estimate daily yields (i.e., gallons per day per acre). Thirty-five data points were used to determine the range of daily yields that can be expected from the RH/SGRWQG area. Three data points were orders of magnitude higher than the average and therefore excluded from the analysis. Based on the remaining 32 data points, the minimum daily yield is four gallons per day per acre, the average is 150 gallons per day per acre, and the maximum is 660 gallons per day per acre. Flows captured through regional BMP implementation and green street implementation were subtracted from the total assumed non-stormwater flows on a subarea-by-subarea basis to quantify pollutant load reductions which are based on the ratio of total flow reduction. The regional BMPs and green streets used for this analysis are discussed in **Section 3.4**.

Rather than using the estimated daily yields discussed above, a percent reduction was determined, which can be applied to applicable daily yields in the area. **Figure 4-1** and **Figure 4-2** illustrate the anticipated dry-weather flow reduction over time due to the implementation of wet-weather controls for the LAR and SGR Watersheds, respectively. The vertical lines shown in the figures represent the dry-weather TMDL compliance milestones. The anticipated dry-weather flow remaining in the LAR Watershed once the proposed wet-weather controls have been implemented (2028) is 20 percent (80 percent reduction). Once proposed control measures have been implemented in the SGR Watershed, 38 percent of dry-weather flows will remain (62 percent reduction). It is important to remember that the dry-weather flows for the RH/SGRWQG are currently captured and infiltrated in the unlined portion of the SGR and Rio Hondo or in one of the many spreading grounds within the watershed. The remaining non-permitted non-stormwater discharges will be addressed through the CIMP non-stormwater discharge source assessment.

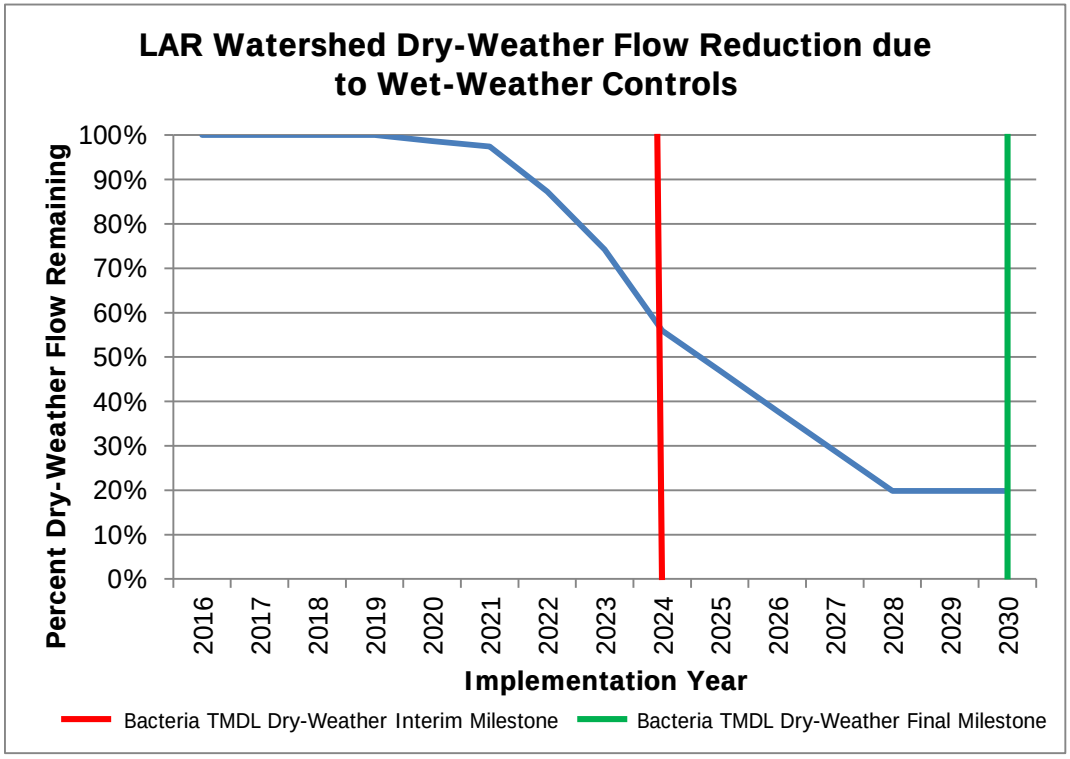


Figure 4-1 LAR Watershed Dry-Weather Flow Reduction due to Wet-Weather Controls

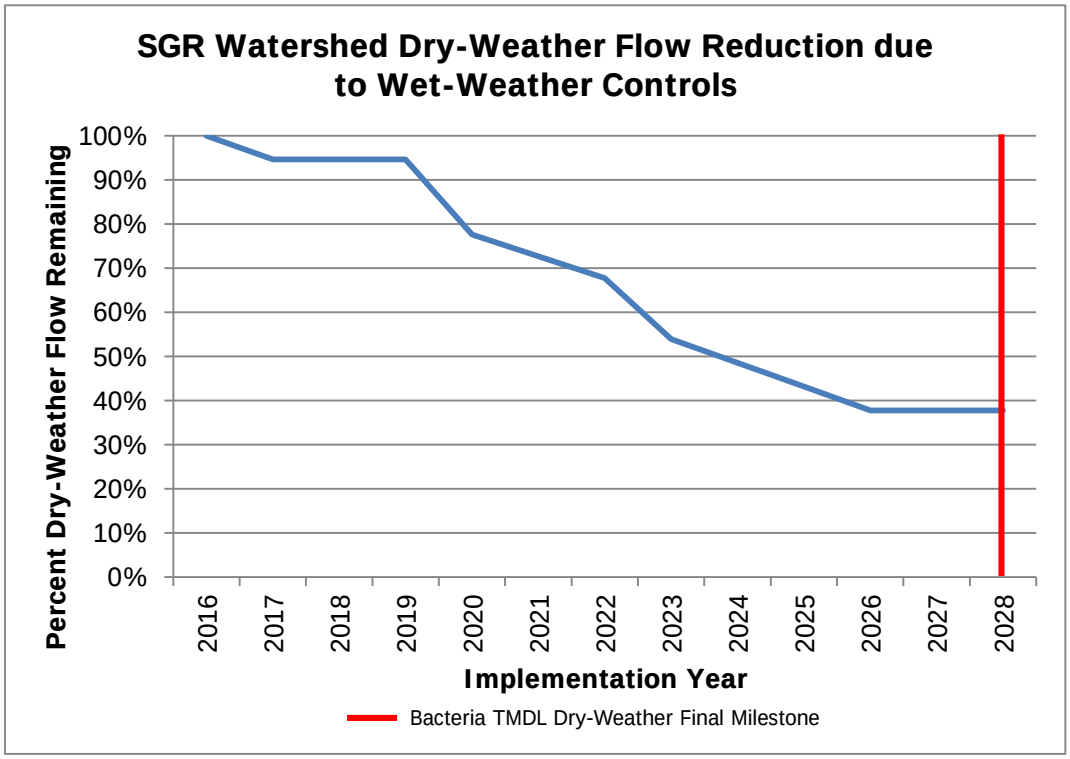


Figure 4-2 SGR Watershed Dry-Weather Flow Reduction due to Wet-Weather Controls

4.3 Wet-Weather Modeling Approach

The wet-weather RAA modeling approach used for the RH/SGRWQG RAA provides an efficient and cost-effective method for determining control measure implementation to meet WQOs. The approach also incorporates the RH/SGRWQG preferences regarding exceedance risk tolerance, pollutant prioritization, and structural BMP implementation scenarios while considering stakeholder input. The end product results in a comprehensive plan that maximizes benefits and minimizes implementation cost. The subareas included in the RAA are those within the group area and those that are tributary to it. The subareas are shown in **Figure 4-3**.

The wet-weather RAA approach involves the determination of both the existing pollutant loads (baseline) and target load reductions as a percentage of the total load. Once the baseline conditions were determined, watershed control measures were implemented over time to meet target WQOs. The selected control measures were then modeled at various stages within the implementation timeframe to determine the quantity, location, and timing of BMP implementation to meet the interim and final WQOs applicable to the RH/SGRWQG. Targets for the RAA are based on interim time steps throughout the MS4 Permit timeframe, which were presented in **Table 1-6** and **Table 2-10**. Control measures such as non-structural BMPs including MCMs and new/re-development programs, regional BMP projects, and distributed BMPs (green streets), were included in the RAA to demonstrate compliance at different time steps.

Demonstrating compliance through the RAA is an iterative process. The model includes different BMP scenarios at the compliance time steps and different approaches to BMP implementation are modeled to determine the most cost-effective approach that will achieve compliance. The iterative process involved model calibration, model validation, baseline simulation, determination of volume and load reductions, and control measure implementation, all of which are further detailed in this section.

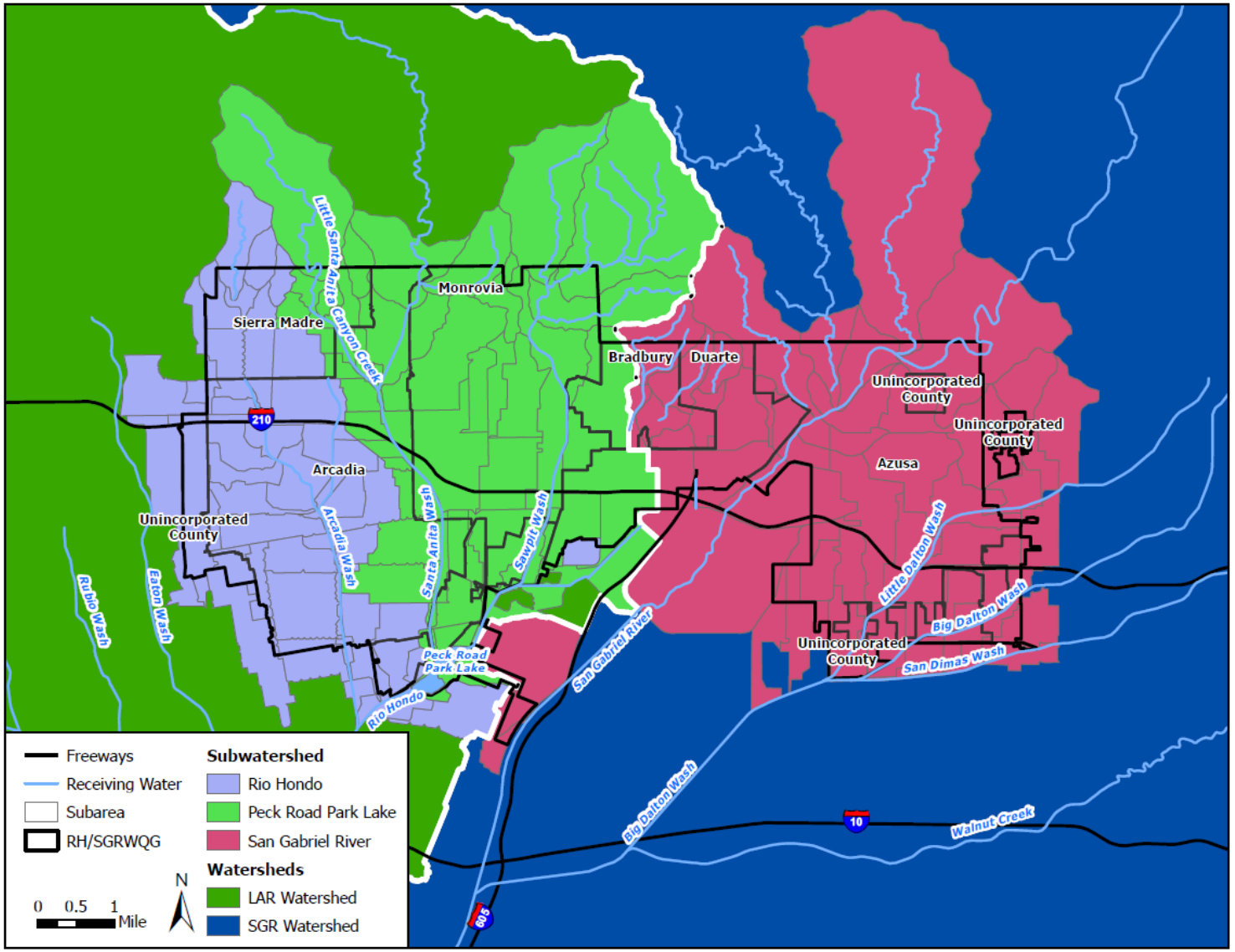


Figure 4-3 RH/SGRWQG Watershed Boundaries

4.4. LSPC Calibration

Calibration refers to the adjustment or fine-tuning of modeling parameters to reproduce observations on the basis of field monitoring data. The goal of the LSPC model calibration was to obtain physically realistic model predictions by selecting parameter values that reflect the unique characteristics of the RH/SGRWQG and surrounding area. Spatial and temporal aspects were evaluated through the iterative calibration process. Model calibration was necessary to demonstrate the calibrated model properly assessed all the model parameters and modeling conditions that can affect results for hydrologic and water quality analysis. The Regional Board provided acceptable model calibration criteria in Table 3.0 of the RAA Guidelines. The hydrology (flow) from the RH/SGRWQG was calibrated along with the water quality parameters described in the following subsections.

As part of the iterative calibration process, default parameter values were modified and input into LSPC. The model results were compared with observed data and a statistical analysis was conducted to measure the difference between the two values. The analysis applied linear bias as the general error percentage and added root mean square error (RSME) and coefficient of correlation (C.C.) evaluations to examine statistical variations. The linear bias was performed to find the percent difference between simulated and observed values. Linear bias is a measure of the difference in the sum of all simulated output results and the sum of all observed values divided by the sum of all simulated output results.

$$Linear\ Bias\ (percent) = \frac{\sum LSPC\ Output - \sum Recorded\ Values}{\sum Recorded\ Values}\ x\ 100$$

The RSME is a statistic used to measure the differences between values predicted by a model and the values actually observed. This statistic represents the sample standard deviation of the differences between predicted and observed values. The C.C. is a measure of the linear correlation between two variables where the optimal correlation is equal to one. These three statistical values (linear bias, RSME, and C.C) are presented so that the data can be better understood. The statistics determined for each of the calibration standards are further discussed within each calibration section below.

4.4.1 Hydrologic Calibration

Hydrologic calibration is the process of getting the predicted model flows to match measured flows in the watershed. The hydrologic calibration effort resulted in parameter values that produced the best overall agreement between simulated and observed stream flow volumes and timing throughout the calibration period. The period of calibration was from October 1, 2002 through April 30, 2012 to best fit the most recent flow data. Rainfall data was taken from 16 LACFCD recording rain gauges and one National Climatic Data Center (NCDC) rain gauge located within the watershed. Another component of meteorological input used to simulate evaporation was Pan Evapotranspiration (PET). Eight air temperature stations were used to derive PET values. Calibration included a time series comparison of daily and monthly values. Composite comparisons were also made to evaluate average monthly stream flow values over the period of record.

The basis for distributing hydrologic and water quality parameters in LSPC is provided by the existing land use coverage throughout the subareas shown in **Figure 4-3**. Land unit representation should be sensitive to the parameters that influence hydrology and pollutant transport, including landscape, land use (including impervious area assumptions), soils, and slope. The combination of the land use, hydrologic soil group (HSG), and slope were used to define the Hydrologic Response Units (HRUs). LSPC has 21 different HRUs, nine of which are considered impervious while twelve are predominantly pervious such as vacant or vegetated open space. Mixed land use areas were divided into impervious area and pervious areas based on acceptable regional values. For example, a commercial development is

considered to be 90 percent impervious. The Commercial HRU is 100 percent impervious, but the other 10 percent of a commercial parcel is added to the "Urban_Grass_Irrigated" HRU.

The objective for hydrologic calibration was to achieve model results within the defined range specified in Table 3.0 of the RAA Guidelines. Table 3.0 specifies that percent differences less than ten percent are very good, values between 10 and 15 percent are good, and values between 15 and 25 percent are fair for hydrologic calibration.

The following stream gauges throughout the RH/SGRWQG and surrounding areas were used to calibrate the flow and their locations are illustrated in **Figure 4-4** as yellow triangles. Runoff stations outside of the RH/SGRWQG area were used to calibrate the model because the water quality data collection station used for calibration is located downstream of the RH/SGRWQG. Therefore, calibration required that all areas tributary to the water quality monitoring site be calibrated and modeled.

- F190 – SGR at Foothill Boulevard
- F263 – SGR below San Gabriel Parkway
- F274 – Dalton Wash at Merced Avenue
- F304 – Walnut Creek above Puente Avenue
- F312 – San Jose Channel below Seventh Avenue
- F317 – Arcadia Wash below Grand Avenue
- F318 – Eaton Wash at Loftus Drive
- F329 – Bradbury Channel below Central Avenue

The upstream watershed is controlled by several dams that influence flows in the two rivers. The stream gauge stations outside of the RH/SGRWQG were treated as flow point sources for model calibration. These flow sources measured at stream gauge stations upstream of the RH/SGRWQG are shown in orange in **Figure 4-4.** Flow stations within the RH/SGRWQG were calibrated to match measured data. Additionally, the channel flows measured in Whittier Narrows Dam were divided into two portions by adjusting the F-table configuration to comprehensively model the interconnection of the flows between the Rio Hondo and San Gabriel River.

Figure 4-5 illustrates the observed (OBS) and simulated (SIM) daily flow rates associated with the final calibration at stream gauge F190 while **Figure 4-6** illustrates the monthly flow rates. Both of these figures also show the relationship between the simulated and observed flows, which is linearly correlated. The cumulative total flow, as a percent, along with the exceedance probability is shown in **Figure 4-7** for stream gauge F190. The figures and statistical data corresponding to the stream gauges used for calibration are provided in **Attachment U**. The statistical analysis demonstrates that the hydrologic calibration ranges from very good to fair, with most gauges falling in the good calibration range.

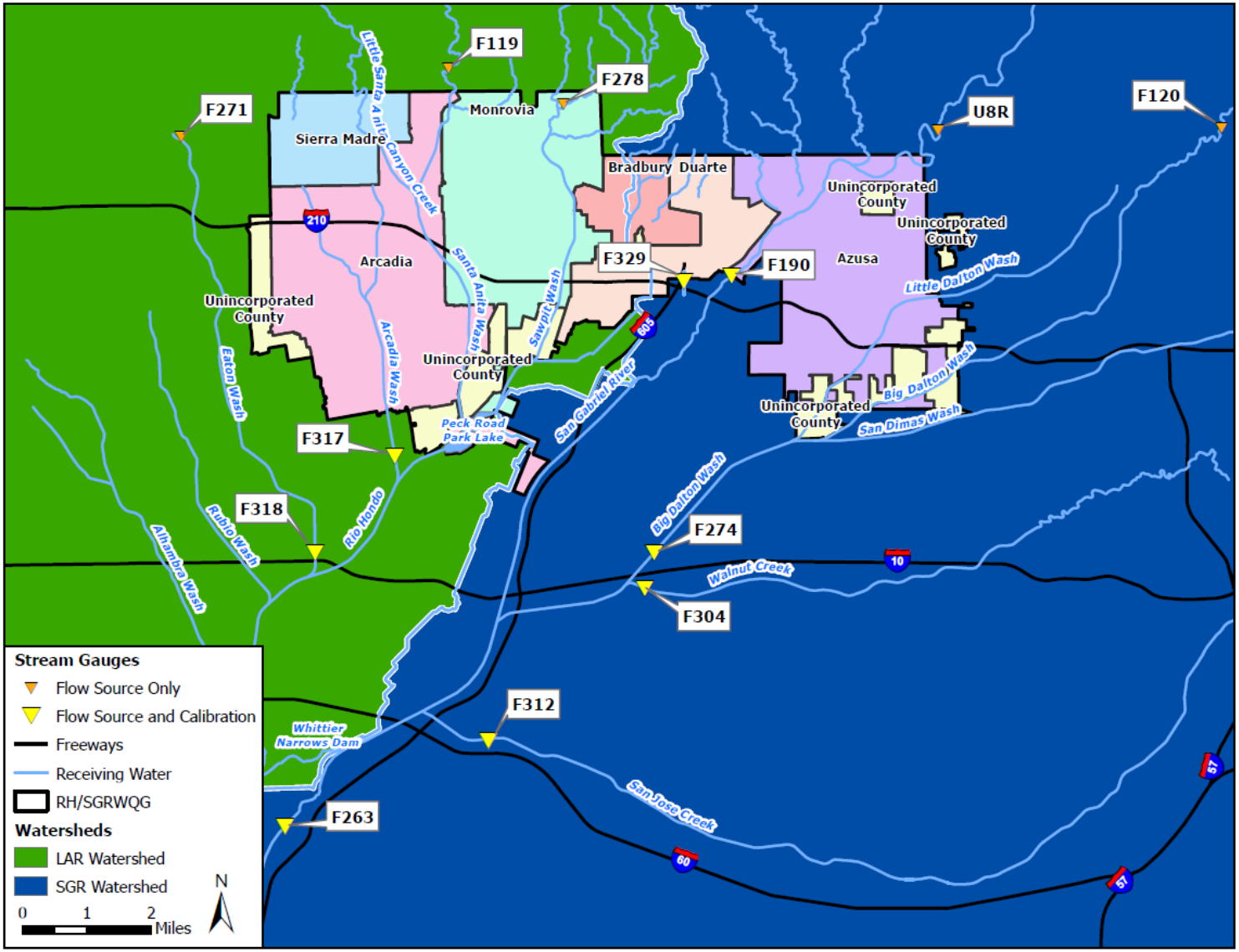


Figure 4-4 Stream Gauges and Water Quality Monitoring Site used for Calibration

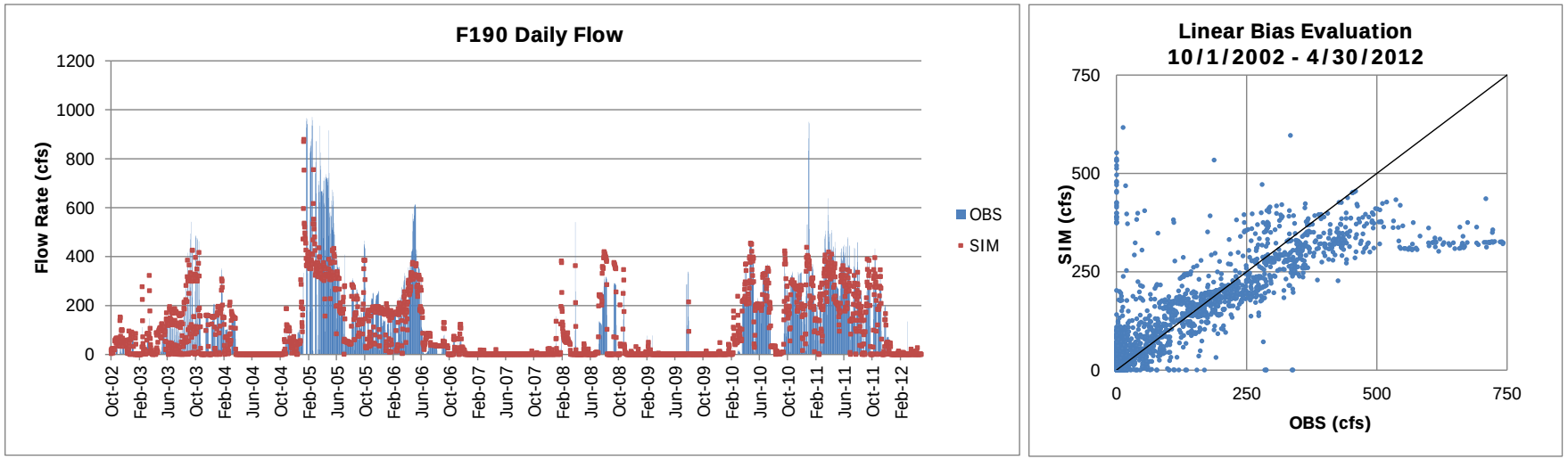


Figure 4-5 Daily Flow Calibration Plot at Stream Gauge F190

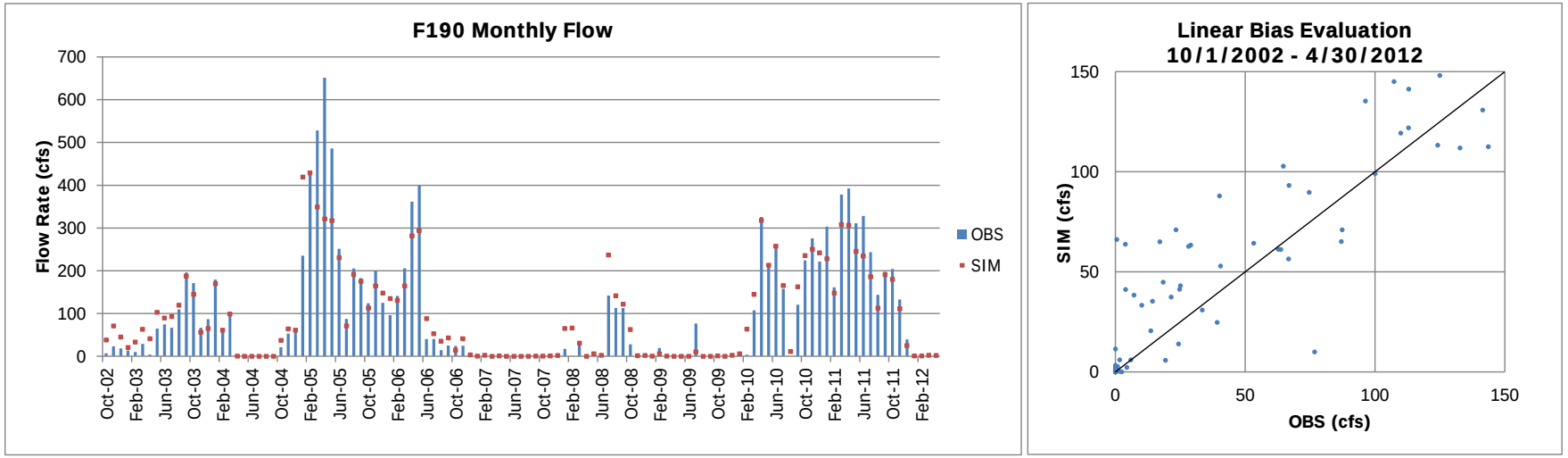


Figure 4-6 Monthly Flow Calibration Plot at Stream Gauge F190

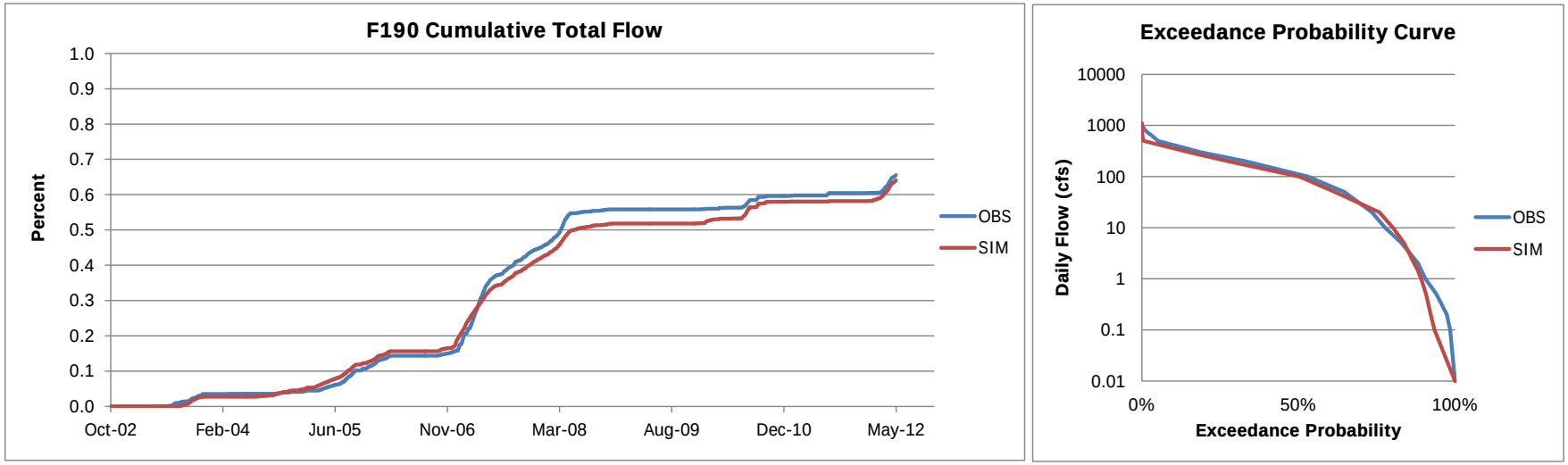


Figure 4-7 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F190

4.4.1.1 Water Budget Parameter Calibration

The model set-up for the RH/SGRWQG RAA has 24 individual modeling parameters for the water budget (PWAT), three of which were selected as calibration parameters. **Table 4-1** summarizes the calibration parameters including their default values (def) and calibration values (cal) used in the model runs associated with all of the stream gauges. The calibrated values are italicized in the table. The table also identifies whether each HRU is pervious (p) or impervious (imp). The definitions for the calibrated parameters are as follows:

- lzsn – lower zone nominal storage (inches)
- uzsn – upper zone nominal soil moisture storage (inches)
- intfw – interflow inflow

Table 4-1 LSPC Calibrated Water Budget Parameter Values

LUID	HRU	p/imp	lzsn		uzsn		intfw	
			def	cal	def	cal	def	cal
1	HD_SF_Residential	imp	0	0	0	0	0	0
2	LD_SF_Res_Moderate	imp	0	0	0	0	0	0
3	LD_SF_Res_Steep	imp	0	0	0	0	0	0
4	MF_Res	imp	0	0	0	0	0	0
5	Commercial	imp	0	0	0	0	0	0
6	Institutional	imp	0	0	0	0	0	0
7	Industrial	imp	0	0	0	0	0	0
8	Transportation	imp	0	0	0	0	0	0
9	Secondary_Roads	imp	0	0	0	0	0	0
10	Urban_Grass_Irrigated	p	7	*4*	0.5	*0.2*	1	*5*
11	Urban_Grass_NonIrrigated	p	7	*4*	0.5	*0.2*	1	*5*
12	Agriculture_Moderate_B	p	7	*4*	0.5	*0.2*	1	*5*
13	Agriculture_Moderate_D	p	7	*4*	0.5	*0.2*	1	*5*
14	Vacant_Moderate_B	p	7	*4*	0.5	*0.2*	1	*5*
15	Vacant_Moderate_D	p	7	*4*	0.5	*0.2*	1	*5*
16	Vacant_Steep_A	p	7	*4*	0.5	*0.2*	1	*5*
17	Vacant_Steep_B	p	7	*4*	0.5	*0.2*	1	*5*
18	Vacant_Steep_C	p	7	*4*	0.5	*0.2*	1	*5*
19	Vacant_Steep_D	p	7	*4*	0.5	*0.2*	1	*5*
20	Water	p	7	*4*	0.5	*0.2*	1	*5*
21	Water_Reuse	p	7	*4*	0.5	*0.2*	1	*5*

HD = High Density, HRU = Hydrologic Response Unit, LD = Low Density, LUID = Land Use Identification, MF = Multi Family, SF = Single Family

Table 3.1 in the RAA Guidelines identifies the acceptable "Range of Initial Values" for the model parameters based on the USEPA Basins Technical Note 6 (EPA BTN #6). The "Range of Initial Values" specified are as follows and the calibrated values used for the RH/SGRWQG are within the acceptable range:

- lzsn: 2.0 – 15.0
- uzsn: 0.05 – 2.0
- intfw: 1.0 – 10.0

Table 3.0 of the RAA Guidelines states that percent differences between 15 and 25 percent are considered fair, differences between ten and 15 percent are considered good, and differences less than ten percent are considered very good for the hydrology/flow model parameters. **Table 4-2** presents the results from the statistical analysis performed based on the calibrated and recorded values for the water budget parameters at stream gauge F190. The statistics at the other gauges used for model calibration are included in **Attachment U**. The daily and monthly differences are less than ten percent at gauge F190 which demonstrates a very good correlation between observed and modeled flow rates. Additionally, the C.C. is close to one which demonstrates that the relationship between modeled and observed values is linear.

Table 4-2 Water Budget Parameter Statistics at Gauge F190

Parameter	RMSE	Linear Bias	C.C.
Water Budget - Daily	90.8	-6.0%	0.82
Water Budget - Monthly	49.1	-6.0%	0.93

4.4.2 Water Quality Calibration

Mass Emission Station S14 is located directly downstream from East Whittier Narrows Dam, as illustrated in **Figure 4-8**, and provides sufficient water quality monitoring data for calibrating the RH/SGRWQG model. The area tributary to S14 encompasses an area much larger than the RH/SGRWQG. To demonstrate that the model accurately represents water quality parameters within the RH/SGRWQG, the entire watershed upstream was calibrated. As more water quality data is collected through the CIMP, validation and fine tuning of the water quality parameters may be possible. At this time, the data sets available were used to demonstrate the model accurately represents pollutant loading within the upstream watershed.

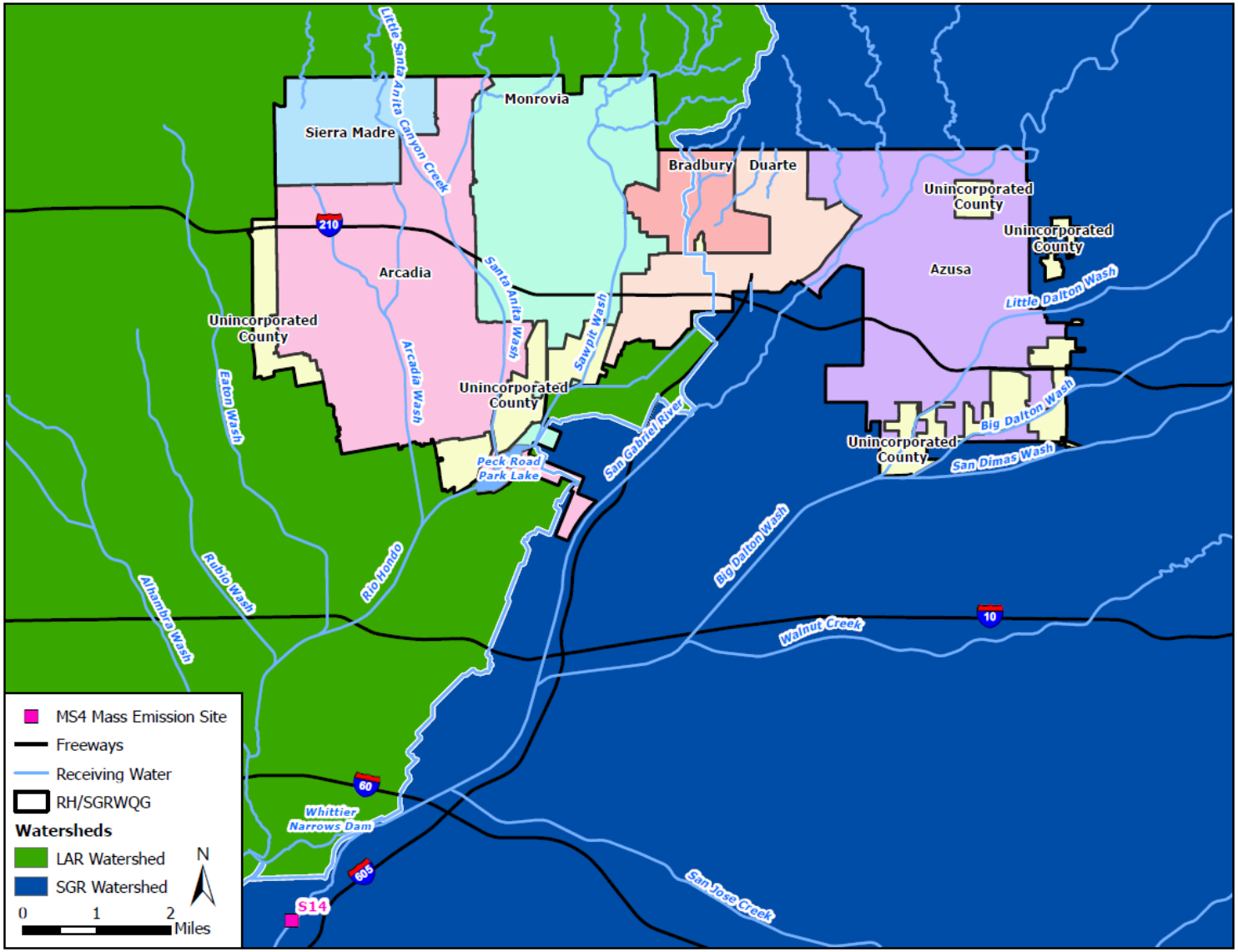


Figure 4-8 Water Quality Monitoring Site used for Water Quality Calibration

4.4.2.1 Total Suspended Sediment Parameter Calibration

The model set-up for the RH/SGRWQG RAA has 18 individual modeling parameters for the sediment group (SED), five of which were selected as calibration parameters. **Table 4-3** summarizes the calibration parameters including their default values (def) and calibration values (cal) used in the model runs. The calibrated values are italicized in the table. Parameter definitions are as follows:

- kser – coefficient in the detached sediment washoff equation
- accsdp – rate at which solids accumulate on the land surface
- sed_suro – constant surface trace sediment concentration
- sed_ifwo – constant interflow trace sediment concentration
- sed_agwo – constant groundwater trace sediment concentration

Table 4-3 LSPC Calibrated Sediment Parameter Values

LUID	kser		accsdp		sed_suro		sed_ifwo		sed_agwo	
	def	cal	def	cal	def	cal	def	cal	def	cal
1	0.035	*0.21*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
2	0.03	*0.18*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
3	0.03	*0.18*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
4	0.035	*0.21*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
5	0.07	*0.42*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
6	0.065	*0.39*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
7	0.065	*0.39*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
8	0.085	*0.51*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
9	0.085	*0.51*	0.001	*0.1*	0	*250*	0	*250*	0	*250*
10	0.001	*0.006*	0	0	0	*250*	0	*250*	0	*250*
11	0.1	*0.6*	0	0	0	*250*	0	*250*	0	*250*
12	0.1	*0.6*	0	0	0	*250*	0	*250*	0	*250*
13	0.1	*0.6*	0	0	0	*250*	0	*250*	0	*250*
14	0.1	*0.6*	0	0	0	*250*	0	*250*	0	*250*
15	0.1	*0.6*	0	0	0	*250*	0	*250*	0	*250*
16	0.15	*0.9*	0	0	0	*250*	0	*250*	0	*250*
17	0.15	*0.9*	0	0	0	*250*	0	*250*	0	*250*
18	0.15	*0.9*	0	0	0	*250*	0	*250*	0	*250*
19	0.15	*0.9*	0	0	0	*250*	0	*250*	0	*250*
20	0	0	0	0	0	*250*	0	*250*	0	*250*
21	0.1	*0.6*	0	0	0	*250*	0	*250*	0	*250*

LUID = Land Use Identification (defined in **Table 4-1**)

Table 3.0 of the RAA Guidelines states that percent differences between 30 and 45 percent are considered fair, differences between 20 and 30 percent are considered good, and differences less than 20 percent are considered very good for sediment model parameters. **Table 4-4** and **Figure 4-9** summarize the statistical data associated with the calibrated model (SIM) as compared to the recorded values (OBS) for TSS. The RAA Guidelines specify that the model calibration criteria for metals and the simulated results for the sediment calibration falls into the very good ranking with a percent difference less than 20 percent. The RMSE and C.C. will improve with the obtainment of additional data. The model calibration is based on data that was collected two times per year downstream of the RH/SGRWQG

area. There are a lot of variables that influence stormwater runoff quality that cannot be simulated in a model. As additional data is collected through CIMP efforts in the RH/SGRWQG area, the model will be adjusted and the calibration statistics will demonstrate the simulated values more closely represent the observed values.

Table 4-4 TSS Parameter Statistics

Parameter	RMSE	Linear Bias	C.C.
TSS	308.8	-2.9%	0.68

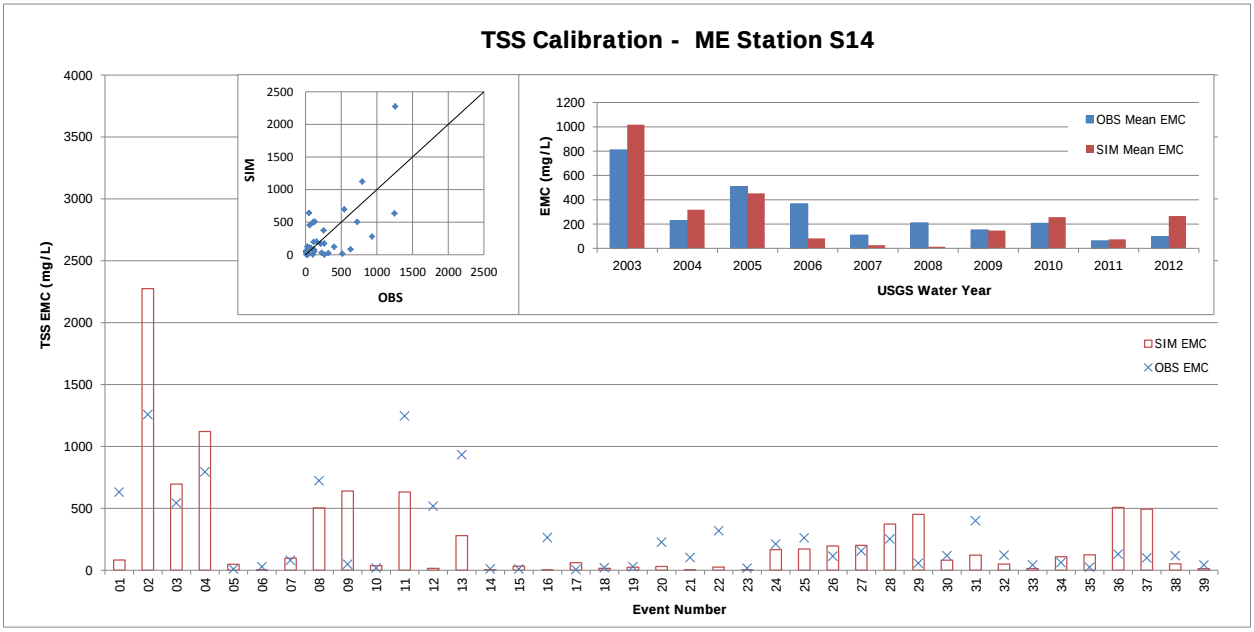


Figure 4-9 TSS Calibration Statistics at Mass Emission Station S14

4.4.2.2 Metal Parameter Calibration

The LSPC model for general water quality parameter (GQUAL) uses three priority metal pollutants, copper, lead, and zinc. This subsection discusses the parameter calibration for the three metal pollutants while the following subsections cover the remaining general water quality parameters. The model set-up for the RH/SGRWQG RAA has 12 individual modeling parameters for each of the general water quality parameters, four of which were selected as calibration parameters. **Table 4-5**, **Table 4-6**, and **Table 4-7** summarize the calibration parameters including their default values (def) and calibration values (cal) used in the model runs for copper, lead, and zinc, respectively. The calibrated values are italicized in the table. The parameter definition is as follows:

- potfw – washoff potency factor
- potfs – scour potency factor
- acqop – accumulation rate on surface
- sqolim – maximum storage on surface

Table 4-5 LSPC Calibrated Copper Parameter Values

LUID	potfw		potfs		acqop		sqolim	
	def	cal	def	cal	def	cal	def	cal
1	0.800	*0.0145*	0.800	*0.0102*	0	*0.0841*	0.000001	*0.0921*
2	0.600	*0.0108*	0.600	*0.0076*	0	*0.0841*	0.000001	*0.0921*
3	0.600	*0.0108*	0.600	*0.0076*	0	*0.0841*	0.000001	*0.0921*
4	0.800	*0.0145*	0.800	*0.0102*	0	*0.0841*	0.000001	*0.0921*
5	1.140	*0.0206*	1.140	*0.0145*	0	*0.0841*	0.000001	*0.0921*
6	0.400	*0.0072*	0.400	*0.0051*	0	*0.0841*	0.000001	*0.0921*
7	0.400	*0.0072*	0.400	*0.0051*	0	*0.0841*	0.000001	*0.0921*
8	0.800	*0.0145*	0.800	*0.0102*	0	*0.0841*	0.000001	*0.0921*
9	0.800	*0.0145*	0.800	*0.0102*	0	*0.0841*	0.000001	*0.0921*
10	0.600	*0.0108*	0.600	*0.0076*	0	*0.0841*	0.000001	*0.0921*
11	0.600	*0.0108*	0.600	*0.0076*	0	*0.0841*	0.000001	*0.0921*
12	0.300	*0.0054*	0.300	*0.0038*	0	*0.0841*	0.000001	*0.0921*
13	0.300	*0.0054*	0.300	*0.0038*	0	*0.0841*	0.000001	*0.0921*
14	0.012	*0.0002*	0.012	*0.0002*	0	*0.0841*	0.000001	*0.0921*
15	0.012	*0.0002*	0.012	*0.0002*	0	*0.0841*	0.000001	*0.0921*
16	0.012	*0.0002*	0.012	*0.0002*	0	*0.0841*	0.000001	*0.0921*
17	0.012	*0.0002*	0.012	*0.0002*	0	*0.0841*	0.000001	*0.0921*
18	0.012	*0.0002*	0.012	*0.0002*	0	*0.0841*	0.000001	*0.0921*
19	0.012	*0.0002*	0.012	*0.0002*	0	*0.0841*	0.000001	*0.0921*
20	0	0	0	0	0	*0.0841*	0.000001	*0.0921*
21	0.800	*0.0108*	0.800	*0.0076*	0	*0.0841*	0.000001	*0.0921*

LUID = Land Use Identification (defined in **Table 4-1**)

Table 4-6 LSPC Calibrated Lead Parameter Values

LUID	potfw		potfs		acqop		sqolim	
	def	cal	def	cal	def	cal	def	cal
1	0.800	*0.0095*	0.800	*0.0059*	0	*0.0387*	0.000001	*0.0426*
2	0.600	*0.0024*	0.600	*0.0015*	0	*0.0387*	0.000001	*0.0426*
3	0.600	*0.0024*	0.600	*0.0015*	0	*0.0387*	0.000001	*0.0426*
4	0.800	*0.0095*	0.800	*0.0059*	0	*0.0387*	0.000001	*0.0426*
5	1.140	*0.0119*	1.140	*0.0074*	0	*0.0387*	0.000001	*0.0426*
6	0.400	*0.0021*	0.400	*0.0013*	0	*0.0387*	0.000001	*0.0426*
7	0.400	*0.0021*	0.400	*0.0013*	0	*0.0387*	0.000001	*0.0426*
8	0.800	*0.0095*	0.800	*0.0059*	0	*0.0387*	0.000001	*0.0426*
9	0.800	*0.0095*	0.800	*0.0059*	0	*0.0387*	0.000001	*0.0426*
10	0.600	*0.0024*	0.600	*0.0015*	0	*0.0387*	0.000001	*0.0426*
11	0.600	*0.0024*	0.600	*0.0015*	0	*0.0387*	0.000001	*0.0426*
12	0.300	*0.0012*	0.300	*0.0007*	0	*0.0387*	0.000001	*0.0426*
13	0.300	*0.0012*	0.300	*0.0007*	0	*0.0387*	0.000001	*0.0426*
14	0.012	*0*	0.012	*0*	0	*0.0387*	0.000001	*0.0426*
15	0.012	*0*	0.012	*0*	0	*0.0387*	0.000001	*0.0426*
16	0.012	*0*	0.012	*0*	0	*0.0387*	0.000001	*0.0426*
17	0.012	*0*	0.012	*0*	0	*0.0387*	0.000001	*0.0426*
18	0.012	*0*	0.012	*0*	0	*0.0387*	0.000001	*0.0426*
19	0.012	*0*	0.012	*0*	0	*0.0387*	0.000001	*0.0426*
20	0	0	0	0	0	*0.0387*	0.000001	*0.0426*
21	0.800	*0.0024*	0.800	*0.0015*	0	*0.0387*	0.000001	*0.0426*

LUID = Land Use Identification (defined in **Table 4-1**)

Table 4-7 LSPC Calibrated Zinc Parameter Values

LUID	potfw		potfs		acqop		sqolim	
	def	cal	def	cal	def	cal	def	cal
1	0.800	*0.0615*	0.800	*0.0390*	0	*0.340*	0.000001	*0.3742*
2	0.600	*0.0098*	0.600	*0.0062*	0	*0.340*	0.000001	*0.3742*
3	0.600	*0.0098*	0.600	*0.0062*	0	*0.340*	0.000001	*0.3742*
4	0.800	*0.0615*	0.800	*0.0390*	0	*0.340*	0.000001	*0.3742*
5	1.140	*0.0836*	1.140	*0.0530*	0	*0.340*	0.000001	*0.3742*
6	0.400	*0.0416*	0.400	*0.0264*	0	*0.340*	0.000001	*0.3742*
7	0.400	*0.0416*	0.400	*0.0264*	0	*0.340*	0.000001	*0.3742*
8	0.800	*0.0615*	0.800	*0.0390*	0	*0.340*	0.000001	*0.3742*
9	0.800	*0.0615*	0.800	*0.0390*	0	*0.340*	0.000001	*0.3742*
10	0.600	*0.0098*	0.600	*0.0062*	0	*0.340*	0.000001	*0.3742*
11	0.600	*0.0098*	0.600	*0.0062*	0	*0.340*	0.000001	*0.3742*
12	0.300	*0.0205*	0.300	*0.0130*	0	*0.340*	0.000001	*0.3742*
13	0.300	*0.0205*	0.300	*0.0130*	0	*0.340*	0.000001	*0.3742*
14	0.012	*0.0004*	0.012	*0.0003*	0	*0.340*	0.000001	*0.3742*
15	0.012	*0.0004*	0.012	*0.0003*	0	*0.340*	0.000001	*0.3742*
16	0.012	*0.0004*	0.012	*0.0003*	0	*0.340*	0.000001	*0.3742*
17	0.012	*0.0004*	0.012	*0.0003*	0	*0.340*	0.000001	*0.3742*
18	0.012	*0.0004*	0.012	*0.0003*	0	*0.340*	0.000001	*0.3742*
19	0.012	*0.0004*	0.012	*0.0003*	0	*0.340*	0.000001	*0.3742*
20	0	0	0	0	0	*0.340*	0.000001	*0.3742*
21	0.800	*0.0098*	0.800	*0.0062*	0	*0.340*	0.000001	*0.3742*

LUID = Land Use Identification (defined in **Table 4-1**)

The default values of potfw, potfs, acqop, and sqolim for each land use was modified by assuming a linear build-up/washoff relationship of the three metal pollutants and adjusting the input parameter accordingly to achieve the best agreement of simulated and observed values. **Table 4-8**, **Figure 4-10**, **Figure 4-11**, and **Figure 4-12** summarize the statistical data associated with the calibrated model (SIM) as compared to the recorded values (OBS) for copper, lead, and zinc. The RAA Guidelines do not specify the model calibration criteria for metals, but it can be assumed the calibration would fall into the very good category for most cases. A few of the values fall into the good category for calibration. The RMSE and C.C. will improve with the obtainment of additional data. The model calibration is based on data that was collected two times per year downstream of the RH/SGRWQG area. There are a lot of variables that influence stormwater runoff quality that cannot be simulated in a model. As additional data is collected through CIMP efforts in the RH/SGRWQG area, the model will be adjusted and the calibration statistics will demonstrate the simulated values more closely represent the observed values.

Table 4-8 Metal Parameter Statistics				
Parameter	**Water Year**	**RMSE**	**Linear Bias**	**C.C.**
Copper	2003-2012	21.3	-0.7%	-0.05
	2003-2008	26.5	-13.4%	-0.20
	2009-2012	10.4	20.5%	0.62
Lead	2003-2012	12.6	-0.5%	0.22
	2003-2008	15.4	-0.5%	0.07
	2009-2012	8.0	-0.4%	0.56
Zinc	2003-2012	94.6	-0.1%	-0.05
	2003-2008	123.3	-0.6%	-0.20
	2009-2012	43.6	0.4%	0.62

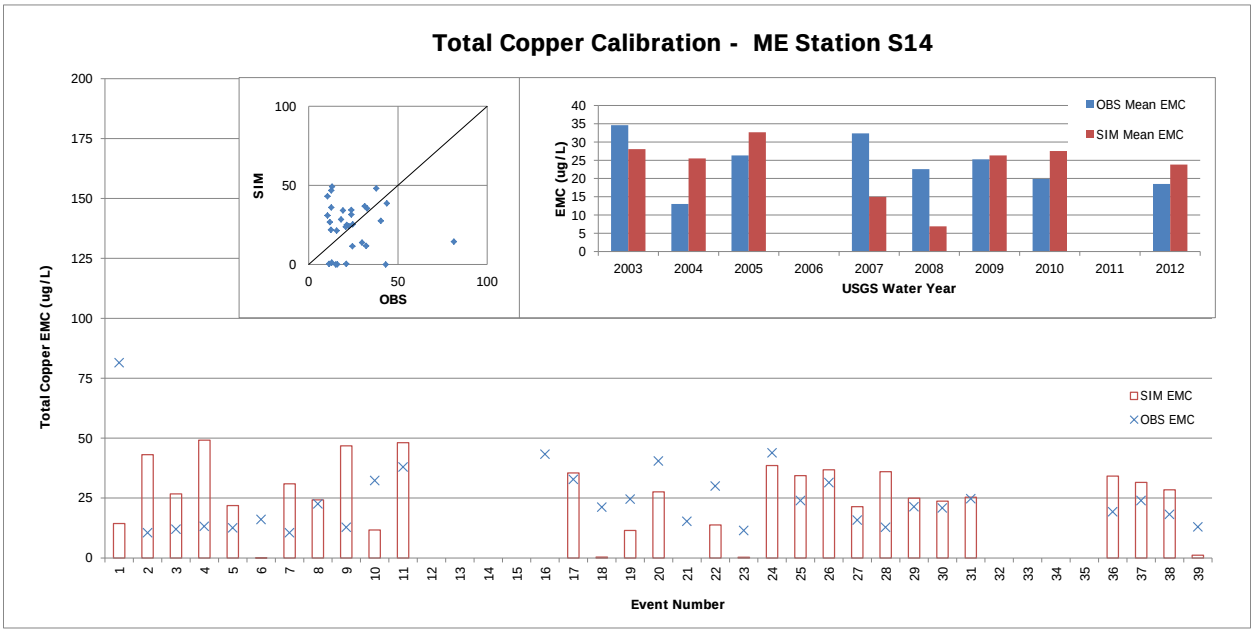


Figure 4-10 Copper Calibration Statistics at Mass Emission Station S14

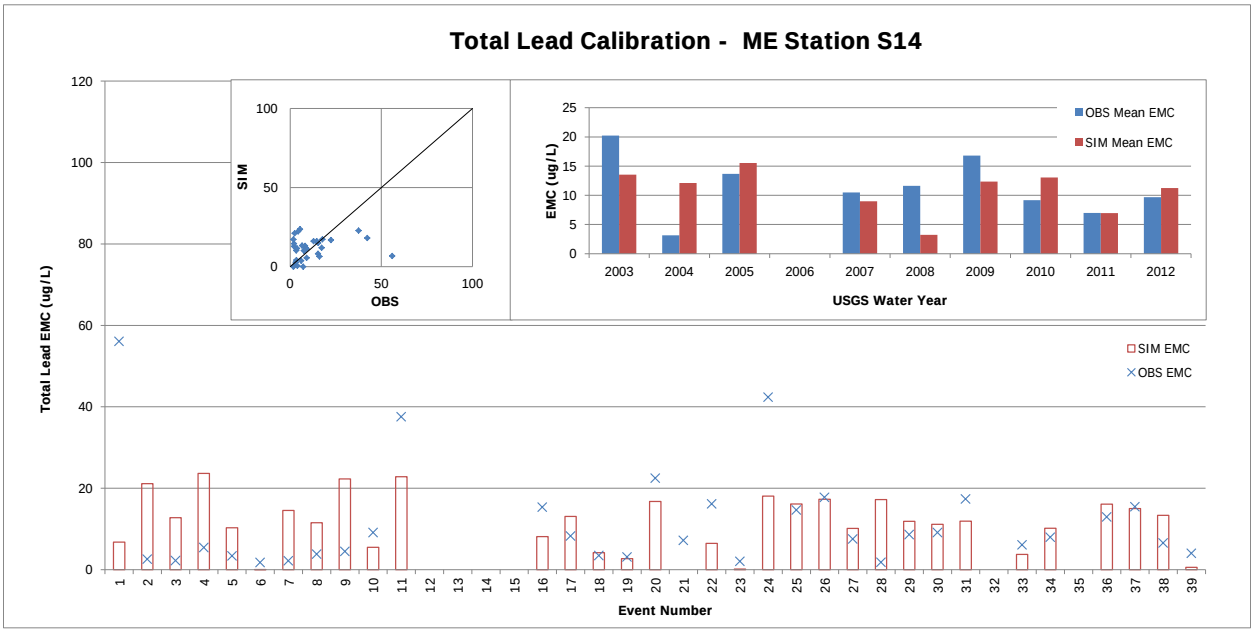


Figure 4-11 Lead Calibration Statistics at Mass Emission Station S14

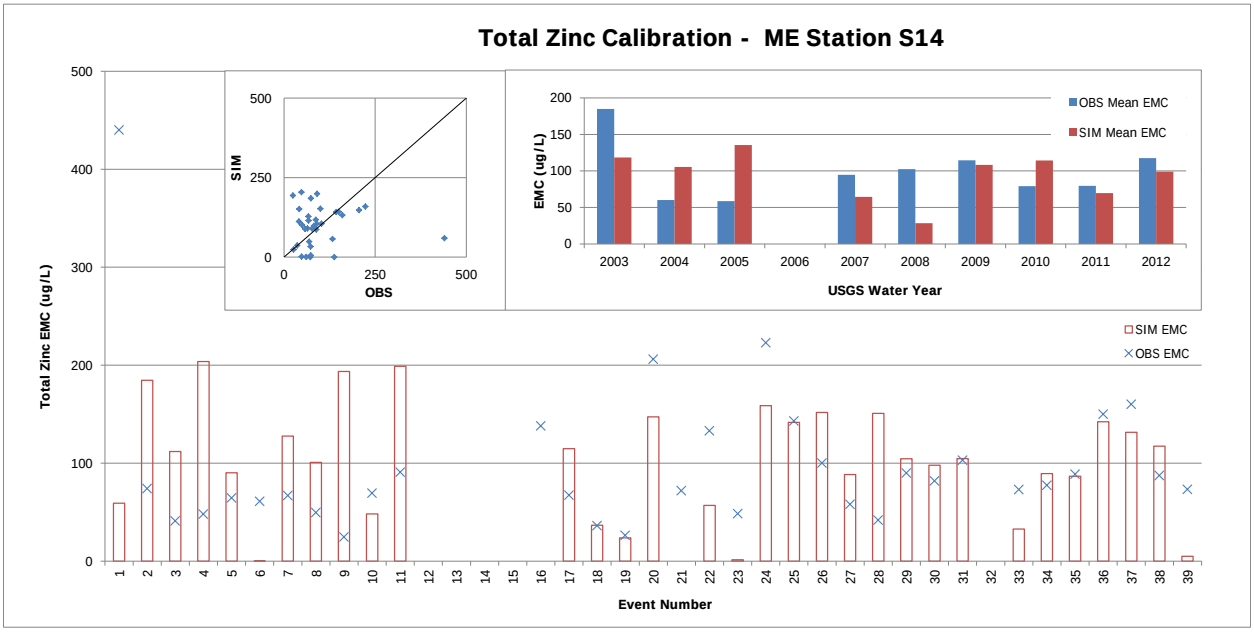


Figure 4-12 Zinc Calibration Statistics at Mass Emission Station S14

4.4.2.3 Fecal Coliform Parameter Calibration

The LSPC model for GQUAL uses fecal coliform (indicator bacteria). The model set-up for the RH/SGRWQG RAA has 12 individual modeling parameters for each of the general water quality parameters, two of which were selected as a calibration parameter. **Table 4-9** summarizes the calibration parameters including their default values (def) and calibration values (cal) used in the model runs. The calibrated values are italicized in the table. The parameter definitions are as follows:

- soqc – surface outflow
- ioqc – inflow concentrations

Table 4-9 LSPC Calibrated Fecal Coliform Parameter Values				
LUID	**soqc**		**ioqc**	
	def	**cal**	**def**	**cal**
1	6,600	*1,383,000*	6,600	*1,383,000*
2	19,000	*1,383,000*	19,000	*1,383,000*
3	19,000	*1,383,000*	19,000	*1,383,000*
4	6,600	*525,000*	6,600	*525,000*
5	40,000	*3,553,000*	40,000	*3,553,000*
6	2,300	*3,553,000*	2,300	*3,553,000*
7	2,300	*167,000*	2,300	*167,000*
8	1,000	*75,000*	1,000	*75,000*
9	1,000	*75,000*	1,000	*75,000*
10	3,500	*281,000*	3,500	*281,000*
11	3,500	*281,000*	3,500	*281,000*
12	91,000	*2,681,000*	91,000	*2,681,000*
13	91,000	*2,681,000*	91,000	*2,681,000*
14	1,000	*281,000*	1,000	*281,000*
15	1,000	*281,000*	1,000	*281,000*
16	1,000	*281,000*	1,000	*281,000*
17	1,000	*281,000*	1,000	*281,000*
18	1,000	*281,000*	1,000	*281,000*
19	1,000	*281,000*	1,000	*281,000*
20	0	0	0	0
21	3,500	*156,000*	3,500	*156,000*

LUID = Land Use Identification (defined in **Table 4-1**)

The default values for both soqc and ioqc are identical for each LUID and were calibrated with identical values. **Table 4-10** and **Figure 4-13** summarize the statistical data associated with the calibrated model (SIM) as compared to the recorded values (OBS) for fecal coliform. The RAA Guidelines do not specify the model calibration criteria for bacteria, but it can be assumed the calibration would fall into very good as the percent difference is less than ten percent. The RMSE and C.C. will improve with the obtainment of additional data. The model calibration is based on data that was collected two times per year downstream of the RH/SGRWQG area. There are a lot of variables that influence stormwater runoff quality that cannot be simulated in a model, especially for bacteria. As additional data is collected through CIMP efforts in the RH/SGRWQG area, the model will be adjusted and the calibration statistics will demonstrate the simulated values more closely represent the observed values.

Table 4-10 Fecal Coliform Parameter Statistics			
Parameter	**RMSE**	**Linear Bias**	**C.C.**
Fecal Coliform	829,717	8.7%	0.04

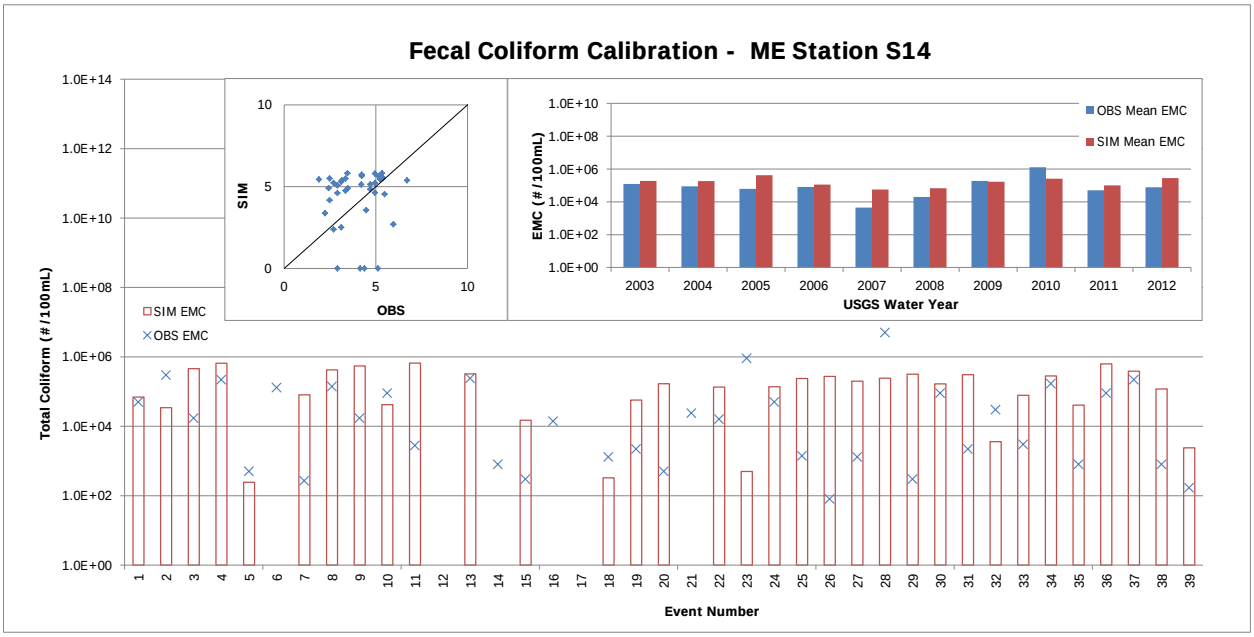


Figure 4-13 Fecal Coliform Calibration Statistics at Mass Emission Station S14

4.4.2.4 Total Nitrogen and Total Phosphorus Parameter Calibration

The LSPC model for GQUAL uses total nitrogen and total phosphorus. The model set-up for the RH/SGRWQG RAA has 12 individual modeling parameters for each of the general water quality parameters, two of which were selected as a calibration parameter. **Table 4-11** and **Table 4-12** summarize the calibration parameters including their default values (def) and calibration values (cal) used in the model runs for total nitrogen and phosphorus, respectively. The calibrated values are italicized in the table. The parameter definitions are as follows:

- acqop – accumulation rate on surface
- sqolim – maximum storage on surface

Table 4-11 LSPC Calibrated Total Nitrogen Parameter Values

LUID	acqop		sqolim	
	def	cal	def	cal
1	0	*16.8*	0	*20.2*
2	0	*9.6*	0	*11.5*
3	0	*9.6*	0	*11.5*
4	0	*16.8*	0	*20.2*
5	0	*26.5*	0	*31.9*
6	0	*11.1*	0	*13.4*
7	0	*11.1*	0	*13.4*
8	0	*8.8*	0	*10.6*
9	0	*8.8*	0	*10.6*
10	0	*9.6*	0	*11.5*
11	0	*9.6*	0	*11.5*
12	0	*15.6*	0	*18.7*
13	0	*15.6*	0	*18.7*
14	0	*8.8*	0	*10.6*
15	0	*8.8*	0	*10.6*
16	0	*8.8*	0	*10.6*
17	0	*8.8*	0	*10.6*
18	0	*8.8*	0	*10.6*
19	0	*8.8*	0	*10.6*
20	0	0	0	0
21	0	*8.8*	0	*10.6*

LUID = Land Use Identification (defined in **Table 4-1**)

Table 4-12 LSPC Calibrated Total Phosphorus Parameter Values				
LUID	**acqop**		**sqolim**	
	def	**cal**	**def**	**cal**
1	0	*1.23*	0	*1.47*
2	0	*0.70*	0	*0.84*
3	0	*0.70*	0	*0.84*
4	0	*1.23*	0	*1.47*
5	0	*1.94*	0	*2.33*
6	0	*0.82*	0	*0.98*
7	0	*0.82*	0	*0.98*
8	0	*0.65*	0	*0.78*
9	0	*0.65*	0	*0.78*
10	0	*0.70*	0	*0.84*
11	0	*0.70*	0	*0.84*
12	0	*1.14*	0	*1.37*
13	0	*1.14*	0	*1.37*
14	0	*0.65*	0	*0.78*
15	0	*0.65*	0	*0.78*
16	0	*0.65*	0	*0.78*
17	0	*0.65*	0	*0.78*
18	0	*0.65*	0	*0.78*
19	0	*0.65*	0	*0.78*
20	0	0	0	0
21	0	*0.65*	0	*0.78*

LUID = Land Use Identification (defined in **Table 4-1**)

The surface outflow quality concentrations for total nitrogen and total phosphorus were modified for impervious surfaces and were kept zero for the interflow parameters. **Table 4-13**, **Figure 4-14**, and **Figure 4-15** summarize the statistical data associated with the calibrated model (SIM) as compared to the recorded values (OBS) for total nitrogen and total phosphorus. The RAA Guidelines do not specify the model calibration criteria for these pollutants, but it can be assumed the calibration would fall into very good for total nitrogen as the percent differences are less than ten percent and good for total phosphorus as the percent differences are less than 20 percent. The RMSE and C.C. will improve with the obtainment of additional data. The model calibration is based on data that was collected two times per year downstream of the RH/SGRWQG area. There are a lot of variables that influence stormwater runoff quality that cannot be simulated in a model. As additional data is collected through CIMP efforts in the RH/SGRWQG area, the model will be adjusted and the calibration statistics will demonstrate the simulated values more closely represent the observed values.

Table 4-13 Total Nitrogen and Phosphorus Parameter Statistics			
Parameter	**RMSE**	**Linear Bias**	**C.C.**
Total Nitrogen	4.2	0.0%	0.04
Total Phosphorus	3.3	17.3%	-0.11

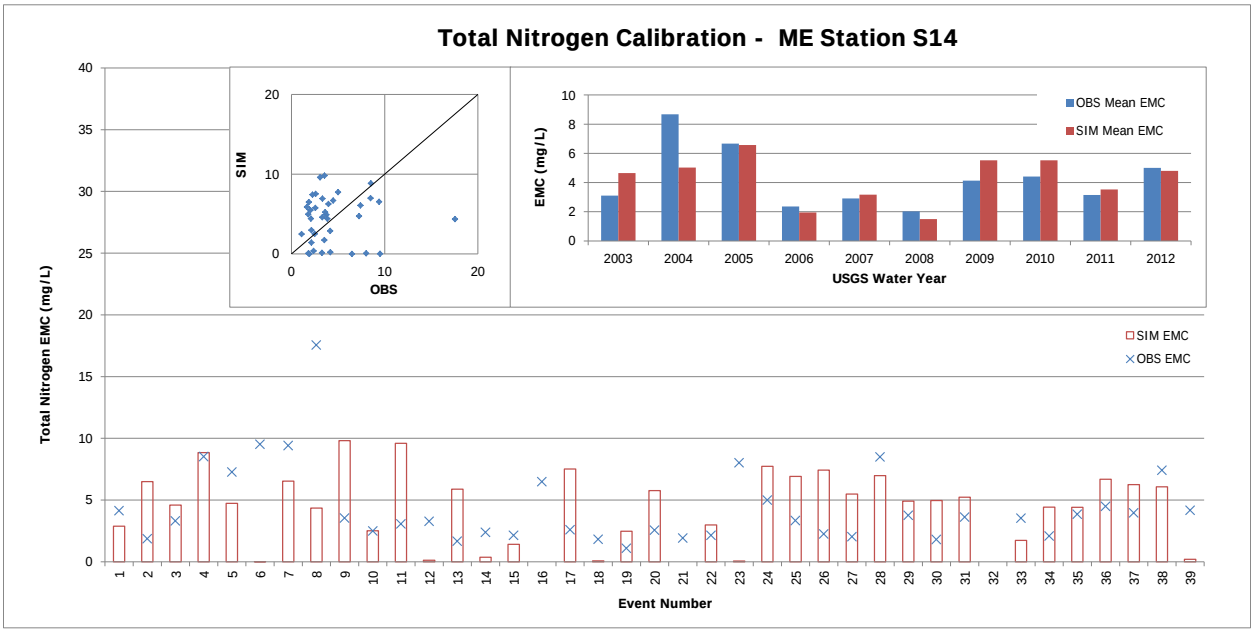


Figure 4-14 Total Nitrogen Calibration Statistics at Mass Emission Station S14

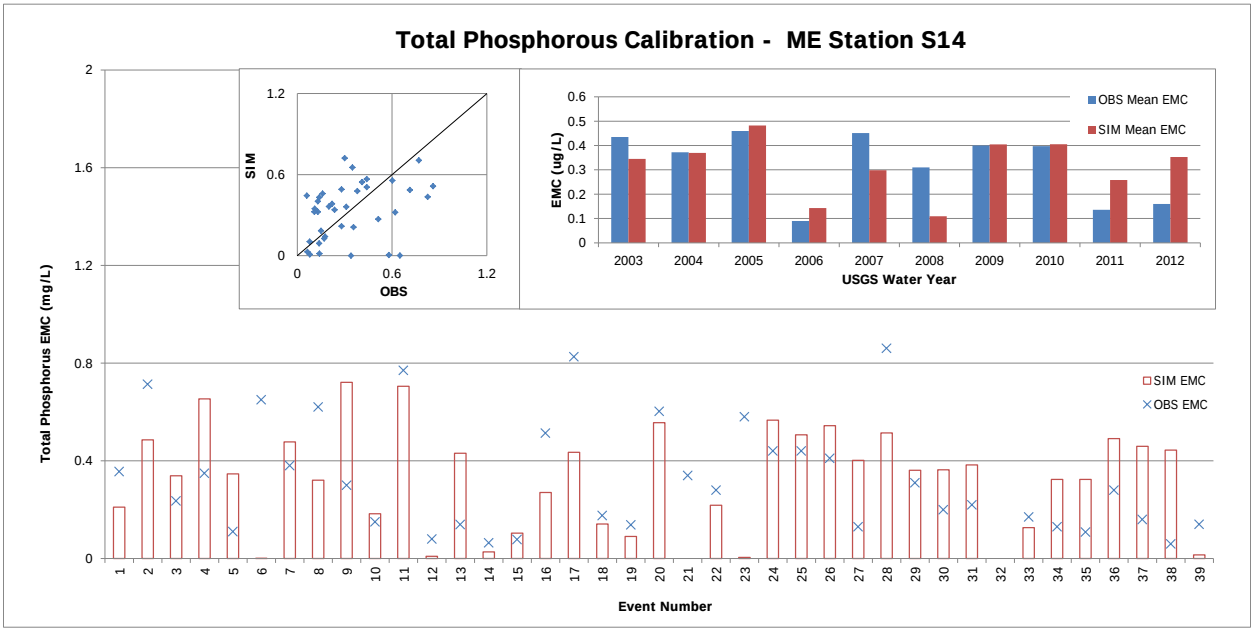


Figure 4-15 Total Phosphorus Calibration Statistics at Mass Emission Station S14

4.5 LSPC Validation

After the model was calibrated, validation of the model is recommended. Typical validation procedures would require water quality data from specific events that can be compared to the values simulated by the calibrated model. Water quality data is not currently available within the RH/SGRWQG; therefore validation was not performed. In future modeling efforts, consistent with the adaptive management process, water quality data collected through the CIMP efforts will be used to validate the model and then recalibrate the model if necessary.

4.6 Baseline Simulation

A baseline analysis was performed as part of the RH/SGRWQG RAA which represents the current watershed condition with the currently implemented stormwater programs. Stormwater runoff was simulated based on the time series record of rainfall from 2002 to 2012. The water quality constituent mass loading is determined by multiplying the stormwater runoff volume by the water quality constituent concentration. As part of the baseline analysis, the industrial permitted and other permitted facilities were identified. These facilities are modeled as compliant, as they are covered under a stormwater permit and not regulated by the jurisdiction in which they are located. These facilities are illustrated and listed in **Attachment V**.

The baseline hydrology and simulated constituent loading serves as the basis for compliance. Watershed control measures including structural and non-structural BMPs will be implemented over time to the extent that the estimated load reductions are satisfied. The load reductions represent the difference between the baseline conditions and the WQOs. The 85th percentile, 24-hour rainfall event baseline simulation is based on the LACFCD 85th percentile rainfall isohyets and unit hyetograph, consistent with the SUSMP and LID methods used within the County. The loads for this event are generated by the model. The volume of runoff for capture under this criterion is determined from the LSPC output to be 679 and 392 acre-feet in the LAR and SGR Watersheds, respectively.

The 90th percentile load baseline is determined from the 2002-2012 water years based on the loads generated before any BMPs are implemented. **Table 4-14** and **Table 4-15** summarize the results of the LSPC simulation of the load analysis for the LAR and SGR Watersheds, respectively. The table demonstrates the 90th percentile load exceeds the WQO for most constituents with associated TMDLs. The objective loads are the final target for the simulated constituents. The objective load is equivalent to the objective concentration multiplied by the simulated storm event volume from the 90th percentile date and does not represent measured water quality data.

Table 4-14 90th Percentile Baseline Load Analysis for LAR Watershed

Constituent	Storm Event	P_{90} Load	Objective Load	Objective Conc.
Copper	1/25/2008	177.08 kg	13.94 kg	8.92 µg/L
Lead	1/25/2008	85.48 kg	83.69 kg	53.54 µg/L
Zinc	1/25/2008	696.84 kg	135.85 kg	86.90 µg/L
Fecal Coliform	2/15/2005	1.08E+15 MPN	4.48E+13 MPN	235 MPN/100 mL
Nitrogen	2/18/2005	23,711.81 kg	13,034.86 kg	10.10 mg/L
Phosphorus	2/18/2005	1,738.13 kg	1,273.53 kg	0.80 mg/L

Table 4-15 90th Percentile Baseline Load Analysis for SGR Watershed

Constituent	Storm Event	P_{90} Load	Objective Load	Objective Conc.
Copper[1]	2/27/2010	102.56 kg	61.16 kg	71.12 µg/L
Lead	2/27/2010	49.13 kg	7.17 kg	8.34 µg/L
Zinc[1]	2/27/2010	431.17 kg	551.19 kg	641.00 µg/L

[1] The objective concentration and load are based on Municipal Action Limits, as wet-weather WQOs are not specified in the SGR Metals TMDL.

Table 4-16 summarizes the results of the LSPC simulation for water years beginning the first day of October and ending the final day of September from 2002 to 2012. The table compares the major water quality constituents with adopted TMDLs and 303(d) listings and identifies the annual load and

corresponding volume for each year analyzed. The average annual loads are also provided for the simulation period.

Table 4-16 Annual Loads and Volume for the LAR and SGR Watersheds								
Start	**End**	**Volume (ac-ft)**	**Copper (kg)**	**Lead (kg)**	**Zinc (kg)**	**Fecal Coliform (MPN)**	**Total Nitrogen (kg)**	**Total Phosphorus (kg)**
LAR Watershed								
10/1/02	9/30/03	13,455.13	2,213.50	1,079.93	8,889.20	9.67E+15	321,110.58	23,552.75
10/1/03	9/30/04	7,947.85	1,397.38	682.32	5,641.82	7.23E+15	213,397.26	15,647.31
10/1/04	9/30/05	49,128.66	5,076.26	2,463.45	20,268.04	3.42E+16	699,191.36	51,291.58
10/1/05	9/30/06	12,448.30	2,030.84	995.67	8,248.96	1.99E+16	323,135.72	23,686.61
10/1/06	9/30/07	3,638.94	805.36	396.27	3,368.67	5.66E+15	156,509.11	11,460.76
10/1/07	9/30/08	13,693.84	1,884.41	922.03	7,716.37	3.89E+15	309,645.23	22,692.74
10/1/08	9/30/09	7,204.75	1,242.49	610.10	5,175.80	4.51E+15	232,630.50	17,036.75
10/1/09	9/30/10	13,717.59	1,968.27	964.26	8,124.14	3.84E+15	342,817.44	25,114.70
10/1/10	9/30/11	21,975.74	2,633.73	1,289.39	10,875.51	2.83E+16	454,322.43	33,283.18
10/1/11	9/30/12	5,126.20	1,239.26	607.59	5,106.35	4.96E+15	220,065.74	16,123.44
Average Annual:		**15,912.31**	**2,139.14**	**1,044.82**	**8,700.95**	**1.22E+16**	**339,195.52**	**24,862.93**
SGR Watershed								
10/1/02	9/30/03	9,198.04	1,330.42	615.35	5,499.65	-	-	-
10/1/03	9/30/04	5,053.69	794.75	367.18	3,285.80	-	-	-
10/1/04	9/30/05	32,982.35	2,846.76	1,340.38	11,779.96	-	-	-
10/1/05	9/30/06	8,614.78	1,172.57	555.72	4,878.97	-	-	-
10/1/06	9/30/07	1,928.48	385.22	185.70	1,652.00	-	-	-
10/1/07	9/30/08	10,571.09	1,201.83	567.41	4,968.47	-	-	-
10/1/08	9/30/09	5,108.78	715.49	344.23	3,018.69	-	-	-
10/1/09	9/30/10	10,030.35	1,103.61	529.97	4,668.31	-	-	-
10/1/10	9/30/11	14,079.24	1,454.30	695.73	6,127.57	-	-	-
10/1/11	9/30/12	3,460.53	678.13	326.33	2,876.05	-	-	-
Average Annual:		**10,840.76**	**1,222.77**	**577.96**	**5,097.71**	**-**	**-**	**-**

4.7 Volume and Load Reduction Requirements

The RH/SGRWQG RAA examines the 85th percentile, 24-hour storm event volume and the 90th percentile constituent load to determine the limiting pollutant and the corresponding volumes of treatment. The limiting pollutant is the constituent with the highest mass load associated with a relevant TMDL. This subsection discusses the limiting pollutant determination, 85th percentile, 24-hour storm volume, and the 90th percentile, 24-hour storm load. These factors dictate the control measure implementation requirements. Determination of the limiting pollutant requires determining the volumes and loads associated with the 85th percentile, 24-hour runoff volume and the 90th percentile load for baseline conditions. Once these values are determined, the limiting pollutant can be determined.

4.7.1 85th Percentile, 24-Hour Storm Event Volume

The 85th percentile, 24-hour storm event represents the rainfall event that is greater than 85 percent of all rainfall events over 0.1 inches in a 24-hour period. The 85th percentile isohyetal map developed by LACDPW was used to determine the appropriate rainfall value for each subarea within the RH/SGRWQG. The total rainfall for each subarea was distributed temporally over the 24-hour period using the LAC unit hyetograph to remain consistent with the SUSMP and LID criteria. This rainfall event was placed in a rainfall file for use with LSPC and the model was run to determine runoff volumes to compare the 90th percentile load volumes on an equal basis. Another analysis was done using the LACDPW T_c (time of concentration) Calculator, developed to simplify use of the modified rational method. The results from LSPC and the T_c Calculator models were reasonably similar and so the LSPC output was used in all future evaluations of the runoff volume from the 85th percentile, 24-hour storm. **Figure 4-16** and **Figure 4-17** show the rainfall hyetograph of the 85th percentile, 24-hour storm event, along with the associated runoff hydrograph for the LAR Watershed and SGR Watershed within RH/SGRWQG, respectively. The total runoff volume for the 85th percentile, 24-hour storm event is 679 and 392 acre-feet in the LAR and SGR Watersheds, respectively.

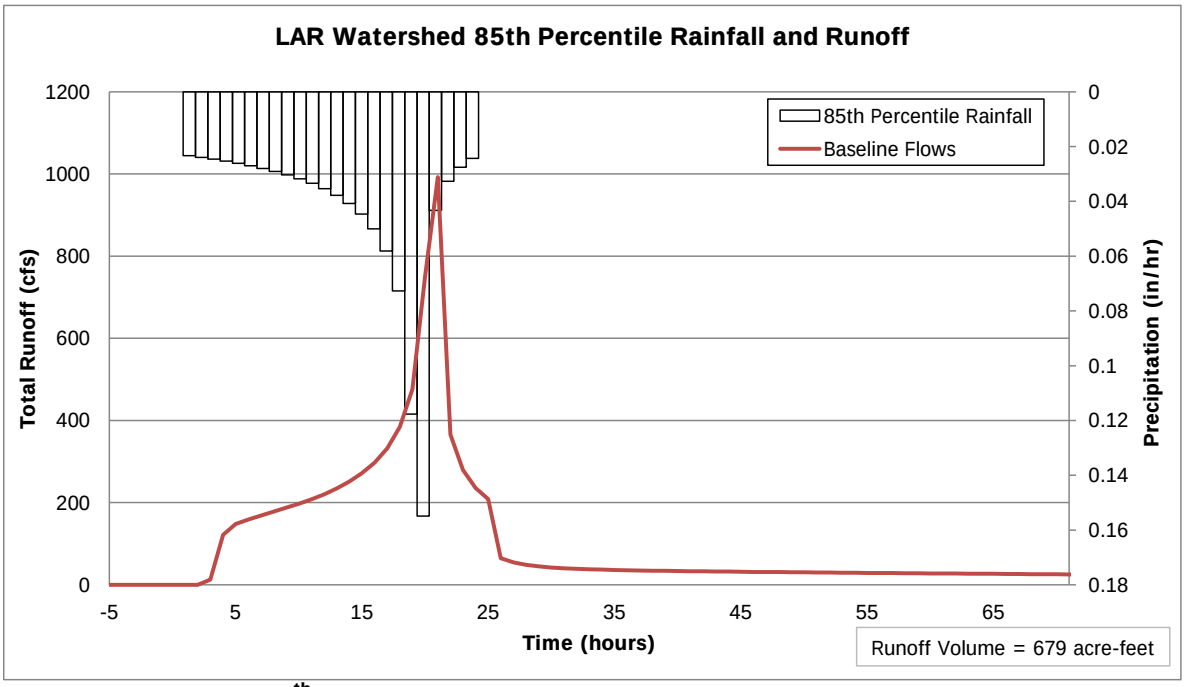


Figure 4-16 LAR 85th Percentile, 24-Hour Storm Hyetograph and Runoff Hydrograph

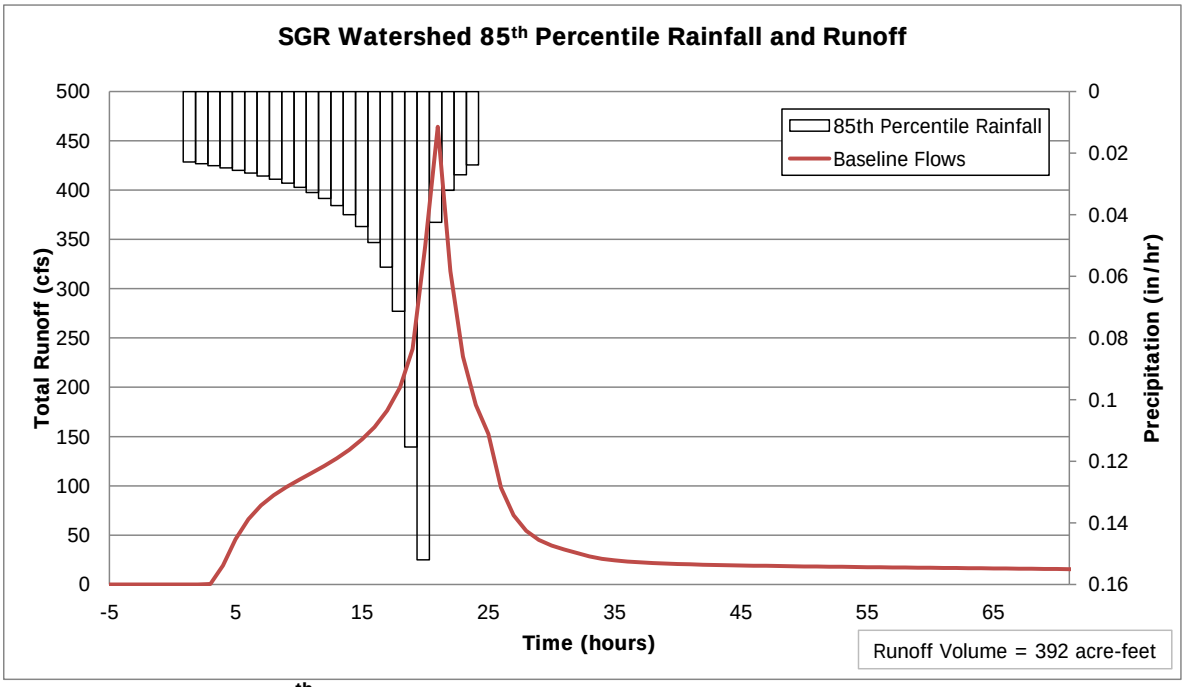


Figure 4-17 SGR 85th Percentile, 24-Hour Storm Hyetograph and Runoff Hydrograph

4.7.2 90th Percentile, 24-Hour Storm Event Constituent Load

Development of the 90th percentile load analysis required analyzing model output following a five step process. The steps in the process are provided below:

1. Evaluated 90th percentile load based on percentile analysis
2. Evaluated 87th through 93rd percentile loads, storm events, volumes, and concentrations
3. Analyzed statistics of these events due to the large range in volume and concentrations providing similar loads
4. Picked storm events for use in determining volumes for capture based on median and mean volumes and concentrations from the 87th through 93rd percentile events
5. Evaluated the 85th percentile, 24-hour volumes and 90th percentile load volumes for similarity

Selection of the storms utilizing this process provides a sound criterion for compliance by evaluating the range in volumes, concentrations, and loads to provide a treatment volume that has the potential to meet the criteria for the 85th percentile, 24-hour event and 90th percentile load reduction. The variability in the data shows that selecting a storm is an important step in the analysis process. By selecting the appropriate storm, flows that exceed the capture volume will mainly have pollutant concentrations below the TMDL concentration limits due to dilution of remaining pollutants. The details of the selection process are provided in the following paragraphs. The results of the analysis are provided later to demonstrate compliance and the reasonableness of the approach.

The 90th percentile, 24-hour constituent load represents the daily water quality constituent load in kilograms that is greater than 89 percent of all simulated loads at the output station. Only one output station was used for both watersheds because there is only one mass emissions station downstream.

The method for determining the 90th percentile load was to sort all flow days greater than 260 cubic feet per second (cfs) from the calibrated hydrology simulation model for the time series beginning on October 1, 2002 and ending on September 30, 2012. This method is consistent with the San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL. This same method was used for the

LAR Watershed as the Los Angeles River Metals TMDL only specifies flow criteria at the Wardlow station which is in Long Beach and not included in the calibrated model. Any flow days less than 260 cfs at Station F263 are considered dry-weather flows in the TMDL and were removed from the analysis and treated separately. Flow days greater than 260 cfs have simulated constituent loads in concentration units associated with model storm events and storm volume was determined from the runoff hydrograph. The daily mass loads are the product of the simulated storm volume and simulated hourly constituent concentration for RH/SGRWQG flows. The 90th percentile load is determined from the simulated daily load. Concentration units range from micrograms per liter (µg/L) for metal constituents to milligrams per liter (mg/L) for nitrogen and phosphorus to number per liter (MPN/L) for fecal coliform. The volume capture for the 90th percentile load was determined on the day of the actual event plus the following day if flows were greater than 260 cfs on the second day.

Baseline simulations were run with no storm runoff volume reduction. **Table 4-17** and **Table 4-18** summarize the water quality constituents and the date of the 90th percentile event derived from the simulated model results following the criteria previously outlined for the LAR and SGR Watersheds, respectively. The volume associated with the 90th percentile load is shown along with the expected concentrations and loads.

Table 4-17 90th Percentile Constituent Load Events in the LAR Watershed

Constituent	Date	Volume[1] (ac-ft)	Concentration[2]		Load[3]	
			Units	Expected	Units	Expected
Copper	1/25/2008	1,267.30	µg/L	113.35	kg	177.08
Lead	1/25/2008	1,267.30	µg/L	54.72	kg	85.48
Zinc	1/25/2008	1,267.30	µg/L	446.05	kg	696.84
Fecal Coliform	2/15/2005	154.49	MPN/100 mL	5.64E+06	MPN	1.08E+15
Total Nitrogen	2/18/2005	1,290.58	mg/L	14.90	kg	23,711.81
Total Phosphorus	2/18/2005	1,290.58	mg/L	1.09	kg	1,738.13

[1] 24-hour volume.
[2] Concentration is the LSPC modeled value using the storm runoff hydrograph for the date specified.
[3] Expected loads equal the concentration multiplied by the volume of storm runoff.

Table 4-18 90th Percentile Constituent Load Events in the SGR Watershed

Constituent	Date	Volume[1] (ac-ft)	Concentration[2]		Load[3]	
			Units	Expected	Units	Expected
Copper	2/27/2010	697.12	µg/L	119.27	kg	102.56
Lead	2/27/2010	697.12	µg/L	57.14	kg	49.13
Zinc	2/27/2010	697.12	µg/L	501.43	kg	431.17

[1] 24-hour volume.
[2] Concentration is the LSPC modeled value using the storm runoff hydrograph for the date specified.
[3] Expected loads equal the concentration multiplied by the volume of storm runoff.

4.7.3 Limiting Pollutant Determination

The limiting pollutant idea is the concept that if the constituent with the highest loads or that is most difficult to treat is captured and treated, all other constituent requirements will be achieved. Meeting MS4 Permit WQOs in the RH/SGRWQG as required in adopted TMDLs requires achieving control of the limiting pollutant. The limiting pollutant will control implementation actions as the needs associated with it are either more stringent or required within a limited timeframe.

The RH/SGRWQG is tributary to three main water bodies, the Rio Hondo, Peck Road Park Lake, and the SGR. Peck Road Park Lake discharges into the Rio Hondo and ultimately into the LAR and is part of the LAR Watershed. The results of the 90th percentile constituent loads presented in **Table 4-17** show that the 90th percentile volume associated with total nitrogen is the greatest. Typically this would be the limiting pollutant; however, total nitrogen is only considered a water quality priority because of the Los Angeles Area Lakes TMDL. The USEPA established total phosphorus and total nitrogen WQOs based on an LSPC model and found that they "are equal to existing loading rates because no reduction in loading is required" (USEPA, 2012). The CIMP monitoring will be used in the future to verify the USEPA findings and until then it is assumed that addressing other pollutants will reduce the nitrogen loading delivered to the lake from the MS4. Zinc is used as the limiting priority pollutant within the RH/SGRWQG and the LAR Watershed based on the Los Angeles River Metals TMDL. The portion of the RH/SGRWQG within the SGR Watershed must address lead as the limiting pollutant, associated with the San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL.

The loads in the Rio Hondo and SGR are influenced by both the flow volume and constituent concentrations. A large storm with low concentrations may create a load equal to a small storm with high concentrations. The 87th through 93rd percentile events for zinc and lead were evaluated for the LAR and SGR Watersheds, respectively, to determine the statistical range of volumes and loads at the model outlet to see which events produced regional rainfall and volumes for the watershed. **Table 4-19** and **Table 4-20** show the events analyzed for the LAR and SGR Watersheds, respectively. The tables also show the range in volumes, concentrations, and loads for events with loads of approximately the same magnitude as the 90th percentile load event. The bold values in the tables show the numerically selected 90th percentile load. Similar tables for metal constituents and fecal coliform are provided in **Attachment W**. The analysis for fecal coliform is slightly different than it was for metals, as bacteria TMDLs allow a specified number of exceedance days and exclude High Flow Suspension (HFS) days. HFS days are days where 0.5-inches of rainfall occur. For the 90th percentile load analysis, the data is sorted as previously described and then the HFS days are removed. The allowable exceedance days are then removed from the data set. The remaining data points are used to determine the 90th percentile load event, which explains why the data ranging from the 87th to 93rd percentile is not as abundant.

Table 4-19 Limiting Pollutant Percentile Loads for LAR Watershed Storm Events

Date	Flow (cfs)	Volume (ac-ft)	Concentration (µg/L)	Zinc Load (kg)	Percentile
1/18/2010	509.82	1,011.22	648.25	808.57	93rd
2/27/2010	569.22	1,129.03	564.32	785.89	
4/13/2012	305.79	606.53	1,045.62	782.27	
1/25/2008	**638.93**	**1,267.30**	**445.78**	**696.84**	
2/6/2010	577.22	1,144.89	457.68	646.34	
2/18/2005	650.67	1,290.58	405.27	645.15	
11/26/2008	412.14	817.47	633.24	638.52	
11/8/2002	416.39	825.90	621.77	633.42	87th

Table 4-20 Limiting Pollutant Percentile Loads for SGR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/L)**	**Lead Load (kg)**	**Percentile**
12/28/2004	423.47	839.94	52.21	54.06	93rd
11/30/2007	160.15	317.66	137.87	53.99	
1/25/2008	399.13	791.66	53.80	52.50	
3/16/2003	336.26	666.95	63.74	52.41	
2/27/2010	**349.83**	**693.88**	**56.99**	**48.75**	
1/20/2010	292.35	579.87	60.27	43.08	
1/18/2010	279.95	555.27	61.70	42.24	
12/15/2008	234.08	464.30	71.76	41.07	87th

Statistical analysis of the data shown in **Table 4-19** and **Table 4-20** provided the data shown in **Table 4-21** and **Table 4-22**, respectively. **Table 4-21** and **Table 4-22** include statistical values for both loads and volumes which were used in selecting the final modeled storm event for analysis of the 90th percentile load for MS4 Permit compliance evaluation. The statistical analyses for all metal constituents are provided in **Attachment W**.

Table 4-21 Percentile Load Statistics for LAR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Zinc Load (kg)**
Mean	1,011.62	704.63
Standard Error	85.67	26.68
Median	1,070.13	671.59
Standard Deviation	242.32	75.47
Sample Variance	58,717.41	5,696.04
Kurtosis	-0.89	-2.09
Skewness	-0.51	0.47
Range	684.05	175.15
Minimum	606.53	633.42
Maximum	1,290.58	808.57
95% Confidence Range for Mean	335.83	104.60

Table 4-22 Percentile Load Statistics for SGR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Lead Load (kg)**
Mean	613.69	48.51
Standard Error	60.74	1.96
Median	623.41	50.58
Standard Deviation	171.81	5.56
Sample Variance	29,519.32	30.87
Kurtosis	-0.23	-2.09
Skewness	-0.44	-0.40
Range	522.28	12.99
Minimum	317.66	41.07
Maximum	839.94	54.06
95% Confidence Range for Mean	238.12	7.70

The values in the tables show the wide range of variability. Based on the results of the statistical analysis and engineering judgement, the storm from January 25, 2008, was chosen to represent the 90th percentile load event in the RH/SGRWQG within the LAR Watershed and the storm from February 27, 2010, was chosen for the SGR Watershed. The storm that generated this volume and load was spatially consistent over the entire watershed. The value for volumes and loads for both the LAR and SGR Watersheds fall well within the 95 percent confidence interval. The volume generated is also greater than the 85th percentile, 24-hour storm volume for both watersheds.

4.8 Volume and Load Reduction Strategies

Various load reduction strategies were used to demonstrate compliance through the RAA including non-structural and structural BMPs. Control measures are implemented strategically throughout the compliance period at specific time steps so that the interim and final WQOs are met. The three control measures that are the focus of the volume and load reduction strategy are MCMs, regional projects, and distributed BMPs (green streets). The schedule of implementation is discussed in **Section 5** and represents a feasible implementation timeline considering regional BMP implementation will take a long time while MCMs and distributed BMPs may be implemented with less of a planning, engineering, and design effort. The proposed control measures are detailed in **Section 3.4**.

The MCMs were not modeled; rather a five percent load reduction was distributed throughout the implementation timeframe. The majority of the regional projects are modeled as volume reduction BMPs, which remove the hydrologic and constituent loads that are associated with the volume of stormwater runoff tributary to the BMP before it reaches the receiving water. The simulation reflects the reduced volume and mass loading by removing the area treated by the regional BMPs from the LSPC model when the BMP is designed to capture and retain the 85th percentile, 24-hour storm volume (regional EWMP projects). When the BMP does not retain the entire 85th percentile, 24-hour storm volume it is considered a regional project and modeled by reducing the land use loading in the area tributary to the project. Distributed BMPs (green streets) are modeled using the same methods as regional BMPs.

4.9 Pollutant Load Reductions

This subsection presents the results of the RAA based on the implementation schedule, which is discussed in detail in **Section 5**. To demonstrate compliance, the baseline analysis was used to determine the existing water quality conditions. The load reduction was estimated and appropriate

control measures were scheduled for implementation so that the WQOs would be satisfied at each of the applicable milestone dates. As discussed in **Section 4.7.3**, the limiting pollutant for the LAR Watershed is zinc and for the SGR Watershed it is lead. By demonstrating compliance with the limiting pollutant, compliance will be achieved for all other pollutants. **Table 4-23** and **Table 4-24** summarize the load reductions for zinc and lead, in the LAR and SGR Watersheds, respectively, due to control measure implementation based on the schedule defined in **Section 5**. The table demonstrates that compliance will be met at each of the milestones as the load reduction is equal to the target load reduction. The structural control measures to be implemented are illustrated in **Figure 4-18**. The load reductions for all other pollutants are provided in **Attachment X**. The load reductions associated with regional and distributed BMPs assumes an average infiltration rate for the region. The load reductions due to BMP implementation were determined by identifying the volume of flow that would be captured and infiltrated and equating that volume to a load based on the anticipated concentration.

Table 4-23 Zinc Load Reduction Based on Control Measure Implementation in the LAR Watershed

Control Measure Implementation	Zinc Load Reduction (kg)	
	2024 (50% Metals)	2028 (100% Metals)
Enhanced MCMs	35.20	35.20
New and Re-Development	4.28	16.44
Green Streets	207.50	543.76
Regional BMPs		
Recreation Park	6.73	6.73
Sierra Vista Park	11.76	11.76
Arboretum of LAC	7.14	7.14
Royal Oaks Trail (LAR)	35.86	35.86
L. Garcia Park	15.07	15.07
Eisenhower Park	24.88	24.88
Target Load Reduction:	348.42	696.84
Total Load Reduction:	348.42	696.84
Percent of Final Target:	50%	100%

Table 4-24 Lead Load Reduction Based on Control Measure Implementation in the SGR Watershed

Control Measure Implementation	Lead Load Reduction (kg)			
	2017 (10% Metals)	2020 (35% Metals)	2023 (65% Metals)	2026 (100% Metals)
Enhanced MCMs	2.45	2.45	2.45	2.45
New and Re-Development	0.16	0.40	0.63	0.89
Green Streets	2.30	13.53	24.32	41.26
Regional BMPs				
LADWP Easement	-	0.34	0.34	0.34
Encanto Park	-	0.48	0.48	0.48
Memorial Park (Azusa)	-	-	1.21	1.21
Royal Oaks Trail (SGR)	-	-	2.50	2.50
Target Load Reduction:	4.91	17.20	31.93	49.13
Total Load Reduction:	4.91	17.20	31.93	49.13
Percent of Final Target:	10%	35%	65%	100%

The pollutant loads associated with the selected storm events capture the 90th percentile load. The selected event also captures many of the smaller more intense storms with similar loads, but lower volumes. The volumes captured and treated will meet the 85th percentile, 24-hour volume and 90th percentile load criteria. Meeting both criteria provides a reasonable assurance that WQOs will be met. Many of the events that exceed the capture volumes proposed in this plan will have lower concentrations due to the wash-off of pollutants for runoff less than the capture volume and diluted concentrations for the constituents that remain after capturing the volumes related to the 90th percentile load criteria.

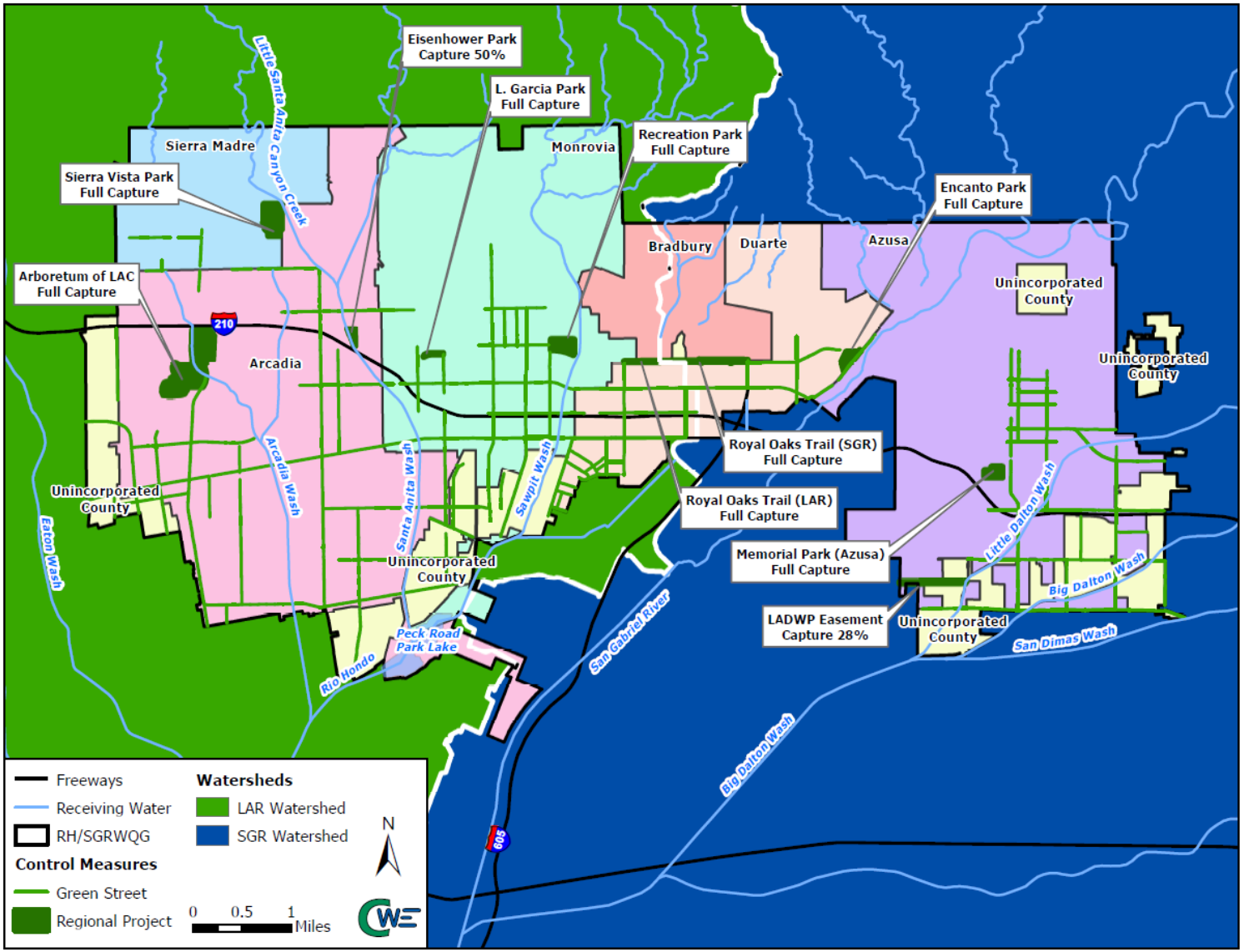


Figure 4-18 Implementation Summary

Figure 4-19, **Figure 4-20**, and **Figure 4-21** illustrate the volume, load, and concentration frequency curves respectively for the LAR Watershed while **Figure 4-22**, **Figure 4-23**, and **Figure 4-24** provide the same illustrations for the SGR Watershed. The curves demonstrate the baseline conditions along with the anticipated volume, load, and concentration once all control measures identified in the EWMP are implemented. These curves demonstrate that less than ten percent of the time the volume, load, and concentration will be in excess of zero. During all other events the flows will be captured and infiltrated and without discharge there is no volume, load, or concentration. In some instances (less than 10 percent of the time) the volume of flow exceeds the volume captured by the proposed projects. These curves demonstrate the model results are based on and meet the 90th percentile critical condition.

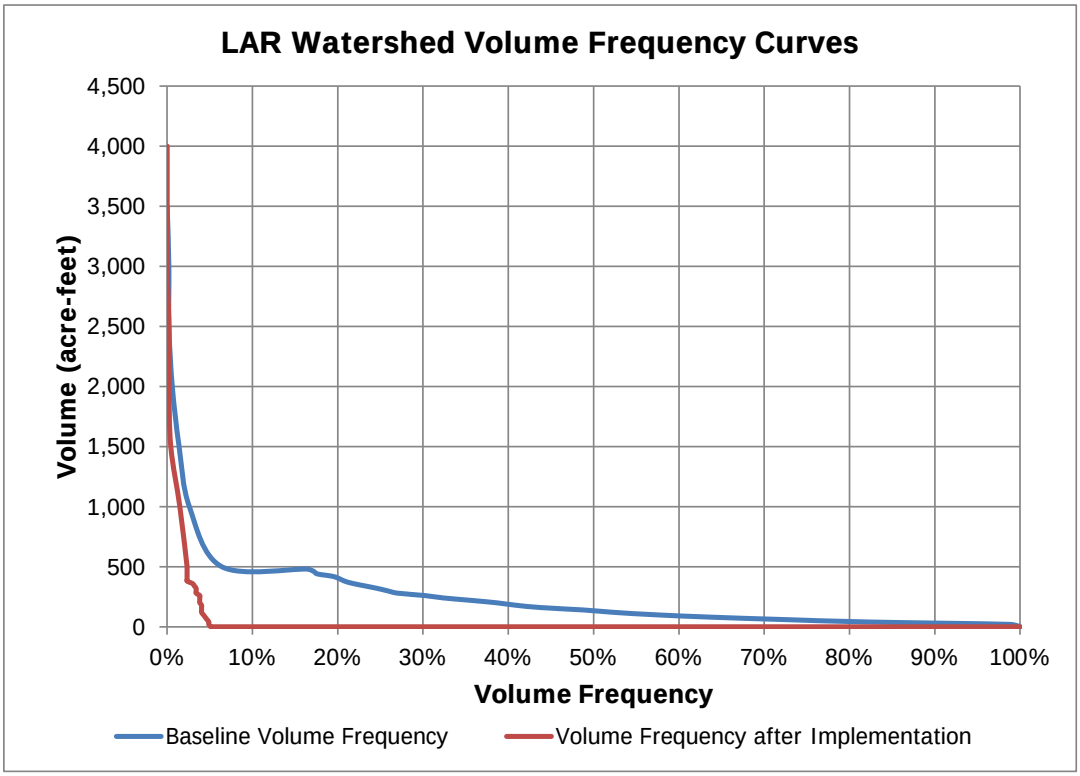


Figure 4-19 LAR Watershed Volume Frequency Curves

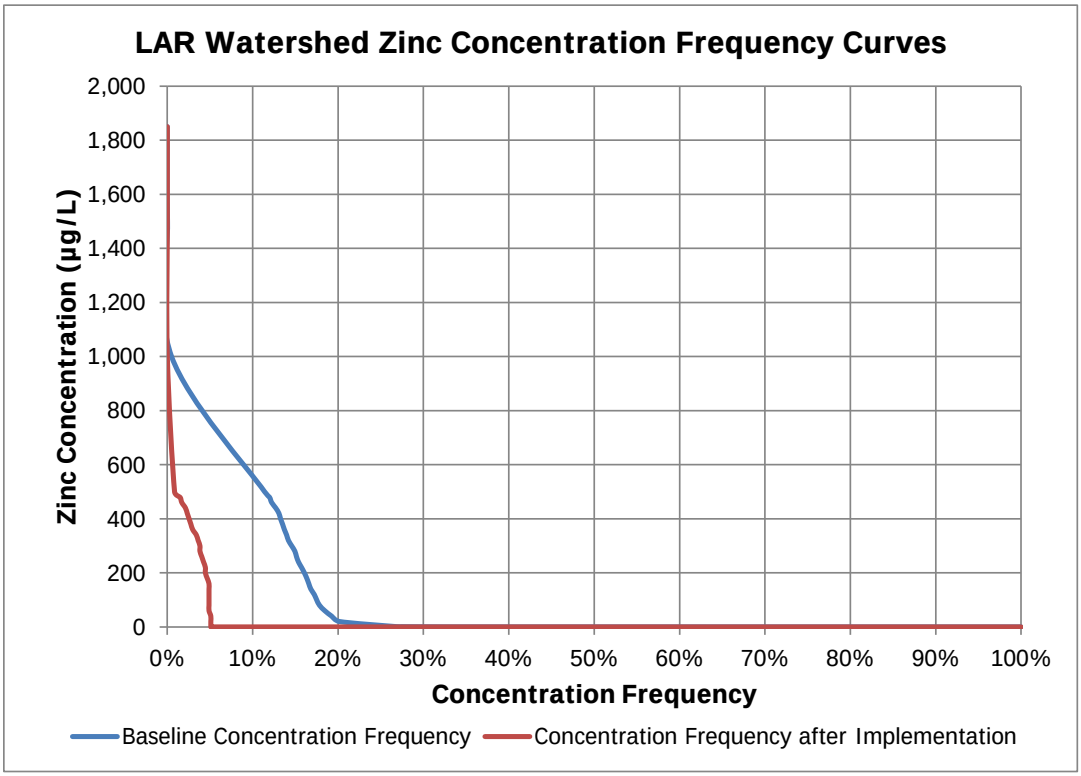


Figure 4-20 LAR Watershed Zinc Concentration Frequency Curves

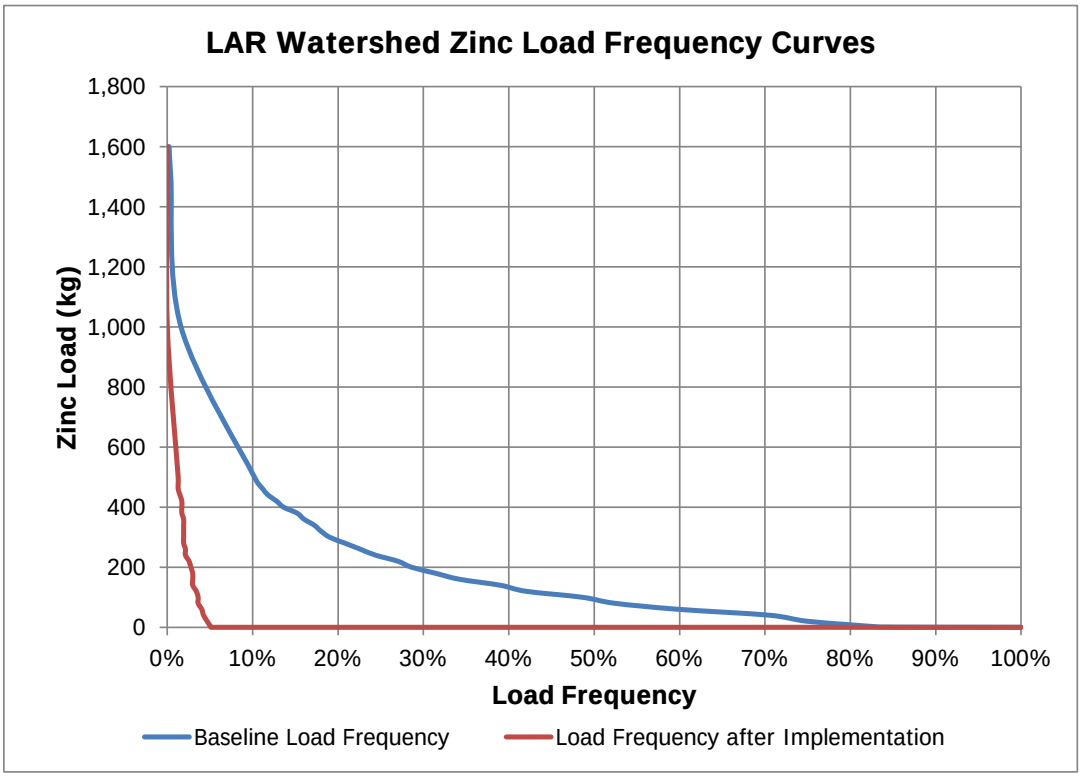


Figure 4-21 LAR Watershed Zinc Load Frequency Curves

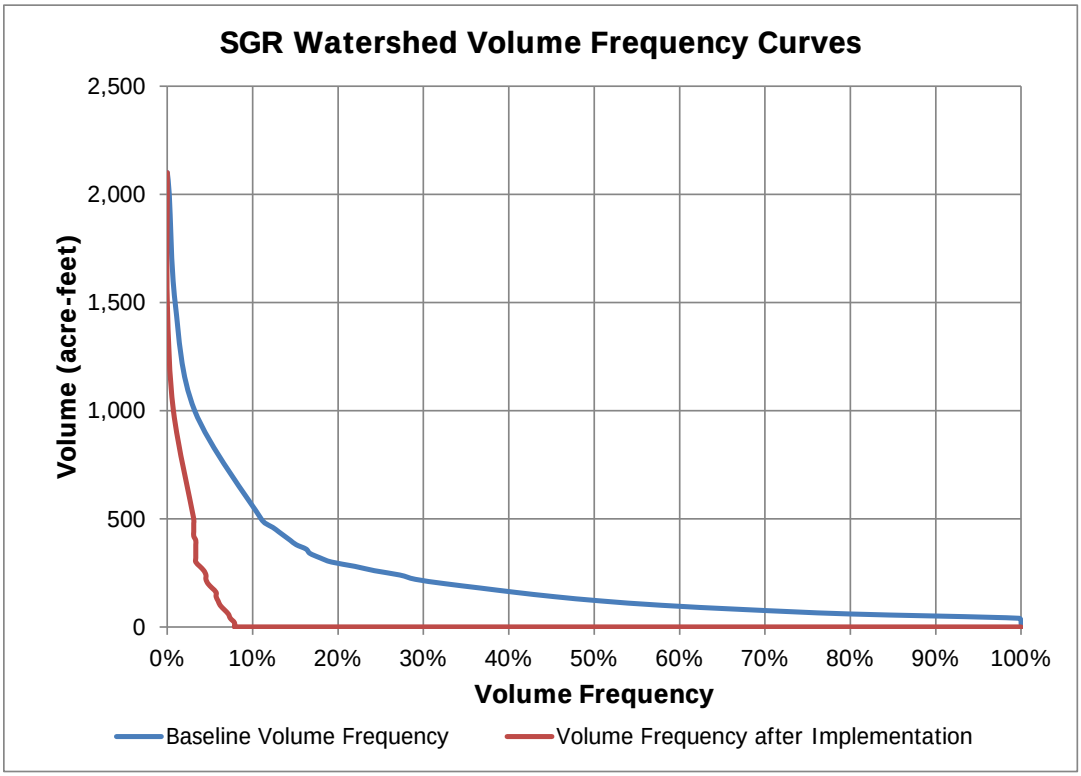


Figure 4-22 SGR Watershed Volume Frequency Curves

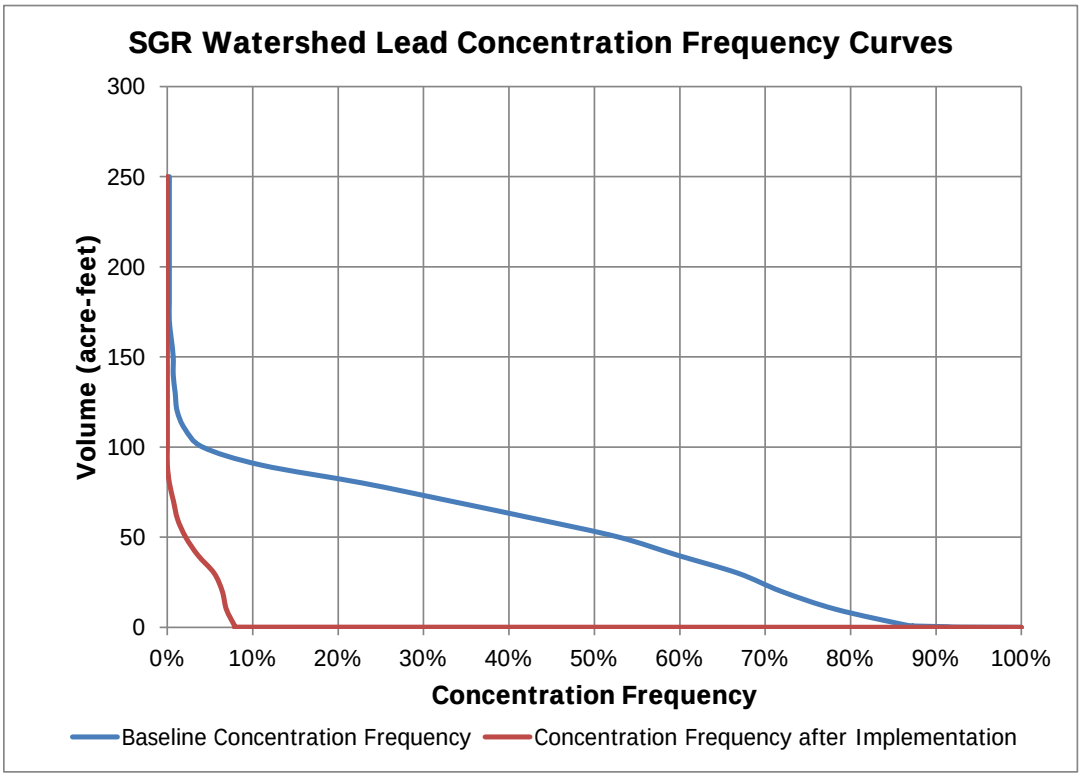


Figure 4-23 SGR Watershed Lead Concentration Frequency Curves

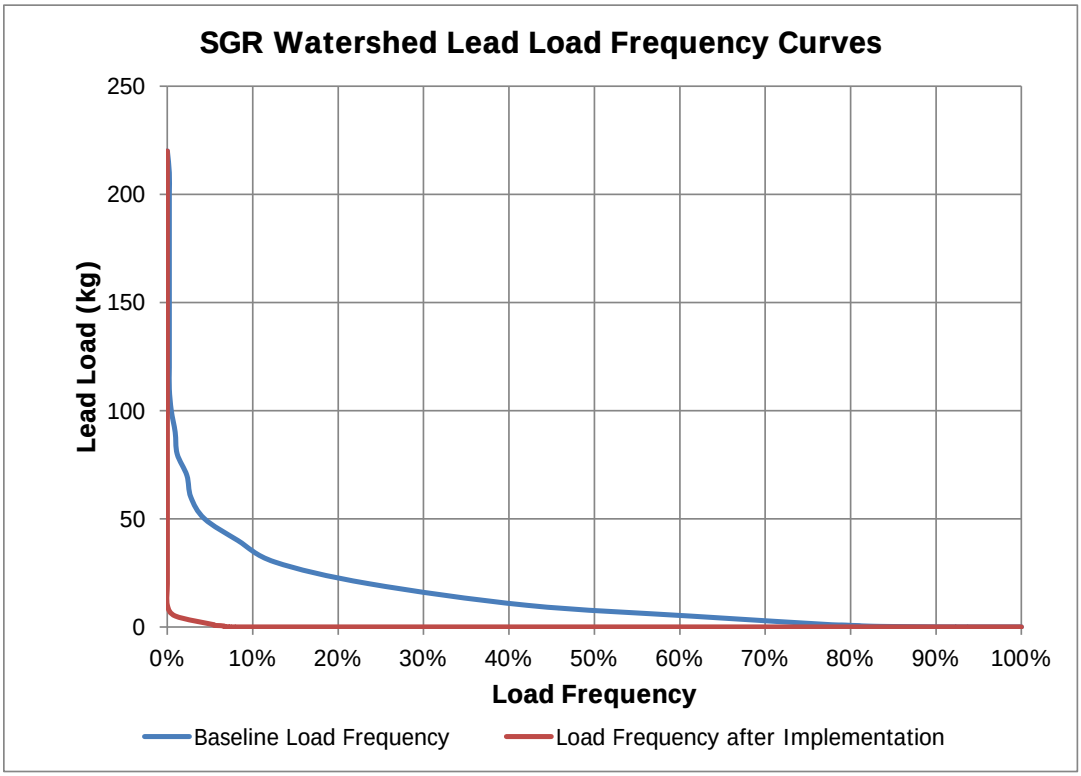


Figure 4-24 SGR Watershed Lead Load Frequency Curves

The average annual stormwater runoff volume based on the model was determined each year between 2002 and 2011. **Table 4-25** and **Table 4-26** summarize the average annual volume each year along with the average annual captured volume based on control measure implementation for the LAR and SGR Watersheds, respectively.

Table 4-25 Average Annual Volume Summary for the LAR Watershed

Start	End	Year	Total Volume (acre-feet)	Captured Volume (acre-feet)			
				Regional Projects	Green Streets	LID	Total
10/1/01	9/30/02	2002	16,317	1,609	7,586	6,242	15,437
10/1/02	9/30/03	2003	13,463	1,395	6,640	4,548	12,583
10/1/03	9/30/04	2004	7,953	888	3,891	3,174	7,953
10/1/04	9/30/05	2005	49,158	5,949	21,551	9,533	37,033
10/1/05	9/30/06	2006	12,456	1,290	6,069	5,097	12,456
10/1/06	9/30/07	2007	3,641	331	1,639	1,671	3,641
10/1/07	9/30/08	2008	13,702	1,459	7,877	4,061	13,397
10/1/08	9/30/09	2009	7,209	670	3,988	2,551	7,209
10/1/09	9/30/10	2010	13,726	1,435	7,614	4,677	13,726
10/1/10	9/30/11	2011	21,989	2,341	9,499	6,309	18,149
Average:			**15,961**	**1,737**	**7,635**	**4,786**	**14,158**

Table 4-26 Average Annual Volume Summary for the SGR Watershed

Start	End	Year	Total Volume (acre-feet)	Captured Volume (acre-feet)			
				Regional Projects	Green Streets	LID	Total
10/1/01	9/30/02	2002	11,187	862	5,582	4,213	10,657
10/1/02	9/30/03	2003	9,180	703	4,788	3,160	8,651
10/1/03	9/30/04	2004	5,047	366	2,803	1,878	5,047
10/1/04	9/30/05	2005	32,904	2,686	14,967	6,292	23,945
10/1/05	9/30/06	2006	8,601	590	4,766	3,245	8,601
10/1/06	9/30/07	2007	1,924	152	954	818	1,924
10/1/07	9/30/08	2008	10,540	770	5,700	2,597	9,067
10/1/08	9/30/09	2009	5,098	407	2,899	1,792	5,098
10/1/09	9/30/10	2010	10,004	797	5,983	3,019	9,799
10/1/10	9/30/11	2011	14,036	1,275	6,222	3,431	10,928
Average:			**10,852**	**861**	**5,466**	**3,045**	**9,372**

5. Proposed Control Measure Implementation Schedule

Control measures were modeled in the RAA so that compliance was demonstrated at each of the milestones. As previously discussed, milestone dates are defined by the applicable TMDLs, otherwise established as part of this EWMP. The applicable milestone dates are summarized in **Table 1-6** and **Table 2-10**. Zinc is the priority pollutant for the LAR Watershed side of the RH/SGRWQG, while lead is the priority pollutant for the SGR Watershed side. Based on the priority pollutants, the milestone dates are related to the Los Angeles River Metals TMDL and San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL. This section outlines the proposed control measure implementation schedule related to the proposed non-structural BMPs, regional projects, and distributed BMPs (green streets) discussed in **Section 3.4**. The actual schedule will depend on the amount and types of funding the group is able to secure.

5.1 Non-Structural BMPs

As discussed in **Section 3.4.1**, non-structural BMPs and the LID programs that will be implemented and were evaluated in the RAA include enhanced MCMs, other non-structural BMPs such as the various senate bills that have been approved, and the new and re-development LID program. These control measures will be ongoing throughout the simulation period. The load reductions associated with implementing enhanced MCMs will be evenly distributed over time. The new and re-development program will be implemented throughout the simulation period at the rates described in **Table 3-20**.

5.2 Regional Projects

The regional projects modeled for the LAR Watershed portion of the RH/SGRWQG RAA are scheduled to be addressed prior to the 2024 interim metals TMDL milestone (50 percent). It is proposed that the SGR Watershed will address two regional projects prior to the 2020 interim metals TMDL milestone (35 percent) and the other two projects before the 2023 interim metals TMDL milestone (65 percent). **Table 5-1** summarizes the anticipated project timeline including the design, environmental permitting, bid, and construction phases for the regional projects in the LAR and SGR Watersheds. Operation and maintenance (O&M) of each of the projects will begin following construction.

Table 5-1 Proposed Regional Project Timeline

Regional Project	Design (years)	Environmental Permitting[1] (years)	Bid (months)	Construction (years)	Low Range Total Time (years)	High Range Total Time (years)	Completion Year
LAR Watershed							
Recreation Park	1	1	6	1.50	3.00	4.00	2020
Arboretum of LAC	1	1	6	2.25	3.75	4.75	2021
Sierra Vista Park	1	1	6	0.75	2.25	3.25	2020
Royal Oaks Trail (LAR)	2	1	6	5.00	7.50	8.50	2023
L. Garcia Park	2	1	6	3.25	5.75	6.75	2024
Eisenhower Park	2	1	6	5.00	7.50	8.50	2024
SGR Watershed							
LADWP Easement	1	1	6	1.00	2.50	3.50	2020
Encanto Park	1	1	6	2.25	3.75	4.75	2020
Memorial Park (Azusa)	2	1	6	5.00	7.50	8.50	2023
Royal Oaks Trail (SGR)	2	1	6	5.00	7.50	8.50	2023

[1] Environmental permitting may be done before or concurrent with the design phase.

Additionally, each of the projects will need to be replaced after the end of the expected life cycle. Underground storage systems that utilize Steel Reinforced Polyethylene (SRPE) cisterns will need to be replaced approximately every 30 years, while concrete or aboveground systems can wait approximately 50 years. To minimize the financial burden, the reconstruction dates can be staggered for regional projects. The current schedule and costs do not include the replacement of regional projects.

5.3 Distributed BMPs (Green Streets)

The distribution of proposed green streets implementation is based on the volume/load reductions that are not satisfied by other control measures at each of the TMDL compliance deadlines. Additionally, the green streets were distributed over the years so the cost can be distributed. Like with the regional projects, the green streets will need to be replaced at the end of their expected life, approximately every 30 years. The street replacements can be spread over more time than the initial implementation because they are not constrained with compliance deadlines. The current schedule and costs presented do not include the replacement of green streets. **Figure 5-1** and **Table 5-2** summarize the green street implementation timeline needed to demonstrate compliance.

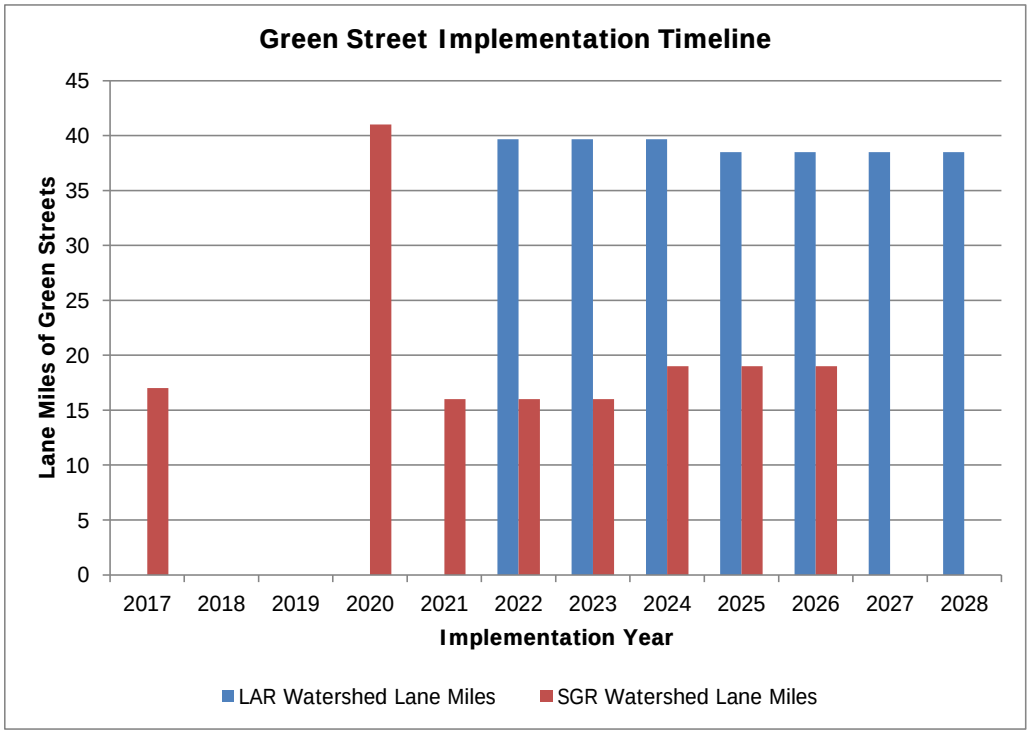


Figure 5-1 Green Street Implementation Timeline

Table 5-2 Proposed Green Street Implementation Timeline		
Implementation Year	**Lane Miles of Green Streets**	
	LAR Watershed	**SGR Watershed**
2017	-	17.0
2018	-	-
2019	-	-
2020	-	41.0
2021	-	16.0
2022	39.6	16.0
2023	39.7	16.0
2024	39.7	19.0
2025	38.5	19.0
2026	38.5	19.0
2027	38.5	-
2028	38.5	-
Total:	**273.0**	**163.0**

5.4 Schedule Summary

Figure 5-2 demonstrates that the control measures and associated implementation schedule proposed in this EWMP will address TMDL milestones. The figure shows the required load reduction will be met for the limiting pollutant in both the LAR and SGR Watersheds. Quantification of the anticipated load reductions are presented in **Table 4-23** and **Table 4-24** for the LAR and SGR Watersheds, respectively.

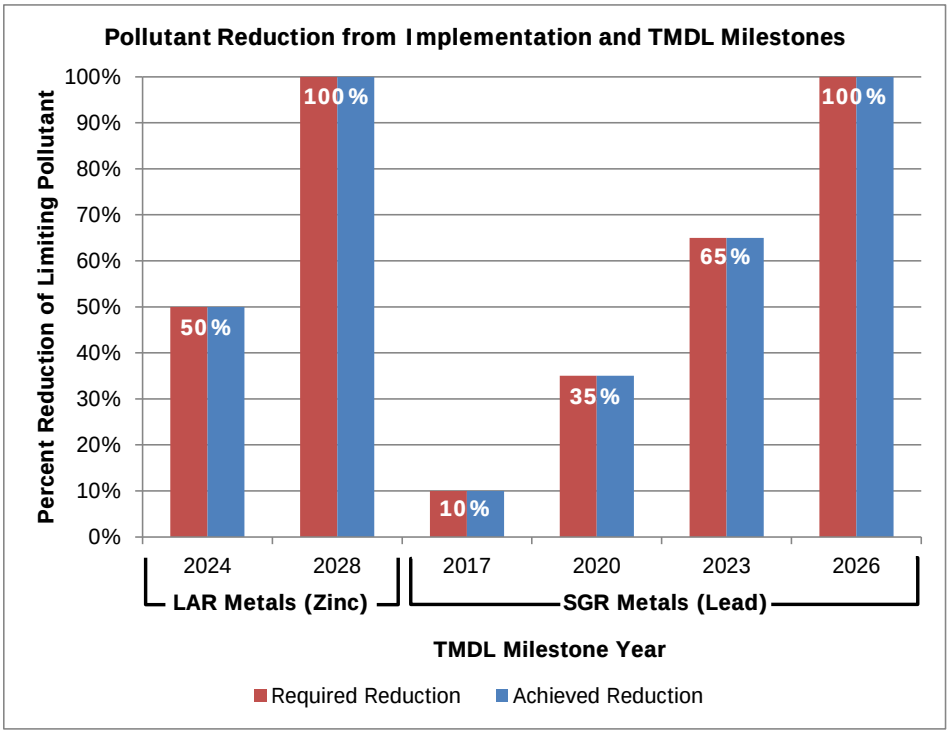


Figure 5-2 Pollutant Load Reduction from Implementation and TMDL Milestones

6. Control Measure Implementation Cost

A preliminary cost analysis has been performed based on the proposed implementation schedule described in **Section 5**, which is based on TMDL milestones. The costs for implementation were spread out when possible keeping in mind that compliance with the WQOs must be demonstrated through the RAA. This section summarizes the cost associated with the implementation of non-structural BMPs, regional projects, and distributed BMPs (green streets) and presents various funding strategies. All costs are in present value and do not account for inflation that may occur prior to implementation.

6.1 Non-Structural BMPs

As discussed in **Section 3.4.1**, non-structural BMPs that will be implemented and were modeled in the RAA include enhanced MCMs, other non-structural BMPs such as the various senate bills that have been approved, and the new and re-development LID program. For the enhanced MCMs there will be some cost associated with implementation; however, the increase in cost is not known at this time. The enhancements being considered will not dramatically increase the cost of program implementation. For SB 346 and SB 757, the RH/SGRWQG will not have to spend any money as the manufacturers are required to modify their materials.

The implementation of the new and re-development LID program will be covered mostly by private developers. The only costs the jurisdictions within the RH/SGRWQG will have to cover are those associated with plan checks and inspections. These costs are covered by plan check fees paid to the agencies by the developers. There will not be significant costs associated with the non-structural BMP implementation modeled in the RAA.

The cost of running the current stormwater program, which mostly entails MCMs/institutional BMPs, is shown in **Table 6-1**. It is anticipated that the cost will increase; however, the increase is not known at this time. The cost increases associated with non-structural BMP implementation represent an extremely small portion of the overall cost of EWMP implementation; therefore, these costs have not been carried into the totals described in subsequent sections.

Table 6-1 Existing Non-Structural BMP Implementation Costs

RH/SGRWQG Member	Stormwater Program Costs	
	2014-15	2013-14
Arcadia	$686,773	$500,772
Azusa	$507,500	$337,375
Bradbury	$162,327	
Duarte	$601,906	$601,906
Monrovia	$981,488	$592,229
Sierra Madre	$418,951	
Los Angeles County[1]		$111,436,000

[1] Cost associated with all Unincorporated County areas and LACFCD, while the portion in the RH/SGRWQG is a small fraction.

6.2 Regional Projects

Based on the concept drawings provided in **Attachment Q**, preliminary cost estimates were developed for each of the regional projects modeled in the RAA. The cost estimates were developed using various sources of information as well as the cost estimator's best judgment. **Table 6-2** summarizes some of

the typical line items included in the cost estimates and their associated assumptions. The items included are broken into three categories: engineering, construction support, and construction.

Table 6-2 Regional Project Cost Estimate Assumptions

Description	Assumption(s)
Engineering	
Design Plan and Specifications	10 percent of construction cost
Permits	Does not include California Environmental Quality Act (CEQA). Includes grading permits, connection permits, demolition permits, etc.
Environmental Assessment (CEQA)	Initial study/mitigated negative declaration equivalent to 25 percent of engineering design cost
Construction Support	
Construction Administration and Inspections	10 percent of construction cost
Construction	
Mobilization	10 percent of construction cost
Excavation	Extended arm not needed, bench available for equipment entry, shoring not needed, includes clearing, grubbing, and debris disposal
Fill	Fill from excavated material, no import necessary
Soil Export	30 mile or less haul route
Landscaping and Irrigation	Includes tree replacement
Diversion Pipe	Includes traffic control, road excavation, pipe installation, road restoration, and sidewalk restoration
Pump Station	Pumps peak flow rate and includes the costs associated with materials, installation, and electrical connection. Materials include wet well, valve vault, required valves, piping, and miscellaneous appurtenances

Table 6-3 summarizes the engineering, construction support, construction, and total costs associated with each of the regional projects included in the RAA for both the LAR and SGR Watersheds. The engineering cost presented in the table includes environmental permitting and planning. **Attachment Y** includes a more detailed breakdown of associated costs. The replacement costs for the proposed regional projects are not included in the cost estimate.

Table 6-3 Regional Project Cost Summary

Regional Project	Engineering	Construction Support	Construction	Total
LAR Watershed				
Recreation Park	$1,069,000	$835,000	$8,347,000	$10,251,000
LAC Arboretum	$1,564,000	$1,231,000	$12,302,000	$15,097,000
Sierra Vista Park	$515,000	$392,000	$3,911,000	$4,818,000
Royal Oaks Trail (LAR)	$5,443,000	$4,334,000	$43,332,000	$53,109,000
L. Garcia Park	$2,403,000	$1,902,000	$19,018,000	$23,323,000
Eisenhower Park	$3,942,000	$3,133,000	$31,327,000	$38,402,000
LAR Watershed Subtotal:				**$145,000,000**

Table 6-3 Regional Project Cost Summary				
Regional Project	**Engineering**	**Construction Support**	**Construction**	**Total**
SGR Watershed				
LADWP Easement	$680,000	$524,000	$5,232,000	$6,436,000
Encanto Park	$1,682,000	$1,325,000	$13,248,000	$16,255,000
Memorial Park (Azusa)	$4,495,000	$3,576,000	$35,759,000	$43,830,000
Royal Oaks Trail (SGR)	$9,010,000	$7,188,000	$71,878,000	$88,076,000
SGR Watershed Subtotal:				**$154,597,000**
Total Cost:				**$299,597,000**

The annual maintenance cost was also determined for the regional projects. Based on the CASQA BMP Handbooks and experience, one to three percent of the construction cost was used as the annual maintenance cost. An annual maintenance cost of 1.5 percent was used for all of the regional projects, with the exception of the Arboretum of LAC, Sierra Vista Park, and LADWP Easement, all of which used three percent due to the systems being aboveground. All annual maintenance costs have a not to exceed cost of $500,000. **Table 6-4** summarizes the annual maintenance costs and maintenance will start once the project is constructed.

Table 6-4 Regional Project Annual Maintenance Costs	
Regional Project	**Annual Maintenance Cost**
LAR Watershed	
Recreation Park	$125,205
LAC Arboretum	$369,060
Sierra Vista Park	$117,330
Royal Oaks Trail (LAR)	$500,000
L. Garcia Park	$285,270
Eisenhower Park	$469,905
SGR Watershed	
LADWP Easement	$156,960
Encanto Park	$198,720
Memorial Park (Azusa)	$500,000
Royal Oaks Trail (SGR)	$500,000

6.3 Distributed BMPs (Green Streets)

A cost estimate similar to the ones developed for the regional projects was developed for 1,000 linear feet of green streets within one lane (0.19 lane miles) and is provided in **Attachment Z**. The unit cost was then determined to be $486 per linear foot per lane mile of green streets. Based on the proposed implementation schedule summarized in **Section 5.3**, the cost per year of initial green street implementation is shown in **Table 6-5** for the LAR and SGR Watersheds. The green streets will also require some maintenance throughout the year to make sure they function as intended. The annual maintenance cost associated with green streets was assumed to be one percent of the construction cost. The maintenance cost will start once the streets have been constructed. Replacement costs associated with green streets are not accounted for in this cost estimate.

Table 6-5 Green Street Implementation and Maintenance Costs

Year	LAR Watershed			SGR Watershed		
	Lane Miles	Capital Cost	O&M Cost	Lane Miles	Capital Cost	O&M Cost
2017	-	-	-	17.0	$43,596,432	-
2018	-	-	-	-	-	$435,964
2019	-	-	-	-	-	$435,964
2020	-	-	-	41.0	$105,144,336	$435,964
2021	-	-	-	16.0	$41,031,936	$1,487,408
2022	39.6	$101,554,042	-	16.0	$41,031,936	$1,897,727
2023	39.7	$101,810,491	$1,015,540	16.0	$41,031,936	$2,308,046
2024	39.7	$101,810,491	$2,033,645	19.0	$48,725,424	$2,718,366
2025	38.5	$98,733,096	$3,051,750	19.0	$48,725,424	$3,205,620
2026	38.5	$98,733,096	$4,039,081	19.0	$48,725,424	$3,692,874
2027	38.5	$98,733,096	$5,026,412	-	-	$4,180,128
2028	38.5	$98,733,096	$6,013,743	-	-	$4,180,128
2029	-	-	$7,001,074	-	-	$4,180,128

6.4 Cost Estimate Summary

The costs associated with regional project and distributed BMP implementation was compiled to come up with a cost summary based on implementation year. As mentioned in **Section 6.1**, the cost increase compared to the existing program associated with non-structural BMP implementation is unknown at this time and is not included in the total cost presented in this section. All costs are shown in present value dollars, thus no interest or inflation was assumed for future implementation. **Figure 6-1** demonstrates the capital and O&M costs per year based on the proposed implementation schedule for the RH/SGRWQG collectively. **Figure 6-2** and **Figure 6-3** illustrate the estimated implementation cost for the LAR and SGR Watersheds, respectively.

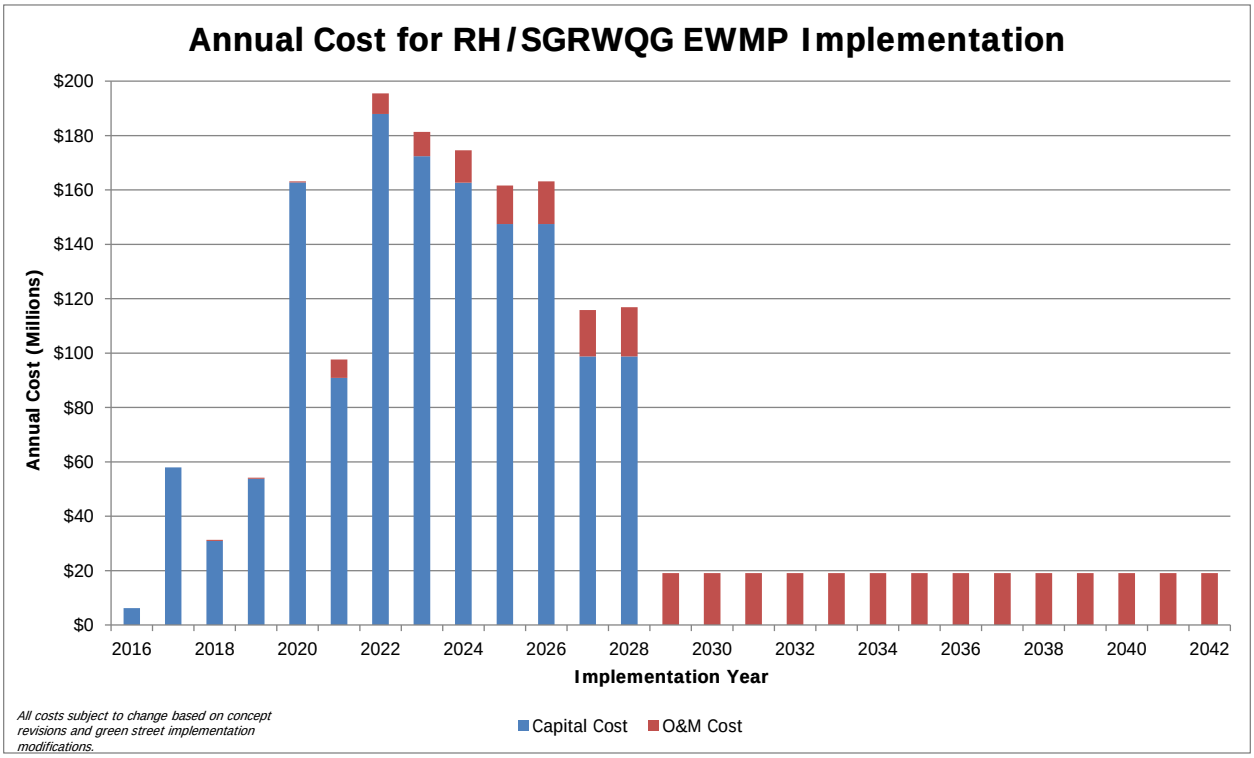


Figure 6-1 Annual Cost for RH/SGRWQG EWMP Implementation

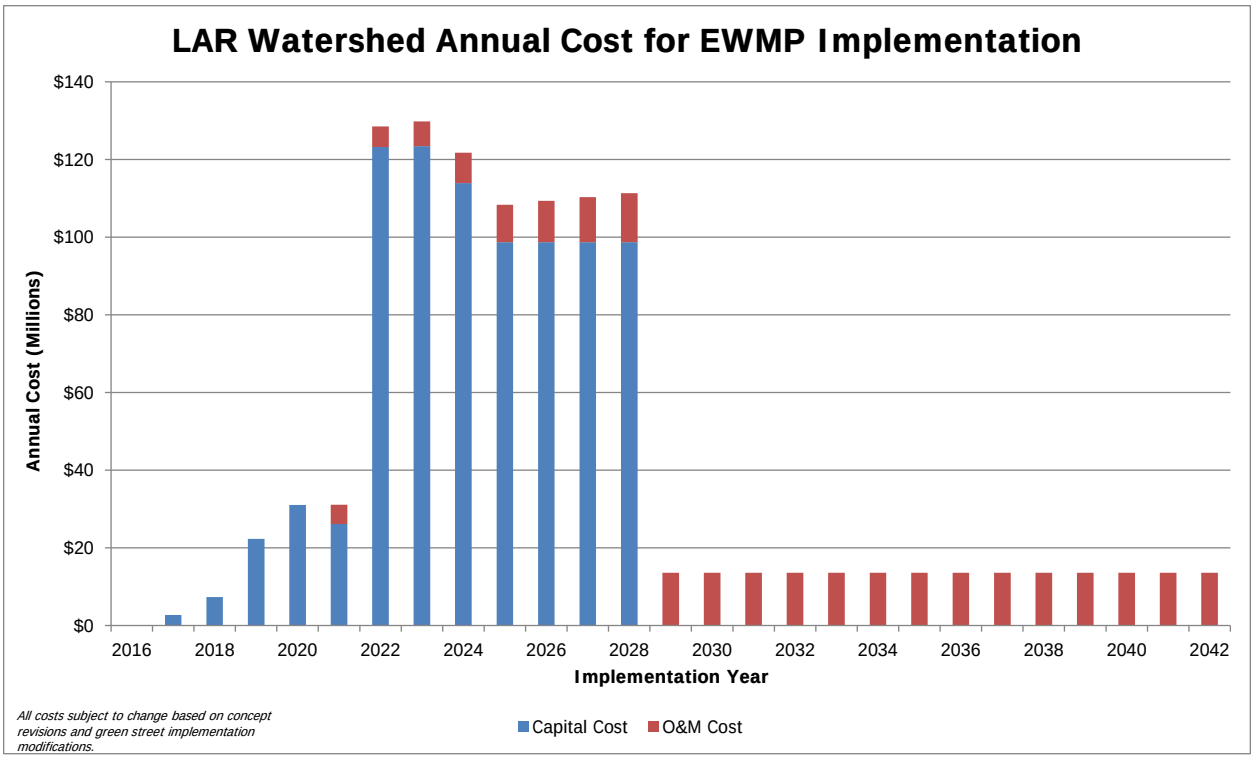


Figure 6-2 Annual Cost for LAR Watershed EWMP Implementation

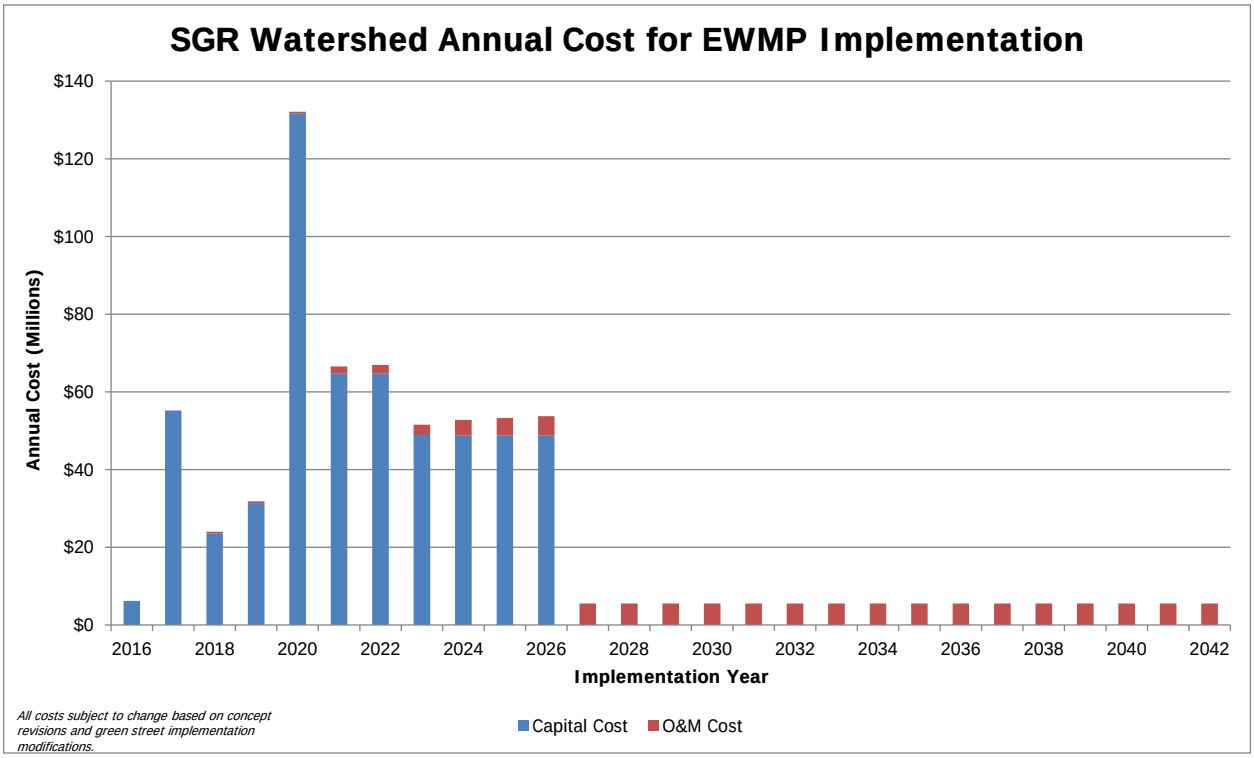


Figure 6-3 Annual Cost for SGR Watershed EWMP Implementation

6.5 Funding Strategies

The regional projects and green streets proposed in this EWMP will require a regional funding strategy, as funding opportunities will need to be identified, sought after, and/or allocated. The capital and operating costs for the proposed control measures are over $1.4 billion and will span over decades. Customizing the financial strategy to the preference of each jurisdiction within the RH/SGRWQG and flexibility in identifying potential funding opportunities will be important for successfully financing EWMP implementation. New revenue sources need to be identified; otherwise revenue sources currently allocated to other programs may need to be used to fund the implementation of this EWMP.

The detailed financial strategy for EWMP costs will be highly dependent on the availability of potential sources of funding, and vary by agency. The agencies within this group have historically utilized general funds to support their respective stormwater programs and may continue to do so. However, the EWMP cost estimates grossly exceed expected available general fund revenue for stormwater programs. Therefore, Group members will individually or collectively pursue funds from multiple additional sources. The financial strategy presented in this EWMP outlines a set of multiple approaches that each RH/SGRWQG Permittee may consider. Each Permittee will pursue those strategies that best fit their specific circumstances.

The annual capital improvement budget for each of the RH/SGRWQG Permittees was evaluated and compared to the amount of money needed each year to fund EWMP implementation. This comparison is presented in **Table 6-6**. The EWMP implementation cost is equal to the total cost for the specified jurisdiction divided by the proposed implementation timeline. This was done for comparison purposes and represents the average annual cost and does not include the cost associated with O&M. The table shows that none of the RH/SGRWQG members have enough money available in their capital improvement funds to cover the proposed EWMP implementation costs. It is also important to recognize that the entire capital improvement fund cannot be used to fund the stormwater program, as other

capital improvements such as water and sewer upgrades are necessary to address other community needs. Information relevant to the Unincorporated County areas within the RH/SGRWQG is not readily available for inclusion. Additionally, Bradbury currently does not have a capital improvement fund. Projects in Bradbury are funded through reserves as needed; however, the funds available through reserves are extremely limited.

Table 6-6 Financial Situation Summary

Jurisdiction	LAR Watershed[1] Annual Cost	SGR Watershed[2] Annual Cost	Annual Capital Improvement Fund Budget	Source of Funds
Arcadia	$29,755,539	$0	$2,066,500	2014-15 Capital Improvement Fund Revenue
Azusa	$0	$37,877,210	$507,020	2013-2014 Capital Projects Funds Revenue
Bradbury	$3,042,884	$7,099,899	Unavailable	
Duarte	$8,147,268	$8,358,976	$151,300	2014-15 Capital Improvement Fund Revenue
Monrovia	$19,254,264	$0	$3,600,000[3]	2015-16 Projected Capital Improvement Funds
Sierra Madre	$2,104,759	$0	$60,000	Planned Local and Regional BMP Funds
Unincorporated County	$8,120,904	$10,287,231	Unavailable	County General Fund

[1] Cost between 2017 and 2028
[2] Cost between 2017 and 2026
[3] Proposed funds (not yet approved)

Project funding knowledge and experience has been used to identify viable funding opportunities to assist the RH/SGRWQG in implementing proposed control measures identified in **Section 3.4**. This section explains the differences between grants and loans, both of which can be utilized as a source of funding, and provides information on current grant and loan opportunities. This section also includes high-level alternatives that can be examined as each jurisdiction moves forward as a group or individuals. The alternatives are categorized by type. Acknowledgement is given to Stormwater Funding Options – Providing Sustainable Water Quality Funding in Los Angeles County, a report authored by Ken Farfsing and Richard Watson dated May 21, 2014. The following funding strategies are further discussed in this section:

- Grants and loans;
- Fees and charges;
- Legislative and policy;
- Partnerships; and
- Investment opportunities.

The stormwater program coordinators of the RH/SGRWQG plan on evaluating opportunities to integrate EWMP goals and efforts with capital improvement projects led by other departments. For example, the green streets implementation could be incorporated into street improvement projects included in Capital Improvement Plans which would allow the projects to be partially funded.

6.5.1 Grants and Loans

The RH/SGRWQG will actively pursue financial assistance to implement the proposed control measures. Financial assistance programs are available in two common forms, grants and loans. To receive funds through a grant or loan, an application must be completed and specific eligibility requirements must be satisfied. These requirements are different depending on the grant or loan program. All assistance programs also provide a set of conditions and limitations. It is important to fully understand the differences, benefits, and drawbacks of each in order to determine which form of financial assistance is best for a given project.

Grants are awards of financial assistance, meaning the grant awardee is not required to return the money, although they may need to follow specific requirements and produce specific products. On the other hand, loans are awarded as a benefit or assistance, but the awardee is required to pay back the loan, often with interest. **Table 6-7** outlines the major differences between grants and loans.

One of the major points outlined in **Table 6-7** is the application and competition of grant programs versus loan programs. Grants often require extra work in addition to general work related to any project. Grants often require extra reports, and as mentioned, a more complex application process. Loans however have a relatively simple application process, less competition, and limited additional requirements that are often less complex. Grants will require extra work, but in return, free money is awarded.

Table 6-7 Differences Between Grants and Loans

Grants	Loans
➢ No payback required	➢ Payback required
➢ Typically complex application process	➢ Relatively simple application process
➢ Highly competitive	➢ May require getting on priority list
➢ Extensive reporting and oversight needed	➢ Repayment terms vary
➢ Matching funds generally required	➢ Threshold eligibility criteria must be met
➢ May favor larger/more expensive projects	➢ Tie-in with job creation with some programs
➢ Some require participation with an IRWM	➢ Different agencies have different requirements
➢ Funding limits vary	➢ Maximum amount financed can be large
➢ Generally limited application periods	➢ Generally continuous application periods
➢ Operate under agency-specific guidelines	

Potential grant and loan financial assistance programs that the group will investigate to fund the control measures proposed in this EWMP as well as a range of stormwater programs are outlined in **Table 6-8** and detailed in **Attachment AA**. The RH/SGRWQG will make reasonable attempts to obtain funds from relevant grants and loans; however, funding is not guaranteed through these programs.

Table 6-8 Existing Grant and Loan Opportunities

Program	Type	Available Funds
Proposition 84 Stormwater Program	Grant	$250,000-$3,000,000
Proposition 84 (Chapter 2 §75026) Integrated Regional Water Management (IRWM)	Grant	Varies
Proposition 84 Urban Streams Restoration	Grant	$1,000,000
Community Action for a Renewed Environment (CARE)	Grant	$75,000-$300,000
Pollution Prevention (P2)	Grant	$20,000-$180,000
Clean Beaches Initiative (CBI)	Grant	$150,000-$5,000,000

Table 6-8 Existing Grant and Loan Opportunities		
Program	**Type**	**Available Funds**
Urban Waters Small Grant	Grant	$40,000-$60,000
Environmental Education Grant and SubGrant	Grant	$75,000-$200,000
Cooperative Watershed Management Plan	Grant	$22,000-$100,000
State of California Coastal Conservancy Program	Grant	No min or max
Wildlife Conservation Board (WCB)	Grant	No min or max
Habitat Conservation Fund (HCF)	Grant	No min or max request
Land and Water Conservation Fund (LWCF)	Grant	$2,000,000
Recreational Trails Program (RTP)	Grant	No min or max
TIGER Discretionary Grant	Grant	$10,000,000 min
Environmental Solutions for Communities	Grant	$25,000-$100,000
Clean Water Act (CWA) §319(h) Non-Point Source (NPS)	Grant	$75,000-$750,000
2014 Water Bond	Grant	Not specified
Metropolitan Transit Authority (MTA) Call for Projects Program	Grant	Varies
Proposition 1B (Local Streets and Road, Congestion Relief, and Traffic Safety Account of 2006)	Grant	$400,000 min
Proposition 1B (Public Transportation Modernization, Improvement, and Service Enhancement Account [PTMISEA])	Grant	Based on population
Measure R	Grant	Not specified
Proposition A and C (Sales Tax)	Grant	Based on population
Environmental Enhancement and Mitigation (EEM) Program	Grant	$500,000
Highway Safety Improvement Program (HSIP)	Grant	$10,000,000
Active Transportation Program (ATP)	Grant	$250,000
Drought Resiliency	Grant	$300,000
Proposition 1 – Stormwater Grant Program (SWGP)	Grant	$500,000-$5,000,000
Clean Water State Revolving Fund (CWSRF)	Loan	No maximum
Infrastructure State Revolving Fund (ISRF)	Loan	$2,000,000-$10,000,000

The programs listed range from federal to state and can apply to transportation, water supply, water quality, habitat enhancement, recreation, or a range of potential project benefits. As projects are developed, the group will consider incorporating different multi-benefit components to allow the project to be eligible for different grant or loan programs.

6.5.2 Fees and Charges

Fees and charges are payments from internal departments or other external sources that can generate or reallocate funds to cover the costs associated with the proposed control measure implementation. The financial strategies associated with fees and charges are presented below. The group will evaluate these strategies as potential funding sources.

- Use existing revenue streams for stormwater/water supply/flood control projects to support stormwater quality projects as legally allowable.
- Assembly Bill (AB) 2403 – Use new state law to pass rate increases for stormwater projects that have a water supply benefit and minimize the Proposition 218 process as legally allowable.

- Establish a mitigation bank by which private developers can fund downstream control measure implementation in lieu of retaining water on private development. To get sufficient benefit from this, there would have to be a downstream control measure that would get greater water quality benefit than the retention system on the private development.
- Use and/or increase solid waste management fees to cover the cost of enhanced street sweeping and other measures to reduce trash.
- Use water rates to fund programs to reduce irrigated runoff, as legally allowable.
- Pursue a proposition 218 compliant stormwater fee or tax initiative (modified after the 2012 Clean Water Clean Beaches Initiative).

6.5.3 Legislative and Policy

The financial strategies that require legislative or policy changes that RH/SGRWQG Permittees will evaluate are summarized below:

- Lobby the Metropolitan Water District (MWD) of Southern California, or other applicable Water Districts, to reevaluate their approach for managing the Local Resource Program (LRP) to fund stormwater capture and use projects that offset the use of imported water supplies. This is related to a water rate increase in that MWD, or other Water Districts, would incorporate the costs into their imported water rates.
- Pursue pollutant source control legislation patterned after SB 346 that either limits pollutants of concern in products (e.g., copper in brake pads, or zinc in tires) or assesses a fee that can be paid for by the users of those products. The money collected through the fee can be used by local governments to mitigate those pollutants. Some examples include addressing zinc in tin roofs and chain link fences.
- Form Special Assessment Districts and tailored fees.
- Explore the use of Enhanced Infrastructure Finance Districts tailored to the RH/SGRWQG, as outlined in recently adopted (2014) California legislation SB 628.
- 2014 Water Resources Reform and Development Act of 2014 (WRRDA). Partner with the USACE to model the watershed impervious surface effects on the federal interests under WRRDA to secure USACE cost sharing for EWMP programs.
- Change legislation to allow the Los Angeles County Sanitation Districts to accept and treat stormwater. Installation of end-of-pipe treatment facilities prior to release to the Pacific Ocean.
- Consideration of the USEPA's Financial Capability Assessment Framework for Municipal Clean Water Act Requirements (**Attachment AB**) and The United States Conference of Mayors Public Water Cost Per Household: Assessing Financial Impacts of EPA Affordability Criteria in California Cities (**Attachment AC**) for assessment prior to pursuing Proposition 218 compliant stormwater fee or tax initiatives.

6.5.4 Partnerships

The RH/SGRWQG will also pursue partnerships, where possible, to identify other groups and agencies who can share the costs. A majority of the control measures proposed in this EWMP are multi-benefit. Reaching out to the community that will benefit whether it is another agency, the public, or non-governmental organizations may result in cost sharing agreements. For example, partnerships with the clubs and organizations that fund the Arboretum of LAC may be used to help fund the proposed project. Another example would be if a commercial establishment was developing or redeveloping and the RH/SGRWQG created a partnership so that during the redevelopment structural control measures could be installed. Partnerships with local water districts could also be established.

The RH/SGRWQG members also plan on evaluating the formation of a Joint Powers Authority (JPA). A JPA is a contract between multiple public agencies to exercise jointly, all powers common to each of

them, for the purpose of accomplishing specific goals they may have in common. The group will evaluate this as an opportunity to jointly fund all or some aspects of EWMP implementation. This will allow each RH/SGRWQG member to spread out implementation costs over time. This will be evaluated on the basis that all members will benefit from EWMP implementation, even if their jurisdictional area does not contribute flows, as the EWMP addresses compliance as a group rather than an individual.

6.5.5 Investment Opportunities

Rather than simply finding opportunities for funding, another alternative is to invest in a study, so that future costs can be reduced. Currently, the LAR copper and lead WER SSO BPA has been approved by the Regional Board and is pending additional approvals from the State Board, Office of Administrative Law, and the USEPA. Once approved, the Basin Plan will be amended and the corresponding WQOs will be increased. This will result in a lower load reduction requirement and during the adaptive management process the proposed control measure implementation could be lessened, thus reducing the overall implementation cost.

Currently, there is discussion of a similar study being conducted for zinc in the LAR Watershed. A WER SSO study could also be conducted for the SGR for the metals that control implementation. Due to SB 346, copper loads are expected to decrease; therefore, a study may not be necessary. However, a study for lead and/or copper may be beneficial to members of the RH/SGRWQG and other jurisdictions in the County. This opportunity will be evaluated as a potential "funding strategy."

6.5.6 Future Steps

The RH/SGRWQG as a whole, as well as individual members, will prioritize and select the specific financial strategies that best fit their needs. In the near term (prior to 2017) the RH/SGRWQG members plan on evaluating the formation of a JPA and the associated terms of the agreement. The stormwater coordinators will also identify opportunities to work with other internal departments to align the goals of the EWMP with existing programs such as street improvements included in Capital Improvement Plans. The grant and loan opportunities identified in **Table 6-8** will be further evaluated over the next two years (prior to 2017); however, the RH/SGRWQG (collectively and individually) intends to pursue and further evaluate the following opportunities:

- Proposition 1 – SWGP
- Seek allocation in General Fund
- Proposition 218 stormwater fee

7. Adaptive Management Process

The EWMP is part of an adaptive management process as described in Part VI.C.8 of the MS4 Permit. Through the adaptive management process, the EWMP will be updated two years after the Regional Board Executive Officer approval and every two years thereafter, while the RAA will need to be revised and updated by 2021. The EWMP will adapt to become more effective, based on, but not limited to, the following:

- Progress towards achieving interim and/or final WQBELs/RWLs according to TMDL schedules;
- Progress towards achieving improved water quality in MS4 discharges and achieving RWLs through implementation of watershed control measures based on an evaluation of outfall-based and receiving water monitoring data;
- Achievement of interim milestones;
- Re-evaluation of the water quality priorities based on more recent water quality data for discharges from the MS4 and receiving water(s) and a reassessment of sources of pollutants;
- Availability of new information and data from sources other than the Permittees' monitoring programs that informs the effectiveness of the actions implemented;
- Regional Board recommendations; and
- Recommendations for modifications to the EWMP through a public participation process.

The adaptive nature of the EWMP allows the process to be iterative, allowing the RH/SGRWQG to identify a plan that is successful in improving water quality in the region. The data collected through implementation of the CIMP will be important when revising the EWMP every two years.

Since implementation of the EWMP will result mostly in volume reduction, checking flow rates at monitoring stations during specific storms and checking model simulations of those same storms and antecedent conditions will provide a valuable calibration check. This calibration check can be used to update the model calibration and run simulations to see if the EWMP projects need modification or stay the course. **Figure 7-1** illustrates the adaptive management process.

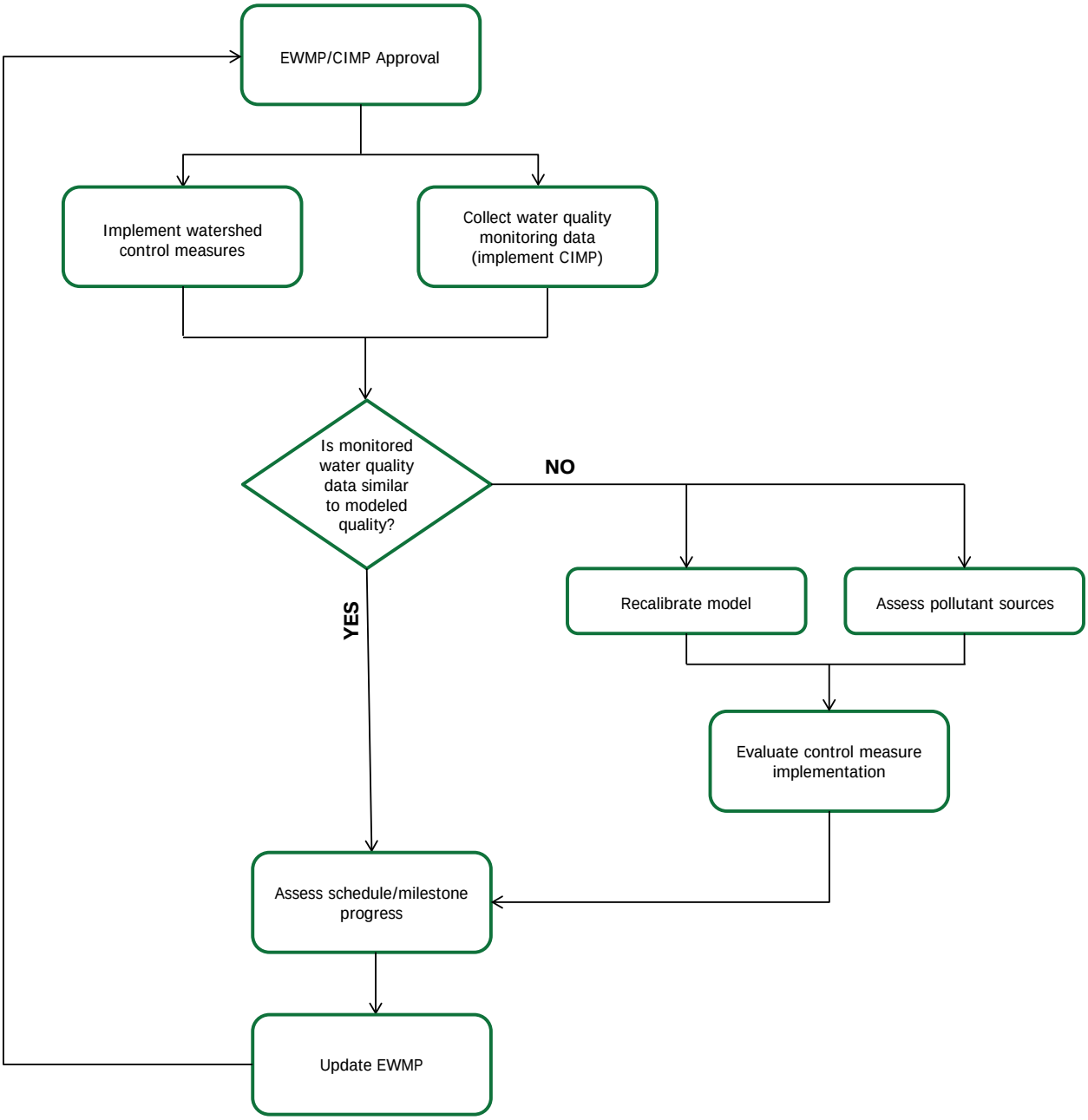


Figure 7-1 Adaptive Management Process

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Attachment A

LACFCD Background

This attachment provides background information pertaining to the Los Angeles County Flood Control District (LACFCD), and their involvement in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP), supplemental to the EWMP Work Plan.

In 1915, the Los Angeles County Flood Control Act established the LACFCD and empowered it to manage flood risk and conserve stormwater for groundwater recharge. In coordination with the United States Army Corps of Engineers the LACFCD developed and constructed a comprehensive system that provides for the regulation and control of flood waters through the use of reservoirs and flood channels. The system also controls debris, collects surface storm water from streets, and replenishes groundwater with stormwater and imported and recycled waters. The LACFCD covers the 2,753 square-mile portion of Los Angeles County south of the east-west projection of Avenue S, excluding Catalina Island. It is a special district governed by the County of Los Angeles Board of Supervisors, and its functions are carried out by the Los Angeles County Department of Public Works. The LACFCD service area is shown in **Figure A-1**.

Unlike cities and counties, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways. The LACFCD operates and maintains storm drains and other appurtenant drainage infrastructure within its service area. The LACFCD has no planning, zoning, development permitting, or other land use authority within its service area. The Permittees that have such land use authority are responsible under the MS4 Permit for inspecting and controlling pollutants from industrial and commercial facilities, development projects, and development construction sites. (MS4 Permit, Part II.E, page 17.)

The MS4 Permit language clarifies the unique role of the LACFCD in storm water management programs: "[g]iven the LACFCD's limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program." (MS4 Permit, Part II.F, page 18).

Consistent with the role and responsibilities of the LACFCD under the MS4 Permit, the EWMPs and Coordinated Integrated Monitoring Programs (CIMPs) reflect the opportunities that are available for the LACFCD to collaborate with Permittees having land use authority over the subject watershed area. In some instances, the opportunities are minimal, however the LACFCD remains responsible for compliance with certain aspects of the MS4 Permit as discussed above.

In some instances, in recognition of the increased efficiency of implementing certain programs regionally, the LACFCD has committed to responsibilities above and beyond its obligations under the 2012 MS4 Permit. For example, although under the 2012 MS4 Permit the Public Information and Participation Program (PIPP) is a responsibility of each Permittee, the LACFCD is committed to implementing certain regional elements of the PIPP on behalf of all Permittees at no cost to the Permittees. These regional elements include:

- Maintaining a countywide hotline (888-CLEAN-LA) and website (www.888cleanla.com) for public reporting and general stormwater management information at an estimated annual cost of $250,000. Each Permittee can utilize this hotline and website for public reporting within its jurisdiction.

- Broadcasting public service announcements and conducting regional advertising campaigns at an estimated annual cost of $750,000.
- Facilitating the dissemination of public education and activity specific stormwater pollution prevention materials at an estimated annual cost of $100,000.
- Maintaining a stormwater website at an estimated annual cost of $10,000.

The LACFCD will implement these elements on behalf of all Permittees starting July 2015 and through the MS4 Permit term. With the LACFCD handling these elements regionally, Permittees can better focus on implementing local or watershed-specific programs, including student education and community events, to fully satisfy the PIPP requirements of the 2012 MS4 Permit.

Similarly, although water quality monitoring is a responsibility of each Permittee under the 2012 MS4 Permit, the LACFCD is committed to implement certain regional elements of the monitoring program. Specifically, the LACFCD will continue to conduct monitoring at the seven existing mass emissions stations required under the previous Permit. The LACFCD will also participate in the Southern California Stormwater Monitoring Coalition's Regional Bioassessment Program on behalf of all Permittees. By taking on these additional responsibilities, the LACFCD wishes to increase the efficiency and effectiveness of these programs.

Figure A-1 Los Angeles County Flood Control District Service Area

Attachment B

Notice of Intent

This attachment includes the Notice of Intent (NOI) to proceed with the development of an Enhanced Watershed Management Program (EWMP) prepared by the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), as discussed in **Section 1.3.1** of the RH/SGRWQG EWMP. The NOI was submitted June 27, 2013 to the Executive Officer of the California Regional Water Quality Control Board, Los Angeles Region.

City of Sierra Madre

Public Works Department
232 W. Sierra Madre Boulevard, Sierra Madre, CA 91024
phone 626.355.7135 fax 626.355.2251

June 27, 2013

Samuel Unger, Executive Officer
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013
ATTN: Renee Purdy

VIA Email to:losangeles@waterboards.ca.gov,
Renee.Purdy@waterboards.ca.gov,
Rebecca.Christmann@waterboards.ca.gov

SUBJECT: NOTICE OF INTENT FOR NPDES PERMIT ORDER NO. R4-2012-0175 FOR THE RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger:

On behalf of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), attached is the Notice of Intent to proceed with the collaborative development of an Enhanced Watershed Management Plan (EWMP) and Coordinated Integrated Monitoring Plan (CIMP). The development of the Notice of Intent was a joint effort by the participating agencies listed below:

- City of Arcadia
- City of Azusa
- City of Bradbury
- City of Duarte
- City of Monrovia
- City of Sierra Madre
- County of Los Angeles (local portions)
- Los Angeles County Flood Control District

The NOI submittal packet includes the NOI, Letters of Intent, MOUs, as well as documentation of the compliance with the "early-action" requirements related to Low Impact Development Ordinance and Green Streets Policy.

Should you have any questions regarding this submittal, please contact me at jcarlson@cityofsierramadre.com or Rafael Casillas at rcasillas@accessduarte.com.

Sincerely,

James Carlson
Management Analyst, City of Sierra Madre

Enc. Notice of Intent

cc: City of Arcadia
City of Azusa
City of Bradbury
City of Duarte
City of Monrovia
City of Sierra Madre
County of Los Angeles (local portions)
Los Angeles County Flood Control District

NOTICE OF INTENT

Rio Hondo/San Gabriel River Water Quality Group

Enhanced Watershed Management Program (EWMP)

Submitted to:
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Submitted by:
Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre
County of Los Angeles
Los Angeles County Flood Control District

June 27, 2013

SECTION 1. WATERSHED MANAGEMENT PROGRAM TYPE SELECTION AND PERMITTEES

The Permittees of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), listed in Table 1, hereby provide the Los Angeles Regional Water Quality Control Board (Regional Water Board) this Notice of Intent (NOI) to develop an Enhanced Watershed Management Program (EWMP) Plan and Coordinated Integrated Monitoring Program (CIMP) Plan in accordance with Part VI.C.4.b.i and Attachment E, Part IV.C.1 of Order R4-2012-0175.

As will be summarized, the Permittees meet the LID ordinance and Green Street policy development conditions of the Order and will submit an EWMP Development Work Plan within 18 months of the effective date of this Order R4-2012-0175, which is June 28, 2014. The Draft EWMP Plan will be submitted within 30 months of the effective date of Order R4-2012-0175, which is June 28, 2015. In accordance with Attachment E, Part IV.C.3 of the Order, the Permittees will submit the CIMP plan to the Executive Officer on or before June 28, 2015.

Table 1. RH/SGRWQG Permittees
• **City of Arcadia**
• **City of Azusa**
• **City of Bradbury**
• **City of Duarte**
• **City of Monrovia**
• **City of Sierra Madre**
• **County of Los Angeles**
• **Los Angeles County Flood Control District (LACFCD)**

SECTION 2. TOTAL MAXIMUM DAILY LOAD COMPLIANCE DATES PRIOR TO APRIL 28, 2016

Total Maximum Daily Loads (TMDLs), identifying listings for impaired waters bodies for which the RH/SGRWQG subwatersheds drain to, are listed on Table 2Additionally, the San Gabriel River Metals TMDL assigns Waste Load Allocations (WLAs) to each of the RH/SGRWQG Permittees, except the City of Sierra Madre, although no Group subwatershed water bodies are identified in the TMDL as impaired. Interim and final trash TMDL and other TMDL final Water Quality Based Effluent Limitation (WQBEL) and Receiving Water Limitation (RWL) compliance deadlines, occurring prior to the final EWMP approval date of April 28, 2016 are identified in Table 3.

The RH/SGRWQG Permittees have been implementing the trash source control measures and Best Management Practices (BMPs) identified on Table 4. The Permittees will continue to implement these measures to ensure that Municipal Separate Storm Sewer System (MS4) discharges achieve compliance with the interim and final WQBELs on Table 3 during development of the EWMP. The Peck Park Trash TMDL Implementation Schedule will be developed through the EWMP Plan, in accordance with Permit Part VI.E3.

Table 2 TMDLs Applicable to the RH/SGRWQG Watershed

TMDL	Resolution Number	Effective Date	EPA Approval Date
Los Angeles River Watershed Trash TMDL	2001-013	August 28, 2002	August 1, 2002
	2007-012	Reissuance September 23, 2008	July 24, 2008
Los Angeles River Nitrogen and Related Effects TMDL	2003-009	March 23, 2004	March 18, 2004
	2003-016	Interim WLA Revision September 27, 2004	Not Applicable
	R12-010	Reconsideration on December 6, 2012	To Be Determined
Los Angeles River and Tributaries Metals TMDL	2007-014	October 29, 2008	October 29, 2008
	R10-003	Reconsideration on November 3, 2011	November 3, 2011
Los Angeles River Bacteria TMDL	R10-007	March 23, 2012	March 23, 2012
Los Angeles Area Lakes USEPA TMDLs for Peck Road Lake	Not Applicable	March 26, 2012	Not Applicable
Los Angeles Area Lakes USEPA TMDLs for Santa Fe Dam Park Lake	Not Applicable	March 26, 2012	Not Applicable

Table 3 Interim and Final Trash WQBELs and Other Final WQBELs and Receiving Water Limitations Occurring Before RH/SGRWQG EWMP Plan Approval			
TMDL Order	**WQBEL**	**Interim/Final**	**Compliance Date**
Los Angeles River Watershed Trash TMDL	20% Baseline	Interim	September 30, 2013
	10% Baseline	Interim	September 30, 2014
	3.3% Baseline	Interim	September 30, 2015
	0% Baseline	Final	September 30, 2016
Lon Angeles Nitrogen and Related Effects TMDL	10.1 mg/L NH_3-N One Hour Average	Final	December 28, 2012
	2.3 mg/L NH_3-N Thirty Day Average	Final	December 28, 2012
	1.0 mg/L NO_2-N Thirty Day Average	Final	December 28, 2012
	8 mg/L (NO_3+NO_2)-N 30 Day Average	Final	December 28, 2012

Table 4. Control Measures that will be Implemented Concurrently with EWMP Development for TMDLs			
TMDL	**Permittees**	**Implementation Plan and Control Measures**	**Status of Implementation**
LA River Trash TMDL	Cities of Arcadia, Bradbury, Duarte, Monrovia, Sierra Madre, County of Los Angeles	Permittees are employing trash source controls, Automatic Retractable Screens, Connector Pipe Screens and other BMPs and Daily Generation Rate Studies	Conforming to interim WQBEL targets and compliance dates

SECTION 3. DEVELOPMENT OF LID ORDINANCE AND GREEN STREETS POLICY REQUIREMENT

The RH/SGR WQG Permittees have all drafted Low Impact Development (LID) ordinances and Green Streets policies. The Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, and Sierra Madre each initiated development of their LID Ordinances and Green Streets Policies by February 26, 2013 through participating in a cost-sharing agreement with the San Gabriel Valley Council of Governments The County of Los Angeles initiated development of their LID Ordinances and Green Streets Policies by February 26, 2013 through internal processes. (Documentation of participation is provided in Appendix D). Table 5 summarizes the adoption status of the LID ordinances, while Table 6 summarizes the adoption status of the Permittees' Green Streets policies. The entire RH/SGR WQG MS4 area will soon have adopted LID ordinances and Green Streets policies. Prior to adoption, each agency should complete, under a timely if expedited schedule, an agency review, verify Municipal Code conformances, prepare and complete an environmental review, and assess compatibility with the final Los Angeles County LID Ordinance and Green Street Policy, so that they will not have to readopt the policy to utilize County Department of Public Works Plan Checking Services.

Table 5. Status of LID Ordinance Adoption Within the RH/SGRWQG WMA

Permittee	LID Ordinance (Indicate Status)	MS4 Watershed Area for which Permittee is Responsible (Sq. Miles)		MS4 Watershed Area Covered by Permittee's LID Ordinance [Sq. Miles)		Percentage of Watershed Area	
		Rio Hondo	San Gabriel River	Rio Hondo	San Gabriel River	Rio Hondo	San Gabriel River
Arcadia	Draft Ordinance	10.9	0.2	10.9	0.2	34.17%	1.04%
Azusa	Draft Ordinance	0	9.7	0	9.7	0%	50.52%
Bradbury	Draft Ordinance	0.8	1.2	0.8	1.2	2.51%	6.25%
County of Los Angeles	Draft Ordinance	2.8	2.1	2.8	2.1	8.78%	10.94%
Duarte	Draft Ordinance	1.8	4.9	1.8	4.9	5.64%	25.52%
Monrovia	Draft Ordinance	12.6	1.1	12.6	1.1	39.50%	5.73%
Sierra Madre	Draft Ordinance	3	0	3	0	9.40%	0%
LACFCD	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MS4 Watershed Area		31.9	19.2	31.9	19.2	**100%**	**100%**

Status Descriptions: Draft Ordinance – By June 28, 2013, Permittee will draft an LID Ordinance in compliance with the requirements of Order R4-2012-0175

Table 6. Status of Green Streets Policy Coverage of the MS4 Watershed Area Addressed by the EWMP

Permittee	Green Street Policy (Indicate Status)	MS4 Watershed Area for which Permittee is Responsible [Sq. Miles]		MS4 Watershed Area Covered by Permittee's LID Ordinance [Sq. Miles]		Percentage of Watershed Area	
		Rio Hondo	San Gabriel River	Rio Hondo	San Gabriel River	Rio Hondo	San Gabriel River
Arcadia	Draft Policy	10.9	0.2	10.9	0.2	34.17%	1.04%
Azusa	Draft Policy	0	9.7	0	9.7	0%	50.52%
Bradbury	Draft Policy	0.8	1.2	0.8	1.2	2.51%	6.25%
County of Los Angeles	Draft Policy	2.8	2.1	2.8	2.1	8.78%	10.94%
Duarte	Draft Policy	1.8	4.9	1.8	4.9	5.64%	25.52%
Monrovia	Draft Policy	12.6	1.1	12.6	1.1	39.50%	5.73%
Sierra Madre	In Place	3	0	3	0	9.40%	0%
LACFCD	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total MS4 Watershed Area		31.9	19.2	31.9	19.2	**100%**	**100%**

Status Descriptions: Draft Policy –By June 28, 2013, Permittee will draft a Green Street Policy in compliance with the requirements of Order R4-2012-0175.

SECTION 4. GEOGRAPHIC SCOPE OF ENHANCED WATERSHED MANAGEMENT PROGRAM:

The RH/SGRWQG includes the Cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, and the County of Los Angeles, and the LACFCD, several of which are in both the Los Angeles and San Gabriel River Watersheds. The municipalities are significantly residential and commercial in land use characteristics and have a shared perspective regarding water conservation and water quality related issues.

The headwaters of the 834 square mile Los Angeles River Watershed are primarily within the mountains of the Angeles National Forest. The watershed is bordered by the Santa Monica Mountains, the Simi Hills, the Santa Susana Mountains, the San Gabriel Mountains, the San Gabriel River and Dominguez Channel Watersheds. The river extends 40 miles across urbanized areas of the San Fernando and west San Gabriel Valleys, before flowing into the Los Angeles-Long Beach Harbor and the Pacific Ocean. The Rio Hondo is a tributary of the Los Angeles River, which receives drainage from the RH/SGRWQG Permittees via several smaller tributaries:

- Arcadia Wash drains from the Cities of Arcadia and Sierra Madre;
- Santa Anita Wash drains from Cities of Arcadia, Monrovia, Sierra Madre and County of Los Angeles;
- Sierra Madre Wash drains from the City of Sierra Madre; and
- Sawpit Wash drains from the City of Monrovia, Duarte, Bradbury, and County of Los Angeles.

Prior to draining to the Rio Hondo, the Santa Anita and Sawpit Washes drain to Peck Road Water Conservation Park (aka. Peck Road Lake). Peck Road Lake then drains to the Rio Hondo. Peck Road Lake is owned by the LACFCD and maintained by the Los Angeles County Department of Parks and Recreation.

The San Gabriel River Watershed encompasses approximately 682 square miles of Los Angeles County, northwest Orange County, and a small portion of southwest San Bernardino County. The San Gabriel River extends 60 miles from its headwaters in the mountains of the Angeles National Forest flowing primarily south across urbanized areas of the San Gabriel Valley and Los Angeles County Coastal Plain, eventually reaching the Pacific Ocean between the Cities of Seal Beach and Long Beach. The main tributaries are Walnut Creek, San Jose Creek, and Coyote Creek. Reach 5 of the San Gabriel River receives drainage from Duarte, Bradbury, Monrovia, Azusa, Arcadia, and County of Los Angeles.

About four miles below the mouth of the San Gabriel Canyon is the Santa Fe Dam and Reservoir, which is operated and maintained by the LACFCD through an easement with the United States Army Corps of Engineers (USACE). Both the Rio Hondo and San Gabriel River flow into the Whittier Narrows Reservoir and may merge behind the reservoir during large storm events. Flows from the upper watershed are directed to spreading grounds located in and adjacent to the Rio Hondo and San Gabriel Rivers.

The RH/SGRWQG watersheds encompass approximately 51 square miles and Table 7 provides a breakdown of each Permittee's land area within the two major river watersheds. Figure 1 is a map of the watershed and jurisdictional boundaries in the vicinity of the RH/SGRWQG. Of the total Los Angeles River and San Gabriel River Watershed areas, the RH/SGR WQG Permittees

have jurisdiction over just 4% and 3% respectively. The Permittees do not have jurisdiction over lands owned by the State of California (CalTrans), the Federal government (Angeles National Forest), Los Angeles County Metropolitan Transportation Authority (Metro) Gold Line, and local school districts (see Table 8).

Table 7. Watershed Land Area by Permittees

Permittee	Rio Hondo		San Gabriel River	
	Land Area (Square Miles)	Percent of Total Area	Land Area (Square Miles)	Percent of Total Area
Arcadia	10.9	34.17%	0.2	1.04%
Azusa	0	0%	9.7	18.98%
Bradbury	0.8	2.51	1.2	6.25%
County of Los Angeles	2.8	8.78%	2.1	10.94%
Duarte	1.8	5.64%	4.9	25.52%
Monrovia	12.6	39.5%	1.1	5.73%
Sierra Madre	3	9.4%	0	0%
Total	**31.9**	**100%**	**19.2**	**100%**

Figure 1. RH/SGRWQG

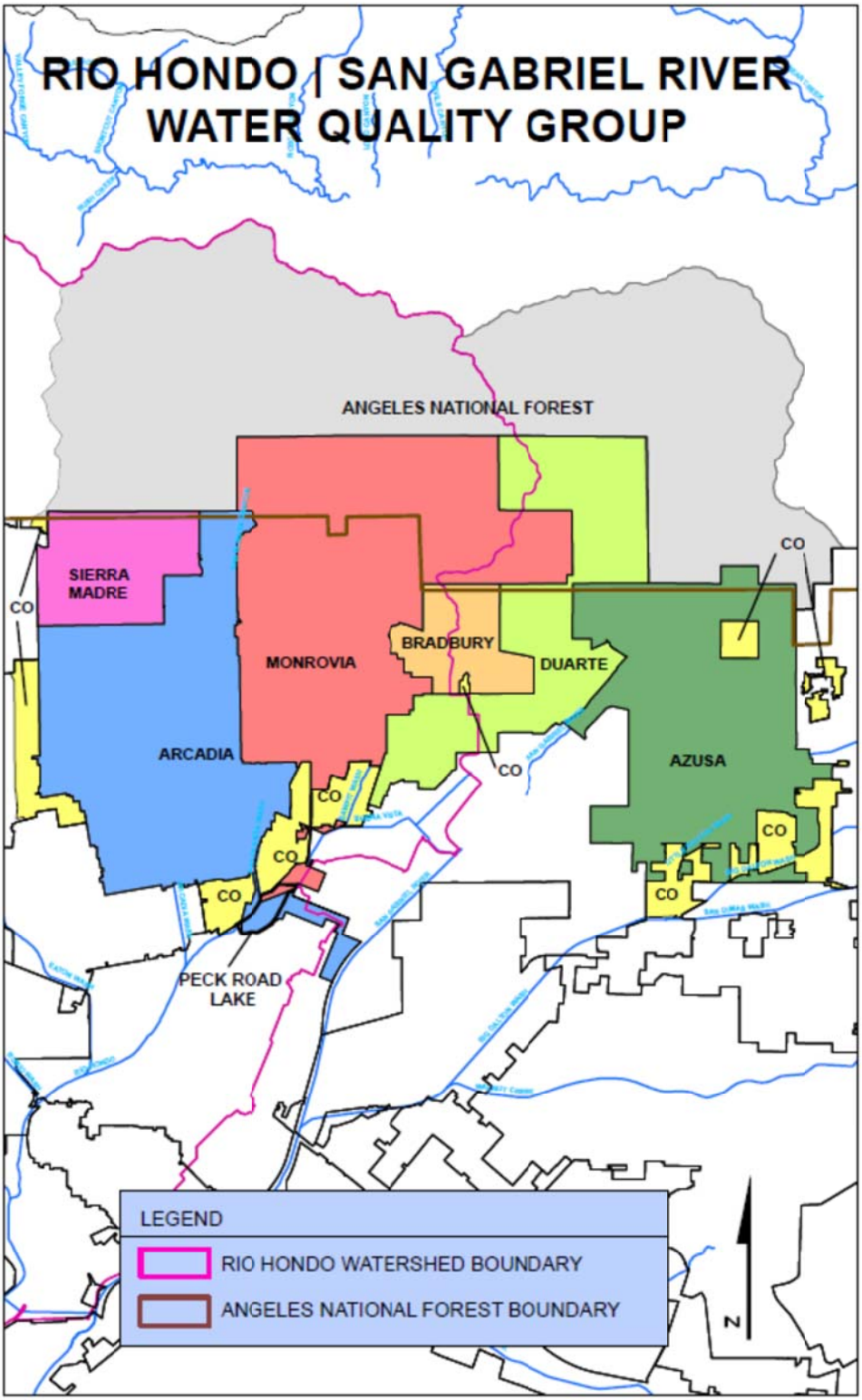


Table 8. RH/SGRWQG Watershed Land Area Distribution and EWMP Participation		
Agency	**EWMP Agency**	**Land Area (sq. miles)**
Arcadia	Yes	**11.1**
Azusa	Yes	**9.7**
Bradbury	Yes	**2**
County of Los Angeles	Yes	**4.9**
Duarte	Yes	**6.7**
Monrovia	Yes	**13.7**
Sierra Madre	Yes	**3**
Los Angeles County Flood Control District	Yes	**N/A**
Angeles National Forest	No	**TBD**
Caltrans	No	**TBD**
Metro Gold Line	No	**TBD**
State of California	No	**TBD**
	RH/SGRWQG Watershed	**51.1**

SECTION 5. PLAN CONCEPT AND INTERIM MILESTONES AND DEADLINES:

The RH/SGRWQG EWMP agencies have been collaborating since the effective date of the 2012 MS4 Permit and have already selected a consultant and issued a contract for Reasonable Assurance Analysis (RAA), and development of the EWMP and CIMP. The Permittees are planning to develop implementation and compliance strategies that are based on a multi-pollutant approach with green infrastructure best management practices (BMPs) that maximize the use of urban runoff as a resource for aquifer recharge, irrigation, and other beneficial uses. The RH/SGRWQG EWMP will consider existing TMDL implementation plans, evaluate permit proposed watershed source control measures, identify enhanced projects to maximize capture of all non-stormwater runoff and stormwater from the 85th percentile, 24-hour storm event, and identify additional watershed control measures for those areas of the watersheds that cannot be addressed by enhanced projects.

Plan development will be a collaborative process between the RH/SGRWQG EWMP agencies, consultant and Regional Board, coordinated by an Oversight Committee composed of members from each of the RH/SGWQG agencies and receiving local watershed stakeholders input.

Table 9 includes a listing of milestones and deadlines for the development of the EWMP.

Table 9. Enhanced Watershed Management Program & Integrated Coordinated Monitoring Program Interim Milestones and Deadlines

Milestone	Deadline
Compile technical memorandum of water quality priorities	*December 2013**
Complete internal draft of EWMP Work Plan	*April 2014**
Complete draft CIMP	*April 2014**
Submit EWMP Work Plan to Regional Water Board	June 2014
Develop interim numeric milestones for EPA developed TMDLs	*August 2014**
Conduct initial RAA based on selected watershed control measures	*December 2014**
Complete internal draft of EWMP	*April 2015**
Submit CIMP Plan to Regional Water Board	June 2015**
Submit Draft EWMP to Regional Water Board	June 2015
Submit Final EWMP to Regional Water Board (revised based on Regional Water Board comments)	January 2016

* Dates are tentative estimates and may change on an as needed basis.

** Attachment E, Part IV.C.3 of the Order.

SECTION 6. COST ESTIMATE:

The RH/SGRWQG EWMP agencies prepared a scope of work and cost estimates for developing the EWMP Work Plan, CIMP, and EWMP for the RH/SGRWQG. It is estimated that the consultant costs will be $212,076 for the CIMP, and $578,461 for the EWMP for a total of $790,537. Table 10 provides a cost break down of the main cost categories involved in EWMP and CIMP plan development. Additionally, agencies of the RH/SGRWQG will contribute several hundred thousand dollars of in-kind services toward the development of the EWMP and CIMP, including attending RH/SGRWQG and Technical Advisory Committee meetings, as well as several hundred thousand dollars for an environmental review to be developed once the EWMP and CIMP have been prepared. For a more detailed scope and cost breakdown, please see Appendix A.

The LACFCD, having no land authority over the RH/SGRWQG watershed, will contribute funds for 10% of the total Consultant EWMP and CIMP Plan development cost while the other 90% of the cost will be funded amongst the remaining Permittees, based upon their respective land area percentages in the RH/SGRWQG watershed as shown in Table 7.

Table 10.Estimated EWMP and CIMP Development Costs

Jurisdiction	Staff/In-kind Costs (EWMP & CIMP)	Consultant EWMP Plan Development	Consultant CIMP Plan Development	Consultant Environmental Review	Total Costs
TOTAL Estimated Costs	$620,000	$578,461	$212, 076	$300,000*	**$1,710,537**

* It is anticipated that Environmental Review will be required once the EWMP has been prepared. Environmental Review costs are anticipated to be approximately $300,000.

SECTION 7. PERMITTEE MEMORANDA OF UNDERSTANDING

All Permittees are committed to development and implementation of the EWMP Plan. Copies of executed Memoranda of Understanding are included in Appendix B.

SECTION 8. COMMITMENT TO IMPLEMENT A STRUCTURAL BMP OR SUITE OF BMPS:

The Permittees listed in Table 11 will implement the identified structural BMP or suite of BMPs to fulfill the obligations under Part VI.C.b.iii. (5).

Table 11. Structural BMP or Suite of BMPs to be Implemented in the EWMP Watershed(s)

Watershed	Permittee	Structural BMP or Suite of BMPs to be Implemented	Planned Implementation Date
Rio Hondo	Monrovia	*Monrovia Station Square/Transit Village Multi-Benefit Park and Greenway Project:* Design and develop a 2.5 acre multi-benefit green space along the future Metro Gold Line Foothill Extension. The project includes a multi-use trail, native trees and shrubs, runoff storage and infiltration systems prior to discharging into Sawpit Wash and Peck Road Water Conservation Park to the south.	Spring 2015
San Gabriel River	Azusa	*Metro Gold Line Infiltration Project:* The City of Azusa in coordination with the Foothill Construction Authority for the Gold Line Project has constructed infiltration systems at some of the major crossings in town. Infiltration will occur at the catch basins which are soft bottom. Anticipated tributary areas are approximately 17 acres and will include the rail corridor. The 10 year storm event is to be infiltrated.	Spring 2015

APPENDIX A

Detailed Cost to Develop EWMP

Table 12. Estimated Costs Per Permittee for Developing the RH/SGRWQG's EWMP & CIMP

Jurisdiction	Staff/In-Kind Costs	Consultant (EWMP & CIMP Plan Development)	Consultant Environmental Review	Total Costs (*does not include Environmental Review)
Arcadia	$91,000	$179,891.39	TBD	*$270,891
Azusa	$104,000	$153,660.80	TBD	*$257,661
Bradbury	$103,000	$39,480.59	TBD	*$142,481
Duarte	$88,000	$65,711.18	TBD	*$153,711
Monrovia	$99,000	$133,602.11	TBD	*$232,602
Sierra Madre	$45,000	$53,367.37	TBD	*$98,367
County of Los Angeles & **Los Angeles County Flood Control District**	$90,000	$85,769.86 $79,053.70		*$254,824
TOTAL	**$620,000**	**$790,537.00**	**~$300,000**	**$1,710,537**

APPENDIX B

Memorandum of Understanding

City of Arcadia
City of Azusa
City of Bradbury
City of Duarte
City of Monrovia
City of Sierra Madre

County of Los Angeles and Los Angeles County Flood Control District have each indicated their intent to participate in the MOU in their Letters of Intent (attached). The MOU is tentatively scheduled for the Board of Supervisors' approval on July 30, 2013, but no later than December 28, 2013.

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE LOS ANGELES COUNTY FLOOD CONTROL DISTRICT,
THE COUNTY OF LOS ANGELES, AND
THE CITIES OF ARCADIA, AZUSA, BRADBURY, DUARTE, MONROVIA AND SIERRA MADRE

REGARDING THE ADMINISTRATION AND COST SHARING FOR DEVELOPMENT OF THE ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP) FOR THE RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP'S WATERSHED

This Memorandum of Understanding (MOU), made and entered into as of the date of the last signature set forth below by and between the LOS ANGELES COUNTY FLOOD CONTROL DISTRICT (LACFCD), a political subdivision of the State of California, the COUNTY OF LOS ANGELES (LA COUNTY), a political subdivision of the State of California, and the CITIES OF ARCADIA, AZUSA, BRADBURY, DUARTE, MONROVIA, AND SIERRA MADRE. Collectively, these entities shall be known herein as "PARTIES" or individually as "PARTY."

WITNESSETH

WHEREAS, the Regional Water Quality Control Board, Los Angeles Region (Regional Board) adopted National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175 Municipal Separate Storm Sewer System (MS4 Permit); and

WHEREAS, the MS4 Permit became effective on December 28, 2012 and requires that the LACFCD, LA COUNTY, and 84 of the 88 cities (excluding Avalon, Long Beach, Palmdale, and Lancaster) within the County of Los Angeles comply with the prescribed elements of the MS4 Permit; and

WHEREAS, the PARTIES have agreed to collaborate on the compliance of certain elements of the MS4 Permit and have agreed to a cost sharing formula set forth in Table 2 of Exhibit A, which is attached and made part of this MOU; and

WHEREAS, the PARTIES agree that each shall assume full and independent responsibility for ensuring its own compliance with the MS4 Permit despite the collaborative approach of this MOU; and

WHEREAS, the PARTIES collaboratively prepared a final Scope of Work and Request for Proposal to obtain a Consultant to assist the PARTIES in complying with certain elements of the MS4 Permit, as specified in the Scope of Work, which is incorporated into this MOU by reference; and

WHEREAS, the PARTIES propose for the Consultant to prepare and deliver a Final Work Plan, Draft Enhanced Watershed Management Program (EWMP) plan, Coordinated Integrated Monitoring Plan (CIMP), Final EWMP plan, and Environmental Review as appropriate to the EWMP and CIMP (collectively, PLANS) in compliance with certain elements of the MS4 Permit, at a total cost of approximately $790,537; and

WHEREAS, the PARTIES have determined that hiring a Consultant to prepare and deliver the PLANS will be beneficial to the PARTIES and they desire to participate and will provide funding in accordance with the cost allocation in Table 2 of Exhibit A; and

WHEREAS, the PARTIES have agreed to establish an Oversight Committee (comprised of City Managers and/or designated staff from each PARTY) to provide technical oversight and project management for the development of the PLANS, and

WHEREAS, the CITY OF ARCADIA will act on behalf of the PARTIES in the administration of the Consultant services agreements for the preparation of the PLANS .

NOW, THEREFORE, in consideration of the mutual benefits to be derived by the PARTIES, and of the promises contained in this MOU, the PARTIES agree as follows:

(1) Recitals: The recitals set forth above are incorporated into this MOU.

(2) Purpose: The purpose of this MOU is to cooperatively fund the preparation of the PLANS and the submittal of the PLANS to the Regional Board.

(3) Voluntary: This MOU is voluntarily entered into for the purpose of preparing the PLANS and submitting the PLANS to the Regional Board.

(4) Terms: This MOU shall become effective the last date of execution by all Parties hereto (“Effective Date”), and shall remain in effect until the CITY OF ARCADIA has provided written notice of completion of the Scope of Work described herein, and payment by all Parties of their allocated pro-rata share hereunder. .

(5) Responsibilities of the CITY OF ARCADIA:

a. The CITY OF ARCADIA shall act as the contract manager on behalf of, and for the benefit of, PARTIES, and as such agrees to invoice the PARTIES for their pro-rata share of the cost for the preparation and delivery of the PLANS as described in Tables 2 and 3 of Exhibit A.

1. Payments to Third Parties – The CITY OF ARCADIA shall have no obligation to pay vendors or consultants any funds other than those owed for its proportional share as set forth in Table 2 of Exhibit A, and those funds remitted to the CITY OF ARCADIA following invoice. In the event

the CITY OF ARCADIA elects to make a payment on behalf of a Delinquent Party, the Delinquent Party and/or the remaining Parties shall reimburse the CITY OF ARCADIA the funds expended making the payment as described below.

b. The CITY OF ARCADIA shall solicit proposals for, award, and administer a Consultant contract(s) for the preparation and delivery of the PLANS in accordance with the Scope of Work.

c. The CITY OF ARCADIA shall utilize the funds deposited by the PARTIES only for payment of the Consultant for the preparation and completion of the PLANS.

d. The CITY OF ARCADIA shall provide the PARTIES with an electronic copy of the draft and final PLANS within 5 days of receipt from the Consultant.

e. Upon execution of this MOU, each Party shall provide the name or names of those persons from within the Party's organization who is/are to be representing said Party on the Oversight Committee. Within thirty (30) days from the Effective Date, the CITY OF ARCADIA shall notice all parties hereto of the members of the contact information for the Oversight Committee.

f. All draft and final Plans shall be reviewed by the Oversight Committee for further revision and/or completion. No PLAN OR PLANS shall be submitted to the Regional Board unless and until it/they have been approved, in writing, for submittal by all PARTIES hereto, excepting only a Party or Parties whose involvement in this MOU has been terminated.

g. The CITY OF ARCADIA shall provide an accounting upon the early termination of this MOU pursuant to paragraph (6)t.1 or 60 days after the date the Regional Board gives final approval to the last outstanding portion of the PLANS. The CITY OF ARCADIA shall return the unused portion of all funds deposited with the CITY OF ARCADIA in accordance with the cost allocation formula set forth in Table 2 of Exhibit A.

(6) THE PARTIES FURTHER AGREE:

a. The PARTIES shall make a full faith effort to cooperate with one another to achieve the purposes of this MOU by providing information about project opportunities, reviewing deliverables in a timely manner, and informing their respective administrators, agency heads, and/or governing bodies.

b. The PARTIES shall fund the cost of the preparation and delivery of the PLANS and pay the CITY OF ARCADIA for the preparation and delivery of the PLANS based on the cost allocation set forth in Table 2 of Exhibit A within 60 days of receiving an invoice.

c. Delinquent Payments – A PARTY's payment is considered delinquent 180 days after being invoiced by the CITY OF ARCADIA. The following procedures may be implemented to attain payments from the delinquent PARTY per instructions from the PARTIES: 1) verbally contact/meet with the manager from the delinquent PARTY or PARTIES; and 2) submit a formal letter to the delinquent PARTY OR PARTIES from the City of Arcadia's legal counsel. If the PARTY or PARTIES remain delinquent after the above procedures, then the CITY OF ARCADIA may notify the Regional Board that the delinquent PARTY OR PARTIES are no longer a participating member of the PLANS, and said PARTY or PARTIES shall then be deemed to have terminated its participation as a PARTY to this MOU ("EXCLUDED PARTY") and their name(s) may be removed from the PLANS. Any EXCLUDED PARTY'S delinquent amount(s) will be paid in accordance with the remaining PARTIES pro-rata share pursuant to Table 2 of Exhibit A, as adjusted to remove the EXCLUDED PARTY from the allocation. The CITY OF ARCADIA will revise Table 2 of Exhibit A to show the recalculated costs for each remaining participating PARTY; these revised exhibits will be included with the next invoice to the PARTIES. The PARTIES shall retain all contractual, legal, and equitable rights and causes of action to recover any delinquent amounts paid that were owed by an EXCLUDED PARTY or PARTIES who failed to make such payments.

d. Interest Accrual - Any interest accrued on the funds collected per this MOU during the term of this MOU shall be refunded or credited toward any amount owed at the time of the final accounting. The CITY OF ARCADIA shall report to the PARTIES the amount of the interest accrued by the collected funds at the time of the final accounting.

e. Excess Funds - Any collected funds not spent in any annual period shall be refunded or credited toward any amount owed at the time of the final accounting.

f. Each PARTY shall allow reasonable access and entry to the Consultant, on an as needed basis, during the term of this MOU to the PARTY's storm drains, channels, catch basins, and similar properties (FACILITIES) to achieve the purposes of this MOU, provided, however, that prior to entering any PARTY's facilities, the Consultant shall secure a permit of entry from the applicable PARTY.

g. To the maximum extent permitted by law, the CITY OF ARCADIA shall require the Consultant(s) retained pursuant to this MOU to agree to indemnify, defend, and hold harmless each PARTY, its special districts, elected and appointed officers, employees, and agents, from and against any and all liability, including but not limited to demands, claims, actions, fees,

costs, and expenses (including attorney and expert fees), arising from or connected with the Consultant's performance of its agreement with the CITY OF ARCADIA. In addition, the CITY OF ARCADIA shall require the Consultant(s) to carry, maintain, and keep in full force and effect an insurance policy or policies, and each PARTY, its officers, employees, attorneys, and designated volunteers shall be named as additional insureds on the policy(ies) with respect to liabilities arising out of the Consultant's work. These requirements will also apply to any subcontractors hired by the Consultant(s).

h. To the maximum extent permitted by law, each PARTY shall indemnify, defend, and hold harmless each other PARTY, including its special districts, elected and appointed officers, employees, and agents, from and against any and all liability, including but not limited to demands, claims, actions, fees, costs, and expenses (including attorney and expert witness fees), arising from or connected with the respective acts of each PARTY under this MOU; provided, however, that no PARTY shall indemnify another PARTY for that PARTY's own negligence or willful misconduct.

i. In light of the provisions of Section 895.2 of the Government Code of the State of California imposing certain tort liability jointly upon public entities solely by reason of such entities being parties to an agreement (as defined in Section 895 of said Code), each of the PARTIES hereto, pursuant to the authorization contained in Section 895.4 and 895.6 of said Code, shall assume the full liability imposed upon it or any of its officers, agents, or employees, by law for injury caused by any act or omission occurring in the performance of this MOU to the same extent that such liability would be imposed in the absence of Section 895.2 of said Code. To achieve the above stated purpose, each PARTY indemnifies, defends, and holds harmless each other PARTY for any liability, cost, or expense that may be imposed upon such other PARTY solely by virtue of said Section 895.2. The provisions of Section 2778 of the California Civil Code are made a part hereof as if incorporated herein.

j. The PARTIES are, and shall at all times remain as to each other, wholly independent entities. No PARTY to this MOU shall have power to incur any debt, obligation, or liability on behalf of any other PARTY unless expressly provided to the contrary by this MOU. No employee, agent, or officer of a PARTY shall be deemed for any purpose whatsoever to be an agent, employee, or officer of another PARTY.

k. Any notices, bills, invoices, or reports relating to this MOU, and any request, demand, statement, or other communication required or permitted hereunder shall be in writing and shall be delivered to the representatives of the

PARTIES at the addresses set forth in Exhibit B attached hereto and incorporated herein by reference.

l. This MOU shall be binding upon, and shall be to the benefit of the respective successors, heirs, and assigns of each PARTY; provided, however, no PARTY may assign its respective rights or obligations under this MOU without the prior written consent of the other PARTIES.

m. This MOU is governed by, interpreted under, and construed and enforced in accordance with the laws of the State of California.

n. If any provision of this MOU shall be determined by any court to be invalid, illegal, or unenforceable to any extent, the remainder of this MOU shall not be affected, and this MOU shall be construed as if the invalid, illegal, or unenforceable provision had never been contained in this MOU.

o. All PARTIES have been represented by counsel in the preparation and negotiation of this MOU. Accordingly, this MOU shall be construed according to its fair language. Any ambiguities shall be resolved in a collaborative manner by the PARTIES and shall be rectified by amending this MOU as described in paragraph (6)r.

p. Each of the persons signing below on behalf of a PARTY represents and warrants that he or she is authorized to sign this MOU on behalf of such PARTY.

q. No PARTY shall have any financial obligation to any other PARTY to this MOU, except as herein expressly provided.

r. The terms and provisions of this MOU may not be amended, modified, or waived, except by an instrument in writing signed by all PARTIES who have not terminated their interests herein or whose involvement has not terminated by reason of non-payment. This paragraph applies to any changes proposed as a result of the following circumstances: 1) changes to the MS4 Permit terms with regards to compliance through an EWMP or CIMP; or (2) changes in the number of parties to this MOU. This list is not intended to be exhaustive.

s. This MOU may be signed in multiple counterparts with the same force and effect as if all original signatures appeared on one copy; and in the event this MOU is signed in counterparts, each counterpart shall be deemed an original and all of the counterparts shall be deemed to be one agreement.

t. Early Termination or Withdrawal

1. This MOU may be terminated upon the express written agreement of all PARTIES. If this MOU is terminated, any remaining funds not due and payable or otherwise legally committed to a Consultant(s) shall be distributed to the remaining PARTIES (not including any EXCLUDED or WITHDRAWN PARTY or PARTIES) so that all such remaining PARTIES have paid no more than their pro-rata share (in accordance with the most current allocation set forth in Table 2 of Exhibit A). Completed work shall be owned by all PARTIES at the time of completion of the work who are not EXCLUDED or WITHDRAWN PARTIES. Similarly, rights to uncompleted work by the Consultant still under contract is to be owned by the PARTY or PARTIES who are not EXCLUDED or WITHDRAWN PARTIES at such time.

2. A PARTY may withdraw from this MOU ("WITHDRAWN PARTY") upon 60 days written notice to the other PARTIES, subject to payment of any invoice received from the CITY OF ARCADIA prior to or during the 60-day notice period for its share of the cost of the work completed as of the date of its notice of withdrawal, calculated in accordance with the cost-sharing percentages set forth in Table 2 of Exhibit A. The effective withdrawal date shall be the sixtieth (60th) day after the CITY OF ARCADIA receives the withdrawing PARTY's notice to withdraw from this MOU. The CITY OF ARCADIA shall refund to the WITHDRAWN PARTY any unused funds paid by the WITHDRAWN PARTY's effective withdrawal date. All PARTIES understand, acknowledge, and agree that withdrawal from this MOU will terminate any responsibility, liability, or obligation of the WITHDRAWN PARTY under this MOU commencing on the effective withdrawal date and that the WITHDRAWN PARTY shall remain liable for its share of any loss, debt or liability incurred prior to the withdrawal date, and for any work which could not be suspended. Withdrawal from this MOU does not release any PARTY from the obligations set forth in MS4 Permit.

3. If a PARTY fails to substantially comply with any of the terms or conditions of this MOU, that PARTY shall forfeit its rights to work completed through this MOU, but no such forfeiture shall occur unless and until the defaulting PARTY has first been given notice of its default and a reasonable opportunity to cure the alleged default.

IN WITNESS WHEREOF, the PARTIES hereto have caused this MOU to be executed by their duly authorized representatives and affixed as of the date of signature of the PARTIES:

COUNTY OF LOS ANGELES,

By _____ _____
GAIL FARBER Date

APPROVED AS TO FORM:

John F. Krattli
County Counsel

By _____ _____
Deputy Date

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

By _____
Chief Engineer

APPROVED AS TO FORM:

John F. Krattli
County Counsel

By _____ _____
Deputy Date

CITY OF _____

By _____ _____
NAME, POSITION Date

ATTEST:
By _____ _____
NAME, City Clerk Date

APPROVED AS TO FORM:

By _____ _____
NAME, City Attorney Date

EXHIBIT A

Rio Hondo/San Gabriel River Water Quality Group EWMP Funding Contributions

Table 1. Total Contract Costs

Work Scope	Cost
Project Management	$111,231
EWMP Work Plan	$146,234
CIMP	$136,464
Final EWMP	$ 394,816
Notice of Intent Review	$1,792
Total Contract Cost	**$ 790,537.00**

Table 2. Cost Allocation Formula

Party	Base Fee (10%)	Acres (Developed Land)	Percent of Area(2)	Cost based on Acres (90%)	Total Cost
City of Arcadia	$10,164.05	11	26.51%	$169.727.34	$179,891.39
City of Azusa	$10,164.05	9.3	22.41%	$143,496.75	$153,660.80
City of Bradbury	$10,164.05	1.9	4.58%	$29,316.54	$39,480.59
City of Duarte	$10,164.05	3.6	8.67%	$55,547.13	$65,711.18
City of Monrovia	$10,164.05	8	19.28%	$123,438.07	$133,602.11
City of Sierra Madre	$10,164.05	2.8	6.75%	$43,203.32	$53,367.37
County of Los Angeles	$10,164.05	4.9	11.81%	$75,605.82	$85,769.86
Los Angeles County Flood Control District(1)	$79,053.70	-	-	-	$79,053.70
Total	**$150,202.03**	**41.5**	**100%**	**$640,334.97**	**$790,537.00**

(1) Los Angeles County Flood Control District's cost share equals 10% of total contracted costs; the remaining costs are then divided by the 10% base fee and land area (90%).

(2) - Based on percent of developed land in each Party area of the total watershed area (excludes Angeles National Forest land)

On or before June 30th of each year, the Oversight Committee shall review the Cost Allocation Formula and may adjust the formula as deemed necessary for such reasons including, but not limited to, revision in Contracted Costs, Scope of Work, scheduling of work, and/or costs related to environmental review.

Table 3. Invoicing Schedule

Invoice #	Invoice Date	Percent of Cost Share Allocation

1	on or before July 2013	10% Base
2	July 2013	1/3 of land Area Allocation
3	July 2014	1/3 of land Area Allocation
4	July 2015	1/3 of land Area Allocation

On or before June 30th of each year, the Oversight Committee shall review the Invoicing Schedule may adjust the percent of Cost Share Allocations due each year as deemed necessary for such reasons including, but not limited to, revision in Contracted Costs, Scope of Work, scheduling of work, and/or costs related to environmental review.

EXHIBIT B

Rio Hondo/San Gabriel River Watershed Quality Group EWMP
Responsible Agencies Representatives

1. City of Arcadia
   240 W. Huntington Dr.
   Arcadia, CA 91006
   Representative: Vanessa Hevener
   E-mail: VHevener@ci.arcadia.ca.us
   Phone: (626) 359-7028

2. City of Azusa
   213 E. Foothill Blvd.
   Azusa, CA 91702-1395
   Representative: Carl E. Hassel
   E-mail: CHassel@ci.azusa.ca.us
   Phone: (626) 812-5064

3. City of Bradbury
   600 Winston Ave.
   Bradbury, CA 91008
   Representative: Michelle Keith
   E-mail: MKeith@CityofBradbury.org
   Phone: (626)358-3218 ext. 300

4. City of Duarte
   1600 Huntington Drive
   Duarte, CA 91010
   Party Representative: Rafael Casillas
   E-mail: RCasillas@accessduarte.com
   Phone: (626)386-6833

5. City of Monrovia
   415 S. Ivy Ave.
   Monrovia, CA 91016
   Representative: Heather Maloney
   E-mail: HMaloney@ci.monrovia.ca.us
   Phone: (626) 932-5577

6. City of Sierra Madre
   232 W. Sierra Madre Blvd
   Sierra Madre, CA 91024
   Representative: James Carlson
   E-mail: JCarlson@cityofsierramadre.com

Phone: (626) 355-7135 ext. 803

7. County of Los Angeles
   Department of Public Works
   Watershed Management Division, 11th Floor
   900 South Fremont Avenue
   Alhambra, CA 91803-1331
   Representative: Gary Hildebrand
   E-mail: GHILDEB@dpw.lacounty.gov
   Phone: (626) 458-4300

8. Los Angeles County Flood Control District
   Department of Public Works
   Watershed Management Division, 11th Floor
   900 South Fremont Avenue
   Alhambra, CA 91803-1331
   Representative: Gary Hildebrand
   E-mail: GHILDEB@dpw.lacounty.gov
   Phone: (626) 458-4300

CITY OF ARCADIA

By _____ June 4, 2013
Dominic Lazzaretto, City Manager Date

ATTEST:

By _____ June 4, 2013
Chief Deputy City Clerk Date

APPROVED AS TO FORM:

By _____ June 4, 2013
Stephen P. Deitsch, City Attorney Date

CITY OF AZUSA

By _____ _____
Mayor Joseph R. Rocha Date

ATTEST:
By _____ May 6, 2013
City Clerk Jeffrey Cornejo, Jr. Date

APPROVED AS TO FORM:

By _____ 5/14/13
City Attorney Date

CITY OF BRADBURY

By _____ 6-25-13
RICHARD PYCZ, MAYOR Date

ATTEST:

By Claudia Saldana 6-25-13
CLAUDIA SALDANA, City Clerk Date

APPROVED AS TO FORM:

By _____ 6-25-13
CARY REISMAN, City Attorney Date

CITY OF DUARTE

By _____ May 14, 2013
Darrell George, City Manager — Date

ATTEST:
By _____ May 14, 2013
Marla Akana, City Clerk — Date

APPROVED AS TO FORM:

By _____ May 14, 2013
Dan Slater, Attorney — Date

CITY OF MONROVIA

By _____ 5-22-13
Laurie Lile, City Manager Date

ATTEST:
By _____ 5/22/2013
Alice D. Atkins, CMC, City Clerk Date

APPROVED AS TO FORM:

By _____ 5/21/2013
Craig A. Steele, City Attorney Date

By _____
Chief Engineer

APPROVED AS TO FORM:

John F. Krattli
County Counsel

By _____ _____
Deputy Date

CITY OF SIERRA MADRE

By _____ May 14, 2013
NANCY WALSH, Mayor Date

ATTEST:
By _____ May 14, 2013
NANCY SHOLLENBERGER, City Clerk Date

APPROVED AS TO FORM:

By _____ May 14, 2013
TERESA HIGHSMITH, City Attorney Date

APPENDIX C

Signed Letters of Intent

City of Arcadia
City of Azusa
City of Bradbury
City of Duarte
City of Monrovia
City of Sierra Madre
County of Los Angeles
Los Angeles County Flood Control District

City of Arcadia

Public Works Services Department

Tom Tait
Public Works Services Director

June 28, 2013

Samuel Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Attention: Renee Purdy

RE: LETTER OF INTENT PLEDGING COMMITMENT IN THE DEVELOPMENT OF AN ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM IN COLLABORATION WITH THE RIO HONDO/SAN GABRIEL RIVER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger:

The City of Arcadia, with this letter, pledges to collaborate with the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in the development of an Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) in accordance with the new MS4 Permit by Order No. R4-2012-0175. The RH/SGRWQG is comprised of the cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, the local portion of unincorporated County of Los Angeles and the Los Angeles County Flood Control District.

The City of Arcadia also pledges to share in the costs associated with the development of the Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP). A cost sharing formula has been agreed by all participating members of the Group as to the equitable distribution of cost.

Should you have any questions, please contact Vanessa Hevener at (626) 305-5327 or via email at vhevener@ci.arcadia.ca.us.

Sincerely,

Tom Tait
Public Works Services Director

11800 Goldring Road
Post Office Box 60021
Arcadia, CA 91066-6021
(626) 256-6554
(626) 359-7028 Fax
www.ci.arcadia.ca.us

The Canyon City — Gateway to the American Dream

June 18, 2013

Samuel Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Attention: Renee Purdy

LETTER OF INTENT PLEDGING COMMITMENT IN THE DEVELOPMENT OF AN ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM IN COLLABORATION WITH THE RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger;

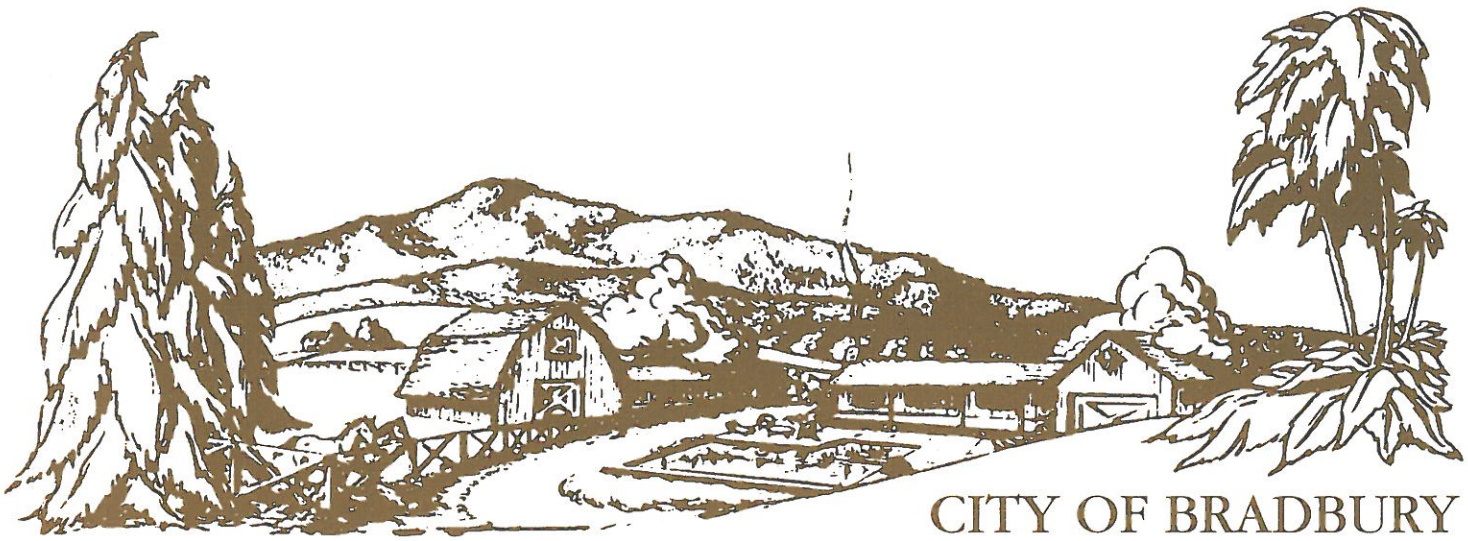
The City of Azusa, with this letter, pledges to collaborate with the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in the development of an Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) in accordance with the new MS4 Permit by Order No. R4-2012-0175 for submission to your Board. The RH/SGRWQG is comprised of the cities of Arcadia, Azusa, Bradbury, Duarte, Sierra Madre, Monrovia, the local portion of unincorporated County of Los Angeles and the Los Angeles County Flood Control District.

The City of Azusa also pledges to share in the costs associated with the development of the Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP). A cost sharing formula has been agreed by all participating members of the Group as to the equitable distribution of costs.

Should you have any questions, please contact me at thaes@ci.azusa.ca.us or at (626) 812-5248 or Carl Hassel, of my staff at chassel@ci.azusa.ca.us or at (626) 812-5064.

Sincerely,

Tito Haes
Assistant City Manager / Director of Public Works



CITY OF BRADBURY

Incorporated July 26, 1957

June 17, 2013

Samuel Unger, Executive Officer
Los Angeles Regional Water Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Attention: Renee Purdy

LETTER OF INTENET PLEDGING COMMITMENT IN THE DEVELOPMENT OF AN ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM IN COLLABORATION WITH THE RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger;

The City of Bradbury, with this letter, pledges to collaborate with the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in the development of an Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) in accordance with the new MS4 Permit by Order No. R4-2012-0175 for submission to your Board. The RH/SGRWQG is comprised of the cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, the local portion of unincorporated County of Los Angeles and the Los Angeles County Flood Control District.

The City of Bradbury pledges to share in the costs associated with the development of the EWMP and CIMP. A cost sharing formula has been agreed by all participating members of the RH/SGRWQG as to the equitable distribution of costs.

If you have any questions, please do not hesitate to contact me at (909) 594-9702, or via email at dgilbertson@rkagroup.com.

Sincerely,

David Gilbertson
Deputy City Engineer

City of Duarte

Sixteen Hundred Huntington Drive, Duarte, California 91010-2592
Tel 626-357-7931 FAX 626-358-0018 www.accessduarte.com

June 17, 2013

Samuel Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Attention: Renee Purdy

LETTER OF INTENT PLEDGING COMMITMENT IN THE DEVELOPMENT OF AN ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORIDNATED INTERGRATED MONITORING PROGRAM IN COLLABORATION WITH THE RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger;

The City of Duarte, with this letter, pledges to collaborate with the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in the development of an Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) in accordance with the new MS4 Permit by Order No. R4-2012-0175 for submission to your Board. The RH/SGRWQG is comprised of the cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, the local portion of unincorporated County of Los Angeles and the Los Angeles County Flood Control District.

The City of Duarte pledges to share in the costs associated with the development of the EWMP and CIMP. A cost sharing formula has been agreed by all participating member of the RH/SGRWQG as to the equitable distribution of costs.

If you have any questions, please do not hesitate to contact Rafael O. Casillas at (626) 357-7931, extension 233 or via email at rcasillas@accessduarte.com.

Sincerely,

Darrell George
City Manager

City of MONROVIA
Department of Public Works

1887

June 28, 2013

Samuel Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Attention: Renee Purdy

LETTER OF INTENT PLEDGING COMMITMENT IN THE DEVELOPMENT OF AN ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM IN COLLABORATION WITH THE RIO HONDO/SAN GABRIEL RIVER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger:

The City of Monrovia, with this letter, pledges to collaborate with the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in the development of an Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) in accordance with the new MS4 Permit by Order No. R4-2012-0175. The RH/SGRWQG is comprised of the cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, the local portion of unincorporated County of Los Angeles and the Los Angeles County Flood Control District.

The City of Monrovia also pledges to share in the costs associated with the development of the Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP). A cost sharing formula has been agreed by all participating members of the Group as to the equitable distribution of cost.

Should you have any questions, please contact Heather Maloney at hmaloney@ci.monrovia.ca.us or at (626) 932-5577.

Sincerely,

Ron Bow
Director of Public Works

cc: Heather Maloney, Senior Management Analyst
File

City of Sierra Madre

Public Works Department
232 W. Sierra Madre Boulevard, Sierra Madre, CA 91024
phone 626.355.7135 fax 626.355.2251

June 28, 2013

Samuel Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

Attention: Renee Purdy

LETTER OF INTENT PLEDGING COMMITMENT IN THE DEVELOPMENT OF AN ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM IN COLLABORATION WITH THE RIO HONDO/SAN GABRIEL RIVER QUALITY GROUP (RH/SGRWQG)

Dear Mr. Unger:

The City of Sierra Madre, with this letter, pledges to collaborate with the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in the development of an Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP) in accordance with the new MS4 Permit by Order No. R4-2012-0175. The RH/SGRWQG is comprised of the cities of Arcadia, Azusa, Bradbury, Duarte, Monrovia, Sierra Madre, the local portion of unincorporated County of Los Angeles and the Los Angeles County Flood Control District.

The City of Sierra Madre also pledges to share in the costs associated with the development of the Enhanced Watershed Management Program (EWMP) and Coordinated Integrated Monitoring Program (CIMP). A cost sharing formula has been agreed by all participating members of the Group as to the equitable distribution of cost.

Should you have any questions, please contact James Carlson at jcarlson@cityofsierramadre.com or at (626) 355-7135.

Sincerely,

Bruce Inman
Director of Public Works

cc: James Carlson, Management Analyst
File

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

GAIL FARBER, Director

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: WM-7

June 24, 2013

Mr. Samuel Unger, P.E.
Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Ms. Renee Purdy

Dear Mr. Unger:

LETTER OF INTENT – COUNTY OF LOS ANGELES
RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP WATERSHED
ENHANCED WATERSHED MANAGEMENT PROGRAM
AND COORDINATED INTEGRATED MONITORING PROGRAM

The County of Los Angeles (County) submits this Letter of Intent to participate in and share the cost to develop an Enhanced Watershed Management Program (EWMP) and a Coordinated Integrated Monitoring Program (CIMP) with the Rio Hondo/San Gabriel River Water Quality Group. This Letter of Intent serves to satisfy the EWMP notification requirements of Section VI.C.4.b.iii(3) of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System Permit) and the CIMP requirements of Section IV.C.1 of Attachment E of the Municipal Separate Storm Sewer System Permit.

The Rio Hondo/San Gabriel River Water Quality Group consists of the following agencies: City of Sierra Madre as the coordinating agency for EWMP and CIMP development, County, Los Angeles County Flood Control District, and cities of Arcadia, Azusa, Bradbury, Duarte, and Monrovia. The Rio Hondo/San Gabriel River Water Quality Group has included a final draft Memorandum of Understanding in Appendix 2 of the Notice of Intent. The County intends to submit a final Memorandum of Understanding to its Board of Supervisors for approval prior to December 28, 2013.

If you have any questions, please contact Ms. Angela George at (626) 458-4325 or ageorge@dpw.lacounty.gov.

Very truly yours,

for GAIL FARBER
Director of Public Works

LP:jht
P:\wmpub\Secretarial\2013 Documents\Letter\LOI - RHSGR County.doc\C13200

cc: City of Arcadia
City of Azusa
City of Bradbury
City of Duarte
City of Monrovia
City of Sierra Madre

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: WM-7

June 24, 2013

Mr. Samuel Unger, P.E.
Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention Ms. Renee Purdy

Dear Mr. Unger:

LETTER OF INTENT – LOS ANGELES COUNTY FLOOD CONTROL DISTRICT RIO HONDO/SAN GABRIEL RIVER WATER QUALITY GROUP WATERSHED ENHANCED WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM

The Los Angeles County Flood Control District (LACFCD) submits this Letter of Intent to participate in and share the cost to develop an Enhanced Watershed Management Program (EWMP) and a Coordinated Integrated Monitoring Program (CIMP) with the Rio Hondo/San Gabriel River Water Quality Group. This Letter of Intent serves to satisfy the EWMP notification requirements of Section VI.C.4.b.iii(3) of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System Permit) and the CIMP requirements of Section IV.C.1 of Attachment E of the Municipal Separate Storm Sewer System Permit.

The Rio Hondo/San Gabriel River Water Quality Group consists of the following agencies: City of Sierra Madre as the coordinating agency for EWMP and CIMP development, County of Los Angeles, LACFCD, and cities of Arcadia, Azusa, Bradbury, Duarte, and Monrovia. The Rio Hondo/San Gabriel River Water Quality Group has included a final draft Memorandum of Understanding in Appendix 2 of the Notice of Intent. The LACFCD intends to submit a final Memorandum of Understanding to the County of Los Angeles Board of Supervisors (which is the LACFCD's governing body) for approval prior to December 28, 2013.

If you have any questions, please contact Ms. Terri Grant at (626) 458-4309 or tgrant@dpw.lacounty.gov.

Very truly yours,

for GAIL FARBER
Chief Engineer of the Los Angeles County Flood Control District

LP:jht
P:\wmpub\Secretarial\2013 Documents\Letter\LOI - RHSGR LACFCD.doc\C13199

cc: City of Arcadia
City of Azusa
City of Bradbury
City of Duarte
City of Monrovia
City of Sierra Madre

APPENDIX D

Documentation for Commencement of and Draft of

LID Ordinance and Green Streets Policy

San Gabriel Valley Council of Governments

1000 S. Fremont Ave. Unit 42, Alhambra, California 91803 Phone: (626) 457-1800 FAX: (626) 457-1285 E-Mail SGV@sgvcog.org

DATE: January 7, 2013

TO: LA Permit Group Authorized Voting Members

FROM: Fran Delach, Interim Executive Director

RE: LA Permit Group Technical Assistance

Requested Action

Confirm participation in the MS4 NPDES implementation technical assistance contract for the LA Permit Group by allowing the SGVCOG to retain its reimbursement from the original $5,000 payment (equal to $2,174). Responses requested by Monday, January 14th.

Background

In November 2011, the SGVCOG administered a public procurement process and contract to obtain technical assistance for the LA Permit Group in negotiations for the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit) for Los Angeles County. The SGVCOG reached out to the cities in the LA Permit Group and asked for a voluntary financial contribution of $5,000 from each city to fund the consultant activity. At that time of the request, each city was informed that the money collected would only be used to support the procurement process and, at the end of the contract, if the amount of money collected exceeded the cost of the contract, each jurisdiction would be reimbursed a pro-rata share of the cost.

Contributions were received from a total of 41 cities (38 cities contributed $5,000 each, 1 city contributed $500 and two contributed in-kind services) totaling $190,500. The technical consultant contract was awarded to Larry Walker and Associates, totaling $107,888, leaving $82,612 in remaining funds. This would provide a reimbursement of $2,174 to each city that contributed $5,000.

The new MS4 NPDES Permit was adopted by the Los Angeles Regional Water Quality Control Board (LARWQCB) on November 8, 2012. There is a significant amount of both technical and administrative work required to meet the permit requirements within the first 6-months. Cities could benefit from collaboration developing model documents for some of the required work, such as LID Ordinances and Green Streets Policies.

Role of SGVCOG

Given the SGVCOG's administration of the previous technical consulting service contract, in December 2012, the LA Permit Group asked the SGVCOG about the possibility of using the funds remaining from the original technical services contract to support an additional technical

consulting services contract to assist in compliance efforts related to the permit. To support this process, the SGVCOG is asking participating cities if they would be interested in having the SGVCOG retain its reimbursement allocation in order to fund a new technical consulting services contract to assist cities in compliance with the new MS4 NPDES permit. The contract will be to complete the proposed scope of work, which can be found in the next section.

No additional funds will be collected in support of this project; only money remaining from the original contract will be used. As in the original contract, the SGVCOG will only administer the contract and will receive no supplemental funding.

Proposed Scope of Work

The new MS4 NPDES Permit for Los Angeles County contains many new requirements and includes the option for permittees to participate in a watershed management plan (WMP) or enhanced watershed management plan (EWMP). The Permit requires that cities revise development standards and Ordinance to reflect the new permit requirements, requiring an LID Ordinance. Additionally, participation in a WMP or EWMP requires the implementation of a Green Streets Policy and the submittal of a Notice of Intent and proof that the permittee has entered into a Memorandum of Agreement with other participating agencies.

To assist cities with some of the initial work efforts, the LA Permit Group is seeking technical consulting services to include the following scope of work:

- ✓ **Draft Notification of Intent letter:** The consultant would draft a notification of intent letter that includes the information and data that cities would be required to submit for participation in a WMP or EWMP. It would also provide instructions or alternatives for permittees to consider as they apply the documents to their respective municipality/watershed. Both of these documents would serve as a template for permittees to modify for their specific use.
- ✓ **Prepare template for Watershed MOUs:** The consultant would draft a template memorandum of understanding – as required to be submitted to the Regional Board by cities electing to participate in a WMP or EWMP.
- ✓ **Prepare a Draft LID Ordinance:** The permit specifies low impact development (LID) requirements for priority development projects and requires that a LID Ordinance be developed to incorporate these new requirements. The consultant would prepare a draft ordinance based on the City of Los Angeles' current LID ordinance and the new Permit requirements.
- ✓ **Draft Green Street Policy:** The permit encourages the development of a green street policy and requires such a policy for those agencies planning to participate in a WMP or EWMP. The consultant will develop a draft policy based on the Cities of Los Angeles' and Santa Monica's current green street policies that is consistent with the Permit requirements.
- ✓ **Presentation of work and review:** The consultant would attend LA Permit Group meetings to present and discussed the requested work documents and would provide revisions as requested by the LA Permit Group.

Attachment 1

Intent to Participate

The City of __**ARCADIA**_____ is interested in obtaining a technical assistance consultant for to assist with implementation efforts related to the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). The San Gabriel Valley Council of Governments is requesting permission to use your existing funding balance of $2,174 to fund this consultant. Below I have indicated my City's interest in participating.

- ☑ Yes, the City is interested in participating and you may use our existing funding balance of $2,174 towards to the consultant costs.
- ☐ The City is interested in more information.
- ☐ No, the City is not interested in participating; please issue a reimbursement payment of $2,174.

Please sign below and return this form via fax or email to the contacts listed below or mail using the enclosed envelope **no later than Monday, January 14th, 2013.**

Fax Number: (626) 457-1285
Email Address: csims@sgvcog.org

Name _**Tom Tait**_____

Title _**Public Works Services Director**_____

Signature Tom Tait

Date _**January 14, 2013**_____

Attachment 1

Intent to Participate

The City of Azusa is interested in obtaining a technical assistance consultant for to assist with implementation efforts related to the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). The San Gabriel Valley Council of Governments is requesting permission to use your existing funding balance of $2,174 to fund this consultant. Below I have indicated my City's interest in participating.

☒ Yes, the City is interested in participating and you may use our existing funding balance of $2,174 towards to the consultant costs.

☐ The City is interested in more information.

☐ No, the City is not interested in participating; please issue a reimbursement payment of $2,174.

Please sign below and return this form via fax or email to the contacts listed below or mail using the enclosed envelope **no later than Monday, January 14th, 2013.**

Fax Number: (626) 457-1285
Email Address: csims@sgvcog.org

Name Tito Haes

Title Public Works Director / Asst City Mgr

Signature

Date 1/14/13

Attachment 1

Intent to Participate

The City of Bradbury is interested in obtaining a technical assistance consultant for to assist with implementation efforts related to the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). The San Gabriel Valley Council of Governments is requesting permission to use your existing funding balance of $2,174 to fund this consultant. Below I have indicated my City's interest in participating.

☑ Yes, the City is interested in participating and you may use our existing funding balance of $2,174 towards to the consultant costs.

☐ The City is interested in more information.

☐ No, the City is not interested in participating; please issue a reimbursement payment of $2,174.

Please sign below and return this form via fax or email to the contacts listed below or mail using the enclosed envelope **no later than Monday, January 14th, 2013.**

Fax Number: (626) 457-1285
Email Address: csims@sgvcog.org

Name Michelle Keith

Title City Manager

Signature

Date 1/14/13

Attachment 1

Intent to Participate

The City of Duarte is interested in obtaining a technical assistance consultant for to assist with implementation efforts related to the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). The San Gabriel Valley Council of Governments is requesting permission to use your existing funding balance of $2,174 to fund this consultant. Below I have indicated my City's interest in participating.

- ☒ Yes, the City is interested in participating and you may use our existing funding balance of $2,174 towards to the consultant costs.
- ☐ The City is interested in more information.
- ☐ No, the City is not interested in participating; please issue a reimbursement payment of $2,174.

Please sign below and return this form via fax or email to the contacts listed below or mail using the enclosed envelope **no later than Monday, January 14th, 2013.**

Fax Number: (626) 457-1285
Email Address: csims@sgvcog.org

Name	Rafael O. Casillas, PE
Title	Public Works Manager
Signature	Rafael O Casillas
Date	January 14, 2013

Attachment 1

Intent to Participate

The City of Monrovia is interested in obtaining a technical assistance consultant for to assist with implementation efforts related to the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). The San Gabriel Valley Council of Governments is requesting permission to use your existing funding balance of $2,174 to fund this consultant. Below I have indicated my City's interest in participating.

- [x] Yes, the City is interested in participating and you may use our existing funding balance of $2,174 towards to the consultant costs.
- [ ] The City is interested in more information.
- [ ] No, the City is not interested in participating; please issue a reimbursement payment of $2,174.

Please sign below and return this form via fax or email to the contacts listed below or mail using the enclosed envelope **no later than Monday, January 14th, 2013.**

Fax Number: (626) 457-1285
Email Address: csims@sgvcog.org

Name: Ron Bow

Title: Director of Public Works

Signature: [signature]

Date: 1/14/2013

Intent to Participate

The City of Sierra Madre is interested in obtaining a technical assistance consultant for to assist with implementation efforts related to the new National Pollutant Discharge Elimination System Municipal Separate Sanitary Storm Sewer (MS4 NPDES Permit). The San Gabriel Valley Council of Governments is requesting permission to use your existing funding balance of $2,174 to fund this consultant. Below I have indicated my City's interest in participating.

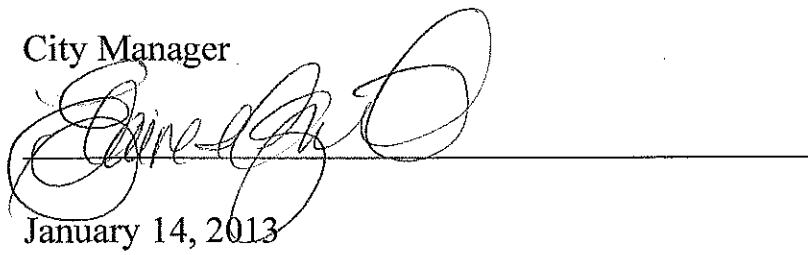
☒ Yes, the City is interested in participating and you may use our existing funding balance of $2,174 towards to the consultant costs.

☐ The City is interested in more information.

☐ No, the City is not interested in participating; please issue a reimbursement payment of $2,174.

Please sign below and return this form via fax or email to the contacts listed below or mail using the enclosed envelope **no later than Monday, January 14th, 2013.**

Fax Number: (626) 457-1285
Email Address: csims@sgvcog.org

Name	Elaine I. Aguilar
Title	City Manager
Signature	
Date	January 14, 2013

Attachment 4.

AGREEMENT FOR CONSULTANT SERVICES

This Agreement for Consultant Services ("Agreement"), is made and entered into this ___ day of February 2013 ("Effective Date"), by and between the San Gabriel Valley Council of Governments ("SGVCOG") and Larry Walker Associates, Inc. ("Consultant").

In consideration of the mutual covenants and conditions set forth herein, the parties agree as follows:

1. Term of Agreement.

Subject to the provisions of Section 17, the term of this Agreement shall be from the Effective Date through June 30, 2013. Such term may be extended upon written agreement of both parties to this Agreement.

2. Scope of Services.

Consultant shall provide the SGVCOG consultant services in accordance with the proposal attached hereto as Exhibit "A" and incorporated herein by reference. The SGVCOG shall determine within the term of this Agreement whether it will direct Consultant to perform the Optional Task identified in Exhibit A. Consultant shall not be compensated for any services rendered in connection with its performance of this Agreement, which are in addition to or outside of those described in this Section 2, unless such additional services are authorized in advance and in writing by the SGVCOG. Consultant shall be compensated for any such additional authorized services in the amounts and in the manner agreed to in writing by the SGVCOG.

3. Compensation and Method of Payment.

(a) The total compensation to be paid to Consultant pursuant to this Agreement shall not exceed $52,690. Consultant shall be compensated in the manner and in the amounts specified in Exhibit A.

(b) Each month Consultant shall furnish to SGVCOG an original invoice for all work performed and expenses incurred during the preceding month. SGVCOG shall independently review each invoice submitted by the Consultant to determine whether the work performed and expenses incurred are in compliance with the provisions of this Agreement. In the event that no charges or expenses are disputed, the invoice shall be approved and paid according to the terms set forth in subsection (c). In the event any charges or expenses are disputed by SGVCOG, SGVCOG shall withhold that portion of the invoice that is in dispute and remit the remainder.

(c) Except as to any charges for work performed or expenses incurred by Consultant to the extent disputed by SGVCOG, SGVCOG will use its best efforts to cause Consultant to be paid within thirty (30) days of receipt of Consultant's invoice.

4. Consultant's Books and Records.

Consultant shall maintain any and all documents and records demonstrating or relating to Consultant's performance of services pursuant to this Agreement. Consultant shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, or other documents or records evidencing

or relating to work, services, expenditures and disbursements charged to SGVCOG pursuant to this Agreement. Any and all such documents or records shall be maintained in accordance with generally accepted accounting principles and shall be sufficiently complete and detailed so as to permit an accurate evaluation of the services provided by Consultant pursuant to this Agreement. Any and all such documents or records shall be maintained for three years from the date of execution of this Agreement and to the extent required by laws relating to audits of public agencies and their expenditures.

5. Ownership of Documents

All original maps, models, designs, drawings, photographs, studies, survey, reports, data, notes, computer files, files and other documents prepared, developed or discovered by Consultant in the course of providing any services pursuant to this Agreement shall be the sole property of the SGVCOG and may be used, reused or otherwise disposed of by the SGVCOG without the permission of the Consultant. Upon satisfactory completion of, or in the event of expiration, termination, suspension, or abandonment of this Agreement, Consultant shall turn over to SGVCOG all such maps, models, designs, drawings, photographs, studies, surveys, reports, data, notes, computer files, files and other documents which Consultant may have temporarily retained for use by Consultant staff. With respect to computer files, Consultant shall make available to the SGVCOG, upon reasonable written request by the SGVCOG, the necessary computer software and hardware for purposes of accessing, compiling, transferring and printing computer files.

6. Status of Consultant.

(a) Consultant is and shall at all times remain a wholly independent contractor and not an officer, employee or agent of SGVCOG. Consultant shall have no authority to bind SGVCOG in any manner, nor to incur any obligation, debt or liability of any kind on behalf of or against SGVCOG, whether by contract or otherwise, unless such authority is expressly conferred under this Agreement or is otherwise expressly conferred in writing by SGVCOG.

(b) The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Neither SGVCOG, nor any elected or appointed boards, officers, officials, employees, members or agents of SGVCOG, shall have control over the conduct of Consultant or any of Consultant's officers, employees or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that Consultant or any of Consultant's officers, employees or agents are in any manner officials, officers, employees, members or agents of SGVCOG.

(c) Neither Consultant, nor any of Consultant's officers, employees or agents, shall obtain any rights to retirement, health care or any other benefits which may otherwise accrue to SGVCOG's employees. Consultant expressly waives any claim Consultant may have to any such rights.

7. Deficient Services.

Consultant represents and warrants that it has the qualifications, experience and facilities necessary to properly perform the services required under this Agreement in a thorough, competent and professional manner. Consultant shall at all times faithfully, competently and to the best of its ability, experience and talent, perform all services described herein. In meeting its obligations under this Agreement, Consultant shall employ, at a minimum, generally accepted standards and practices utilized by persons engaged in providing services similar to those required of Consultant under this Agreement. SGVCOG may disapprove services that do not conform to these standards and practices and may

withhold or deny compensation for deficient services. Upon disapproval of services by SGVCOG, Consultant shall immediately re-perform, at its own costs, the services that are deficient. SGVCOG must notify Consultant in writing of the existence of such deficient services within a reasonable time, not to exceed sixty (60) days after its discovery thereof, but in no event later than one (1) year after the completion of such deficient services. No approval, disapproval, or omission to provide approval or disapproval shall release Consultant from any responsibility under this Agreement.

8. Compliance With Applicable Laws; Permits and Licenses.

Consultant shall keep itself informed of and comply with all applicable federal, state and local laws, statutes, codes, ordinances, regulations and rules in effect during the term of this Agreement. Consultant shall obtain any and all licenses, permits and authorizations necessary to perform the services set forth in this Agreement. Neither SGVCOG, nor any elected or appointed boards, officers, officials, employees, members or agents of SGVCOG, shall be liable, at law or in equity, as a result of any failure of Consultant to comply with this Section 8.

9. Nondiscrimination.

Consultant shall not discriminate in any way against any person on the basis of race, color, religious creed, national origin, ancestry, sex, age, physical handicap, pregnancy, medical condition or marital status in connection with or related to the performance of this Agreement.

10. Unauthorized Aliens.

Consultant hereby promises and agrees to comply with all of the provisions of the Federal Immigration and Nationality Act, 8 U.S.C.A. §§ 1101, et seq., as amended, and in connection therewith, shall not employ unauthorized aliens as defined therein. Should Consultant so employ such unauthorized aliens for the performance of work and/or services covered by this Agreement, and should any liability or sanctions be imposed against SGVCOG for such use of unauthorized aliens, Consultant hereby agrees to and shall reimburse SGVCOG for the cost of all such liabilities or sanctions imposed, together with any and all costs, including reasonable attorney fees, incurred by SGVCOG.

11. Conflicts of Interest

Consultant covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, (but not including ownership of stock in a publicly traded company), which would conflict in any manner with the interests of SGVCOG or which would in any way hinder Consultant's performance of services under this Agreement. Consultant further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor without the express written consent of the SGVCOG. Consultant agrees to at all times avoid conflicts of interest or the appearance of any conflicts of interest with the interests of SGVCOG in the performance of this Agreement.

12. Confidential Information; Release of Information.

(a) All information gained or work product produced by Consultant in performance of this Agreement shall be considered confidential, unless such information is in the public domain or already known to Consultant. Consultant shall not release or disclose any such information or work product to persons or entities other than SGVCOG without prior written authorization from the SGVCOG, except as may be required by law. Consultant, its officers, employees, agents or subcontractors, shall not, without

so approved in writing by the SGVCOG. Consultant agrees to provide SGVCOG with copies of required policies or certificates evidencing the required policies upon request.

(b) Consultant shall provide and maintain insurance acceptable to the SGVCOG in full force and effect throughout the term of this Agreement, against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by Consultant, its agents, representatives or employees. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII. Consultant shall provide the following scope and limits of insurance:

(1) Minimum Scope of Insurance. Coverage shall be at least as broad as:

A. Insurance Services Office form Commercial General Liability coverage (Occurrence Form CG 0001).

B. Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, including code 1 "any auto" and endorsement CA 0025, or equivalent forms subject to the written approval of the SGVCOG.

C. Workers' Compensation insurance as required by the Labor Code of State of California and Employer's Liability insurance and covering all persons providing services on behalf of the Consultant and all risks to such persons under this Agreement.

D. Errors and omissions liability insurance appropriate to the Consultant's profession.

(2) Limits of Insurance. Consultant shall maintain limits of insurance no less than:

A. General Liability: $1,000,000 general aggregate for bodily injury, personal injury and property damage.

B. Automobile Liability: $1,000,000 per accident for bodily injury and property damage.

C. Workers' Compensation and Employer's Liability: Workers' Compensation as required by the Labor Code of the State of California and Employers Liability limits of $1,000,000 per accident.

D. Errors and Omissions Liability: $1,000,000 per claim and aggregate.

(c) Other Provisions. Insurance policies required by this Agreement shall contain the following provisions:

(1) All Policies. Each insurance policy required by this Section 13 shall be endorsed and state the coverage shall not be cancelled by the insurer or Consultant except after 30 days' prior written notice by Certified mail, return receipt requested, has been given to SGVCOG. Consultant shall provide to SGVCOG notice of suspension or voiding of coverage, or reduction in coverage, or limits below those required in this Section 14.

(2) General Liability and Automobile Liability Coverages.

A. SGVCOG, and its respective elected and appointed officers, officials, members and employees are to be covered as additional insureds as respects: liability arising out of activities Consultant performs; products and completed operations of Consultant; premises owned, occupied or used by Consultant; or automobiles owned, leased, hired or borrowed by Consultant. The coverage shall contain no special limitations on the scope of protection afforded to SGVCOG, and its respective elected and appointed officers, officials, members or employees.

B. Consultant's insurance coverage shall be primary insurance with respect to SGVCOG, and its respective elected and appointed officials, its officers, members and employees. Any insurance or self insurance maintained by SGVCOG, and its respective elected and appointed officers, officials, members or employees, shall apply in excess of, and not contribute with, Consultant's insurance.

C. Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

D. Any failure to comply with the reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to SGVCOG, and its respective elected and appointed officers, officials, members or employees.

(3) Workers' Compensation and Employer's Liability Coverage. Unless the SGVCOG otherwise agrees in writing, the insurer shall agree to waive all rights of subrogation against SGVCOG, and its respective elected and appointed officers, officials, members and employees for losses arising from services performed by Consultant.

(d) Other Requirements. Consultant agrees to deposit with SGVCOG, at or before the effective date of this contract, certificates of insurance necessary to satisfy SGVCOG that Consultant has complied with the insurance provisions of this Agreement. The SGVCOG's general counsel may require that Consultant furnish SGVCOG with copies of original endorsements effecting coverage required by this Section. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. SGVCOG reserves the right to inspect complete, certified copies of all required insurance policies, at any time.

(1) Consultant shall furnish certificates and endorsements from each subcontractor identical to those Consultant provides.

(2) Any deductibles or self-insured retentions must be declared to and approved by SGVCOG, such approval not to be unreasonably withheld.

(3) The procuring of such required policy or policies of insurance shall not be construed to limit Consultant's liability hereunder nor to fulfill the indemnification provisions and requirements of this Agreement.

15. Assignment.

The expertise and experience of Consultant are material considerations for this Agreement. SGVCOG has an interest in the qualifications of and capability of the persons and entities who will fulfill the duties and obligations imposed upon Consultant under this Agreement. In recognition of that interest, Consultant shall not assign or transfer this Agreement or any portion of this Agreement or the

performance of any of Consultant's duties or obligations under this Agreement without the prior written consent of the SGVCOG. Any attempted assignment shall be ineffective, null and void, and shall constitute a material breach of this Agreement entitling SGVCOG to any and all remedies at law or in equity, including summary termination of this Agreement.

16. Continuity of Personnel.

Consultant may not replace key staff, set forth in Consultant's Proposal, unless their employment is terminated or their replacement is agreed upon by the SGVCOG. The SGVCOG must approve replacement staff before the replacement staff are assigned to perform services under this Agreement. SGVCOG reserves the right to request that Consultant replace a staff person assigned to perform services under this Agreement in the event the SGVCOG, in its sole discretion, determines such a replacement is necessary. Replacement staff in every case are subject to SGVCOG approval prior to assignment to perform services under this Agreement.

17. Termination of Agreement.

SGVCOG may terminate this Agreement, with or without cause, at any time by giving thirty (30) days written notice of termination to Consultant. In the event such notice is given, Consultant shall cease immediately all work in progress. Consultant may terminate this Agreement at any time upon thirty (30) days written notice of termination to SGVCOG. If either Consultant or SGVCOG fail to perform any material obligation under this Agreement, then, in addition to any other remedies, either Consultant, or SGVCOG may terminate this Agreement immediately upon written notice. Upon termination of this Agreement, Consultant shall furnish to SGVCOG a final invoice for work performed and expenses incurred by Consultant, prepared as set forth in Section 3 of this Agreement. This final invoice shall be reviewed and paid in the same manner as set forth in Section 3 of this Agreement.

18. Default.

In the event that Consultant is in default under the terms of this Agreement, the SGVCOG shall not have any obligation or duty to continue compensating Consultant for any work performed after the date of default and may terminate this Agreement immediately by written notice to the Consultant. For purposes of this section only, "date of default" shall be deemed to be the date that SGVCOG personally delivers or transmits by facsimile a Notice of Default to the person(s) at the address or facsimile number as set forth in Section 19 of this Agreement. "Default" shall mean the failure to perform the terms, covenants or conditions of this Agreement.

19. Notices.

All notices required or permitted to be given under this Agreement shall be in writing and shall be personally delivered, or sent by facsimile or certified mail, postage prepaid and return receipt requested, addressed as follows:

To SGVCOG:
Francis Delach
Interim Executive Director
San Gabriel Valley Council of Governments
The Alhambra
1000 South Fremont Avenue, Unit #42
Building A-10, Suite 10220
Alhambra, CA 91803

with a copy to:
Richard D. Jones
General Counsel
San Gabriel Valley Council of Governments
Jones & Mayer
3777 N. Harbor Blvd
Fullerton, CA 92835

To Consultant:
Larry Walker Associates, Inc.
720 Wilshire Blvd, Suite 204
Santa Monica, CA 90401
Attention: Malcolm Walker

Notice shall be deemed effective on the date personally delivered or transmitted by facsimile or, if mailed, three (3) days after deposit of the same in the custody of the United States Postal Service.

20. Authority To Execute.

The person or persons executing this Agreement on behalf of Consultant represents and warrants that he/she/they has/have the authority to so execute this Agreement and to bind Consultant to the performance of its obligations hereunder.

21. Binding Effect.

This Agreement shall be binding upon the heirs, executors, administrators, successors and assigns of the parties.

22. Waiver.

Waiver by any party to this Agreement of any term, condition, or covenant of this Agreement shall not constitute a waiver of any other term, condition, or covenant. Waiver by any party of any breach of the provisions of this Agreement shall not constitute a waiver of any other provision, nor a waiver of any subsequent breach or violation of any provision of this Agreement. Acceptance by SGVCOG of any work or services by Consultant shall not constitute a waiver of any of the provisions of this Agreement.

23. Law To Govern; Venue.

This Agreement shall be interpreted, construed and governed according to the laws of the State of California. In the event of litigation between the parties, venue in state trial courts shall lie exclusively in the County of Los Angeles. In the event of litigation in a U.S. District Court, venue shall lie exclusively in the Central District of California, in Los Angeles.

24. Attorney Fees, Costs and Expenses.

In the event litigation or other proceeding is required to enforce or interpret any provision of this Agreement, the prevailing party in such litigation or other proceeding shall be entitled to an award of reasonable attorney fees, costs and expenses, in addition to any other relief to which it may be entitled.

25. Entire Agreement.

This Agreement, including the attached Exhibit "A" which is incorporated herein by this reference, is the entire, complete, final and exclusive expression of the parties with respect to the matters addressed therein and supersedes all other agreements or understandings, whether oral or written, or entered into between Consultant and SGVCOG prior to the execution of this Agreement. No statements, representations or other agreements, whether oral or written, made by any party which are not embodied herein shall be valid and binding. No amendment to this Agreement shall be valid and binding unless in writing duly executed by the parties or their authorized representatives. Any attempt to waive the requirement for a written amendment shall be void.

26. Section Headings.

The section headings contained in this Agreement are for convenience and identification only and shall not be deemed to limit or define the contents to which they relate.

27. Severability.

If any term, condition or covenant of this Agreement is declared or determined by any court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Agreement shall not be affected thereby and the Agreement shall be read and construed without the invalid, void or unenforceable provision(s).

28. Time is of the Essence.

Time is of the essence in the performance of this Agreement.

29. Excusable Delays.

Consultant shall not be liable for damages, including liquidated damages, if any, caused by delay in performance or failure to perform due to causes beyond the control of Consultant. Such causes include, but are not limited to, acts of God, acts of the public enemy, acts of federal, state or local governments, court orders, fires, floods, epidemics, strikes, embargoes, and unusually severe weather. The term and price of this Agreement shall be equitably adjusted for any delays due to such causes.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first above written.

LARRY WALKER ASSOCIATES, INC.

By Malcolm Walker

Title Vice President

SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS

By

Title Interim Executive Director

APPROVED AS TO FORM:

Richard D. Jones, General Counsel

MEMORANDUM

Public Works Services Department

DATE: June 25, 2013

TO: MS4 NPDES Permit File

FROM: Vanessa Hevener, Environmental Services Officer

SUBJECT: **Draft Low Impact Development Ordinance and Draft Green Streets Policy Status**

This memo is to document that the Draft LID Ordinance and Draft Green Streets Policy developed by Larry Walker and Associates on behalf of the LA Permit Group have been distributed via email on April 24, 2013 to key personnel in the Development Services Department for discussion. A meeting has been tentative scheduled in July/August 2013 with staff in both Public Works Services and Development Services Departments.

City of Arcadia

Public Works Services Department

Tom Tait
Public Works Services Director

Please note: *Gray shading in the draft LID Ordinance indicates areas that are optional and/or areas where the City may wish to provide more detail.*

ORDINANCE NO._____

An ordinance amending [MUNICIPAL CODE SECTION REFERENCE(S)] of the [CITY NAME] Municipal Code to expand the applicability of the existing [NAME OF POST-CONSTRUCITON REQUIREMENTS – LIKELY "SUSMP" FOR MOST MUNICIPALITIES] requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

(A) The [CITY NAME] is authorized by Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

(B) The [CITY NAME] has authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity which might degrade the quality of waters of the State.

(C) The city is a permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," issued by the California Regional Water Quality Control Board--Los Angeles Region," (Order No. R4-2012-0175) which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS004001), as well as Waste Discharge Requirements under California law (the "Municipal NPDES permit"). In order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program, the Municipal NPDES permit requires permittees to develop and implement a LID Ordinance.

(D) The [CITY NAME] has applied an integrated approach to incorporate wastewater, stormwater and runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

(E) The [CITY NAME] is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, and economic considerations.

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(F) Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters.

(G) The [CITY NAME] needs to take a new approach to managing rainwater and urban runoff while mitigating the negative impacts of development and urbanization.

(H) LID is widely recognized as a sensible approach to managing the quantity and quality of storm water and non-stormwater runoff by setting standards and practices to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge.

(I) It is the intent of the [CITY NAME] to replace the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by providing stormwater and rainwater LID strategies for Development and Redevelopment projects as defined under "Applicability." Where there are conflicts between this Ordinance and previously adopted SUSMP or LID Manuals, the standards in this Ordinance shall prevail.

[MUNICIPAL CODE SECTION REFERENCE(S)] of the [CITY NAME] Municipal Code is amended in its entirety to read as follows:

Definitions.

Except as specifically provided herein, any term used in this [SECTION REFERENCE] shall be defined as that term in the current Municipal NPDES permit, or if it is not specifically defined in either the Municipal NPDES permit, then as such term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. If the definition of any term contained in this chapter conflicts with the definition of the same term in the current Municipal NPDES permit, then the definition contained in the Municipal NPDES permit shall govern. The following words and phrases shall have the following meanings when used in this chapter:

Automotive Service Facility means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5541, 5511, provided that these facilities have no outside activities or materials that may be exposed to stormwater (Source: Order No. R4-2012-0175).

Basin Plan means the Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties,

adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Source: Order No. R4-2012-0175).

Best Management Practice (BMP) means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Source: Order No. R4-2012-0175).

Biofiltration means a LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term "biofiltration" as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board's Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Modified from: Order No. R4-2012-0175).

Bioretention means a LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in the Municipal NPDES permit, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by the Municipal NPDES permit as biofiltration (Modified from: Order No. R4-2012-0175).

Bioswale means a LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Source: Order No. R4-2012-0175).

City means the [CITY NAME].

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.

Commercial Malls means any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk

from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls, other retail complexes, and enclosed shopping malls or shopping centers (Source: Order No. R4-2012-0175).

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See "Routine Maintenance" definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Source: Order No. R4-2012-0175).

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Source: Order No. R4-2012-0175).

Development means construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Directly Adjacent means situated within 200 feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area (Source: Order No. R4-2012-0175).

Discharge means any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid, or solid substance.

Disturbed Area means an area that is altered as a result of clearing, grading, and/or excavation (Source: Order No. R4-2012-0175).

Flow-through BMPs means modular, vault type "high flow biotreatment" devices contained within an impervious vault with an underdrain or designed

with an impervious liner and an underdrain (Modified from: Order No. R4-2012-0175).

General Construction Activities Storm Water Permit (GCASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from construction activities under certain conditions.

General Industrial Activities Storm Water Permit (GIASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

Green Roof means a LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Source: Order No. R4-2012-0175).

Hazardous Material(s) means any material(s) defined as hazardous by Division 20, Chapter 6.95 of the California Health and Safety Code.

Hillside means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Source: Order No. R4-2012-0175).

Hydromodification means the alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources. Hydromodification can cause excessive erosion and/or sedimentation rates, causing excessive turbidity, channel aggradation and/or degradation. (Source: GCASP)

Impervious Surface means any man-made or modified surface that prevents or significantly reduces the entry of water into the underlying soil, resulting in runoff from the surface in greater quantities and/or at an increased rate, when compared to natural conditions prior to development. Examples of places that commonly exhibit impervious surfaces include parking lots, driveways, roadways, storage areas, and rooftops. The imperviousness of these areas commonly results from paving, compacted gravel, compacted earth, and oiled earth.

Industrial Park means land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways,

railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Source: Order No. R4-2012-0175).

Infiltration BMP means a LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Source: Order No. R4-2012-0175).

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff (Source: Order No. R4-2012-0175).

MS4 means Municipal Separate Storm Sewer System (MS4). The MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) Designed or used for collecting or conveying stormwater;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

(40 CFR § 122.26(b)(8)) (Source: Order No. R4-2012-0175)

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA §307, 402, 318, and 405. The term includes an "approved program" (Source: Order No. R4-2012-0175).

Natural Drainage System means a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Source: Order No. R4-2012-0175).

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of

impervious surfaces; and land subdivision (Source: Order No. R4-2012-0175).

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Source: Order No. R4-2012-0175).

Parking Lot means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Source: Order No. R4-2012-0175).

Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, state, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by the context.

Planning Priority Projects means development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution, prior to completion of the project(s) (Modified from: Order No. R4-2012-0175).

Pollutant means any "pollutant" defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Sec. 13373. Pollutants may include, but are not limited to the following:

(1) Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous substances, fertilizers, pesticides, slag, ash, and sludge).

(2) Metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium, and non- metals such as phosphorus and arsenic).

(3) Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants, and grease).

(4) Excessive eroded soil, sediment, and particulate materials in amounts that may adversely affect the beneficial use of the receiving waters, flora, or fauna of the State.

(5) Animal wastes (such as discharge from confinement facilities, kennels, pens, recreational facilities, stables, and show facilities).

(6) Substances having characteristics such as pH less than 6 or greater than 9, or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

Project means all development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065) (Source: Order No. R4-2012-0175).

Rainfall Harvest and Use means a LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Source: Order No. R4-2012-0175).

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged (Source: Order No. R4-2012-0175).

Redevelopment means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Regional Board means the California Regional Water Quality Control Board, Los Angeles Region.

Restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Source: Order No. R4-2012-0175).

Retail Gasoline Outlet means any facility engaged in selling gasoline and lubricating oils (Source: Order No. R4-2012-0175).

Routine Maintenance
Routine maintenance projects include, but are not limited to projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.
2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.

3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.
4. Update existing lines* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.
5. Repair leaks

Routine maintenance does not include construction of new** lines or facilities resulting from
compliance with applicable codes, standards and regulations.

* Update existing lines includes replacing existing lines with new materials or pipes.

** New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Source: Order No. R4-2012-0175).

Significant Ecological Areas (SEAs) means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species.
2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.
3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.
4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.
5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.
6. Areas important as game species habitat or as fisheries.
7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.
8. Special areas (Source: Order No. R4-2012-0175).

Site means land or water area where any “facility or activity” is physically located or conducted, including adjacent land used in connection with the facility or activity (Source: Order No. R4-2012-0175).

Storm Drain System means any facilities or any part of those facilities, including streets, gutters, conduits, natural or artificial drains, channels, and

watercourses that are used for the purpose of collecting, storing, transporting or disposing of stormwater and are located within the [CITY NAME].

Storm Water or Stormwater means water that originates from atmospheric moisture (rain or snow) and that falls onto land, water, or other surfaces. Without any change in its meaning, this term may be spelled or written as one word or two separate words.

Stormwater Runoff means that part of precipitation (rainfall or snowmelt) which travels across a surface to the storm drain system or receiving waters.

SUSMP means the Los Angeles Countywide Standard Urban Stormwater Mitigation Plan. The SUSMP was required as part of the previous Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS004001) and required plans that designate best management practices (BMPs) that must be used in specified categories of development projects.

Urban Runoff means surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial, or industrial activities involving the use of potable and non-potable water.

[MUNICIPAL CODE SECTION REFERENCE(S)] is amended to read as follows:

SEC. [X]. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) Objective. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current "Municipal NPDES permit," lessen the water quality impacts of development by using smart growth practices, and integrate LID design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use. LID shall be inclusive of previously adopted SUSMP requirements.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the [CITY NAME] to further define and adopt stormwater pollution control measures, to develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, and to grant waivers or alternate compliance as allowed by the Municipal NPDES permit and collect fees from projects granted exceptions. . Except as otherwise provided herein, the [CITY NAME] shall administer, implement and enforce the provisions of this Section. Guidance documents

supporting implementation of requirements in this Ordinance are hereby incorporated by reference, including SUSMP and LID Manuals.

(C) Applicability. The following Development and Redevelopment projects, termed "Planning Priority Projects," shall comply with the requirements of [SECTION NUMBER]:

(1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.

(2) Industrial parks 10,000 square feet or more of surface area.

(3) Commercial malls 10,000 square feet or more of surface area.

(4) Retail gasoline outlets with 5,000 square feet or more of surface area.

(5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of surface area.

(6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.

(7) Streets and roads construction of 10,000 square feet or more of impervious surface area.

(8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.

(9) Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA), where the development will:

a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and

b. Create 2,500 square feet or more of impervious surface area

(10) Single-family hillside homes.

(11) Redevelopment Projects

a. Land disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious

surface area on an already developed site on Planning Priority Project categories.

b. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, the entire project must be mitigated.

c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.

d. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(12) Any other project as deemed appropriate by the Director.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective XX days from the adoption of the Ordinance. This includes Planning Priority Projects that are discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Ordinance. Projects that have been deemed complete within 90 days of adoption of the Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.

(1) A new single-family hillside home development shall include mitigation measures to:

a. Conserve natural areas;

b. Protect slopes and channels;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated areas before discharge, unless the diversion would result in slope instability.

(2) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.

(3) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:

a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or

ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

b. Minimize hydromodification impacts to natural drainage systems as defined in the Municipal NPDES Permit. Hydromodification requirements are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

c. When, as determined by the [APPROVING AGENCY], 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan. The technical infeasibility may result from conditions that may include, but are not limited to:

i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.

ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;

iii. Locations within 100 feet of a groundwater well used for drinking water;

iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;

v. Locations with potential geotechnical hazards;

vi. Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

d. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the Municipal NPDES Permit.

i. Additional alternative compliance options such as offsite infiltration may be available to the project Site. The project Site should contact the [APPROVING AGENCY] to determine eligibility. Alternative compliance options are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

e. The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the Municipal NPDES Permit.

Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:

i. 0.2 inches per hour, or
ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

f. A Multi-Phased Project may comply with the standards and requirements of this section for all of its phases by: (a) designing a system acceptable to the [APPROVING AGENCY] to satisfy these standards and requirements for the entire Site during the first phase, and (b) implementing these standards and requirements for each phase of Development or Redevelopment of the Site during the first phase or prior to commencement of construction of a later phase, to the extent necessary to treat the stormwater from such later phase. For purposes of this section, "Multi-Phased Project" shall mean any Planning Priority Project implemented over more than one phase and the Site of a Multi-Phased Project shall include any land and water area designed and used to store, treat or manage stormwater runoff in connection with the Development or Redevelopment, including any tracts, lots, or parcels of real property, whether Developed or not, associated with, functionally connected to, or under common ownership or control with such Development or Redevelopment.

(E) Other Agencies of the [CITY NAME]. All [CITY NAME] departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Article on their Development and Redevelopment projects and report their activities annually to the [REPSONSIBLE AGENCY].

(F) Validity. If any provision of this Ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect remaining provisions of this Ordinance are declared to be severable.

(G) Certification. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy.

I hereby certify that this ordinance was passed by the Council of the [CITY NAME], at its meeting of _____.

[NAME], City Clerk

By _____
Deputy

Approved _____
_____
Mayor

Approved as to Form and Legality
[NAME], City Attorney

By _____
[NAME]
Deputy City Attorney

Date _____

File No. _____

City of Arcadia

Public Works Services Department

Tom Tait
Public Works Services Director

Green Street Policy

Purpose

The City of [INSERT CITY NAME] [DEPARTMENT OF PUBLIC WORKS] shall implement green street BMPs for transportation corridors associated with new and redevelopment street and roadway projects, including Capital Improvement Projects (CIPs). This policy is enacted to demonstrate compliance with the NPDES MS4 Permit for the Los Angeles Region (Order No. R4-2012-0175).

Green streets are an amenity that provides many benefits including water quality improvement, groundwater replenishment, creation of attractive streetscapes, creation of parks and wildlife habitats, and pedestrian and bicycle accessibility. Green streets are defined as right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff as well as a design element that creates attractive streetscapes.

Policy

A. Application. The [DEPARTMENT OF PUBLIC WORKS] shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are major arterials as defined in the [CITY'S] General Plan which add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.

   Alternate A (without General Plan reference).

   Application. The [DEPARTMENT OF PUBLIC WORKS] shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are roadway projects that add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.

Alternatives to the 10,000 sf threshold: Use other mechanism in lieu of the 10,000 sf of impervious area to determine threshold for green streets requirements.

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www.ci.arcadia.ca.us

As an example, City of Santa Monica utilizes construction costs (>$500,000) as the trigger for green street BMPs. Another option would be to establish a threshold of either the 10,000 sf impervious area or construction cost >$500,000 whichever is smaller.

Alternatives to the major arterial: Use another General Plan defined street classification, such as secondary arterials, and define the transportation corridor as all that type of street and larger arterials.

B. Amenities. The [DEPARTMENT OF PUBLIC WORKS] shall consider opportunities to replenish groundwater, create attractive streetscapes, create parks and wildlife habitats, and provide pedestrian and bicycle accessibility through new development and redevelopment of streets and roadway projects and CIPs.

C. Guidance. The [DEPARTMENT OF PUBLIC WORKS] shall use the City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1], or equivalent guidance developed by the [DEPARTMENT OF PUBLIC WORKS] for use in public and private developments.

D. Retrofit Scope. The [DEPARTMENT OF PUBLIC WORKS] shall use the City's Watershed Management Program or Enhanced Watershed Management Program to identify opportunities for green street BMP retrofits. Final decisions regarding implementation will be determined by the [CITY ENGINEER] based on the availability of adequate funding.

E. Training. The [DEPARTMENT OF PUBLIC WORKS] shall incorporate aspects of green streets into internal annual staff trainings.

[1] EPA-833-F-08-009, December 2008.

DRAFT LID ORDINANCE

ORDINANCE NO._____

An ordinance amending [MUNICIPAL CODE SECTION REFERENCE(S)] of the City of Azusa Municipal Code to expand the applicability of the existing [NAME OF POST-CONSTRUCITON REQUIREMENTS – LIKELY "SUSMP" FOR MOST MUNICIPALITIES] requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

(A) The City of Azusa is authorized by Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

(B) The City of Azusa has authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity which might degrade the quality of waters of the State.

(C) The city is a permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," issued by the California Regional Water Quality Control Board--Los Angeles Region," (Order No. R4-2012-0175) which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS004001), as well as Waste Discharge Requirements under California law (the "Municipal NPDES permit"). In order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program, the Municipal NPDES permit requires permittees to develop and implement a LID Ordinance.

(D) The City of Azusa has applied an integrated approach to incorporate wastewater, stormwater and runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

(E) The City of Azusa is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, and economic considerations.

(F) Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters.

(G) The City of Azusa needs to take a new approach to managing rainwater and urban runoff while mitigating the negative impacts of development and urbanization.

(H) LID is widely recognized as a sensible approach to managing the quantity and quality of storm water and non-stormwater runoff by setting standards and practices to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge.

(I) It is the intent of the City of Azusa to replace the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by providing stormwater and rainwater LID strategies for Development and Redevelopment projects as defined under "Applicability." Where there are conflicts between this Ordinance and previously adopted SUSMP or LID Manuals, the standards in this Ordinance shall prevail.

[MUNICIPAL CODE SECTION REFERENCE(S)] of the City of Azusa Municipal Code is amended in its entirety to read as follows:

Definitions.

Except as specifically provided herein, any term used in this [SECTION REFERENCE] shall be defined as that term in the current Municipal NPDES permit, or if it is not specifically defined in either the Municipal NPDES permit, then as such term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. If the definition of any term contained in this chapter conflicts with the definition of the same term in the current Municipal NPDES permit, then the definition contained in the Municipal NPDES permit shall govern. The following words and phrases shall have the following meanings when used in this chapter:

Automotive Service Facility means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5541, 5511, provided that these facilities have no outside activities or materials that may be exposed to stormwater (Source: Order No. R4-2012-0175).

Basin Plan means the Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Source: Order No. R4-2012-0175).

Best Management Practice (BMP) means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Source: Order No. R4-2012-0175).

Biofiltration means a LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load

reduction. Therefore, the term "biofiltration" as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board's Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Modified from: Order No. R4-2012-0175).

Bioretention means a LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in the Municipal NPDES permit, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by the Municipal NPDES permit as biofiltration (Modified from: Order No. R4-2012-0175).

Bioswale means a LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Source: Order No. R4-2012-0175).

City means the City of Azusa.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.

Commercial Malls means any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls, other retail complexes, and enclosed shopping malls or shopping centers (Source: Order No. R4-2012-0175).

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See "Routine Maintenance" definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Source: Order No. R4-2012-0175).

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Source: Order No. R4-2012-0175).

Development means construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Directly Adjacent means situated within 200 feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area (Source: Order No. R4-2012-0175).

Discharge means any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid, or solid substance.

Disturbed Area means an area that is altered as a result of clearing, grading, and/or excavation (Source: Order No. R4-2012-0175).

Flow-through BMPs means modular, vault type "high flow biotreatment" devices contained within an impervious vault with an underdrain or designed with an impervious liner and an underdrain (Modified from: Order No. R4-2012-0175).

General Construction Activities Storm Water Permit (GCASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from construction activities under certain conditions.

General Industrial Activities Storm Water Permit (GIASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

Green Roof means a LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Source: Order No. R4-2012-0175).

Hazardous Material(s) means any material(s) defined as hazardous by Division 20, Chapter 6.95 of the California Health and Safety Code.

Hillside means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Source: Order No. R4-2012-0175).

Hydromodification means the alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources. Hydromodification can cause excessive erosion and/or sedimentation rates, causing excessive turbidity, channel aggradation and/or degradation. (Source: GCASP)

Impervious Surface means any man-made or modified surface that prevents or significantly reduces the entry of water into the underlying soil, resulting in runoff from the surface in greater quantities and/or at an increased rate, when compared to natural conditions prior to development. Examples of places that commonly exhibit impervious surfaces include parking lots, driveways, roadways, storage areas, and rooftops. The imperviousness of these areas commonly results from paving, compacted gravel, compacted earth, and oiled earth.

Industrial Park means land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Source: Order No. R4-2012-0175).

Infiltration BMP means a LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Source: Order No. R4-2012-0175).

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff (Source: Order No. R4-2012-0175).

MS4 means Municipal Separate Storm Sewer System (MS4). The MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a combined sewer; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

(40 CFR § 122.26(b)(8)) (Source: Order No. R4-2012-0175)

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA §307, 402, 318, and 405. The term includes an "approved program" (Source: Order No. R4-2012-0175).

Natural Drainage System means a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Source: Order No. R4-2012-0175).

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision (Source: Order No. R4-2012-0175).

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Source: Order No. R4-2012-0175).

Parking Lot means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Source: Order No. R4-2012-0175).

Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, state, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by the context.

Planning Priority Projects means development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution, prior to completion of the project(s) (Modified from: Order No. R4-2012-0175).

Pollutant means any "pollutant" defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Sec. 13373. Pollutants may include, but are not limited to the following:

(1) Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous substances, fertilizers, pesticides, slag, ash, and sludge).

(2) Metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium, and non- metals such as phosphorus and arsenic).

(3) Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants, and grease).

(4) Excessive eroded soil, sediment, and particulate materials in amounts that may adversely affect the beneficial use of the receiving waters, flora, or fauna of the State.

(5) Animal wastes (such as discharge from confinement facilities, kennels, pens, recreational facilities, stables, and show facilities).

(6) Substances having characteristics such as pH less than 6 or greater than 9, or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

Project means all development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065) (Source: Order No. R4-2012-0175).

Rainfall Harvest and Use means a LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Source: Order No. R4-2012-0175).

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged (Source: Order No. R4-2012-0175).

Redevelopment means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Regional Board means the California Regional Water Quality Control Board, Los Angeles Region.

Restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Source: Order No. R4-2012-0175).

Retail Gasoline Outlet means any facility engaged in selling gasoline and lubricating oils (Source: Order No. R4-2012-0175).

Routine Maintenance
Routine maintenance projects include, but are not limited to projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.
2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.

3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.
4. Update existing lines* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.
5. Repair leaks

Routine maintenance does not include construction of new** lines or facilities resulting from compliance with applicable codes, standards and regulations.

* Update existing lines includes replacing existing lines with new materials or pipes.

** New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Source: Order No. R4-2012-0175).

Significant Ecological Areas (SEAs) means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species.
2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.
3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.
4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.
5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.
6. Areas important as game species habitat or as fisheries.
7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.
8. Special areas (Source: Order No. R4-2012-0175).

Site means land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity (Source: Order No. R4-2012-0175).

Storm Drain System means any facilities or any part of those facilities, including streets, gutters, conduits, natural or artificial drains, channels, and watercourses that are used for the purpose of collecting, storing, transporting or disposing of stormwater and are located within the City of Azusa.

Storm Water or Stormwater means water that originates from atmospheric moisture (rain or snow) and that falls onto land, water, or other surfaces. Without any change in its meaning, this term may be spelled or written as one word or two separate words.

Stormwater Runoff means that part of precipitation (rainfall or snowmelt) which travels across a surface to the storm drain system or receiving waters.

SUSMP means the Los Angeles Countywide Standard Urban Stormwater Mitigation Plan. The SUSMP was required as part of the previous Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS004001) and required plans that designate best management practices (BMPs) that must be used in specified categories of development projects.

Urban Runoff means surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial, or industrial activities involving the use of potable and non-potable water.

[MUNICIPAL CODE SECTION REFERENCE(S)] is amended to read as follows:

SEC. [X]. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) Objective. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current "Municipal NPDES permit," lessen the water quality impacts of development by using smart growth practices, and integrate LID design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use. LID shall be inclusive of previously adopted SUSMP requirements.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of Azusa to further define and adopt stormwater pollution control measures, to develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, and to grant waivers or alternate compliance as allowed by the Municipal NPDES permit and collect fees from projects granted exceptions. . Except as otherwise provided herein, the City of Azusa shall administer, implement and enforce the provisions of this Section. Guidance documents supporting implementation of requirements in this Ordinance are hereby incorporated by reference, including SUSMP and LID Manuals.

(C) Applicability. The following Development and Redevelopment projects, termed "Planning Priority Projects," shall comply with the requirements of [SECTION NUMBER]:

(1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.

(2) Industrial parks 10,000 square feet or more of surface area.

(3) Commercial malls 10,000 square feet or more of surface area.

(4) Retail gasoline outlets with 5,000 square feet or more of surface area.

(5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of surface area.

(6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.

(7) Streets and roads construction of 10,000 square feet or more of impervious surface area.

(8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.

(9) Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA), where the development will:

a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and

b. Create 2,500 square feet or more of impervious surface area

(10) Single-family hillside homes.

(11) Redevelopment Projects

a. Land disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site on Planning Priority Project categories.

b. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, the entire project must be mitigated.

c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.

d. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(12) Any other project as deemed appropriate by the Director.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective XX days from the adoption of the Ordinance. This includes Planning Priority Projects that are discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Ordinance. Projects that have been deemed complete within 90 days of adoption of the Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.

(1) A new single-family hillside home development shall include mitigation measures to:

a. Conserve natural areas;

b. Protect slopes and channels;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated areas before discharge, unless the diversion would result in slope instability.

(2) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.

(3) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:

a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or

ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

b. Minimize hydromodification impacts to natural drainage systems as defined in the Municipal NPDES Permit. Hydromodification requirements are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

c. When, as determined by the [APPROVING AGENCY], 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan. The technical infeasibility may result from conditions that may include, but are not limited to:

i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.

ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;

iii. Locations within 100 feet of a groundwater well used for drinking water;

iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;

v. Locations with potential geotechnical hazards;

vi. Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

d. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the Municipal NPDES Permit.

i. Additional alternative compliance options such as offsite infiltration may be available to the project Site. The project Site should contact the [APPROVING AGENCY] to determine eligibility. Alternative compliance options are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

e. The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the Municipal NPDES Permit. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:

i. 0.2 inches per hour, or
ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

f. A Multi-Phased Project may comply with the standards and requirements of this section for all of its phases by: (a) designing a system acceptable to the [APPROVING AGENCY] to satisfy these standards and requirements for the entire Site during the first phase, and (b) implementing these standards and requirements for each phase of Development or Redevelopment of the Site during the first phase or prior to commencement of construction of a later phase, to the extent necessary to treat the stormwater from such later phase. For purposes of this section, "Multi-Phased Project" shall mean any Planning Priority Project implemented over more than one phase and the Site of a Multi-Phased Project shall include any land and water area designed and used to store, treat or manage stormwater runoff in connection with the Development or Redevelopment, including any tracts, lots, or parcels of real property, whether Developed or not, associated with, functionally connected to, or under common ownership or control with such Development or Redevelopment.

(E) Other Agencies of the City of Azusa. All City of Azusa departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Article on their Development and Redevelopment projects and report their activities annually to the [REPSONSIBLE AGENCY].

(F) Validity. If any provision of this Ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect remaining provisions of this Ordinance are declared to be severable.

(G) Certification. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy.

I hereby certify that this ordinance was passed by the Council of the City of Azusa, at its meeting of _____.

Jeffrey Corenjo, Jr., City Clerk

By _____
Deputy

Approved _____

_____
Joseph R. Rocha, Mayor

Approved as to Form and Legality
BBK representative, TBD, City Attorney

By _____
City Attorney

Date _____

File No. _____

DRAFT Green Street Policy

Purpose

The City of Azusa DEPARTMENT OF PUBLIC WORKS shall implement green street BMPs for transportation corridors associated with new and redevelopment street and roadway projects, including Capital Improvement Projects (CIPs). This policy is enacted to demonstrate compliance with the NPDES MS4 Permit for the Los Angeles Region (Order No. R4-2012-0175).

Green streets are an amenity that provides many benefits including water quality improvement, groundwater replenishment, creation of attractive streetscapes, creation of parks and wildlife habitats, and pedestrian and bicycle accessibility. Green streets are defined as right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff as well as a design element that creates attractive streetscapes.

Policy

A. Application. The DEPARTMENT OF PUBLIC WORKS shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are major arterials as defined in the CITY'S General Plan which add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.

Alternate A (without General Plan reference).

Application. The DEPARTMENT OF PUBLIC WORKS shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are roadway projects that add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.

Alternatives to the 10,000 sf threshold: Use other mechanism in lieu of the 10,000 sf of impervious area to determine threshold for green streets requirements. As an example, City of Santa Monica utilizes construction costs (>$500,000) as the trigger for green street BMPs. Another option would be to establish a threshold of either the 10,000 sf impervious area or construction cost >$500,000 whichever is smaller.

Alternatives to the major arterial: Use another General Plan defined street classification, such as secondary arterials, and define the transportation corridor as all that type of street and larger arterials.

B. Amenities. The DEPARTMENT OF PUBLIC WORKS shall consider opportunities to replenish groundwater, create attractive streetscapes, create parks and wildlife habitats, and provide pedestrian and bicycle accessibility through new development and redevelopment of streets and roadway projects and CIPs.

C. Guidance. The DEPARTMENT OF PUBLIC WORKS shall use the City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1], or equivalent guidance developed by the DEPARTMENT OF PUBLIC WORKS for use in public and private developments.

D. Retrofit Scope. The DEPARTMENT OF PUBLIC WORKS shall use the City's Watershed Management Program or Enhanced Watershed Management Program to identify opportunities for green street BMP retrofits. Final decisions regarding implementation will be determined by the CITY ENGINEER based on the availability of adequate funding.

E. Training. The DEPARTMENT OF PUBLIC WORKS shall incorporate aspects of green streets into internal annual staff trainings.

CITY OF AZUSA
ENGINEERING DIVISION

MEMORANDUM

TO: MS4 NPDES (EWMP) Permit File

FROM: Carl Hassel, Assistant Director of Public Works / City Engineer

DATE: June 26, 2013

SUBJECT: Draft Low Impact Development (LID) Ordinance and draft Green Streets Policy status

As a requirement of the new MS4 Permit, cities are to have in place a LID Ordinance and Green Streets Policy for the future. At the time of the submittal of the NOI at the end of this month, The LID Ordinance and Green Streets Policy are in draft form and will be included in the NOI submittal that the Rio Hondo/San Gabriel River Watershed Quality Control Group are preparing.

The LA Permit Group hired Larry Walker and Associates, a consultant, with permission from the cities from the LA Permit Group to provide services including preparation of a draft LID Ordinance and Green Streets Policy.

On May 16th, 2013, I met with Conal McNamara, Assistant Director of Economic and Community Development, to review the draft LID ordinance and the draft Green Streets Policy. He was in agreement with the drafts and that the City will look to further advance the work but that the bulk of the work is complete. He was in agreement that it would be fine to submit them with the MS4 Permit NOI.

On May 20th, 2013, I checked with Tito Haes, the Assistant City Manager/Director of Public Works regarding the submittal of the draft LID ordinance and the draft Green Streets Policy and he was fine with the submittal but that we would need to look toward any changes to make it fit with the community and to get Council approval before they would be instituted.

It was indicated to me that all parties involved were aware of the implications of the LID Ordinance and the Green Streets Policy and that once adopted they would be part of the conditions of approval for developments or included in CIP's that the City of Azusa conducts.

Carl E. Hassel, P.E.

City of Bradbury

Memorandum

DATE: **June 3, 2013**

TO: David Gilbertson, Assistant City Engineer

CC: Michelle Keith, City Manager

SUBJECT: **Draft Green Street Policy**

==========

Green Street Policy

Purpose

The City of Bradbury shall implement green street BMPs for transportation corridors associated with new and redevelopment street and roadway projects, including Capital Improvement Projects (CIPs). This policy is enacted to demonstrate compliance with the NPDES MS4 Permit for the Los Angeles Region (Order No. R4-2012-0175).

Green streets are an amenity that provides many benefits including water quality improvement, groundwater replenishment, creation of attractive streetscapes, creation of parks and wildlife habitats, and pedestrian and bicycle accessibility. Green streets are defined as right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff as well as a design element that creates attractive streetscapes.

Policy

A. Application. The City shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are major arterials as defined in the [CITY'S] General Plan which add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained and new impervious surface is not added.

Comment [m1]: Decision point on how to define transportation corridors. Is the preference to use the 10,000 sf threshold from the Land Development section of the Permit or to use a street type definition from the General Plan, e.g. major arterials.

Alternatives:
Use other mechanism in lieu of the 10,000 sf of impervious area to determine threshold for green streets requirements. As an example, City of Santa Monica utilizes construction costs (>$500,000) as the trigger for green street BMPs. Another option would be to establish a threshold of either the 10,000 sf impervious area or construction cost >$500,000 whichever is smaller.

B. Amenities. The City shall consider opportunities to replenish groundwater, create attractive streetscapes, create parks and wildlife habitats, and provide pedestrian and bicycle accessibility through new development and redevelopment of streets and roadway projects and CIPs.

C. Guidance. The City shall use the City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1], or equivalent guidance for use in public and private developments.

D. Retrofit Scope. The City shall use the City's Enhanced Watershed Management Program to identify opportunities for green street BMP retrofits. Final decisions regarding implementation will be determined by the City Council based on the availability of adequate funding.

E. Training. The City's contract City Engineer shall incorporate aspects of green streets into internal annual staff trainings.

[1] EPA-833-F-08-009, December 2008.

City of Bradbury
Memorandum

DATE: **June 3, 2013**

TO: Michelle Keith, City Manager
Anne McIntosh, City Planner

FROM: David Gilbertson, Assistant City Engineer

SUBJECT: **Draft LID Ordinance**

==========

Below is the Draft LID Ordinance that key City staff needs to review. We need to discuss the revision and several critical issues of the Ordinance such as bonding amounts and the levying of fines.

ORDINANCE NO. XX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF BRADBURY, CALIFORNIA, AMENDING SECTION_____ OF THE CITY OF BRADBURY MUNICIPLE CODE TO EXPAND THE APPLICABILITY OF THE EXISTING STANDARD URBAN STORMWATER MITIGATION PLAN (SUSMP) REQUIREMENTS BY IMPOSING LOW IMPACT DEVELOPMENT (LID) STRATEGIES ON THE PROJECTS REQUIRING BUILDING PERMITS.

WHEREAS, The City of Bradbury is authorized by Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

WHEREAS, The City of Bradbury has authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity which might degrade the quality of waters of the State.

WHEREAS, The city is a permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," issued by the California Regional Water Quality Control Board--Los Angeles Region," (Order No. R4-2012-0175) which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS004001), as well as Waste Discharge Requirements under California law (the "Municipal NPDES permit"). In order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program, the Municipal NPDES permit requires permittees to develop and implement a LID Ordinance.

WHEREAS, The City of Bradbury has applied an integrated approach to incorporate wastewater, stormwater and runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

WHEREAS, The City of Bradbury is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, and economic considerations.

~~**WHEREAS,** Urbanization has led to increased impervious surface areas resulting in increased water runoff and less percolation to groundwater aquifers causing the transport of pollutants to downstream receiving waters.~~

~~**WHEREAS,** The City of Bradbury needs to take a new approach to managing rainwater and urban runoff while mitigating the negative impacts of development and urbanization.~~

~~**WHEREAS,** LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater runoff by setting standards and practices to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge.~~

WEREAS, It is the intent of the City of Bradbury to expand the applicability of the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by providing stormwater and rainwater LID strategies for Development and Redevelopment projects as defined under "Applicability."

[MUNICIPAL CODE SECTION REFERENCE(S)] OF THE CITY OF BRADBURY MUNICIPAL CODE IS AMENDED IN ITS ENTIRETY TO READ AS FOLLOWS:

Definitions.

Except as specifically provided herein, any term used in this section shall be defined as that term in the current Municipal NPDES permit, or if it is not specifically defined in either the Municipal NPDES permit, then as such term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. If the definition of any term contained in this chapter conflicts with the definition of the same term in the current Municipal NPDES permit, then the definition contained in the Municipal NPDES permit shall govern. The following words and phrases shall have the following meanings when used in this chapter:

Automotive Service Facility means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5541, 5511, provided that these facilities have no outside activities or materials that may be exposed to stormwater (Source: Order No. R4-2012-0175).

Basin Plan means the Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Source: Order No. R4-2012-0175).

Best Management Practice (BMP) means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to

receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Source: Order No. R4-2012-0175).

Biofiltration means a LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term "biofiltration" as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board's Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Modified from: Order No. R4-2012-0175).

Bioretention means a LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in the Municipal NPDES permit, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by the Municipal NPDES permit as biofiltration (Modified from: Order No. R4-2012-0175).

Bioswale means a LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Source: Order No. R4-2012-0175).

City means the City of Bradbury

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.

Commercial Malls means any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls, other retail complexes, and enclosed shopping malls or shopping centers (Source: Order No. R4-2012-0175).

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See "Routine Maintenance" definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Source: Order No. R4-2012-0175).

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Source: Order No. R4-2012-0175).

Development means construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Directly Adjacent means situated within 200 feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area (Source: Order No. R4-2012-0175).

Discharge means any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid, or solid substance.

Disturbed Area means an area that is altered as a result of clearing, grading, and/or excavation (Source: Order No. R4-2012-0175).

Flow-through BMPs means modular, vault type "high flow biotreatment" devices contained within an impervious vault with an underdrain or designed with an impervious liner and an underdrain (Modified from: Order No. R4-2012-0175).

General Construction Activities Storm Water Permit (GCASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from construction activities under certain conditions.

General Industrial Activities Storm Water Permit (GIASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

Green Roof means a LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Source: Order No. R4-2012-0175).

Hazardous Material(s) means any material(s) defined as hazardous by Division 20, Chapter 6.95 of the California Health and Safety Code.

Hillside means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Source: Order No. R4-2012-0175).

Impervious Surface means any man-made or modified surface that prevents or significantly reduces the entry of water into the underlying soil, resulting in runoff from the surface in greater quantities and/or at an increased rate, when compared to natural conditions prior to

development. Examples of places that commonly exhibit impervious surfaces include parking lots, driveways, roadways, storage areas, and rooftops. The imperviousness of these areas commonly results from paving, compacted gravel, compacted earth, and oiled earth.

Industrial Park means land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Source: Order No. R4-2012-0175).

Infiltration BMP means a LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Source: Order No. R4-2012-0175).

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff (Source: Order No. R4-2012-0175).

MS4 means Municipal Separate Storm Sewer System (MS4). The MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a combined sewer; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

(40 CFR § 122.26(b)(8)) (Source: Order No. R4-2012-0175)

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA §307, 402, 318, and 405. The term includes an “approved program” (Source: Order No. R4-2012-0175).

Natural Drainage System means a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Source: Order No. R4-2012-0175).

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision (Source: Order No. R4-2012-0175).

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Source: Order No. R4-2012-0175).

Parking Lot means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Source: Order No. R4-2012-0175).

Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, state, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by the context.

Planning Priority Projects means development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution, prior to completion of the project(s) (Modified from: Order No. R4-2012-0175).

Pollutant means any "pollutant" defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Sec. 13373. Pollutants may include, but are not limited to the following:

(1) Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous substances, fertilizers, pesticides, slag, ash, and sludge).

(2) Metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium, and non- metals such as phosphorus and arsenic).

(3) Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants, and grease).

(4) Excessive eroded soil, sediment, and particulate materials in amounts that may adversely affect the beneficial use of the receiving waters, flora, or fauna of the State.

(5) Animal wastes (such as discharge from confinement facilities, kennels, pens, recreational facilities, stables, and show facilities).

(6) Substances having characteristics such as pH less than 6 or greater than 9, or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

Project means all development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065) (Source: Order No. R4-2012-0175).

Rainfall Harvest and Use means a LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Source: Order No. R4-2012-0175).

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged (Source: Order No. R4-2012-0175).

Redevelopment means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Regional Board means the California Regional Water Quality Control Board, Los Angeles Region.

Restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Source: Order No. R4-2012-0175).

Retail Gasoline Outlet means any facility engaged in selling gasoline and lubricating oils (Source: Order No. R4-2012-0175).

Routine Maintenance

Routine maintenance projects include, but are not limited to projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.
2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.
3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.
4. Update existing lines* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.
5. Repair leaks

Routine maintenance does not include construction of new** lines or facilities resulting from compliance with applicable codes, standards and regulations.

* Update existing lines includes replacing existing lines with new materials or pipes.

** New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Source: Order No. R4-2012-0175).

Significant Ecological Areas (SEAs) means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species.
2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.
3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.
4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.
5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.
6. Areas important as game species habitat or as fisheries.

7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.
8. Special areas (Source: Order No. R4-2012-0175).

Site means land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity (Source: Order No. R4-2012-0175).

Storm Drain System means any facilities or any part of those facilities, including streets, gutters, conduits, natural or artificial drains, channels, and watercourses that are used for the purpose of collecting, storing, transporting or disposing of stormwater and are located within the City of Bradbury.

Storm Water or Stormwater means water that originates from atmospheric moisture (rain or snow) and that falls onto land, water, or other surfaces. Without any change in its meaning, this term may be spelled or written as one word or two separate words.

Stormwater Runoff means that part of precipitation (rainfall or snowmelt) which travels across a surface to the storm drain system or receiving waters.

SUSMP means the Los Angeles Countywide Standard Urban Stormwater Mitigation Plan. The SUSMP was required as part of the previous Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS004001) and required plans that designate best management practices (BMPs) that must be used in specified categories of development projects.

Urban Runoff means surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial, or industrial activities involving the use of potable and non-potable water.

[MUNICIPAL CODE SECTION REFERENCE(S)] is amended to read as follows:

SEC. [X]. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) Objective. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current "Municipal NPDES permit," lessen the water quality impacts of development by using smart growth practices, and integrate LID design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use. LID shall be inclusive of SUSMP requirements.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of Bradbury to further define and adopt stormwater pollution control measures, develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, grant waivers from the requirements of the Standard Urban Stormwater Mitigation Plan, and collect funds for projects that are granted waivers. Except as otherwise provided herein, the City of Bradbury shall administer, implement and enforce the provisions of this Section.

(C) Applicability. The following Development and Redevelopment projects, termed "Planning Priority Projects," shall comply with the requirements of [SECTION NUMBER]:

(1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.

(2) Industrial parks 10,000 square feet or more of surface area.

(3) Commercial malls 10,000 square feet or more of surface area.

(4) Retail gasoline outlets with 5,000 square feet or more of surface area.

(5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of surface area.

(6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.

(7) Streets and roads construction of 10,000 square feet or more of impervious surface area.

(8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.

(9) Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA), where the development will:

a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and

b. Create 2,500 square feet or more of impervious surface area

(10) Single-family hillside homes.

(11) Redevelopment Projects

a. Land disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site on Planning Priority Project categories.

b. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, the entire project must be mitigated.

c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.

d. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(D) Effective Date. The Planning and Land Development requirements contained in Section 7 of Order No. R4-2012-0175 shall become effective 90 days from the adoption of the Order (February 6, 2013). This includes Planning Priority Projects that are discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Order. Projects that have been deemed complete within 90 days of adoption of the Order are not subject to the requirements Section 7.

(E) Stormwater Pollution Control Requirements. The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.

(1) A new single-family hillside home development shall include mitigation measures to:

a. Conserve natural areas;

b. Protect slopes and channels;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated areas before discharge, unless the diversion would result in slope instability.

(2) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.

(3) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:

a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

   i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or

   ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

b. Minimize hydromodification impacts to natural drainage systems as defined in the Municipal NPDES Permit. Hydromodification requirements are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

c. When, as determined by the [APPROVING AGENCY(City of Bradbury?)], 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan. The technical infeasibility may result from conditions that may include, but are not limited to:

   i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.

   ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;

   iii. Locations within 100 feet of a groundwater well used for drinking water;

   iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;

   v. Locations with potential geotechnical hazards;

   vi. Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

d. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the Municipal NPDES Permit.

   i. Additional alternative compliance options such as offsite infiltration may be available to the project Site. The project Site should contact the [APPROVING AGENCY(City of Bradbury?)] to determine eligibility. Alternative compliance options are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

e. The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the Municipal NPDES Permit. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:

i. 0.2 inches per hour, or
ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

f. A Multi-Phased Project may comply with the standards and requirements of this section for all of its phases by: (a) designing a system acceptable to the [APPROVING AGENCY] to satisfy these standards and requirements for the entire Site during the first phase, and (b) implementing these standards and requirements for each phase of Development or Redevelopment of the Site during the first phase or prior to commencement of construction of a later phase, to the extent necessary to treat the stormwater from such later phase. For purposes of this section, "Multi-Phased Project" shall mean any Planning Priority Project implemented over more than one phase and the Site of a Multi-Phased Project shall include any land and water area designed and used to store, treat or manage stormwater runoff in connection with the Development or Redevelopment, including any tracts, lots, or parcels of real property, whether Developed or not, associated with, functionally connected to, or under common ownership or control with such Development or Redevelopment.

~~**(E) Other Agencies of the City of Bradbury.** All City of Bradbury departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Article on their Development and Redevelopment projects and report their activities annually to the [REPSONSIBLE AGENCY].~~

(F) Validity. If any provision of this Ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect remaining provisions of this Ordinance are declared to be severable.

(G) Certification. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy.

PASSED, APPROVED, AND ADOPTED this XX day of XX, 2013.

_____

MAYOR

ATTEST:

I, Claudia Saldana, City Clerk of the City of Bradbury, do hereby certify that the foregoing ordinance, being Ordinance No. XXX, was duly passed by the City Council of the City of Bradbury, signed by the Mayor of said City, and attested by the City Clerk, all at a regular meeting of the City Council held on the XXth day of XX, 2013, that it was duly posted and that the same was passed and adopted by the following vote:

AYES:
NAYS:
ABSENT:

Claudia Saldana
CITY CLERK

APPROVED AS TO FORM:

Cary Reisman
CITY ATTORNEY

City of Duarte

1600 Huntington Drive, Duarte, CA 91010 - (626) 357-7931 - FAX (626) 358-0018

ORDINANCE NO._____

An ordinance amending [MUNICIPAL CODE SECTION REFERENCE(S)] of the ~~[CITY NAME]~~City of Duarte Municipal Code to expand the applicability of the existing ~~[NAME OF POST-CONSTRUCITON REQUIREMENTS – LIKELY "SUSMP" FOR MOST MUNICIPALITIES]~~STORMWATER AND URBAN RUNOFF POLLUTION CONTROL requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

(A) The ~~[CITY NAME]~~City of Duarte is authorized by Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

(B) The ~~[CITY NAME]~~City of Duarte has authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity which might degrade the quality of waters of the State.

(C) The city is a permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," issued by the California Regional Water Quality Control Board--Los Angeles Region," (Order No. R4-2012-0175) which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS004001), as well as Waste Discharge Requirements under California law (the "Municipal NPDES permit"). In order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program, the Municipal NPDES permit requires permittees to develop and implement a LID Ordinance.

(D) The ~~[CITY NAME]~~ City of Duarte has applied an integrated approach to incorporate wastewater, stormwater and runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

(E) The ~~[CITY NAME]~~City of Duarte is committed to a stormwater management program that protects water quality and water supply by employing watershed-

based approaches that balance environmental, social, and economic considerations.

(F) Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters.

(G) The ~~[CITY NAME]~~City of Duarte needs to take a new approach to managing rainwater and urban runoff while mitigating the negative impacts of development and urbanization.

(H) LID is widely recognized as a sensible approach to managing the quantity and quality of storm water and non-stormwater runoff by setting standards and practices to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge.

(I) It is the intent of the ~~[CITY NAME]~~ City of Duarte to replace the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by providing stormwater and rainwater LID strategies for Development and Redevelopment projects as defined under "Applicability." Where there are conflicts between this Ordinance and previously adopted SUSMP or LID Manuals, the standards in this Ordinance shall prevail.

[MUNICIPAL CODE SECTION REFERENCE(S)] of the ~~[CITY NAME]~~City of Duarte Municipal Code is amended in its entirety to read as follows:

Definitions.

Except as specifically provided herein, any term used in this [SECTION REFERENCE] shall be defined as that term in the current Municipal NPDES permit, or if it is not specifically defined in either the Municipal NPDES permit, then as such term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. If the definition of any term contained in this chapter conflicts with the definition of the same term in the current Municipal NPDES permit, then the definition contained in the Municipal NPDES permit shall govern. The following words and phrases shall have the following meanings when used in this chapter:

Automotive Service Facility means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5541, 5511, provided that these facilities have no outside activities or materials that may be exposed to stormwater (Source: Order No. R4-2012-0175).

Basin Plan means the Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Source: Order No. R4-2012-0175).

Best Management Practice (BMP) means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Source: Order No. R4-2012-0175).

Biofiltration means a LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term "biofiltration" as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board's Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Modified from: Order No. R4-2012-0175).

Bioretention means a LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in the Municipal NPDES permit, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by the Municipal NPDES permit as biofiltration (Modified from: Order No. R4-2012-0175).

Bioswale means a LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Source: Order No. R4-2012-0175).

City means the ~~[CITY NAME].~~City of Duarte

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.

Commercial Malls means any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls,

other retail complexes, and enclosed shopping malls or shopping centers (Source: Order No. R4-2012-0175).

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See "Routine Maintenance" definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Source: Order No. R4-2012-0175).

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Source: Order No. R4-2012-0175).

Development means construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Directly Adjacent means situated within 200 feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area (Source: Order No. R4-2012-0175).

Discharge means any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid, or solid substance.

Disturbed Area means an area that is altered as a result of clearing, grading, and/or excavation (Source: Order No. R4-2012-0175).

Flow-through BMPs means modular, vault type "high flow biotreatment" devices contained within an impervious vault with an underdrain or designed with an impervious liner and an underdrain (Modified from: Order No. R4-2012-0175).

General Construction Activities Storm Water Permit (GCASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from construction activities under certain conditions.

General Industrial Activities Storm Water Permit (GIASP) means the general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

Green Roof means a LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Source: Order No. R4-2012-0175).

Hazardous Material(s) means any material(s) defined as hazardous by Division 20, Chapter 6.95 of the California Health and Safety Code.

Hillside means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Source: Order No. R4-2012-0175).

Hydromodification means the alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources. Hydromodification can cause excessive erosion and/or sedimentation rates, causing excessive turbidity, channel aggradation and/or degradation. (Source: GCASP)

Impervious Surface means any man-made or modified surface that prevents or significantly reduces the entry of water into the underlying soil, resulting in runoff from the surface in greater quantities and/or at an increased rate, when compared to natural conditions prior to development. Examples of places that commonly exhibit impervious surfaces include parking lots, driveways, roadways, storage areas, and rooftops. The imperviousness of these areas commonly results from paving, compacted gravel, compacted earth, and oiled earth.

Industrial Park means land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Source: Order No. R4-2012-0175).

Infiltration BMP means a LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Source: Order No. R4-2012-0175).

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff (Source: Order No. R4-2012-0175).

MS4 means Municipal Separate Storm Sewer System (MS4). The MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a combined sewer; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

(40 CFR § 122.26(b)(8)) (Source: Order No. R4-2012-0175)

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA §307, 402, 318, and 405. The term includes an "approved program" (Source: Order No. R4-2012-0175).

Natural Drainage System means a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Source: Order No. R4-2012-0175).

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision (Source: Order No. R4-2012-0175).

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Source: Order No. R4-2012-0175).

Parking Lot means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Source: Order No. R4-2012-0175).

Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, state, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall

include the feminine and the singular shall include the plural where indicated by the context.

Planning Priority Projects means development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution, prior to completion of the project(s) (Modified from: Order No. R4-2012-0175).

Pollutant means any "pollutant" defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Sec. 13373. Pollutants may include, but are not limited to the following:

(1) Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous substances, fertilizers, pesticides, slag, ash, and sludge).

(2) Metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium, and non-metals such as phosphorus and arsenic).

(3) Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants, and grease).

(4) Excessive eroded soil, sediment, and particulate materials in amounts that may adversely affect the beneficial use of the receiving waters, flora, or fauna of the State.

(5) Animal wastes (such as discharge from confinement facilities, kennels, pens, recreational facilities, stables, and show facilities).

(6) Substances having characteristics such as pH less than 6 or greater than 9, or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

Project means all development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065) (Source: Order No. R4-2012-0175).

Rainfall Harvest and Use means a LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Source: Order No. R4-2012-0175).

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged (Source: Order No. R4-2012-0175).

Redevelopment means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Regional Board means the California Regional Water Quality Control Board, Los Angeles Region.

Restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Source: Order No. R4-2012-0175).

Retail Gasoline Outlet means any facility engaged in selling gasoline and lubricating oils (Source: Order No. R4-2012-0175).

Routine Maintenance
Routine maintenance projects include, but are not limited to projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.
2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.
3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.
4. Update existing lines* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.
5. Repair leaks

Routine maintenance does not include construction of new** lines or facilities resulting from
compliance with applicable codes, standards and regulations.
* Update existing lines includes replacing existing lines with new materials or pipes.
** New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Source: Order No. R4-2012-0175).

Significant Ecological Areas (SEAs) means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species.
2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.

3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.
4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.
5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.
6. Areas important as game species habitat or as fisheries.
7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.
8. Special areas (Source: Order No. R4-2012-0175).

Site means land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity (Source: Order No. R4-2012-0175).

Storm Drain System means any facilities or any part of those facilities, including streets, gutters, conduits, natural or artificial drains, channels, and watercourses that are used for the purpose of collecting, storing, transporting or disposing of stormwater ~~and are located within the [CITY NAME]~~.

Storm Water or Stormwater means water that originates from atmospheric moisture (rain or snow) and that falls onto land, water, or other surfaces. Without any change in its meaning, this term may be spelled or written as one word or two separate words.

Stormwater Runoff means that part of precipitation (rainfall or snowmelt) which travels across a surface to the storm drain system or receiving waters.

SUSMP means the Los Angeles Countywide Standard Urban Stormwater Mitigation Plan. The SUSMP was required as part of the previous Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS004001) and required plans that designate best management practices (BMPs) that must be used in specified categories of development projects.

Urban Runoff means surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial, or industrial activities involving the use of potable and non-potable water.

[MUNICIPAL CODE SECTION REFERENCE(S)] is amended to read as follows:

SEC. [X]. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) Objective. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current "Municipal NPDES permit," lessen the water quality impacts of development by using smart growth practices, and integrate LID design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use. LID shall be inclusive of previously adopted SUSMP requirements.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the ~~[CITY NAME]~~City of Duarte to further define and adopt stormwater pollution control measures, to develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, and to grant waivers or alternate compliance as allowed by the Municipal NPDES permit and collect fees from projects granted exceptions. . Except as otherwise provided herein, the ~~[CITY NAME]~~City of Duarte shall administer, implement and enforce the provisions of this Section. Guidance documents supporting implementation of requirements in this Ordinance are hereby incorporated by reference, including SUSMP and LID Manuals.

(C) Applicability. The following Development and Redevelopment projects, termed "Planning Priority Projects," shall comply with the requirements of [SECTION NUMBER]:

(1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.

(2) Industrial parks 10,000 square feet or more of surface area.

(3) Commercial malls 10,000 square feet or more of surface area.

(4) Retail gasoline outlets with 5,000 square feet or more of surface area.

(5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of surface area.

(6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.

(7) Streets and roads construction of 10,000 square feet or more of impervious surface area.

(8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.

(9) Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA), where the development will:

a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and

b. Create 2,500 square feet or more of impervious surface area

(10) Single-family hillside homes.

(11) Redevelopment Projects

a. Land disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site on Planning Priority Project categories.

b. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, the entire project must be mitigated.

c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.

d. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(12) Any other project as deemed appropriate by the Director.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective XX days from the adoption of the Ordinance. This includes Planning Priority Projects that are discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Ordinance. Projects that have been deemed complete within 90 days of adoption of the Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.

(1) A new single-family hillside home development shall include mitigation measures to:

a. Conserve natural areas;

b. Protect slopes and channels;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated areas before discharge, unless the diversion would result in slope instability.

(2) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.

(3) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:

a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or

ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

b. Minimize hydromodification impacts to natural drainage systems as defined in the Municipal NPDES Permit. Hydromodification requirements are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

c. When, as determined by the [APPROVING AGENCY], 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan. The technical infeasibility may result from conditions that may include, but are not limited to:

i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.

ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;

iii. Locations within 100 feet of a groundwater well used for drinking water;

iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;

v. Locations with potential geotechnical hazards;

vi. Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

d. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the Municipal NPDES Permit.

i. Additional alternative compliance options such as offsite infiltration may be available to the project Site. The project Site should contact the [APPROVING AGENCY] to determine eligibility. Alternative compliance options are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

e. The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the Municipal NPDES Permit. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:

   i. 0.2 inches per hour, or
   ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

f. A Multi-Phased Project may comply with the standards and requirements of this section for all of its phases by: (a) designing a system acceptable to the [APPROVING AGENCY] to satisfy these standards and requirements for the entire Site during the first phase, and (b) implementing these standards and requirements for each phase of Development or Redevelopment of the Site during the first phase or prior to commencement of construction of a later phase, to the extent necessary to treat the stormwater from such later phase. For purposes of this section, "Multi-Phased Project" shall mean any Planning Priority Project implemented over more than one phase and the Site of a Multi-Phased Project shall include any land and water area designed and used to store, treat or manage stormwater runoff in connection with the Development or Redevelopment, including any tracts, lots, or parcels of real property, whether Developed or not, associated with, functionally connected to, or under common ownership or control with such Development or Redevelopment.

(E) Other Agencies of the ~~[CITY NAME]~~City of Duarte. All ~~[CITY NAME]~~City of Duarte departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Article on their Development and Redevelopment projects and report their activities annually to the [REPSONSIBLE AGENCY].

(F) Validity. If any provision of this Ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect remaining provisions of this Ordinance are declared to be severable.

(G) Certification. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy.

I hereby certify that this ordinance was passed by the Council of the ~~[CITY NAME]~~City of Duarte, at its meeting of _____.

[NAME], City Clerk

By

_____

Deputy

Approved _____

_____

_____

Mayor

Approved as to Form and Legality
[NAME], City Attorney

By _____
[NAME]
Deputy City Attorney

Date _____

File No. _____

MEMORANDUM

To: **MS4 NPDES Permit File**

From: **Rafael Casillas, P.E., Public Works Manager**

Date: **June 26, 2013**

Subject: **Draft Low Impact Development Ordinance and Draft Green Streets Policy**

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The Director of Community Development, City Engineer and Public Works Manager reviewed and discussed the template Draft Low Impact Development (LID) Ordinance and Draft Green Streets Policy that was developed by Larry Walker and Associates on behalf of the Los Angeles Permit Group. The Los Angeles Permit Group members are seeking clarification from the Regional Board staff on the deadline for applicability and final Ordinance and Policy adoption. The proposed LID Ordinance and Green Streets Policy implementation will be incorporated into the Municipal Code.

City of Duarte

1600 Huntington Drive, Duarte, CA 91010 - (626) 357-7931 - FAX (626) 358-0018

Green Street Policy (DRAFT)

Purpose

The City of Duarte Departme[illegible] Community Developme[illegible]nt green street BMPs for transportation corridors as[illegible] new and re[illegible]et and roadway projects, including Capital Improve[illegible]nacted to demonstrate compliance with the NPDES MS4 Permit fo[illegible]geles R[illegible] No. R4-2012-0175).

Green streets are an amenity that provides ma[illegible]s including water quality improvement, groundwater replenishment, creation of attr[illegible]capes, creation of parks and wildlife habitats, and pedestrian and bicycle acce[illegible]re defined as right-of-way areas that incorporate infiltration, biofil[illegible]se BMPs to collect, retain, or detain stormwater runoff as wel[illegible]es attractive streetscapes.

Policy

A. Application. T[illegible]ment of Commu[illegible]lopment shall require new development and/or redev[illegible]reets and roadv[illegible]ts and CIP projects conducted within the right-of-way [illegible]tation corridors t[illegible]ate green street BMPs. Transportation corridors pro[illegible]adway projects [illegible]t least 10,000 square feet of impervious surface. Rou[illegible]nance or repair [illegible]utility proj[illegible]re excluded from these requirements[illegible]aintenance incl[illegible]y seals, [illegible]nd reconstruction of the road or street [illegible]iginal line an[illegible]e maintai[illegible]

B. Amenities. The De[illegible]nities to replenish groundwater[illegible]e habitats, and provide pedestrian and bicy[illegible]edevelopment of streets and roadway projects and CIPs.

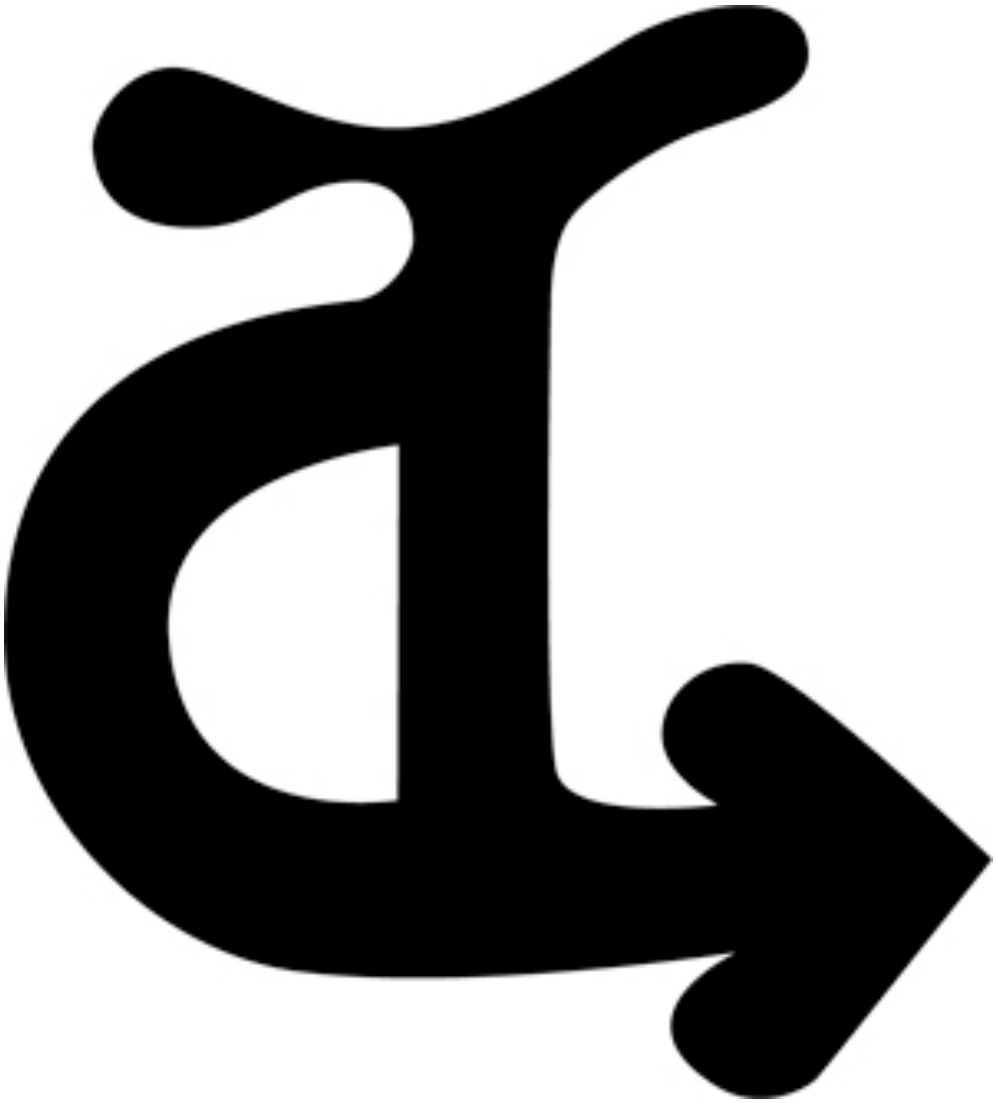
C. Guidance. The Department of Community Development sh[illegible] City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather wit[illegible]een Infrastructure Municipal Handbook: Green Streets*[1], or equivalent guidance developed by the Department of Community Development for use in public and private developments.

D. Retrofit Scope. The Department of Community Development shall use the City's Watershed Management Program or Enhanced Watershed Management Program to identify opportunities

[1] EPA-833-F-08-009, December 2008.

for green street BMP retrofits. Final decisions regarding implementation will be determined by the City Engineer based on the availability of adequate funding.

E. Training. The Department of Community Development shall incorporate aspects of green streets into internal annual staff trainings.



City of MONROVIA
Department of Public Works
1887

CITY OF MONROVIA

File No. X.XX
Administrative Policy

Subject: GREEN STREETS POLICY **(DRAFT)**

Effective Date: **TBD**

I. POLICY OBJECTIVE

The City of Monrovia provides that the City of Monrovia shall *require the implementation of* green street BMPs for transportation corridors associated with new and redevelopment streets, shall implement green street BMPs for transportation corridors associated with roadway projects, including Capital Improvement Projects (CIPs). This policy is enacted to demonstrate compliance with the NPDES MS4 Permit for the Los Angeles Region (Order No. R4-2012-0175).

Green streets are an amenity that provides many benefits including water quality improvement, groundwater replenishment, creation of attractive streetscapes, creation of parks and wildlife habitats, and pedestrian and bicycle accessibility. Green streets are defined as right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff as well as a design element that creates attractive streetscapes.

II. AUTHORITY

Green Streets Policy as adopted by the City Council

III. ASSIGNED RESPOSIBILITIES

The *Department of Public Works* shall condition projects pertaining to new and redevelopment of transportation corridors to implement green street BMPs. These project conditional shall apply to privately developed new and redevelopment streets. Additionally, the Department of Public Works shall ensure that green street BMPs for transportation corridors associated with roadway projects, including Capital Improvement Projects (CIPs), are implemented.

IV. APPLICABILITY

TBD

The Department of Public Works shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are *major arterials as defined in the City's General Plan* which add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.

V. POLICY

A. The *Department of Public Works* shall consider opportunities to replenish groundwater, create attractive streetscapes, create parks and wildlife habitats, and provide pedestrian and bicycle accessibility through new development and redevelopment of streets and roadway projects and CIPs.

B. The *Department of Public Works and Department of Community* Development shall use the City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1], or equivalent guidance developed by the City] for use in public and private developments.

C. The *Department of Public Works and Department of Community* shall use the City's Watershed Management Program or Enhanced Watershed Management Program to identify opportunities for green street BMP retrofits. Final decisions regarding implementation will be determined by the *Director of Public Works* based on the availability of adequate funding.

D. The *Department of Public Works* shall incorporate aspects of green streets into internal annual staff trainings.

[1] EPA-833-F-08-009, December 2008.

DRAFT

Items highlighted in grey are optional clauses

ORDINANCE NO. 201X-XX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MONROVIA, CALIFORNIA AMENDING CHAPTER 12.36 OF TITLE 12 (STORMWATER AND URBAN RUNOFF POLLUTION CONTROL) OF THE MONROVIA MUNICIPAL CODE ESTABLISHING LOW IMPACT DEVELOPMENT REQUIREMENTS FOR NEW AND REDEVELOPED PROPERTIES

THE CITY COUNCIL OF THE CITY OF MONROVIA, CALIFORNIA does ordain as follows:

SECTON 1. Chapter 12.36 of Title 12 of the Monrovia Municipal Code is hereby amended by adding the following findings to Sections 12.36.020 as follows:

(H) The City of Monrovia is authorized by Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

(I) The City of Monrovia has authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity which might degrade the quality of waters of the State.

(J) The city is a permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," issued by the California Regional Water Quality Control Board--Los Angeles Region," (Order

600 South Mountain Avenue, Monrovia, California 91016-3611 • (626) 932-5575 • FAX (626) 932-5559

No. R4-2012-0175) which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS004001), as well as Waste Discharge Requirements under California law (the "Municipal NPDES permit"). In order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program, the Municipal NPDES permit requires permittees to develop and implement a LID Ordinance.

(K) The City of Monrovia has applied an integrated approach to incorporate wastewater, stormwater and runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

(L) The City of Monrovia is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, and economic considerations.

(M) Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters.

(N) The City of Monrovia needs to take a new approach to managing rainwater and urban runoff while mitigating the negative impacts of development and urbanization.

(O) LID is widely recognized as a sensible approach to managing the quantity and quality of storm water and non-stormwater runoff by setting standards and practices to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge.

(P) It is the intent of the City of Monrovia to replace the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by providing stormwater and rainwater LID strategies for Development and Redevelopment projects as defined under "Applicability." Where there are conflicts between this Ordinance and previously adopted SUSMP or LID Manuals, the standards in this Ordinance shall prevail.

SECTON 2. Chapter 12.36 of Title 12 of the Monrovia Municipal Code is hereby amended by amending the following definitions to Sections 12.36.040 as follows:
Except as specifically provided herein, any term used in this [SECTION REFERENCE] shall be defined as that term in the current Municipal NPDES permit, or if it is not specifically defined in either the Municipal NPDES permit, then as such term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. If the definition of any term contained in this chapter conflicts with the definition of the same term in the current Municipal NPDES permit, then the definition contained in the Municipal NPDES permit shall govern. The following words and phrases shall have the following meanings when used in this chapter:

AUTOMOTIVE SERVICE FACILITY. A facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5541, 5511, provided that these facilities have no outside activities or materials that may be exposed to stormwater (Source: Order No. R4-2012-0175).

BEST MANAGEMENT PRACTICE (BMP). ***P****ractices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Source: Order No. R4-2012-0175).*

REPLACE "CONSTRUCTION" WITH "CONSTRUCTION ACTIVITY". Any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See "Routine Maintenance" definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Source: Order No. R4-2012-0175).

POLLUTANT. Any "pollutant" defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Sec. 13373. Pollutants may include, but are not limited to the following:

(1) Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous substances, fertilizers, pesticides, slag, ash, and sludge).

(2) Metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium, and non- metals such as phosphorus and arsenic).

(3) Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants, and grease).

(4) Excessive eroded soil, sediment, and particulate materials in amounts that may adversely affect the beneficial use of the receiving waters, flora, or fauna of the State.

(5) Animal wastes (such as discharge from confinement facilities, kennels, pens, recreational facilities, stables, and show facilities).

(6) Substances having characteristics such as pH less than 6 or greater than 9, or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

(7) ??? Need to check on revision to #7

DEVELOPMENT. Construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

DISCHARGE. Any release, spill, leak, pump, flow, escape, dumping, or disposal of any liquid, semi-solid, or solid substance.

PLANNING PRIORITY PROJECTS. Development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution, prior to completion of the project(s) (Modified from: Order No. R4-2012-0175).

PROJECT. All development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065) (Source: Order No. R4-2012-0175).

REDEVELOPMENT. Land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

STANDARD URBAN STORM WATER MITIGATION PLAN OR SUSMP. The Los Angeles Countywide Standard Urban Stormwater Mitigation Plan. The SUSMP was required as part of the previous Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS004001) and required plans that designate best management practices (BMPs) that must be used in specified categories of development projects.

URBAN RUNOFF. Surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial, or industrial activities involving the use of potable and non-potable water.

STORMWATER RUNOFF. That part of precipitation (rainfall or snowmelt) which travels across a surface to the storm drain system or receiving waters.

SECTON 3. Chapter 12.36 of Title 12 of the Monrovia Municipal Code is hereby amended by adding the following definitions to Sections 12.36.040 as follows:

BASIN PLAN. The Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Source: Order No. R4-2012-0175).

BIOFILTRATION. A LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term "biofiltration" as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board's Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Modified from: Order No. R4-2012-0175).

BIORETENTION. A LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in the Municipal

NPDES permit, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by the Municipal NPDES permit as biofiltration (Modified from: Order No. R4-2012-0175).

BIOSWALE. A LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Source: Order No. R4-2012-0175).

City means the City of Monrovia.

CLEAN WATER ACT (CWA). The Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.

COMMERCIAL MALLS. Any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls, other retail complexes, and enclosed shopping malls or shopping centers (Source: Order No. R4-2012-0175).

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Source: Order No. R4-2012-0175).

Directly Adjacent means situated within 200 feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area (Source: Order No. R4-2012-0175).

Disturbed Area means an area that is altered as a result of clearing, grading, and/or excavation (Source: Order No. R4-2012-0175).

FLOW-THROUGH BMPS. Modular, vault type "high flow biotreatment" devices contained within an impervious vault with an underdrain or designed with an impervious liner and an underdrain (Modified from: Order No. R4-2012-0175).

GENERAL CONSTRUCTION ACTIVITIES STORM WATER PERMIT (GCASP). The general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from construction activities under certain conditions.

GENERAL INDUSTRIAL ACTIVITIES STORM WATER PERMIT (GIASP). The general NPDES permit adopted by the State Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

GREEN ROOF. A LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to

provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Source: Order No. R4-2012-0175).

HAZARDOUS MATERIAL(S). Any material(s) defined as hazardous by Division 20, Chapter 6.95 of the California Health and Safety Code.

~~**Hillside** means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Source: Order No. R4-2012-0175).~~

HYDROMODIFICATION. The alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources. Hydromodification can cause excessive erosion and/or sedimentation rates, causing excessive turbidity, channel aggradation and/or degradation. (Source: GCASP)

IMPERVIOUS SURFACE. Any man-made or modified surface that prevents or significantly reduces the entry of water into the underlying soil, resulting in runoff from the surface in greater quantities and/or at an increased rate, when compared to natural conditions prior to development. Examples of places that commonly exhibit impervious surfaces include parking lots, driveways, roadways, storage areas, and rooftops. The imperviousness of these areas commonly results from paving, compacted gravel, compacted earth, and oiled earth.

INDUSTRIAL PARK. Land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Source: Order No. R4-2012-0175).

INFILTRATION BMP. A LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Source: Order No. R4-2012-0175).

LID. Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff (Source: Order No. R4-2012-0175).

MS4. Municipal Separate Storm Sewer System (MS4). The MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) Designed or used for collecting or conveying stormwater;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

(40 CFR § 122.26(b)(8)) (Source: Order No. R4-2012-0175)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA §307, 402, 318, and 405. The term includes an "approved program" (Source: Order No. R4-2012-0175).

NATURAL DRAINAGE SYSTEM. A drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Source: Order No. R4-2012-0175).

~~**New Development** means land disturbing activities; structural development, including construction or installation of a building or structure; creation of impervious surfaces; and land subdivision (Source: Order No. R4-2012-0175).~~

~~**Non-Stormwater Discharge** means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Source: Order No. R4-2012-0175).~~

~~**Parking Lot** means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Source: Order No. R4-2012-0175).~~

PERSON. Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, state, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by the context.

RAINFALL HARVEST AND USE. A LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Source: Order No. R4-2012-0175).

RECEIVING WATER. "Water of the United States" into which waste and/or pollutants are or may be discharged (Source: Order No. R4-2012-0175).

~~**Regional Board** means the California Regional Water Quality Control Board, Los Angeles Region.~~

~~**Restaurant** means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Source: Order No. R4-2012-0175).~~

~~**Retail Gasoline Outlet** means any facility engaged in selling gasoline and lubricating oils (Source: Order No. R4-2012-0175).~~

ROUTINE MAINTENANCE. Routine maintenance projects include, but are not limited to projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.

3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.

4. Update existing lines* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.
5. Repair leaks

Routine maintenance does not include construction of new** lines or facilities resulting from compliance with applicable codes, standards and regulations.
* Update existing lines includes replacing existing lines with new materials or pipes.
** New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Source: Order No. R4-2012-0175).

SIGNIFICANT ECOLOGICAL AREAS (SEAS). An area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species.

2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.

3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.

4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.

5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.

6. Areas important as game species habitat or as fisheries.

7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.

8. Special areas (Source: Order No. R4-2012-0175).

~~**Site** means land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity (Source: Order No. R4-2012-0175).~~

STORM DRAIN SYSTEM. Any facilities or any part of those facilities, including streets, gutters, conduits, natural or artificial drains, channels, and watercourses that are used for the purpose of collecting, storing, transporting or disposing of stormwater and are located within the City of Monrovia.

STORM WATER OR STORMWATER. Water that originates from atmospheric moisture (rain or snow) and that falls onto land, water, or other surfaces. Without any change in its meaning, this term may be spelled or written as one word or two separate words.

SECTON 4. Chapter 12.36 of Title 12 of the Monrovia Municipal Code is hereby amended by adding a new Section 12.36.XXX:

"12.36.XXX. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) Objective. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current "Municipal NPDES permit," lessen the water quality impacts of development by using smart growth practices, and integrate LID design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use. LID shall be inclusive of previously adopted SUSMP requirements.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of Monrovia to further define and adopt stormwater pollution control measures, to develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, and to grant waivers or alternate compliance as allowed by the Municipal NPDES permit and collect fees from projects granted exceptions. . Except as otherwise provided herein, the City of Monrovia shall administer, implement and enforce the provisions of this Section. Guidance documents supporting implementation of requirements in this Ordinance are hereby incorporated by reference, including SUSMP and LID Manuals.

(C) Applicability. The following Development and Redevelopment projects, termed "Planning Priority Projects," shall comply with the requirements of [SECTION NUMBER]:

(1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.

(2) Industrial parks 10,000 square feet or more of surface area.

(3) Commercial malls 10,000 square feet or more of surface area.

(4) Retail gasoline outlets with 5,000 square feet or more of surface area.

(5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of surface area.

(6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.

(7) Streets and roads construction of 10,000 square feet or more of impervious surface area.

(8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.

(9) Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA), where the development will:

a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and

b. Create 2,500 square feet or more of impervious surface area

(10) Single-family hillside homes.

(11) Redevelopment Projects

a. Land disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site on Planning Priority Project categories.

b. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, the entire project must be mitigated.

c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, only the alteration must be mitigated, and not the entire development.

d. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(12) Any other project as deemed appropriate by the Director.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective XX days from the adoption of the Ordinance. This includes Planning Priority Projects that are discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Ordinance. Projects that have been deemed complete within 90 days of adoption of the Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.

(1) A new single-family hillside home development shall include mitigation measures to:

a. Conserve natural areas;

b. Protect slopes and channels;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated areas before discharge, unless the diversion would result in slope instability.

(2) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.

(3) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:

a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or

ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

b. Minimize hydromodification impacts to natural drainage systems as defined in the Municipal NPDES Permit. Hydromodification requirements are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

c. When, as determined by the [APPROVING AGENCY], 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan. The technical infeasibility may result from conditions that may include, but are not limited to:

   i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.

   ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;

   iii. Locations within 100 feet of a groundwater well used for drinking water;

   iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;

   v. Locations with potential geotechnical hazards;

   vi. Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the onsite volume retention requirement.

d. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the Municipal NPDES Permit.

   i. Additional alternative compliance options such as offsite infiltration may be available to the project Site. The project Site should contact the [APPROVING AGENCY] to determine eligibility. Alternative compliance options are further specified in [NAME OF POST-CONSTRUCITON BMP HANDBOOK].

e. The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the Municipal NPDES Permit. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:

   i. 0.2 inches per hour, or
   ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

f. A Multi-Phased Project may comply with the standards and requirements of this section for all of its phases by: (a) designing a system acceptable to the [APPROVING AGENCY] to satisfy these standards and requirements for the entire Site during the first phase, and (b) implementing these standards and requirements for each phase of Development or Redevelopment of the Site during the first phase or prior to commencement of construction of a later phase, to the extent necessary to treat the stormwater from such later phase. For purposes of this section, "Multi-Phased Project" shall mean any Planning Priority Project implemented over more than one phase and the Site of a Multi-Phased Project shall include any land and water area designed and used to store, treat or manage stormwater runoff in connection with the Development or Redevelopment, including any tracts, lots, or parcels of real property, whether Developed or not, associated with, functionally connected to, or under common ownership or control with such Development or Redevelopment.

(E) Other Agencies of the City of Monrovia. All City of Monrovia departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Article on their Development and Redevelopment projects and report their activities annually to the [REPSONSIBLE AGENCY].

(F) Validity. If any provision of this Ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect remaining provisions of this Ordinance are declared to be severable.

SECTION X. Severability. If any section, subsection, subdivision, sentence, clause, phrase, or portion of this ordinance or the application thereof to any person or place, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remainder of this ordinance. The City Council hereby declares that it would have adopted this ordinance, and each and every section, subsection, subdivision, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, or portions thereof be declared invalid or unconstitutional.

SECTION X. The City Clerk shall certify to the passage of this ordinance and shall cause same to be published pursuant to state law within fifteen (15) days after its passage, and this ordinance shall become effective thirty (30) days after its passage.

INTRODUCED this Xst day of [MONTH] 201X.

PASSED, APPROVED, AND ADOPTED this Xst day of [MONTH] 201X. by the following vote:

AYES:
NOES:
ABSTAIN:
EXCUSED:

BY:

_____

Mary Ann Lutz, Mayor
City of Monrovia

ATTEST:

APPROVED AS TO FORM:

Alice D. Atkins, CMC, City Clerk
City of Monrovia

Craig A. Steele, City Attorney
City of Monrovia

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
CITY OF MONROVIA)

I, ALICE D. ATKINS, CMC, City Clerk of the City of Monrovia, California, do hereby certify that the foregoing Ordinance No. 201X-XX authorizing the City Council to contract for residential solid waste, green waste and recyclable materials collection was duly adopted and passed at a regular meeting of the City Council on the Xth day of [MONTH] 201X by the following vote:

AYES:
NOES:
ABSTAIN:
EXCUSED:

ATTEST:

Alice D. Atkins, CMC, City Clerk
City of Monrovia

CITY OF MONROVIA

INTER-OFFICE MEMORANDUM

DATE: June 24, 2013

TO: MS4 NPDES Permit File

FROM: Heather Maloney, Senior Management Analyst

SUBJECT: **Draft Low Impact Development Ordinance and Draft Green Streets Policy Status**

This memo is to document that the Draft LID Ordinance and Draft Green Streets Policy have been review and discussed with key City staff. On May 7, 2013, I met with the following City Staff:

- Jun Cervantes, City Engineer
- Craig Jiminez, Planning Division Manager
- Brian O'Connor, Planning Management Analyst
- Sharon Gallant, Environemental Services Management Analyst

During the meeting, we reviewed the Template/Draft LID Ordinance and Draft Green Streets Policy language that was developed by Larry Walker and Associates on behlaf of the LA Permit Group. Furthermore, we discussed a rough Final Ordinance and Policy development timeline, potential coforming changes that would need to take place in other Municipal Code/General Plan sections, CEQA review, and technical consulting and legal assistance needed.

In June 2013, the Draft LID Ordinance and Draft Green Streets Policy was also dicussed with the contract engineer utilized by the City for plan reviews. He indicated he understod the drafts and requested clarification on when they would be implemented and applicable to new/redvelopement and streets projects. I told him that I along with several other LA Permit Group members were trying to seek clarification from Regional Board staff on this guideline as the deadline for applicability and final Ordinance/Policy adoption is not clearly called out in the MS4 Permit.

The Draft LID Ordinance and Draft Green Streets Policy have also been discussed with our Director of Public Works, City Manager and City Attorney's Office on several occasions.

City of Sierra Madre

Public Works Department
232 W. Sierra Madre Boulevard, Sierra Madre, CA 91024
phone 626.355.7135 fax 626.355.2251

DRAFT

Draft Green Streets Policy
6/25/2013

Green Street Policy

Purpose

The City of Sierra Madre's Department of Public Works shall implement green street BMPs for transportation corridors associated with new and redevelopment street and roadway projects, including Capital Improvement Projects (CIPs). This policy is enacted to demonstrate compliance with the NPDES MS4 Permit for the Los Angeles Region (Order No. R4-2012-0175).

Green streets are an amenity that provides many benefits including water quality improvement, groundwater replenishment, creation of attractive streetscapes, creation of parks and wildlife habitats, and pedestrian and bicycle accessibility. Green streets are defined as right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff as well as a design element that creates attractive streetscapes.

Policy

A. Application. The Department of Public Works shall require new development and/or redevelopment streets and roadway projects and CIP projects conducted within the right-of-way of transportation corridors to incorporate green street BMPs. Transportation corridors projects are major arterials as defined in the (add year, existing or updated) Sierra Madre General Plan which add at least 10,000 square feet of impervious surface. Routine maintenance or repair and linear utility projects are excluded from these requirements. Routine maintenance includes slurry seals, repaving, and reconstruction of the road or street where the original line and grade are maintained.

B. Amenities. The Department of Public Works shall consider opportunities to replenish groundwater, create attractive streetscapes, create parks and wildlife

habitats, and provide pedestrian and bicycle accessibility through new development and redevelopment of streets and roadway projects and CIPs.

C. Guidance. The Department of Public Works shall use the City of Los Angeles Green Streets guidance, USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1], or equivalent guidance developed by the Department of Public Works for use in public and private developments.

D. Retrofit Scope. The Department of Public Works shall use the City's Watershed Management Program or Enhanced Watershed Management Program to identify opportunities for green street BMP retrofits. Final decisions regarding implementation will be determined by the Director of Public Works based on the availability of adequate funding.

E. Training. The Department of Public Works shall incorporate aspects of green streets into internal annual staff trainings.

[1] EPA-833-F-08-009, December 2008.

City of Sierra Madre

Public Works Department
232 W. Sierra Madre Boulevard, Sierra Madre, CA 91024
phone 626.355.7135 fax 626.355.2251

DRAFT

Draft Low Impact Development Ordinance
6/25/2013

ORDINANCE NO. XX-XX

An ordinance amending [MUNICIPAL CODE SECTION REFERENCE(S)] of the City of Sierra Madre Municipal Code to expand the applicability of the existing Sierra Madre Municipal Code sections 15.04.070 "Building Code and Permits - Stormwater retention"and Sierra Madre Municipal Code Chapter 7.04 "Stormwater Pollutant Elimination" requirements by imposing Low Impact Development (LID) strategies on projects that require building permits.

Findings.

(A) The City of Sierra Madre is authorized by Article XI, §5 and §7 of the State Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

(B) The City of Sierra Madre has authority under the California Water Code to adopt and enforce ordinances imposing conditions, restrictions and limitations with respect to any activity which might degrade the quality of waters of the State.

(C) The city is a permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges Originating from the City of Long Beach MS4," issued by the California Regional Water Quality Control Board--Los Angeles Region," (Order No. R4-2012-0175) which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS004001), as well as Waste Discharge Requirements under California law (the "Municipal NPDES permit"). In order to participate in a Watershed Management Program and/or Enhanced Watershed Management Program, the Municipal NPDES permit requires permittees to develop and implement a LID Ordinance.

(D) The City of Sierra Madre is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental and economic considerations.

(E) Urbanization has led to increased impervious surface areas resulting in increased water runoff and less percolation to groundwater aquifers causing the transport of pollutants to downstream receiving waters.

(F) The City of Sierra Madre seeks to update its approach to managing rainwater and urban runoff while mitigating the negative impacts of development and urbanization.

(G) LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater runoff by setting standards and practices to maintain or restore the natural hydrologic character of a development site, reduce off-site runoff, improve water quality, and provide groundwater recharge.

(H) It is the intent of the City of Sierra Madre to expand the applicability of the existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements by providing stormwater and rainwater LID strategies for Development and Redevelopment projects as defined under "Applicability."

[MUNICIPAL CODE SECTION REFERENCE(S)] of the City of Sierra Madre Municipal Code is amended in its entirety to read as follows:

Definitions.

Except as specifically provided herein, any term used in this [SECTION REFERENCE] shall be defined as that term in the current Municipal NPDES permit, or if it is not specifically defined in either the Municipal NPDES permit, then as such term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. If the definition of any term contained in this chapter conflicts with the definition of the same term in the current Municipal NPDES permit, then the definition contained in the Municipal NPDES permit shall govern. The following words and phrases shall have the following meanings when used in this chapter:

Automotive Service Facility means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) codes. For inspection purposes, Permittees need not inspect facilities with SIC codes 5013, 5014, 5541, 5511, provided that these facilities have no outside activities or materials that may be exposed to stormwater (Source: Order No. R4-2012-0175).

Basin Plan means the Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the Regional Water Board on June 13, 1994 and subsequent amendments (Source: Order No. R4-2012-0175).

Best Management Practice (BMP) means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or non-stormwater discharges to receiving waters, or designed to reduce the volume of stormwater or non-stormwater discharged to the receiving water (Source: Order No. R4-2012-0175).

Best Management Practice (BMP) Manual means a manual identified to assist applicants with meeting the requirements of this chapter. The BMP Manual shall be selected by the City Engineer and may be updated, or replaced from time to time when additional qualified and available specifications are produced. The BMP Manual shall be available at the Development Services and Public Works Departments for public access.

Biofiltration means a LID BMP that reduces stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration. Incidental infiltration is an important factor in achieving the required pollutant load reduction. Therefore, the term "biofiltration" as used in this Ordinance is defined to include only systems designed to facilitate incidental infiltration or achieve the equivalent pollutant reduction as biofiltration BMPs with an underdrain (subject to approval by the Regional Board's Executive Officer). Biofiltration BMPs include bioretention systems with an underdrain and bioswales (Modified from: Order No. R4-2012-0175).

Bioretention means a LID BMP that reduces stormwater runoff by intercepting rainfall on vegetative canopy, and through evapotranspiration and infiltration. The bioretention system typically includes a minimum 2-foot top layer of a specified soil and compost mixture underlain by a gravel-filled temporary storage pit dug into the in-situ soil. As defined in the Municipal NPDES permit, a bioretention BMP may be designed with an overflow drain, but may not include an underdrain. When a bioretention BMP is designed or constructed with an underdrain it is regulated by the Municipal NPDES permit as biofiltration (Modified from: Order No. R4-2012-0175).

Bioswale means a LID BMP consisting of a shallow channel lined with grass or other dense, low-growing vegetation. Bioswales are designed to collect stormwater runoff and to achieve a uniform sheet flow through the dense vegetation for a period of several minutes (Source: Order No. R4-2012-0175).

City means the City of Sierra Madre.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted in 1972, by Public Law 92-500, and amended by the Water Quality Act of 1987. The Clean Water Act prohibits the discharge of pollutants to Waters of the United States unless the discharge is in accordance with an NPDES permit.

Commercial Malls means any development on private land comprised of one or more buildings forming a complex of stores which sells various merchandise, with interconnecting walkways enabling visitors to easily walk from store to store, along with parking area(s). A commercial mall includes, but is not limited to: mini-malls, strip malls, other retail complexes, and enclosed shopping malls or shopping centers (Source: Order No. R4-2012-0175).

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that result in land disturbance. Construction does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain the original line and grade, hydraulic capacity, or original purposes of the facility. See "Routine Maintenance" definition for further explanation. Where clearing, grading or excavating of underlying soil takes place during a repaving operation, State General Construction Permit coverage by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities is required if more than one acre is disturbed or the activities are part of a larger plan (Source: Order No. R4-2012-0175).

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities (Source: Order No. R4-2012-0175).

Development means construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail, and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include -- certain conditions.

Green Roof means a LID BMP using planter boxes and vegetation to intercept rainfall on the roof surface. Rainfall is intercepted by vegetation leaves and through evapotranspiration. Green roofs may be designed as either a bioretention BMP or as a biofiltration BMP. To receive credit as a bioretention BMP, the green roof system planting medium shall be of sufficient depth to provide capacity within the pore space volume to contain the design storm depth and may not be designed or constructed with an underdrain (Source: Order No. R4-2012-0175).

Hazardous Material(s) means any material(s) defined as hazardous by Division 20, Chapter 6.95 of the California Health and Safety Code.

Hillside means a property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is 25% or greater and where grading contemplates cut or fill slopes (Source: Order No. R4-2012-0175).

Impervious Surface means any man-made or modified surface that prevents or significantly reduces the entry of water into the underlying soil, resulting in runoff from the surface in greater quantities and/or at an increased rate, when compared to natural conditions prior to development. Examples of places that commonly exhibit impervious surfaces include parking lots, driveways, roadways, storage areas, and rooftops. The imperviousness of these areas commonly results from paving, compacted gravel, compacted earth, and oiled earth.

Industrial Park means land development that is set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers. It includes office parks, which have offices and light industry (Source: Order No. R4-2012-0175).

Infiltration BMP means a LID BMP that reduces stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement (Source: Order No. R4-2012-0175).

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff (Source: Order No. R4-2012-0175).

MS4 means Municipal Separate Storm Sewer System (MS4). The MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a combined sewer; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

(40 CFR § 122.26(b)(8)) (Source: Order No. R4-2012-0175)

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA

§307, 402, 318, and 405. The term includes an "approved program" (Source: Order No. R4-2012-0175).

Natural Drainage System means a drainage system that has not been improved (e.g., channelized or armored). The clearing or dredging of a natural drainage system does not cause the system to be classified as an improved drainage system (Source: Order No. R4-2012-0175).

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision (Source: Order No. R4-2012-0175).

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater (Source: Order No. R4-2012-0175).

Parking Lot means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces (Source: Order No. R4-2012-0175).

Person means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, state, governmental entity or any other legal entity, or their legal representatives, agents or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by the context.

Planning Priority Projects means development projects subject to City conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution, prior to completion of the project(s) (Modified from: Order No. R4-2012-0175).

Pollutant means any "pollutant" defined in Section 502(6) of the Federal Clean Water Act or incorporated into the California Water Code Sec. 13373. Pollutants may include, but are not limited to the following:

(1) Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous substances, fertilizers, pesticides, slag, ash, and sludge).

(2) Metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium, and non-metals such as phosphorus and arsenic).

(3) Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants, and grease).

(4) Excessive eroded soil, sediment, and particulate materials in amounts that may adversely affect the beneficial use of the receiving waters, flora, or fauna of the State.

(5) Animal wastes (such as discharge from confinement facilities, kennels, pens, recreational facilities, stables, and show facilities).

(6) Substances having characteristics such as pH less than 6 or greater than 9, or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

Project means all development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065) (Source: Order No. R4-2012-0175).

Rainfall Harvest and Use means a LID BMP system designed to capture runoff, typically from a roof but can also include runoff capture from elsewhere within the site, and to provide for temporary storage until the harvested water can be used for irrigation or non-potable uses. The harvested water may also be used for potable water uses if the system includes disinfection treatment and is approved for such use by the local building department (Source: Order No. R4-2012-0175).

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged (Source: Order No. R4-2012-0175).

Redevelopment means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of routine maintenance activity; and land disturbing activity related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety (Source: Order No. R4-2012-0175).

Regional Board means the California Regional Water Quality Control Board, Los Angeles Region.

Restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812) (Source: Order No. R4-2012-0175).

Retail Gasoline Outlet means any facility engaged in selling gasoline and lubricating oils (Source: Order No. R4-2012-0175).

Routine Maintenance

Routine maintenance projects include, but are not limited to projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility.
2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities.
3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts.
4. Update existing lines* and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity.
5. Repair leaks

Routine maintenance does not include construction of new** lines or facilities resulting from
compliance with applicable codes, standards and regulations.

* Update existing lines includes replacing existing lines with new materials or pipes.

** New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines (Source: Order No. R4-2012-0175).

Significant Ecological Areas (SEAs) means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Los Angeles County General Plan. Areas are designated as SEAs, if they possess one or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species.
2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis.
3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County.
4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County.
5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community.
6. Areas important as game species habitat or as fisheries.
7. Areas that would provide for the preservation of relatively undisturbed examples of natural biotic communities in Los Angeles County.
8. Special areas (Source: Order No. R4-2012-0175).

Site means land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity (Source: Order No. R4-2012-0175).

Storm Drain System means any facilities or any part of those facilities, including streets, gutters, conduits, natural or artificial drains, channels, and watercourses that are used for

the purpose of collecting, storing, transporting or disposing of stormwater and are located within the City of Sierra Madre.

Storm Water or Stormwater means water that originates from atmospheric moisture (rain or snow) and that falls onto land, water, or other surfaces. Without any change in its meaning, this term may be spelled or written as one word or two separate words.

Stormwater Runoff means that part of precipitation (rainfall or snowmelt) which travels across a surface to the storm drain system or receiving waters.

SUSMP means the Los Angeles Countywide Standard Urban Stormwater Mitigation Plan. The SUSMP was required as part of the previous Municipal NPDES Permit (Order No. 01-182, NPDES No. CAS004001) and required plans that designate best management practices (BMPs) that must be used in specified categories of development projects.

Urban Runoff means surface water flow produced by storm and non-storm events. Non-storm events include flow from residential, commercial, or industrial activities involving the use of potable and non-potable water.

Sierra Madre Municipal Code Section 15.04.070 is amended to read as follows:

STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) Objective. The provisions of this section contain requirements for construction activities and facility operations of Development and Redevelopment projects to comply with the current "Municipal NPDES permit," lessen the water quality impacts of development, and integrate LID design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use. LID shall be inclusive of SUSMP requirements.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of Sierra Madre to further define and adopt stormwater pollution control measures, develop LID principles and requirements, including but not limited to the objectives and specifications for integration of LID strategies, grant waivers from the requirements of the Standard Urban Stormwater Mitigation Plan, and collect funds for projects that are granted waivers. Except as otherwise provided herein, the City of Sierra Madre shall administer, implement and enforce the provisions of this Section.

(C) Applicability. The following Development and Redevelopment projects, termed "Planning Priority Projects," shall comply with the requirements of 15.04.070.

(1) All development projects equal to 1 acre or greater of disturbed area that adds more than 10,000 square feet of impervious surface area.

(2) Industrial parks 10,000 square feet or more of surface area.

(3) Commercial malls 10,000 square feet or more of surface area.

(4) Retail gasoline outlets with 5,000 square feet or more of surface area.

(5) Restaurants (Standard Industrial Classification (SIC) of 5812) with 5,000 square feet or more of surface area.

(6) Parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces.

(7) Streets and roads construction of 10,000 square feet or more of impervious surface area.

(8) Automotive service facilities (Standard Industrial Classification (SIC) of 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.

(9) Projects located in or directly adjacent to, or discharging directly to an Environmentally Sensitive Area (ESA), where the development will:

a. Discharge stormwater runoff that is likely to impact a sensitive biological species or habitat; and

b. Create 2,500 square feet or more of impervious surface area

(10) Single-family hillside homes.

(11) Redevelopment Projects

a. Land disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site on Planning Priority Project categories.

b. Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality control requirements, the entire project must be mitigated.

c. Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction stormwater quality

control requirements, only the alteration must be mitigated, and not the entire development.

d. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

e. Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(D) Effective Date. The Planning and Land Development requirements contained in Section 7 of Order No. R4-2012-0175 shall become effective 90 days from the adoption of the Order (February 6, 2013). This includes Planning Priority Projects that are discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Order. Projects that have been deemed complete within 90 days of adoption of the Order are not subject to the requirements Section 7.

(E) Stormwater Pollution Control Requirements. The Site for every Planning Priority Project shall be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention and/or rainfall harvest and use.

(1) A new single-family hillside home development shall include mitigation measures to:

a. Conserve natural areas;

b. Protect slopes and channels;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated areas before discharge, unless the diversion would result in slope instability.

(2) Street and road construction of 10,000 square feet or more of impervious surface shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable.

(3) The remainder of Planning Priority Projects shall prepare a LID Plan to comply with the following:

a. Retain stormwater runoff onsite for the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

i. The 85th percentile 24-hour runoff event as determined from the Los Angeles County 85th percentile precipitation isohyetal map; or

ii. The volume of runoff produced from a 0.75 inch, 24-hour rain event, whichever is greater.

b. When, as determined by the City Engineer, 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan. The technical infeasibility may result from conditions that may include, but are not limited to:

i. The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv onsite.

ii. Locations where seasonal high groundwater is within five to ten feet of surface grade;

iii. Locations within 100 feet of a groundwater well used for drinking water;

iv. Brownfield development sites or other locations where pollutant mobilization is a documented concern;

v. Locations with potential geotechnical hazards;

c. If partial or complete onsite retention is technically infeasible, the project Site may biofiltrate 1.5 times the portion of the remaining SWQDv that is not reliably retained onsite. Biofiltration BMPs must adhere to the design specifications provided in the Municipal NPDES Permit.

i. Additional alternative compliance options such as offsite infiltration may be available to the project Site. The project Site should contact the City Engineer to determine eligibility.

d. The remaining SWQDv that cannot be retained or biofiltered onsite must be treated onsite to reduce pollutant loading. BMPs must be selected and designed to meet pollutant-specific benchmarks as required per the Municipal NPDES Permit. Flow-through BMPs may be used to treat the remaining SWQDv and must be sized based on a rainfall intensity of:

i. 0.2 inches per hour, or
ii. The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, whichever is greater.

e. A Multi-Phased Project may comply with the standards and requirements of this section for all of its phases by: (a) designing a system acceptable to the City Engineer to satisfy these standards and requirements for the entire Site during the first phase, and (b) implementing these standards and requirements for each phase of Development or Redevelopment of the Site during the first phase or prior to commencement of construction of a later phase, to the extent necessary to treat the stormwater from such later phase. For purposes of this section, "Multi-Phased Project" shall mean any Planning Priority Project implemented over more than one phase and the Site of a Multi-Phased Project shall include any land and water area designed and used to store, treat or manage stormwater runoff in connection with the Development or Redevelopment, including any tracts, lots, or parcels of real property, whether Developed or not, associated with, functionally connected to, or under common ownership or control with such Development or Redevelopment.

(E) Other Agencies of the City of Sierra Madre. All City of Sierra Madre departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Article on their Development and Redevelopment projects and report their activities annually to the Department of Public Works.

(F) Validity. If any provision of this Ordinance is found to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect remaining provisions of this Ordinance are declared to be severable.

(G) Certification. The City Clerk shall certify to the passage of this ordinance and have it published in accordance with Council policy.

I hereby certify that this ordinance was passed by the Council of the City of Sierra Madre at its meeting of _____.

Nancy Shollenberger, City Clerk

By _____
Deputy

Approved _____ _____
_____
Mayor

Approved as to Form and Legality
[NAME], City Attorney

By _____
[NAME]
Deputy City Attorney

Date _____

File No. _____

City of Sierra Madre

Memo

To: 2012/2013 NPDES New Permit File

From: James Carlson, Management Analyst

Date: June 25, 2013

Re: Development of Low Impact Development (LID) Ordinance and Green Streets Policy

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This memo is to document the progress of the City of Sierra Madre's efforts to produce both a Low Impact Development (LID) Ordinance and Green Streets Policy. The origin of these efforts can be identified by the necessities that are required by the new MS4 permit. The importance of developing (and now updating) these items is further warranted by our current water source emergency.

On December 11, 2012 the Sierra Madre City Council adopted resolution 12-92 which included the immediate adoption of the City of Los Angeles LID Ordinance and the City of Los Angeles Green Streets Policy. This also included the associated BMP Manuals. Resolution 12-92 was adopted to ensure that the City of Sierra Madre had an LID Ordinance and Green Street's Policy in place as an interim measure while staff worked to update both the ordinance and policy to more closely fit with Sierra Madre's conditions. The ordinance has been in effect and used during all qualifying plan checks.

The City of Sierra Madre also contributed funds to the San Gabriel Valley Council of Governments to work with Larry Walker and Associates to create templates of an LID Ordinance and Green Street Policy. I have been working with Public Works Director Bruce Inman, City Engineer Kev Tcharkhoutian, and City Attorney Theresa Highsmith in this development. The update to our interim LID Ordinance and Green Streets policy is tentatively scheduled to go back to the City Council for approval on July 23, 2013.

Thank you!

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Attachment C

MS4 Permit TMDL WQOs

This attachment includes tables summarizing the existing Total Maximum Daily Load (TMDL) requirements relevant to the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), corresponding with **Section 1.3.2** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP). The following TMDL water quality objectives are outlined in this attachment, based on the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit:

- Los Angeles River (LAR) Watershed Trash TMDL;
- LAR Nitrogen Compounds and Related Effects TMDL;
- LAR and Tributaries Metals TMDL;
- LAR Watershed Bacteria TMDL;
- Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL (DC and LA Harbor Toxic Pollutants TMDL);
- San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL (USEPA TMDL); and
- Los Angeles Area Lakes TMDLs (USEPA TMDL) for Peck Road Park Lake.

Attachment C List of Tables

Table C-1 demonstrates which RH/SGRWQG members are affected by each of the TMDLs per Attachment K, Table K-5, K-6, K-9, and K-10 of the Los Angeles County Municipal Separate Storm Sewer System (MS4) Permit.

Table C-1 RH/SGRWQG TMDLs and Applicability

RH/SGRWQG Member	LAR Watershed Trash TMDL	LAR Nitrogen Compounds and Related Effects TMDL	LAR and Tributaries Metals TMDL	LAR Watershed Bacteria TMDL	Los Angeles Area Lakes TMDLs for Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxics TMDL	SGR and Impaired Tributaries Metals and Selenium TMDL
Arcadia	X	X	X	X	X		X
Azusa					X		X
Bradbury	X	X	X	X	X		X
Duarte	X	X	X	X	X		X
Monrovia	X	X	X	X	X		X
Sierra Madre	X	X	X	X	X		
County of Los Angeles	X	X	X	X	X	X	X
LACFCD		X	X	X	X	X	X

LAR Watershed Trash TMDL

The litigation and implementation history of the LAR Watershed Trash TMDL is complex, however the current TMDL was adopted by the Los Angeles Regional Water Quality Control Board (LARWQCB) as Resolution 2007-012, which became effective on September 23, 2008. Simplistically, TMDL compliance is assessed based on Daily Generation Rate (DGR) studies, the remainder of the catchment not protected by Full Capture Certified Devices (FCCDs), or a combination of both metrics. **Table C-2** and **Table C-3** list (in gallons and pounds) interim and final DGR estimated residual Water Quality-Based Effluent Limitations (WQBELs) from Attachment O Part A.3 of the MS4 Permit, while the allowable remainder of the catchment unprotected by FCCDs is identified in parentheses within the table header rows.

Table C-2 LAR Watershed Trash TMDL Effluent Limitations per Storm Year (gal of uncompressed trash)						
Permittees	**Baseline**	**2012 (30%)**	**2013 (20%)**	**2014 (10%)**	**2015 (3.3%)**	**2016 (0%)**
Arcadia	50108	15032	10022	5011	1654	0
Bradbury	4277	1283	855	428	141	0
Duarte	12210	3663	2442	1221	403	0
Monrovia	46687	14006	9337	4669	1541	0
Sierra Madre	11611	3483	2322	1161	383	0
County of Los Angeles	310223	93067	62045	31022	10237	0

Table C-3 LAR Watershed Trash TMDL Effluent Limitations per Storm Year (lbs of drip dry trash)						
Permittees	**Baseline**	**2012 (30%)**	**2013 (20%)**	**2014 (10%)**	**2015 (3.3%)**	**2016 (0%)**
Arcadia	93036	27911	18607	6876	2269	0
Bradbury	12160	3648	2432	1216	401	0
Duarte	23687	7106	4737	2369	782	0
Monrovia	100988	30296	20198	10099	3333	0
Sierra Madre	25192	7558	5038	2519	831	0
County of Los Angeles	651806	195542	130361	65181	21510	0

The final WQBEL of zero trash discharged, or catchment area unprotected, is to be achieved for the 2016 storm year that begins on October 1, 2015 and ends on September 30, 2016. During the current period from October 1, 2013 to September 30, 2014, 90% of the baseline study trash volume or weight must be captured based on DGR study analysis and only 10% estimated to have been discharged. Alternatively, 90% of a Permittee catchment may be protected by FCCDs, leaving 10% unprotected.

LAR Nitrogen Compounds and Related Effects TMDL

The LAR Nitrogen TMDL was adopted by the LARWQCB as Resolution 2003-009 and became effective on March 23, 2004. Site Specific Objectives (SSOs) for ammonia were approved by the State Water Resources Control (SWRCB) Board on June 4, 2013. This TMDL has been primarily addressed by Publically Owned Treatment Works (POTWs), or Water Recovery Plants (WRPs), and MS4 Permittee discharges do not appear to cause or contribute to the exceedance of the applicable Receiving Water Limitations (RWLs). **Table C-4** lists the currently effective TMDL WQBELs, as identified in Attachment O, Part B.2 of the MS4 Permit, which the RH/SGRWQG Permittee discharges would be expected to comply with as assessed through the Coordinated Integrated Monitoring Program (CIMP).

Table C-4 LAR Nitrogen Compounds and Related Effects TMDL Final WQBELs					
Water Body	**NH_3-N (mg/L)**		**NO_3-N (mg/L)**	**NO_2-N (mg/L)**	**NO_3-N+NO_2-N (mg/L)**
	One-hour Average	**Thirty-day Average**	**Thirty-day Average**	**Thirty-day Average**	**Thirty-day Average**
LAR below LAG	8.7	2.4	8.0	1.0	8.0
Rio Hondo Reach 1 and 2	10.1	2.3	8.0	1.0	8.0

LAG = Los Angeles-Glendale WRP

LAR and Tributaries Metals TMDL

The litigation and implementation history of the LAR and Tributaries Metals TMDL is complex, however the current TMDL was adopted by the LARWQCB as Resolution 2007-014 and became effective on October 29, 2008. The TMDL assesses compliance based on the load or concentration of several metals in comparison to the California Toxic Rule (CTR) values, during dry- and wet-weather conditions. Dry-weather is defined as days when the maximum daily flow in the Los Angeles River is less than 500 cubic feet per second (cfs) as measured at the Wardlow Street gauge station in Long Beach. Since metal toxicity is correlated to bioavailability, which is higher for dissolved metals, and decreases in the presence of competing cations, as assessed by water hardness, the permit and TMDL WQBEL values were determined using total to dissolved "translator" values, prepared by the USEPA, weather, and water body specific hardness data, which results in relatively significant variability in WQBELs among the various water body and weather combinations. Furthermore, local water characteristics, such as organic content, may result in Water Effect Ratios (WERs) and SSOs that alter the preliminary toxicity assessment used in developing a TMDL and may change the final numeric WQBELs.

Table C-5 through **Table C-8** list the "final" WQBELs that may be of importance to the RH/SGRWQG, subject to any future basin plan amendments, established by the LAR and Tributaries Metals TMDL and identified in Attachment O Parts C.2 and C.3 of the MS4 Permit. **Table C-5** lists the grouped (shared) dry-weather final WQBELs, expressed as total recoverable metals daily loads. Dry-weather flows in Rio Hondo Reach 1, have normally been much lower than the TMDL estimate of 0.5 cfs, however TMDL watershed compliance has generally been first assessed based on concentration, rather than load.

Table C-5 LAR Metals TMDL Dry-Weather Final WQBELs Expressed as Total Recoverable Metals

Water Body	Effluent Limitations Daily Maximum (kg/day)		
	Copper	Lead	Zinc
LAR Reach 2	WER[1] x 0.13	WER[1] x 0.07	--
LAR Reach 1	WER[1] x 0.14	WER[1] x 0.07	--
Rio Hondo Reach 1	WER[1] x 0.01	WER[1] x 0.006	WER[1] x 0.16

[1] WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process

Concentration based dry-weather WQBEL that may be of importance to the RH/SGRWQG are summarized in **Table C-6**.

Table C-6 LAR Metals TMDL Concentration Based Dry-Weather Final WQBELs Expressed as Total Recoverable Metals

Water Body	Effluent Limitations Daily Maximum (µg)		
	Copper	Lead	Zinc
LAR Reach 2	WER[1] x 22	WER[1] x 11	--
LAR Reach 1	WER[1] x 23	WER[1] x 12	--
Rio Hondo Reach 1	WER[1] x 13	WER[1] x 5.0	WER[1] x 131

[1] WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process

Load and approximate concentration based wet-weather WQBELs that are applicable to the RH/SGRWQG are summarized in **Table C-7**. Since the TMDL includes both Waste Loads (WLs) and WLAs, and

multiple discharge groups, the WQBEL concentration for MS4 Permittees varies with the volume of runoff measured at Wardlow Street, but the rightmost column is a serviceable first order estimate.

Table C-7 LAR Metals TMDL Wet-Weather Final WQBEL Expressed as Total Recoverable Metals

Constituent	Effluent Limitations Daily Maximum (kg/day)	Approximate Effluent Limitation (µg/L)
Cadmium	WER[1] x 2.8 x 10^{-9} x daily volume (L) - 1.8	WER[1] x 2.8
Copper	WER[1] x 1.5 x 10^{-8} x daily volume (L) - 9.5	WER[1] x 15
Lead	WER[1] x 5.6 x 10^{-8} x daily volume (L) - 3.85	WER[1] x 56
Zinc	WER[1] x 1.4 x 10^{-7} x daily volume (L) - 83	WER[1] x 140

[1] WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process

Table C-8 outlines the interim and final Metals TMDL WQBELs schedule which Permittees are expected to comply with through the EWMP and RAA development process. Since the RH/SGRWQG affected by this TMDL is located within Jurisdictional Group 2, it should be noted that the June 29, 2012 Implementation Study, funded by the Permittees, identified Watershed Control Measures to achieve the interim and final WQBELs. Among the more important measures was State Senate Bill 346, chaptered in September 2010, which called for phased elimination of copper from automotive friction (brake) pads. A similar effort to reduce the zinc content in automotive tires has also been initiated, but is many years from being chaptered.

Table C-8 LAR Metals TMDL Schedule of Interim and Final WQBELs

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)	
	Dry Weather	Wet Weather
January 11, 2012	50	25
January 11, 2020	75	-
January 11, 2024	100	50
January 11, 2028	100	100

Along with most other LAR Watershed municipalities, the RH/SGRWQG Permittees supported a study to develop Copper WER and Lead Recalculation SSOs that will become effective after approved by the LARWQCB as Basin Plan Amendments. The draft study reports suggest that for copper, in both dry- and wet-weather, a final WER of 3.971 for LAR Reaches 1 and 2 and 9.691 for the Rio Hondo should be adopted. The lead recalculation study suggest that during dry-weather the WQBELs for LAR Reach 1 should increase from 12 to 102 µg/L for LAR Reach 1, increase from 11 to 94 µg/L for LAR Reach 2, and rise from 5 to 37 µg/L for the Rio Hondo. In wet-weather, the lead WQBEL should increase from 62 to 94 µg/L in all of these water bodies. Favorable translators between total and dissolved metal concentrations were also determined by these studies, but are not explicitly referenced in the MS4 Permit so their eventual impact is unclear at this time. As a result of these studies and legislative efforts, the LAR Metals TMDL has probably moved from a regional to specific outfall priority.

LAR Watershed Bacteria TMDL

The LAR Watershed Bacteria TMDL was adopted by the LARWQCB as Resolution 2010-007 and became effective on March 23, 2012. As expressed in Attachment O Part D4 of the MS4 Permit, this TMDL is very complex with multiple implementation phases, river segments that do not coincide with reaches, wet and dry compliance schedules, WLAs expressed as both WQBELs and RWLs, complex analytical methods, and

requires the development with submission of Segment Specific Load Reduction Strategies (LRS). In addition, studies indicate that there are significant natural sources including endogenous replication of the "pollutant." **Table C-9** through **Table C-12** summarize the final WQBELs and RWLs that may be of importance to the RH/SGRWG.

Table C-9 LAR Bacteria TMDL WQBEL

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 Ml	126/100 mL

Table C-10 summaries the "grouped interim dry-weather single sample bacteria WQBEL for the specific river segment and tributaries," that may be of importance to the RH/SGRWQG. While the Rio Hondo watershed area is approximately half of the total Segment B catchment area and would be expected to generate comparable discharge volumes during dry- and wet-weather, the WQBEL differs by over 250 fold. This is a result of the latter being based on the flow of water, mostly discharged from wastewater treatment plants, into the reach, while the Rio Hondo is primarily a headwater catchment. The interim dry-weather WQBELs are group-based and shared among the Permittees within a drainage area; however, alternatively they may be distributed based on proportion of drainage area, upon approval of the Regional Board Executive Officer. It is currently unclear how compliance with the LAR Bacteria TMDL will be assessed.

Table C-10 LAR Bacteria TMDL Grouped Interim Dry-Weather Single Sample Bacteria WQBEL

River Segment of Tributary	Daily Maximum *E. coli* Load (10^9 MPN/day)	First Phase Compliance Date	Second Phase Compliance Date
LAR Segment A (Willow to Rosecrans)	301	March 23, 2024	September 23, 2031
LAR Segment B (Rosecrans to Figueroa)	518	March 23, 2022	September 23 2028
Rio Hondo	2	September 23, 2023	March 23, 2030

In addition to WQBELs for MS4 discharges, the LAR Bacteria TMDL includes a RWL that is attributable to all MS4 Permittees, including the City of Long Beach and Caltrans. This RWL is assessed as a limit on the number of days, or weeks, per year, where the RWLs are not achieved. The final compliance dates, for the annually assessed grouped single sample bacteria RWLs, are March 23, 2022 for dry-weather and March 23, 2037 for wet-weather. These requirements can be found in **Table C-11**, while the numeric water quality objective is shown on **Table C-12**.

Table C-11 LAR Bacteria TMDL Grouped Final Single Sample Bacteria RWLs

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Dry-Weather	5	1
Non-HFS[1] Waterbodies Wet-Weather	15	2
HFS[1] Waterbodies Wet-Weather	10 (not including HFS days)	2 (not including HFS days)

[1] HFS stands for high flow suspension as defined in Chapter 2 of the Basin Plan

Table C-12 LAR Bacteria TMDL Geometric Mean RWL	
Constituent	**Geometric Mean (MPN or cfu)**
E. coli	126/100 mL

The distinction that these water quality objectives are expressed annually may be important, as MS4 Permit Part VI.A.13.g states that for some WQBELs that are expressed as annual effluent limitations, such as those for trash, violations may only be assessed annually; however Part VI.C.1.d.(i) states that EWMPs must "achieve applicable WQBELs in Part VI.E and Attachments L through R pursuant to the corresponding compliance schedules." It is unclear why an annually assessed WQBEL is substantially and inherently different than an annually assessed RWL, although this question is likely to be resolved long before the dry-weather final compliance schedule is reached.

DC and LA Harbor Waters Toxic Pollutants TMDL

The DC and LA Harbor Waters Toxic Pollutants TMDL (also known as the Los Angeles and Long Beach Harbor Toxic and Metals TMDL) became effective on March 23, 2012 as Resolution No. R11-008.

Per Attachment N Part E.2 of the MS4 Permit, the Permittees subject to this TMDL must comply with sediment interim WQBELs for discharges to the Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters, Permittees should comply with interim concentration-based WQBELs presented in **Table C-13**.

Table C-13 DC and LA Harbor Waters Toxic Pollutants TMDL Sediment Interim WQBELs						
Water Body	**Interim Effluent Limitations Daily Maximum (mg/kg sediment)**					
	Copper	**Lead**	**Zinc**	**DDT**	**PAHs**	**PCBs**
Long Beach Inner Harbor	142.3	50.4	240.6	0.070	4.58	0.060
Long Beach Outer Harbor (inside breakwater)	67.3	46.7	150	0.075	4.022	0.248
Los Angeles River Estuary	53.0	46.7	183.5	0.254	4.36	0.683

Per Attachment N Part E.3.c of the MS4 Permit, the Dominguez Channel Estuary and Greater Los Angeles (and Long Beach) Harbor Waters must comply with final mass-based WQBELs, expressed as an annual loading of pollutants in the sediment deposited to the Dominguez Channel Estuary and the Greater Los Angeles and Long Beach Harbor Waters and final concentration-based WQBELs for sediments as shown in **Table C-14**. Compliance with these limitations should be met by March 23, 2032 and every year thereafter.

Table C-14 DC and LA Harbor Waters Toxic Pollutants TMDL Final Sediment Metals WQBELs for DC Estuary and Los Angeles Harbor				
Water Body	**Final Effluent Limitations Annual (kg/yr)**			
	Total Cu	**Total Pb**	**Total Zn**	**Total PAHs**
Inner Harbor	1.7	34.0	115.9	0.088
Outer Harbor	0.91	26.1	81.5	0.105
LAR Estuary	35.3	65.7	242.0	2.31

Per Attachment N Part E.3.d of the MS4 Permit, Permittees must comply with final mass-based WQBELs, listed in **Table C-15**, expressed as an annual loading of total DDT and total PCBs in the sediment

deposited to the Dominguez Channel Estuary and Greater Los Angeles (and Long Beach) Harbor Waters by March 23, 2032 and every year thereafter.

Table C-15 DC and LA Harbor Waters Toxic Pollutants TMDL Final Sediment Metals WQBELs for DC Estuary and Los Angeles Harbor

Water Body	Final Effluent Limitations Annual (g/yr)	
	Total DDTs	Total PCBs
Inner Harbor	0.051	0.059
Outer Harbor	0.005	0.020
LAR Estuary	0.100	0.324

Per Attachment N Part E.4, compliance with the limitations specified in Attachment N Part E.3.a-d, listed in **Table C-13** to **Table C-15**, can be determined according to **Table C-16**. The table includes the MS4 Permit Part, which specifies the WQBELs associated with the DC and LA Harbor Waters Toxic Pollutants TMDL, the Table Reference for which the limitations are specified within this document and the various compliance determination methods.

Table C-16 DC and LA Harbor Waters Toxic Pollutants TMDL Compliance Determination

MS4 Permit Section[1]	Table Reference	Compliance Determination
Part E.2.b	**Table C-13**	i. Demonstrate that the sediment quality condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Objectives (SQO) Part 1 is met. ii. Meet the interim WQBELs in bed sediment over a three-year averaging period. iii. Meet the interim WQBELs in the discharge over a three-year averaging period.
		ii. California Toxics Rule (CTR) total metals criteria are met instream.
Parts E.3.c.i and E.3.c.ii	**Table C-14**	i. Final WQBELs for pollutants in the sediment are met ii. The qualitative sediment conditions of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiples lines of evidence as defined in the SQO Part 1, is met, with the exception of chromium, which is not included in the SQO Part 1. iii. Sediment numeric targets are met in the bed sediments over a three-year averaging period.
Part E.3.d	**Table C-15**	i. Fish tissue targets are met in species resident to the specified waterbodies[2].
		ii. Final WQBELs for pollutants in the sediment are met.

[1] Attachment N of the MS4 Permit

[2] A site-specific study to determine resident species should be submitted to the Regional Board Executive Officer for approval

San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL

The San Gabriel River (SGR) Metals and Impaired Tributaries Metals and Selenium TMDL (SGR Metals TMDL) was established by the USEPA, approved on March 26, 2007. On June 6, 2013, the SWRCB amended the Basin Plan with Resolution No. R13-004 to "Incorporate Implementation Plans for the TMDLs for Metals in the Los Cerritos Channel and for Metals and Selenium in the San Gabriel River and Impaired Tributaries." The USEPA-established TMDL includes Problem Statements, Numeric Targets, Source Analysis, Loading Capacities, Load Allocations, Waste Load Allocations, and Margins of Safety. However, an implementation plan or schedules to achieve WLAs is not considered a required element of USEPA established TMDLs, therefore the SWRCB approved this resolution.

Pursuant to Part VI.E.3 of the MS4 Permit, Permittees are encouraged to incorporate WLAs established in USEPA TMDLs in the EWMP development process in order to establish a schedule for implementation, which in this case, the EWMP itself will fulfill the implementation plan requirements. Per Attachment P Part A.2 of the MS4 Permit, the grouped wet-weather WLAs relevant to the RH/SGRWQG, expressed as total recoverable metals, are summarized in **Table C-17**. In SGR Reach 2, wet-weather TMDLs apply when the maximum daily flow of the river is equal to or greater than 260 cfs as measured at the United States Geological Survey (USGS) station 11085000, located at the bottom of Reach 3 just above Whittier Narrows Dam. Per Attachment P Part A.3 of the MS4 Permit, the grouped dry-weather WLAs relevant to the RH/SGRWQG, expressed as total recoverable metals, are summarized in **Table C-18**. The wet- and dry-weather WLAs are group-based and shared among all MS4 Permittees, which includes Los Angeles MS4 Permittees, the City of Long Beach, Orange County MS4 Permittees, and Caltrans located within the drainage area.

Table C-17 SGR Metals TMDL Grouped Wet-Weather WLAs as Total Recoverable Metals

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
SGR Reach 2	---	8.34 µg/L x daily storm volume (L)	---

Table C-18 SGR Metals TMDL Grouped Dry-Weather WLAs as Total Recoverable Metals

Water Body	WLA Daily Maximum	
	Copper	Selenium
SGR Reach 1	18 µg/L	---
SGR Estuary	3.7 µg/L	---

Los Angeles Area Lakes TMDLs

The Los Angeles Area Lakes TMDL was established by the USEPA, approved March 26, 2012. This TMDL is essentially a compilation of various Lake TMDLs in Los Angeles County. Within the USEPA TMDL, WLAs are established for both Peck Road Park Lake and Santa Fe Dam Park Lake, however only load allocations for Peck Road Park Lake are included in the MS4 Permit and are summarized herein. Pursuant to Part VI.E.3 of the MS4 Permit, Permittees are encouraged to incorporate WLAs established in USEPA TMDLs in the EWMP development process in order to establish a schedule for implementation, which in this case, the EWMP itself will fulfill the implementation plan requirements.

Peck Road Park Lake Nutrient TMDL

Per Attachment O Part G.8, Peck Road Park Lake is subject to nutrient WLAs and the RH/SGRWQG members must comply with the annual mass-based allocations dependent on current flow conditions summarized in **Table C-19**.

Table C-19 Peck Road Park Lake - Nutrient Load Allocations

Permittee	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Eastern Subwatershed		
Arcadia	383	2,320
Bradbury	497	3,223
Duarte	1,540	9,616
Monrovia	6,243	38,736
County of Los Angeles	129	773
Near Lake Subwatershed		
Arcadia	158	1,115
Monrovia	60.4	415
County of Los Angeles	129	773
Western Subwatershed		
Arcadia	2,840	16,334
Monrovia	425	2,678
Sierra Madre	695	4,254
County of Los Angeles	467	2,818

Measured at the point of discharge using a three-year average. Mass-based allocations are equivalent to existing concentrations of 0.076 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.76 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

Per Attachment O. Part G.8.d of the MS4 Permit, if the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll a target of 20 µg/L as a summer average (May-September) and as an annual average is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

Peck Road Park Lake PCBs TMDL

Per Attachment O Part G.9, Peck Road Park Lake is subject to WLAs associated with PCBs. Part G.9.c specifies applicable WLAs and Part G.9.d specifies Permittees may comply with alternative WLAs upon approval by the Regional Board based upon documentation that the fish target of 3.6 parts per billion wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 millimeters in length. Documentation must be submitted to the Regional Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Regional Board so long as the USEPA does not object within 60 days. **Table C-20** summarizes the current and alternative WLAs.

Table C-20 Peck Road Park Lake - PCB Load Allocations

Permittee	WLAs[1]		Alternative WLAs[2]	
	Total PCBs (Suspended Sediment) (µg/kg dry weight)	Total PCBs in Water Column (ng/L)	Total PCBs (Suspended Sediment) (µg/kg dry weight)	Total PCBs in Water Column (ng/L)[4]
Eastern Subwatershed				
Arcadia	1.29	0.17	59.8	0.17
Bradbury	1.29	0.17	59.8	0.17
Duarte	1.29	0.17	59.8	0.17
Monrovia	1.29	0.17	59.8	0.17
County of Los Angeles	1.29	0.17	59.8	0.17
Near Lake Subwatershed				
Arcadia	1.29	0.17	59.8	0.17
Monrovia	1.29	0.17	59.8	0.17
County of Los Angeles	1.29	0.17	59.8	0.17
Western Subwatershed				
Arcadia	1.29	0.17	59.8	0.17
Monrovia	1.29	0.17	59.8	0.17
Sierra Madre	1.29	0.17	59.8	0.17
County of Los Angeles	1.29	0.17	59.8	0.17

1 Measured at the point of discharge. Applied as an annual average.
2 Measured at the point of discharge.
3 Applied as a three-year average.
4 Applied as an annual average.

Peck Road Park Lake Chlordane TMDL

Per Attachment O Part G.10, Peck Road Park Lake is subject to WLAs associated with chlordane. Part G.10.c specifies applicable WLAs and Part G.10.d specifies Permittees may comply with alternative WLAs upon approval by the Regional Board based upon documentation that the fish target of 5.6 parts per billion wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 millimeters in length. Documentation must be submitted to the Regional Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Regional Board so long as the USEPA does not object within 60 days. **Table C-21** summarizes the current and alternative WLAs.

Table C-21 Peck Road Park Lake - Chlordane Load Allocations

Permittee	WLAs[1]		Alternative WLAs[2]	
	Total Chlordane (Suspended Sediment) (µg/kg dry weight)	Total Chlordane in Water Column (ng/L)	Total Chlordane (Suspended Sediment) (µg/kg dry weight)	Total Chlordane in Water Column (ng/L)
Eastern Subwatershed				
Arcadia	1.73	0.59	3.24	0.59
Bradbury	1.73	0.59	3.24	0.59
Duarte	1.73	0.59	3.24	0.59
Monrovia	1.73	0.59	3.24	0.59
County of Los Angeles	1.73	0.59	3.24	0.59
Near Lake Subwatershed				
Arcadia	1.73	0.59	3.24	0.59
Monrovia	1.73	0.59	3.24	0.59
County of Los Angeles	1.73	0.59	3.24	0.59
Western Subwatershed				
Arcadia	1.73	0.59	3.24	0.59
Monrovia	1.73	0.59	3.24	0.59
Sierra Madre	1.73	0.59	3.24	0.59
County of Los Angeles	1.73	0.59	3.24	0.59

1 Measured at the point of discharge. Applied as an annual average.
2 Measured at the point of discharge.
3 Applied as a three-year average.
4 Applied as an annual average.

Peck Road Park Lake DDT TMDL

Per Attachment O Part G.11, Peck Road Park Lake is subject to DDT WLAs and the allocations applicable to the RH/SGRWQG members are summarized in **Table C-22**.

Table C-22 Peck Road Park Lake - DDT Load Allocations

Permittee	Total DDT (Suspended Sediment) (µg/kg dry weight)	4-4' DDT in Water Column (ng/L)
Eastern Subwatershed		
Arcadia	5.28	0.59
Bradbury	5.28	0.59
Duarte	5.28	0.59
Monrovia	5.28	0.59
County of Los Angeles	5.28	0.59
Near Lake Subwatershed		
Arcadia	5.28	0.59
Monrovia	5.28	0.59
County of Los Angeles	5.28	0.59
Western Subwatershed		
Arcadia	5.28	0.59
Monrovia	5.28	0.59
Sierra Madre	5.28	0.59
County of Los Angeles	5.28	0.59

Measured at the point of discharge using a three-year average. Mass-based allocations are equivalent to existing concentrations of 0.076 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.76 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

Peck Road Park Lake Dieldrin TMDL

Per Attachment O Part G.12, Peck Road Park Lake is subject to WLAs associated with dieldrin. Part G.12.c specifies applicable WLAs and Part G.12.d specifies Permittees may comply with alternative WLAs upon approval by the Regional Board based upon documentation that the fish target of 0.46 parts per billion wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 millimeters in length. Documentation must be submitted to the Regional Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Regional Board so long as the USEPA does not object within 60 days. **Table C-23** summarizes the current and alternative WLAs.

Table C-23 Peck Road Park Lake - Dieldrin Load Allocations

Permittee	WLAs[1]		Alternative WLAs[2]	
	Dieldrin (Suspended Sediment) (µg/kg dry weight)	Dieldrin in Water Column (ng/L)	Dieldrin (Suspended Sediment) (µg/kg dry weight)	Dieldrin in Water Column (ng/L)
Eastern Subwatershed				
Arcadia	0.43	0.14	1.90	0.14
Bradbury	0.43	0.14	1.90	0.14
Duarte	0.43	0.14	1.90	0.14
Monrovia	0.43	0.14	1.90	0.14
County of Los Angeles	0.43	0.14	1.90	0.14
Near Lake Subwatershed				
Arcadia	0.43	0.14	1.90	0.14
Monrovia	0.43	0.14	1.90	0.14
County of Los Angeles	0.43	0.14	1.90	0.14
Western Subwatershed				
Arcadia	0.43	0.14	1.90	0.14
Monrovia	0.43	0.14	1.90	0.14
Sierra Madre	0.43	0.14	1.90	0.14
County of Los Angeles	0.43	0.14	1.90	0.14

[1] Measured at the point of discharge. Applied as an annual average.
[2] Measured at the point of discharge.
[3] Applied as a three-year average.
[4] Applied as an annual average.

Peck Road Park Lake Trash TMDL

Per Attachment O Part G.13, Peck Road Park Lake is subject to Trash WLAs and the allocations. The Cities of Arcadia, Bradbury, Duarte, Monrovia, and Sierra Madre and the County of Los Angeles must comply with a zero trash WLA.

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Attachment D

Supporting Information for Receiving Water Analysis

This attachment summarizes the key findings from the receiving water data analysis relevant to the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) in determining applicable water quality priorities, corresponding with **Section 2.1.1** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP).

Summary of Key Findings of Receiving Water Data Analysis

The following provides a summary of key findings from the receiving water data analysis. It is not intended to be a detailed discussion of all the results of the data analysis, instead, the summary highlights outcomes of the data analysis that may affect the constituents addressed by the EWMP and/or the way the EWMP will approach addressing the constituent. For example, some constituents addressed by the Los Angeles River Metals TMDL appear to exceed less frequently than in the past and as such, are discussed in this subsection. Conversely, indicator bacteria continue to exceed on a frequent basis and nothing "new" was learned from the data analysis. As such, indicator bacteria are not discussed in this subsection. The key findings are organized as follows:

- Summary of findings related to the Los Angeles River Metals TMDL.
- Summary of findings related to the Los Angeles River Nitrogen TMDL.
- Summary of findings related to the Los Angeles River Bacteria TMDL.
- Summary of findings related to the San Gabriel River Metals and impaired Tributaries Metals and Selenium TMDL.
- Identification of constituents that are not currently on the 303(d) list.

Key findings related to the Los Angeles River Metals TMDL

Over the past five years, copper, lead and zinc exceedances of TMDL targets are infrequent in Rio Hondo Reach 3. Cadmium did not exceed in any of the data reviewed. The following provides a generalized summary of the key findings from comparing the data collected over the past five years to the Metals TMDL targets (note that percentages are rounded) (please see **Table D-1** below for detailed summary):

- Copper: Rarely exceeds in Rio Hondo Reach 3 (6-9%).
- Lead: Rarely exceeds in Rio Hondo Reach 3 (0-3%).
- Zinc: Rarely exceeds in Rio Hondo Reach 3 (0-1%).

Key findings related to the Los Angeles River Nitrogen TMDL

Over the past five years ammonia, nitrate and nitrite have not exceeded the Los Angeles River Nitrogen TMDL targets in Rio Hondo Reach 3. This is likely due to the fact that the primary sources of these constituents (DC Tillman, LA/Glendale, and Burbank WRPs) are not up gradient. The data analysis suggests that ammonia, nitrate and nitrite are not a water quality issue in the watershed. The following provides a generalized summary of the key findings from comparing the data collected over the past five years to the Nitrogen TMDL targets:

- Ammonia as N: Of the 198 samples collected only one exceeded (Rio Hondo Reach 3).
- Nitrate as N: Of the 203 samples collected zero samples exceeded.
- Nitrite as N: Of the 203 samples collected zero samples exceeded.
- Nitrogen (NO_3-N+NO_2-N): Of the 2,465 samples only one exceeded (Rio Hondo Reach 3).

Key findings related to the San Gabriel River Metals and impaired Tributaries Metals and Selenium TMDL

Over the past 5 years copper, lead, and zinc exceedances of TMDL targets are infrequent in the San Gabriel River, with no exceedances occurring in San Gabriel River Reach 5, which is applicable to the RH/SGRWQG. Selenium did not exceed in any of the data reviewed.

Constituents not on the 303(d) List

All water quality data obtained was reviewed for potential exceedances of the water quality objectives. The only constituents identified through the data analysis that had not already been identified through the review of TMDLs, 303(d) listings, and annual monitoring were polycyclic aromatic hydrocarbons (PAHs). Six PAHs were observed at levels exceeding the relevant water quality objectives benzo(a)Pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene). **Table D-1** identifies the constituents by water body and presents the frequency of exceedances over the past five and ten year periods.

Table D-1 Summary of Exceedances

Constituent	All Data (2002-2012)		Past 5 Years (2007 - 2012)		Source of Water Quality Objective
	N	% Exceed	N	% Exceed	
Rio Hondo Reach 3					
Aluminum	0	0%			Basin Plan
Ammonia	1	1%	0	0%	LA River Nutrients TMDL
2,3,7,8-TCDD	0	0%	0	0%	CTR HH Organism
Benzo(a)Pyrene	1	2%	1	9%	CTR HH Organism
Benzo(b)Fluoranthene	2	7%	1	9%	CTR HH Organism
Benzo(k)Fluoranthene	3	6%	2	18%	CTR HH Organism
Bis(2-Ethylhexyl)Phthalate	5	45%			CTR HH Organism
Chloride	3	2%	1	2%	Basin Plan
Chrysene	1	2%	1	9%	CTR HH Organism
Diazinon	6	8%	2	11%	CTR
Dibenzo(a,h)Anthracene	3	6%	2	18%	CTR HH Organism
Copper	11	9%	3	6%	LA River Metals TMDL
Total Dissolved Solids	0	0%	0	0%	Basin Plan
Dissolved Oxygen	82	37%	23	39%	Basin Plan
pH	47	21%	5	10%	Basin Plan
E. coli	43	73%	36	69%	Los Angeles River Bacteria TMDL
Fecal Coliform	158	72%	35	67%	Los Angeles River Bacteria TMDL
Total Coliform	220	100%	52	100%	Basin Plan
Indeno(1,2,3-cd)Pyrene	3	6%	3	33%	CTR HH Organism
Mercury	2	3%	1	2%	CTR HH Organism
N-Nitrosodimethylamine	4	8%	0	0%	CTR

Table D-1 Summary of Exceedances					
Constituent	**All Data (2002-2012)**		**Past 5 Years (2007 - 2012)**		**Source of Water Quality Objective**
	N	**% Exceed**	**N**	**% Exceed**	
Lead	4	3%	0	0%	LA River Metals TMDL
Nitrate	0	0%	0	0%	LA River Nutrients TMDL
Nitrite	0	0%	0	0%	LA River Nutrients TMDL
Total Nitrogen	1	0%	0	0%	LA River Nutrients TMDL
Cyanide	6	7%	0	0%	CTR
Zinc	1	1%	0	0%	LA River Metals TMDL
San Gabriel River Reach 5					
Ammonia	0	0%			Basin Plan
Chloride	0	0%	0	0%	Basin Plan
Copper	1	25%	0	0%	Basin Plan
Total Dissolved Solids	0	0%	0	0%	Basin Plan
pH	0	0%			Basin Plan
Lead	0	0%	0	0%	Basin Plan
Nitrate	0	0%	0	0%	Basin Plan
Nitrite	0	0%			Basin Plan
Selenium	0	0%			Basin Plan
Zinc	0	0%			Basin Plan
San Dimas Wash					
Ammonia	0	0%			Basin Plan
Chloride	0	0%			Basin Plan
Dissolved Oxygen	0	0%			Basin Plan
pH	0	0%			Basin Plan
Nitrate	0	0%			Basin Plan
Nitrite	0	0%			Basin Plan
Big Dalton Wash					
Aluminum	0	0%			Basin Plan
Ammonia	0	0%			Basin Plan
Chloride	0	0%			Basin Plan
Dissolved Oxygen	0	0%			Basin Plan
pH	0	0%			Basin Plan

Attachment E

Regional and Distributed BMP Fact Sheets

This attachment includes Best Management Practice (BMP) Fact Sheets for regional and distributed BMPs that may be implemented by the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) through the Enhanced Watershed Management Program (EWMP) development process, corresponding with **Section 3.1.1** of the RH/SGRWQG EWMP.

Regional BMPs are constructed structural practices intended to treat runoff from a contributing area of multiple parcels (normally on the order of 10s or 100s of acres or larger). Fact Sheets are included for the following regional BMPs:

- Infiltration facilities
- Detention facilities
- Constructed wetlands
- Treatment facilities

Distributed BMPs are constructed structural practices intended to treat runoff relatively close to the source and typically implemented at a single- or few-parcel level (normally less than one acre). Fact Sheets are included for the following distributed BMPs:

- Site-scale detention facilities
- Green infrastructure
- Flow-through treatment BMPs
- Source control structural BMPs

Attachment E Table of Contents

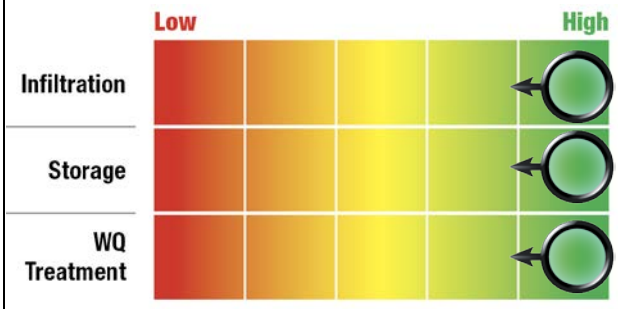
Fact Sheet 1 Infiltration Facilities (Regional BMP)

Infiltration facilities are designed to decrease runoff volume through groundwater recharge and improve water quality through filtration and sorption. Facilities can incorporate engineered medias to improve percolation into native soils. Infiltration facilities can be open-surface basins or subsurface galleries.

Surface Infiltration Basin

Subsurface Infiltration Gallery

BMP Performance Functions



Design Variations

Several design variations include:

- **Surface Infiltration Basins:** depressions designed to infiltrate stormwater into the subgrade soils. Facilities can be vegetated to encourage evapotranspiration and aesthetics.
- **Subsurface Infiltration Galleries:** underground storage systems designed to infiltrate stormwater into subgrade soils. Subsurface systems are used when limited area is available for BMP implementation

Typical Design Components

Figure E-1 presents a typical design and highlights potential design variations:

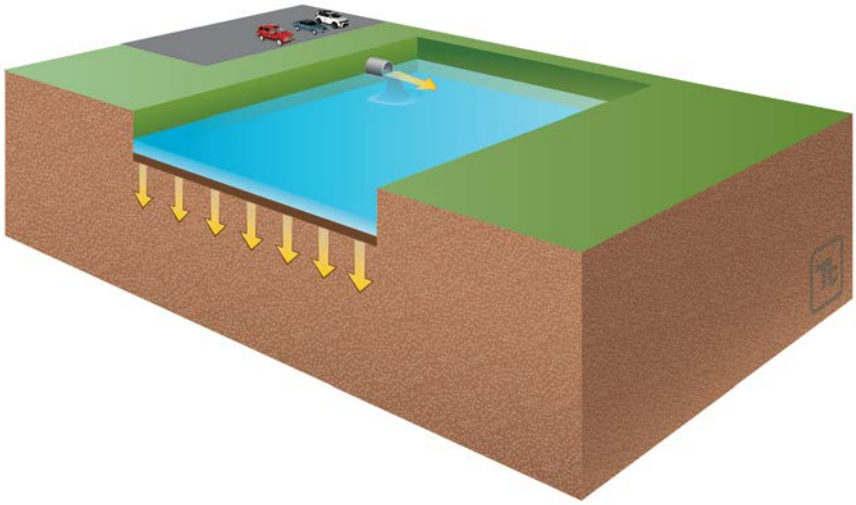


Figure E-1 Typical Regional Infiltration Facility Schematic (arrows indicate water pathways)

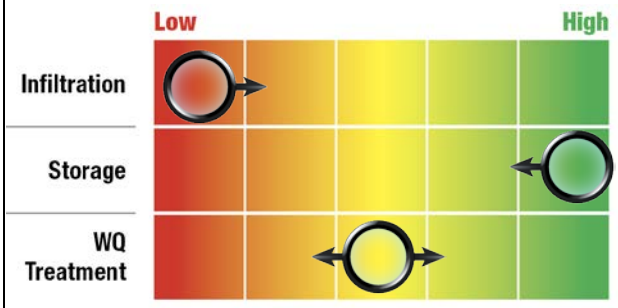
Fact Sheet 2 Detention Facilities (Regional BMP)

Detention facilities are designed to detain runoff and improve water quality through pollutant settling. Facilities encourage settling by decreasing runoff flow rates and allowing ponding to occur. Detention facilities can be open-surface practices or subsurface galleries and can be dry during non-rainy seasons or wet year-round.

Surface Detention Basin

Subsurface Detention Gallery

BMP Performance Functions



Design Variations

Several design variations include:

- **Surface Detention Basins:** basins designed to detain stormwater runoff for a specified time to allow sedimentation of particle-bound pollutants. Surface systems can have permanent pools or fully drain between storms.
- **Subsurface Detention Galleries:** underground storage systems designed to detain stormwater. Subsurface systems are used when limited area is available for BMP implementation.

Typical Design Components

Figure E-2 presents a typical design and highlights potential design variations:

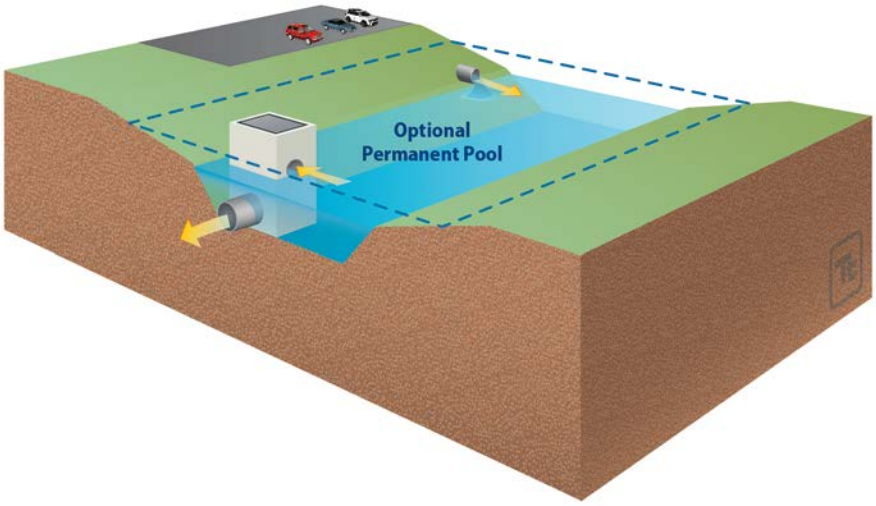


Figure E-2 Typical Regional Detention Facility Schematic (arrows indicate water pathways)

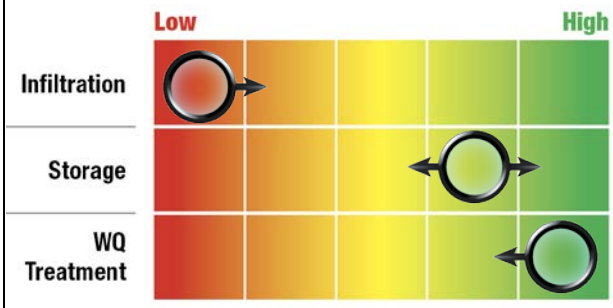
Fact Sheet 3 Constructed Wetlands (Regional BMP)

Constructed wetlands are engineered, shallow-marsh systems designed to control and treat stormwater runoff. Particle-bound pollutants are removed through settling, and other pollutants are removed through biogeochemical activity. Constructed wetlands must always maintain a baseflow into the system, which can come from an intersected groundwater or an associated low-flow diversion utilizing dry-weather flows.

Wetland Basin

Flow-Through/Linear Wetland

BMP Performance Functions



Design Variations

Several design variations include:

- **Wetland Basins:** basins with shallow permanent pools and a temporary shallow ponding zone. An outlet control structure typically regulates dewatering of the temporary storage volume.
- **Flow-through/Linear Wetlands:** wetlands that provide treatment as water passes through a long flow path. These wetlands are typically constructed parallel to existing channels such that water can be easily diverted.

Typical Design Components

Figure E-3 presents a typical design and highlights potential design variations:

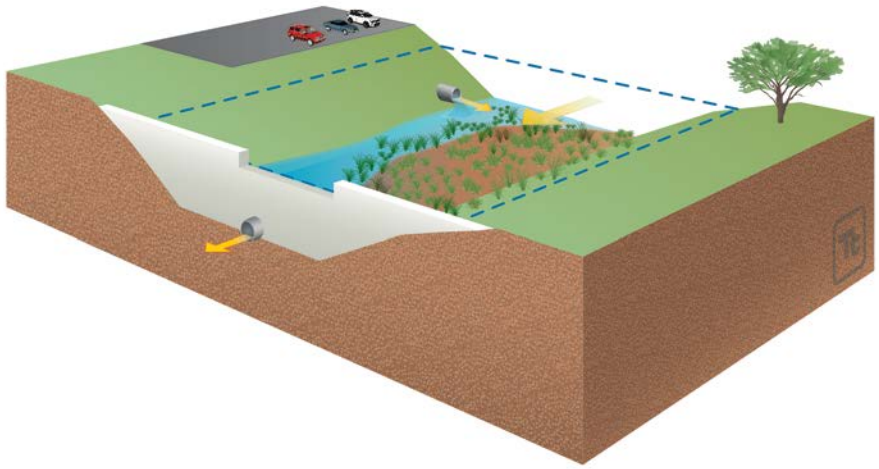


Figure E-3 Typical Regional Constructed Wetland Schematic (arrows indicate water pathways)

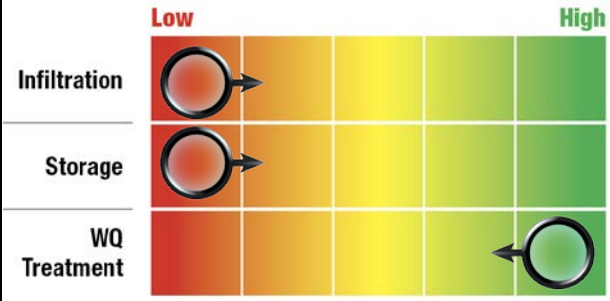
Fact Sheet 4 Treatment Facilities and Low Flow Diversions (Regional BMP)

Other regional water quality technology falls into the treatment facilities and low flow diversions subcategories. These systems typically divert flow from engineered channels to a treatment facility. Water is treated using physical, chemical, or radiological processes and is then returned to the original channel or discharged to the treatment plant outfall.

Treatment Facility

Low-Flow Diversion Dam and Inlet in a Storm Drain

BMP Performance Functions



Design Variations

Several design variations include:

- **Low Flow Diversion:** a design flow rate (typically dry-weather flow) is diverted from the storm drain to a sanitary sewer for treatment.
- **Treatment and Return:** water is pumped or conveyed by gravity from a channel to a small-scale wastewater treatment facility where it is treated and discharged back into the original channel. Sometimes a portion of treated water can be diverted for reuse.

Typical Design Components

Figure E-4 presents a typical design and highlights potential design variations:

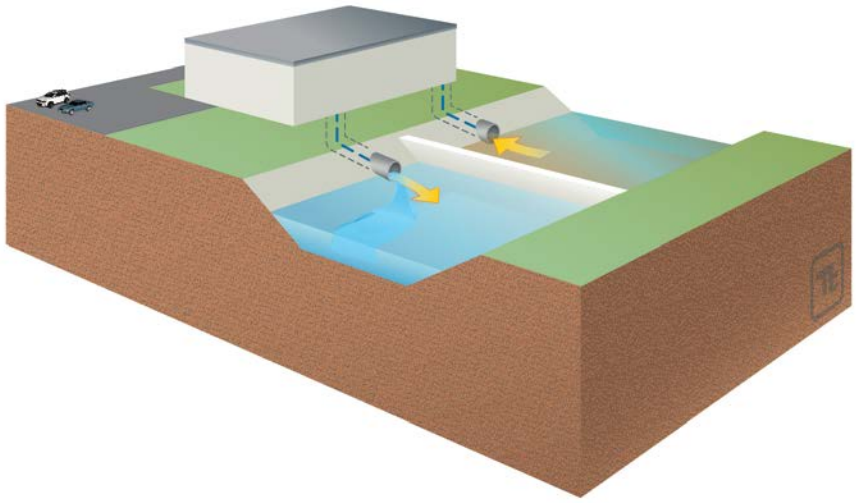


Figure E-4 Typical Regional Treatment Facility Schematic (arrows indicate water pathways)

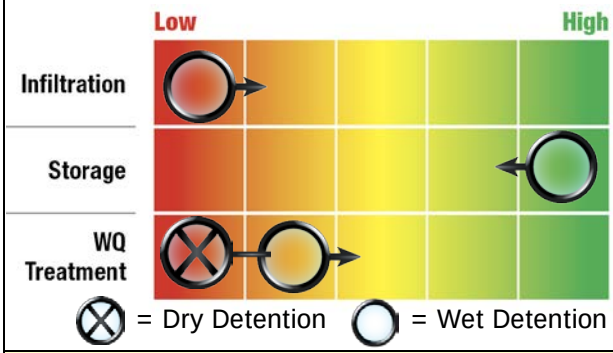
Fact Sheet 5 Site Scale Detention (Distributed BMP)

Site-scale detention facilities are designed to detain runoff from an individual parcel and improve water quality through pollutant settling. Site-scale detention facilities can reduce peak flows and improve water quality by storing water in a basin before slowly draining the water through an orifice to the downstream waterway. Settling of sediment and sediment-bound pollutants is the primary pollutant removal mechanism.

Dry Detention Basin

Wet Detention Pond

BMP Performance Functions



Design Variations

Several design variations include:

- **Dry Detention Basins:** runoff ponds on the basin surface and fully drains between storm events. The drawdown orifice is located at the bottom of the basin.
- **Wet Detention Pond:** runoff is captured in a temporary storage zone above a permanent pool. The drawdown orifice sets the depth of the permanent pool.
- **Detention Chambers:** subsurface chambers or vaults designed to detain captured runoff.

Typical Design Components

Figure E-5 presents a typical design and highlights potential design variations:

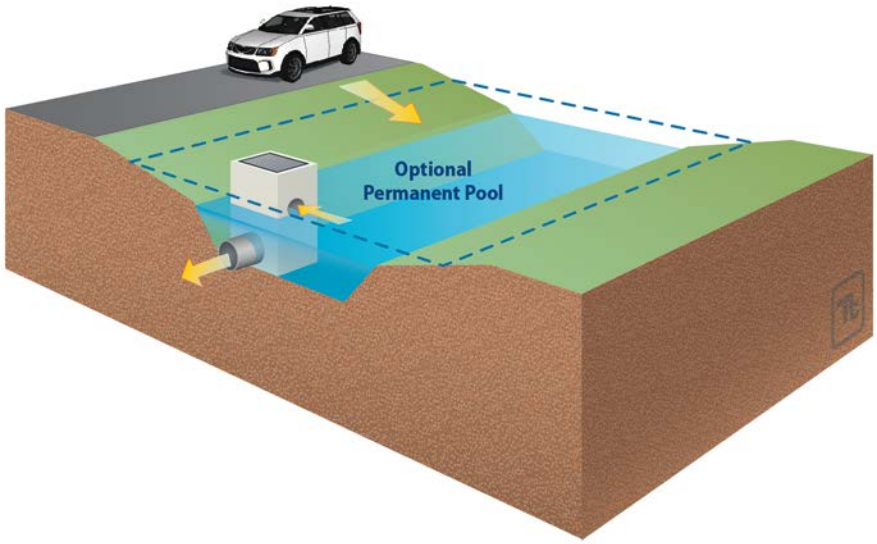


Figure E-5 Typical Distributed Detention Schematic (arrows indicate water pathways)

Fact Sheet 6 Bioretention and Biofiltration (Green Infrastructure BMP)

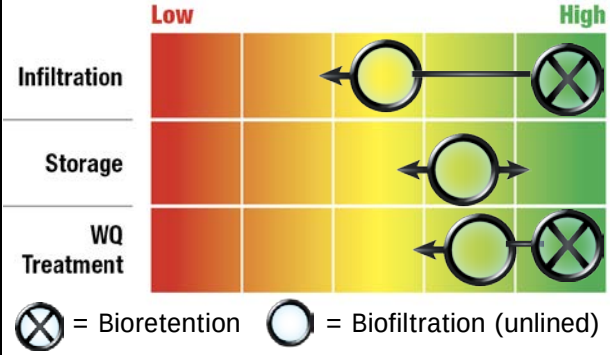
Bioretention and biofiltration are vegetated BMPs designed to capture and filter stormwater runoff through a soil layer. Following filtration, treated runoff infiltrates underlying soils (bioretention), or, if the subgrade has poor permeability, exits through an underdrain to the downstream conveyance network (biofiltration). Vegetation can enhance biological treatment processes.

Residential Bioretention

Bioretention in an Alley

Parking Lot Biofiltration

BMP Performance Functions



Design Variations

Several design variations include:

- **Bioretention:** shallow, depressed, vegetated basins with permeable soil media. Runoff temporarily ponds on the surface before filtering through the soil. Bioretention does not include underdrains.
- **Biofiltration:** bioretention areas with underdrains. Infiltration is considered incidental, although substantial infiltration can occur in some unlined systems.

Typical Design Components

Figure E-6 presents a typical design and highlights potential design variations:

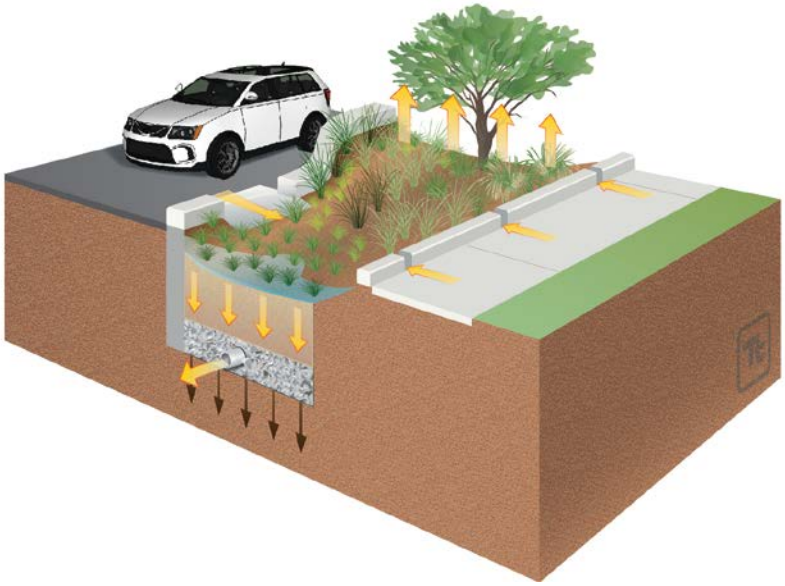


Figure E-6 Typical Distributed Bioretention and Biofiltration Schematic Showing Underdrain Option (arrows indicate water pathways)

Fact Sheet 7 Permeable Pavement (Green Infrastructure BMP)

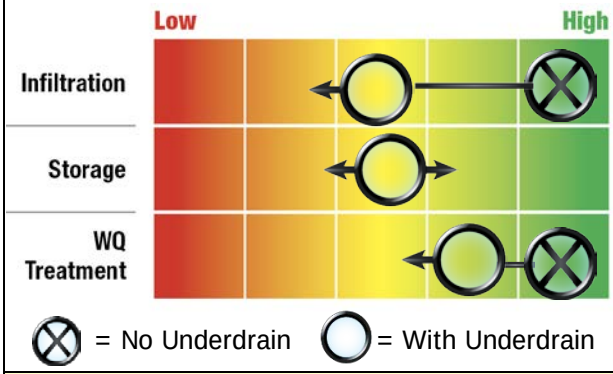
Permeable pavement is a stable load-bearing surface that allows for stormwater infiltration. Beneath the permeable surface is a crushed-rock reservoir that provides structural support while allowing runoff to percolate to the underlying soils. Permeable pavement can be fully infiltrating or can have an underdrain like bioretention and biofiltration practices.

Pervious Concrete

Permeable Interlocking

Porous Asphalt

BMP Performance Functions



Design Variations

Several design variations include:

- **Pervious Concrete:** fines are excluded from typical concrete aggregate to create permeable void space within the section.
- **Porous Asphalt:** fines are excluded from typical hot-mix asphalt to create pores within the section.
- **Permeable Interlocking Concrete Pavers:** pavers that allow infiltration of rainwater through joints between the blocks

Typical Design Components

Figure E-7 presents a typical design and highlights potential design variations:

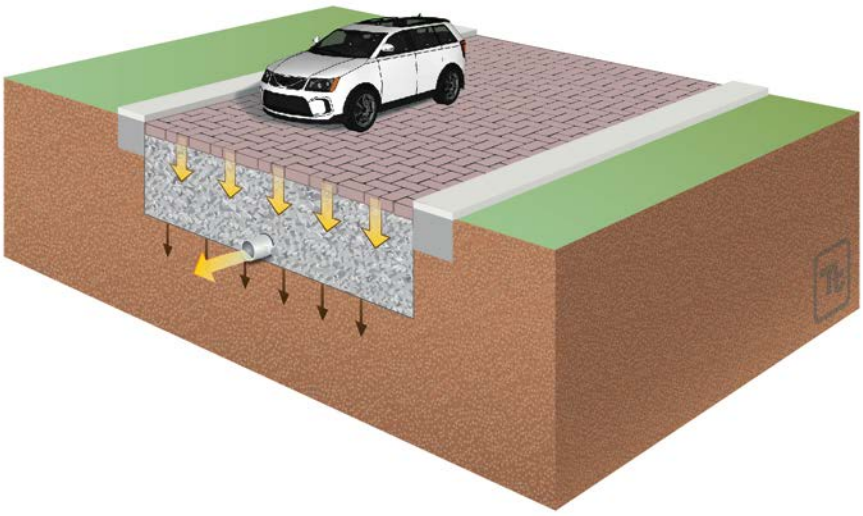


Figure E-7 Typical Distributed Permeable Pavement Schematic Showing Underdrain Option (arrows indicate water pathways)

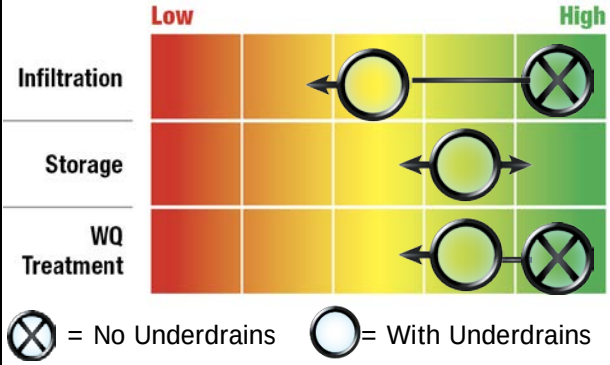
Fact Sheet 8 Green Streets (Green Infrastructure BMP)

Green streets are systems of multiple BMPs arranged in a linear fashion within the street right-of-way (as opposed to a parcel-based implementation). Green streets are designed to reduce runoff and improve water quality for the runoff from the roadway and adjacent parcels. Bioretention, biofiltration, and permeable pavement BMPs are commonly used in conjunction and can be hydraulically connected using subsurface stone reservoirs.

Green Street

Green Street

BMP Performance Functions



Design Variations

Green streets can feature several design variations. Some common features include:

- **Linear Bioretention/Biofiltration:** BMPs can be incorporated as linear systems between the road and parcel to intercept runoff from both roadways and properties.
- **Curb Extensions:** bioretention/ biofiltration BMP "bumpouts" can intercept gutter flow.
- **Permeable Parking Lanes:** street parking can be designed with permeable pavement to intercept roadway runoff.

Typical Design Components

Figure E-8 presents a typical design and highlights potential design variations:

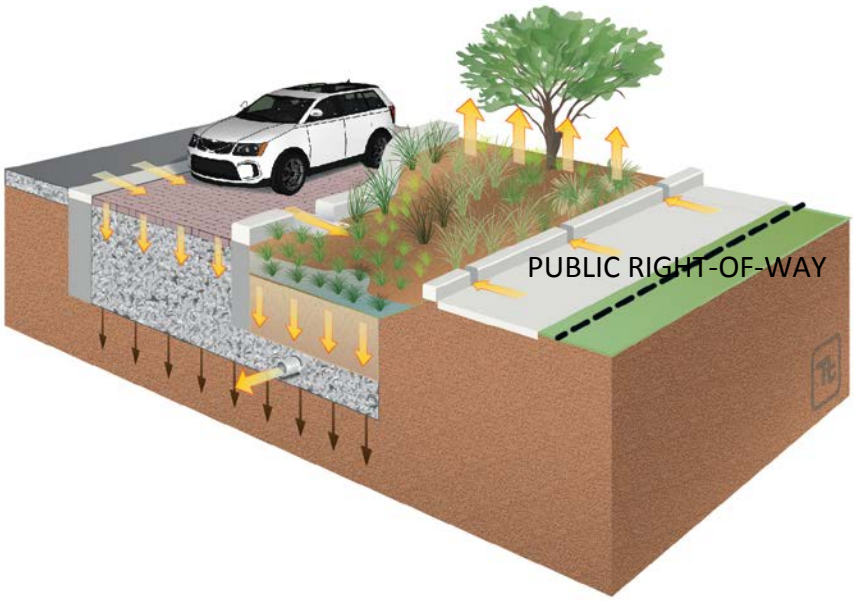


Figure E-8 Typical Distributed Green Street Schematic (arrows indicate water pathways)

Fact Sheet 9 Infiltration BMPs (Green Infrastructure BMP)

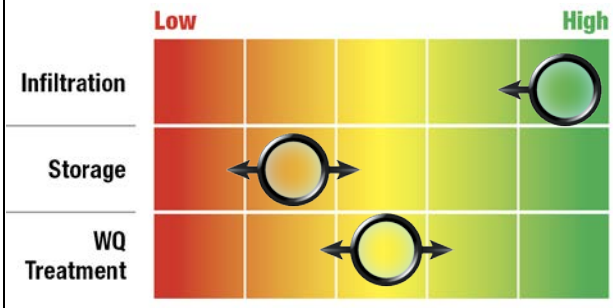
Infiltration BMPs capture and infiltrate runoff into underlying soils. Runoff is typically stored in subsurface trenches or pits filled with engineered soil media, gravel, or concrete chambers. Some infiltration BMPs that inject water into subsurface reservoirs are considered Class V injection wells and must be registered as such. Infiltration BMPs are unvegetated (see Bioretention for vegetated practices).

Various Dry-Well Sizes(Source: www.peerlessconcrete.com)

Infiltration Trench

Infiltration Trench

BMP Performance Functions



Design Variations

Several design variations include:

- **Infiltration Trench:** a media-filled trench that captures runoff in the pore space of gravel or soil prior to infiltration.
- **Dry/Wet Well:** a gravel-surrounded vault with perforated walls that receives runoff from a pipe and allows direct infiltration into the ground.
- **Rock Well:** a gravel-filled pit that receives runoff from a pipe. This BMP is essentially a dry well without a concrete vault.

Typical Design Components

Figure E-9 presents a typical design and highlights potential design variations:

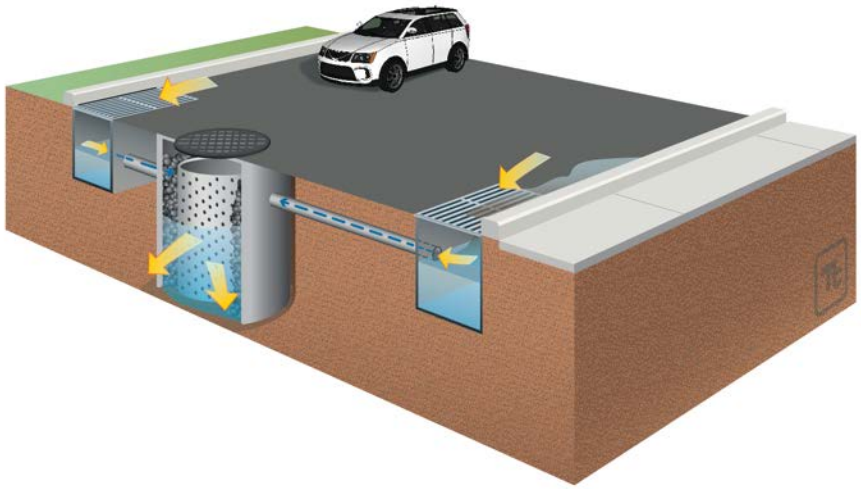
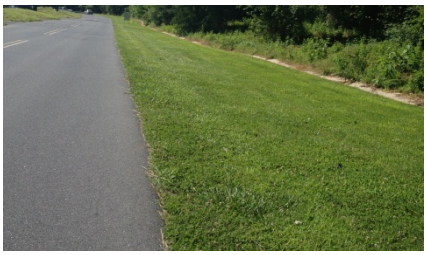


Figure E-9 Typical Distributed Infiltration BMP Schematic Showing Perforated Concrete Dry Well Variation (arrows indicate water pathways; for infiltration trenches, see Figure B-2 and omit vegetation)

Fact Sheet 10 Bioswales (Green Infrastructure BMP)

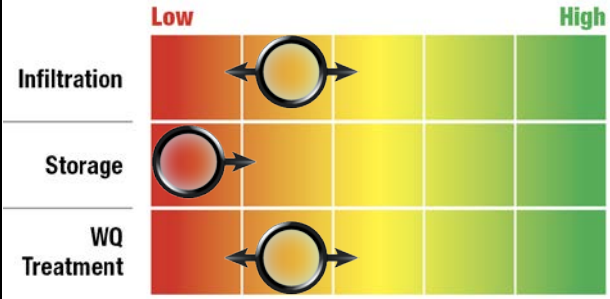
Bioswales are practices that convey uniform sheet flow through vegetated, shallow depressions to remove sediment-associated pollutants by settling and straining. Infiltration and filtration through soil media are not key components of bioswales; rather, bioswales are typically implemented to act as pretreatment and used to transport runoff to an associated structural BMP.

Vegetated Swale



Vegetative Filter Strip

BMP Performance Functions



Design Variations

Several design variations include:

- **Vegetated Swale:** linear, vegetated channels used to convey concentrated flow from the contributing area to a structural BMP. Check dams can be added in areas of steep slopes or to further decrease the flow rates and spread the runoff over a larger area.
- **Vegetative Filter Strip:** broad-sloped, vegetated areas used to convey sheet flow from the contributing area to a structural BMP or other conveyance channel.

Typical Design Components

Figure E-10 presents a typical design and highlights potential design variations:

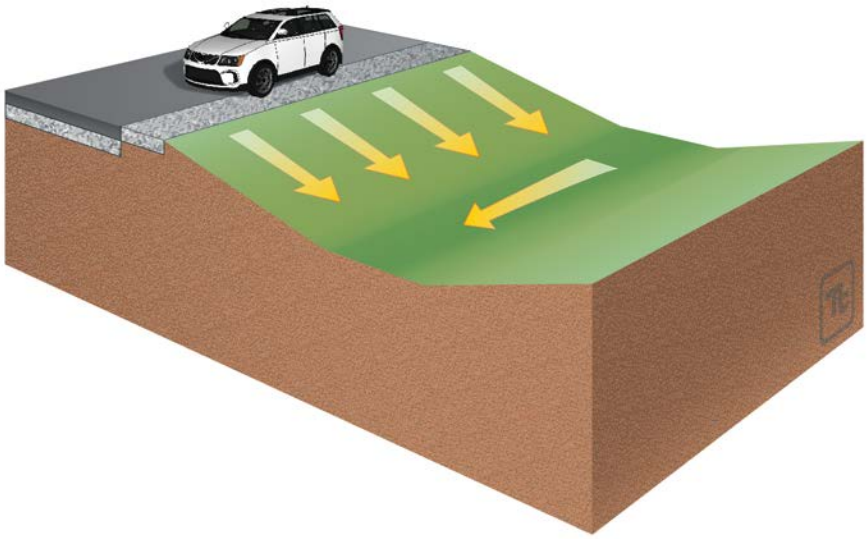


Figure E-10 Typical Distributed Bioswale Schematic (arrows indicate water pathways)

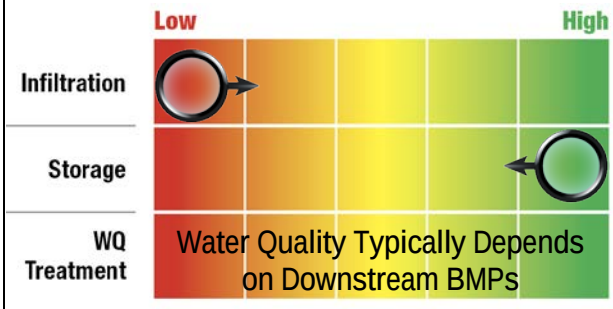
Fact Sheet 11 Rainfall Harvest (Green Infrastructure BMP)

The primary goal for rainfall harvest is improving water quality by intercepting rooftop runoff and lowering the overall impervious impact of a developed site. Runoff can be reduced through interception and evapotranspiration on green roofs or used for alternative uses with a cistern or rain barrel.

Green Roof

Cistern

BMP Performance Functions



Design Variations

Several design variations include:

- **Green Roof:** engineered, vegetated roof structures intended to intercept rainfall in a growing medium. Rooftop detention can be incorporated if structures allow.
- **Cisterns and Rain Barrels:** storage tanks used to intercept and store rooftop runoff. Captured runoff can be reused to offset non-potable water uses such as irrigation and toilet flushing. Alternatively, stored water can be slowly released to a pervious surface.

Typical Design Components

Figure E-11 presents a typical design and highlights potential design variations:

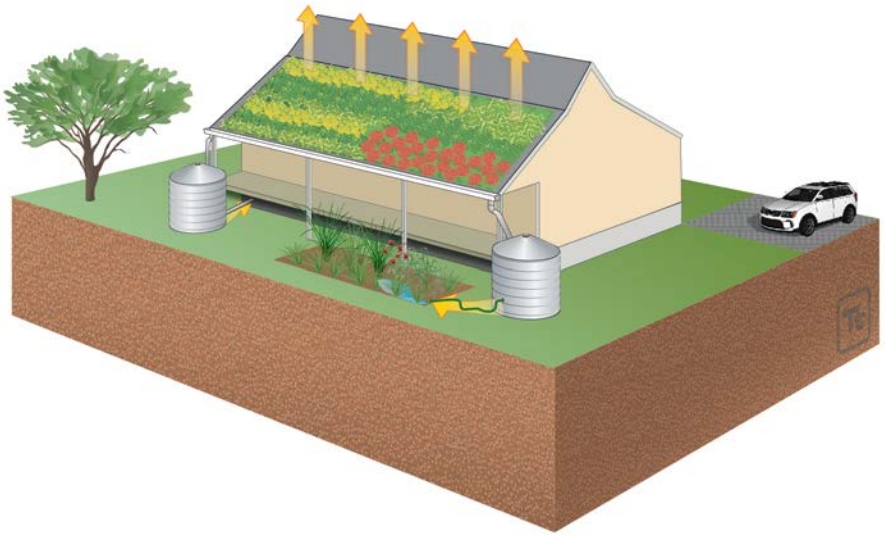


Figure E-11 Typical Distributed Rainfall Harvest Schematic (arrows indicate water pathways)

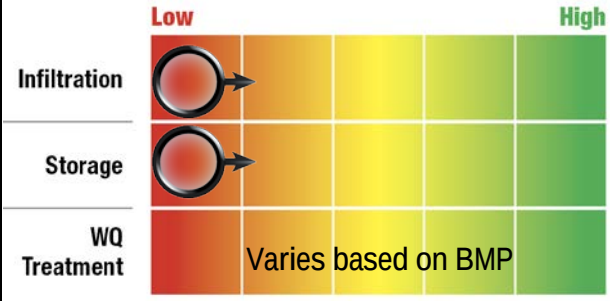
Fact Sheet 12 Flow-Through Treatment BMP (Distributed BMP)

Manufactured flow-through devices are commercial products that aim to provide stormwater treatment using patented, innovative technologies. Typical types of manufactured devices for stormwater management include cartridge filters, media filters, and high-flow biotreatment devices.

Media/Cartridge Filter

High-Flow Biotreatment (Photo Source: Jonathan Page, NCSU-BAE)

BMP Performance Functions



Design Variations

Several design variations include:

- **Media/Cartridge Filters:** proprietary filtration devices used to remove pollutants.
- **High-Flow Biotreatment Device:** modular, vault-type practices containing high-flow media. Typically incorporate vegetation.

Typical Design Components

Figure E-12 presents a typical design and highlights potential design variations:

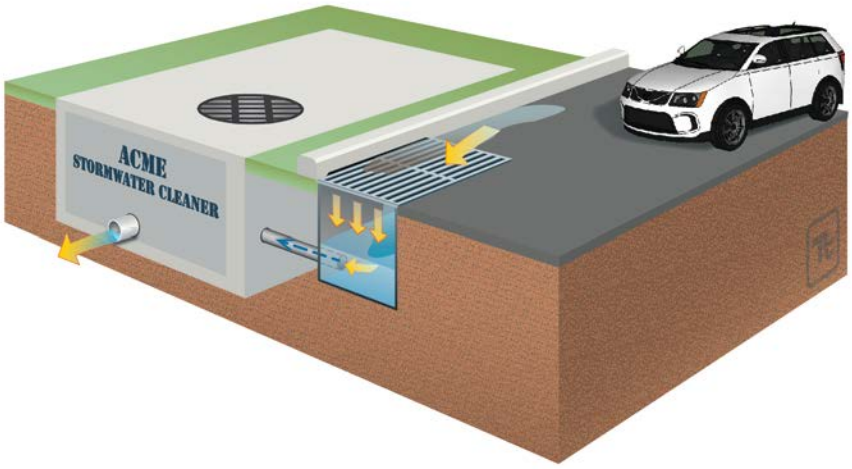


Figure E-12 Typical Distributed Flow-Through Treatment BMP Schematic (arrows indicate water pathways)

Fact Sheet 13 Source Control Structural BMP (Distributed BMP)

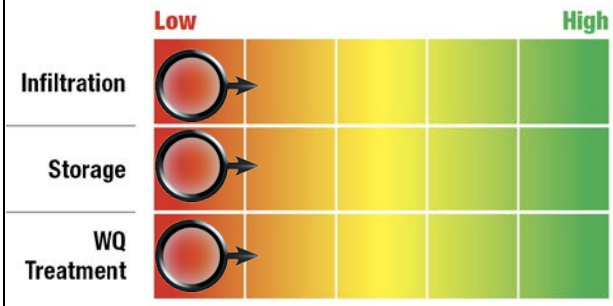
Source control structural BMPs are commercial products designed to treat runoff in highly urbanized environments. Mechanical separation, or more complex physicochemical processes, provides separation of gross solids and other pollutants. Many models feature media or materials designed to sequester hydrocarbons and other pollutants.

Catch Basin Insert

Hydrodynamic Separator

Connector Pipe Screen

BMP Performance Functions



Design Variations

Several design variations include:

- **Hydrodynamic Separators:** mechanical devices that use screens, baffles, and/or vortical flow to separate sediment and gross solids.
- **Catch Basin Inserts:** inserts that use nets, screens, fabric, and/or filtration media to gross solids, fine sediments, oils, and/or grease from runoff entering a catch basin.

Typical Design Components

Figure E-13 presents a typical design and highlights potential design variations:

Figure E-13 Typical Distributed Source Control Structural BMP Schematic (arrows indicate water pathways)

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Attachment F

Detailed List of Existing Regional BMPs

This attachment includes a table summarizing the regional Best Management Practice (BMP) projects identified in planning documents within the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), corresponding with **Section 3.2.2** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP). The BMPs listed in the table are illustrated in **Figure 3-7** of the EWMP.

Table F-1 Existing Regional Projects

ID	Project Name	Jurisdiction	Location	Description	Sources[1]	Notes
Within RH/SGRWQG EWMP Area						
R1	Rio Hondo Trail Enhancements	Arcadia	Rio Hondo Trail	Greening and installation of new gates and signage along 2.1 miles of trail located on the east bank of the Rio Hondo River from Lower Azusa Road to Peck Water Conservation Park. Planting native plants and shrubs, permeable paving and bioswales to be installed.	1	Completed 2013
R2	Rosemead Boulevard Improvement Project	County Unincorporated Area	Rosemead Boulevard from Foothill Boulevard to the City of Temple City limits	Complete a major road upgrade and revitalization for 2.5 miles of Rosemead Boulevard. Project to include pavement reconstruction and resurfacing, new curb ramps and sidewalks, and sustainable parkways.	2	Project discussed at 12/12/13 meeting. Completed February 2012
R3	San Gabriel Canyon Forest Gateway	Azusa	Sierra Madre Avenue and San Gabriel Canyon Road	The San Gabriel Canyon Forest Gateway is a 2.5 acre pocket park and interpretive center in Azusa that provides a unique interface between urban and Angeles National Forest environments marking the entrance to the National Forest.	1	Completed 2008

[1] Sources: 1: (Amigos de los Rios) and 2: (Green Street, 2013)

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Attachment G

Detailed List of Existing Distributed BMPs

This attachment includes tables summarizing the existing distributed Best Management Practices (BMPs) implemented by the Rio Hondo/San Gabriel River Water Quality Management Group (RH/SGRWQG), corresponding with **Section 3.2.2** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP). Most of these projects correspond to distributed BMPs implemented in response to Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID) requirements. The projects listed in the table are illustrated in **Figure 3-8** in the Work Plan.

Table G-1 Detailed List of Existing Distributed BMPs in RH/SGRWQG EWMP Area

ID	Jurisdiction	Data Source	BMP Subcategory	BMP	Latitude	Longitude	Purpose	Install Date	Approval Date (SUSMP)	Maintenance	Comments
D1	Arcadia	DR	Unk	Other (see comments)	34.1314	-118.04628		8/13/2012			APN5775024913
D2	Arcadia	LA Layer	RH	Rain Barrel	34.12317	-118.06461					Temple City Blvd
D3	Arcadia	LA Layer	RH	Rain Barrel	34.12074	-118.06337					Camino Real Ave
D4	Arcadia	LA Layer	SC	Landscaping and Irrigation	34.1081	-118.01552					Santa Anita Ave
D5	Azusa	LA Layer	RH	Rain Garden	34.11925	-117.88199					8th Ave
D6	Azusa	SUSMP	SC	3 Filter Inserts	34.15278	-118.03244	SUSMP		12/16/2005		Vision Development
D7	Azusa	SUSMP	SC	16 Filter Inserts	34.1317	-118.0286	SUSMP		1/24/2006		Villa Firenze
D8	Azusa	SUSMP	SC	5 Filter Inserts	34.14191	-118.02866	SUSMP		7/5/2006		Arcadia Fitness Center
D9	Azusa	SUSMP	SC	1 Filter Insert	34.10399	-118.00667	SUSMP		7/18/2006		Foothill Transit
D10	Azusa	SUSMP	SC	2 Filter Inserts	34.10787	-118.05179	SUSMP		7/25/2006		Arco AM/PM
D11	Azusa	SUSMP	SC	2 Drywells and 1 CDS	34.13449	-118.04212	SUSMP		7/25/2006		Methodist Hospital SoCal Parking Structure
D12	Azusa	SUSMP	SC	5 Filter Inserts and 1 CDS	34.13449	-118.04212	SUSMP		7/28/2006		Methodist Hospital SoCal Education Center
D13	Azusa	SUSMP	SC	1 Filter Insert	34.10673	-118.03197	SUSMP		8/1/2006		Automotive Center
D14	Azusa	SUSMP	Inf	10 Infiltration Trenches and 3 Filter Inserts	34.1333	-118.02451	SUSMP		8/22/2006		12 Unit Condominium
D15	Azusa	SUSMP	Inf	2 Filter Inserts, 2 CDS, 2 Infiltration Basins	34.13488	-118.04865	SUSMP		10/6/2006		Cheesecake Factory
D16	Azusa	SUSMP	Inf	5 Infiltration systems and 5 Filter Inserts	34.1314	-118.06492	SUSMP		10/10/2006		Arcadia Bank

Table G-1 Detailed List of Existing Distributed BMPs in RH/SGRWQG EWMP Area

ID	Jurisdiction	Data Source	BMP Subcategory	BMP	Latitude	Longitude	Purpose	Install Date	Approval Date (SUSMP)	Maintenance	Comments
D17	Azusa	SUSMP	PP	Permeable Pavement and 2 Filter Inserts	34.15155	-118.02343	SUSMP		11/30/2006		Walgreens
D18	Azusa	SUSMP	Inf	1 Infiltration System and 3 Filter Inserts	34.10768	-118.02573	SUSMP		1/23/2007		Walgreens
D19	Azusa	SUSMP	Inf	1 Infiltration System and 1 Filter Insert	34.10607	-118.03323	SUSMP		3/6/2007		Arcadia Warehouse
D20	Azusa	SUSMP	Bio	Swale and Filter Insert	34.12998	-118.03097	SUSMP		6/5/2007		EZ Lube
D21	Azusa	SUSMP	SC	43 Filter Inserts, 1 Infiltration Basin and 1 Swale	34.13591	-118.03922	SUSMP		11/29/2007		Santa Anita Racetrack
D22	Azusa	SUSMP	Unk		34.13449	-118.04212	SUSMP		3/18/2008		Methodist Hospital - North Tower Addition
D23	Azusa	SUSMP	Inf	3 Filter Inserts, 1 Swale, 2 Infiltration Systems	34.13522	-118.02846	SUSMP		4/1/2008		409 S. First Street
D24	Azusa	SUSMP	Unk		34.13603	-118.05056	SUSMP		4/15/2008		Westfield Mall Santa Anita
D25	Azusa	SUSMP	Bio	5 Filter Inserts and 1 Swale	34.132	-118.05056	SUSMP		5/27/2008		Firestation 105
D26	Azusa	SUSMP	Inf	1 Infiltration System and 1 Filter Insert	34.10819	-118.02457	SUSMP		3/10/2009		Live Oak Plaza
D27	Azusa	SUSMP	Inf	1 Infiltration System	34.12426	-118.0155	SUSMP		10/20/2009		Tract 69958

Table G-1 Detailed List of Existing Distributed BMPs in RH/SGRWQG EWMP Area

ID	Jurisdiction	Data Source	BMP Subcategory	BMP	Latitude	Longitude	Purpose	Install Date	Approval Date (SUSMP)	Maintenance	Comments
D28	Azusa	SUSMP	Inf	4 Infiltration Trenches and 1 Filter Insert	34.1558	-118.0638	SUSMP		12/7/2009		Tran Residence
D29	Azusa	SUSMP	Inf	1 Infiltration System and 1 Filter Insert	34.10148	-118.00568	SUSMP		12/30/2009		PSM Properties
D30	Azusa	SUSMP	Inf	7 Filter Inserts and 2 Infiltration Trenches	34.14197	-118.0218	SUSMP		3/25/2010		468 E. Santa Clara Street
D31	Azusa	DR	SC	KRISTAR-SWALEGARD	34.12858	-117.92751					
D32	Duarte	LA Layer	SC	Disconnect Impervious Surfaces	34.12095	-117.99309			7/1/2010		Calmia Rd
D33	Duarte	LA Layer	SC	Disconnect Impervious Surfaces	34.12646	-117.98906			2/22/2010		Mountain Ave
D34	Duarte	LA Layer	Unk	Percolation Basin	34.13793	-117.96627					Highland Ave
D35	Duarte	LA Layer	RH	Rain Garden	34.12602	-117.99098			8/30/2012		Beckville Street
D36	Monrovia	LA Layer	Unk	Other	34.11955	-118.00362			3/18/2013		Brisbane Street
D37	Monrovia	LA Layer	SC	Disconnect Impervious Surfaces	34.11955	-118.00159			6/1/2011		Brisbane Street
D38	Monrovia	SUSMP	Inf	So. Calif Gas – Fueling Station	34.13628	-117.99391	SUSMP	9/28/2010		Yes	Infiltration system
D39	Monrovia	SUSMP	Inf		34.13663	-117.98697	SUSMP	6/3/2010		Yes	Infiltration onsite
D40	Monrovia	SUSMP	Inf	Bowden	34.13897	-118.00599	SUSMP				Infiltration
D41	Monrovia	SUSMP	Inf	Car Wash	34.13965	-117.98463	SUSMP	5/3/2013		Yes	Infiltration onsite
D42	Monrovia	SUSMP	Unk	Chase Bank	34.14028	-118.00689	SUSMP				
D43	Monrovia	SUSMP	Unk		34.14181	-118.00278	SUSMP	7/30/2010		Yes	

Table G-1 Detailed List of Existing Distributed BMPs in RH/SGRWQG EWMP Area

ID	Jurisdiction	Data Source	BMP Subcategory	BMP	Latitude	Longitude	Purpose	Install Date	Approval Date (SUSMP)	Maintenance	Comments
D44	Monrovia	SUSMP	Inf		34.14321	-117.97941	SUSMP	10/21/2010		Yes	Infiltration onsite
D45	Monrovia	SUSMP	Unk	Multi Use Res/Com	34.14389	-117.99985	SUSMP				
D46	Monrovia	SUSMP	Inf		34.1443	-118.01266	SUSMP				Infiltration
D47	Monrovia	SUSMP	Inf		34.14485	-118.01815	SUSMP	4/12/2013		Yes	Infiltration onsite
D48	Monrovia	SUSMP	Inf		34.1451	-118.00222	SUSMP	1/20/2011		Yes	Infiltration system/underground
D49	Monrovia	SUSMP	Unk		34.14558	-118.00229	SUSMP	10/18/2012		Yes	
D50	Monrovia	SUSMP	Unk	Big Shrimps – Restaurant	34.14603	-118.00209	SUSMP	8/4/2011		Yes	Daylights to steet, filter fabric at downspouts
D51	Monrovia	SUSMP	Unk	Library	34.14881	-118.00112	SUSMP				
D52	Monrovia	SUSMP	Unk	Bowden	34.15112	-118.00416	SUSMP	10/21/2010		Yes	
D53	Monrovia	SUSMP	Unk		Unknown	Unknown	SUSMP				
D54	Monrovia	SUSMP	Unk		Unknown	Unknown	SUSMP				
D55	Monrovia	SUSMP	SC	Storm drain insert retrofits	Unknown	Unknown	TRASH				catch basin inserts
D56	Unincorporated County	DR	Unk	Other (see comments)	34.1196	-118.00362		3/18/2013			APN8510018011
D57	Unincorporated County	DR	Bio	Rain Garden	34.126	-117.99098		8/30/2012			APN8521009040
D58	Unincorporated County	DR	Bio	Rain Garden	34.1342	-118.07255		11/2/2011			APN5378012022
D59	Unincorporated County	DR	RH	Rain Barrel	34.1412	-118.06902		3/6/2013			APN5755016065
D60	Unincorporated County	DR	RH	Rain Barrel	34.1412	-118.06878		3/6/2013			APN5755016064
D61	Unincorporated County	DR	RH	Rain Barrel	34.1415	-118.06785		10/31/2011			APN5755016002
D62	Unincorporated County	LA Layer	RH	Rain Barrel	34.10196	-117.91427					TUDOR ST

Table G-1 Detailed List of Existing Distributed BMPs in RH/SGRWQG EWMP Area

ID	Jurisdiction	Data Source	BMP Subcategory	BMP	Latitude	Longitude	Purpose	Install Date	Approval Date (SUSMP)	Maintenance	Comments
D63	Unincorporated County	LA Layer	SC	Landscaping and Irrigation	34.1106	-117.88237					TRAYMORE AVE
D64	Unincorporated County	LA Layer	SC	Landscaping and Irrigation	34.14109	-118.07216					WALNUT DR
D65	Unincorporated County	LA Layer	Bio	Planter Box	34.1202	-118.07061					ARDENDALE AVE
D66	Unincorporated County	LA Layer	RH	Rain Barrel	34.14152	-118.06785		10/31/2011			MICHILLINDA AVE
D67	Unincorporated County	LA Layer	SC	Disconnect Impervious Surfaces	34.14155	-118.07063					MOUNTAIN VIEW AVE
D68	Unincorporated County	LA Layer	Unk	Other (see comments)	34.13143	-118.04628		8/13/2012			SANTA ANITA AVE
D69	Unincorporated County	LA Layer	SC	Disconnect Impervious Surfaces	34.12899	-118.0708					SOUTHVIEW RD
D70	Unincorporated County	LA Layer	Unk	Other (see comments)	34.12127	-118.06855					ARDENDALE AVE
D71	Unincorporated County	LA Layer	Bio	Planter Box	34.1351	-118.07135					MICHIGAN BLVD
D72	Unincorporated County	LA Layer	SC	Disconnect Impervious Surfaces	34.10226	-117.91471					TUDOR ST
D73	Unincorporated County	LA Layer	RH	Rain Garden	34.1342	-118.07255		11/2/2011			ROSEMEAD BLVD
D74	Unincorporated County	LA Layer	SC	Disconnect Impervious Surfaces	34.1418	-117.88327					OAK DR

Notes Bio = Bioretention/Biofiltration, DR = Data Request, Inf = Infiltration, PP = Permeable Pavement, RH = Rainfall Harvest, SC = Source Control Structural BMP, Unk = Unknown

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Attachment H

BMPs Reported in 2011-2012 Unified Annual Stormwater Report

This attachment includes a table summarizing the existing Best Management Practices (BMPs) implemented by the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) based on the 2011-2012 Unified Annual Stormwater Report, corresponding with **Section 3.1.2** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP).

Table H-1 Existing BMPs According to Review of 2011-2012 MS4 Annual Report

EWMP Subcategory	BMP Name	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	LA County (San Gabriel River)	LACFCD (San Gabriel River)	LA County (LA River)	LACFCD (LA River)	TOTAL
Green Infrastructure: Biofiltration	Biofiltration	0	0	0	0	8	0	0	0	0	0	8
	Rain Gardens	0	0	0	0	0	0	0	0	2	0	2
Green Infrastructure: Bioswale	Landscape Swale	0	0	0	0	16	0	0	0	0	0	16
Green Infrastructure: Infiltration	Infiltration Trenches	15[3]	6	0	3[3]	4	0	0	0	8	0	36
	Cultec Recharger	1	0	0	0	0	0	0	0	0	0	1
	Cultec Storm Filter	2[3]	0	0	0	0	0	0	0	0	0	2
	Infiltration Basin/Facility	5[3]	0	0	0	0	0	0	0	0	0	5
	Infiltration Drywell	2[3]	0	0	0	0	0	0	0	0	0	2
	Kristar FloGard Inserts	0	0	0	0	0	0	1[3]	0	10[3]	0	11
	Perforated Drain	0	0	0	1[3]	0	0	0	0	0	0	1
	French Drain	0	0	0	0	6	0	0	0	0	0	6
Green Infrastructure: Permeable Pavement	Geo Block Porous Pavement	0	0	0	0	14	0	0	0	1	0	15
	Grass Block Porous Pavement	0	0	0	0	0	0	1	0	0	0	1
	Grass Pavers Porous Pavement	0	0	0	0	0	0	1	0	0	0	1
	Gravel Pave Porous Pavement	0	0	0	0	0	0	0	0	7	0	7
Green Infrastructure: Rainfall Harvest	Downspout Filters	0	0	0	0	0	0	0	0	2	0	2
	Potable Water/Irrigation	0	0	0	0	0	0	0	0	3[3]	0	3
Detention	Clarifier	0	0	0	0	4	0	0	0	0	3	7
Treatment Facility	Floating Trash Booms	0	0	0	0	0	0	4	1[3]	0	7	12
	Low Flow Diversion (City of Long Beach)	0	0	0	0	0	0	0	3[3]	0	0	3
Flow-Through Treatment BMP	HydroCartridge In-Line Filters	0	0	0	0	0	0	0	0	1	0	1
Source Control Structural BMP	CDS Gross Pollutant Separators	6	2	0	0	2	0	0	2	0	6	18
	Clean Screen Catch Basin Inserts	0	0	6	0	0	2	5	0	26	0	39
	Drain Pac Catch Basin Inserts	1	0	0	0	10	0	0	0	4	0	15
	Fossil Filter Catch Basin Inserts	0	10	0	0	27	0	1	0	31	0	69

Table H-1 Existing BMPs According to Review of 2011-2012 MS4 Annual Report

EWMP Subcategory	BMP Name	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	LA County (San Gabriel River)	LACFCD (San Gabriel River)	LA County (LA River)	LACFCD (LA River)	TOTAL
Source Control Structural BMPs	Automated Catch Basin Inlet Screens (ARS)	13[3]	0	0	0	0	0	0	0	2,688[3]	3,444[3]	6,145
	Catch Basin Insert (various)	0	0	0	1[3]	0	0	0	0	16	0	17
	Catch Basin Connector Pipe Full Capture (CPS)	13	0	0	0	0	0	0	0	3,081	1011	4,105
	Connector Pipe Screens (CPS)	13	0	0	0	0	0	0	2[3]	851	20	886
	Filter Insert	35	0	0	0	0	0	0	0	0	0	35
	Filter Bag with Debris Trap	0	0	0	0	2	0	0	0	0	0	2
	Filters	35	0	0	0	0	0	0	0	0	0	35
	Filter Basket Catch Basin Inserts	0	0	0	0	0	0	0	0	100	0	100
	Flume Filter	0	0	0	0	1	0	0	0	0	0	1
	Manually Retractable Catch Basin Screen (MRS)	0	0	0	0	0	0	0	0	100	0	100
	Modification to Existing Catch Basin Insert	17[3]	0	0	0	0	0	0	0	0	0	17
	Poured Concrete Catch Basin	0	0	0	0	0	0	0	0	3	0	3
	Storm Drain Inlet Protection	0	0	0	0	0	0	1	0	9[3]	0	10
Institutional	Covered Material Bunkers	0	0	0	0	1	0	31	0	25	14	71
	Covered Trash Bins	12	10	0	0	0	0	9	0	53[3]	0	84
	Dog Parks	1	0	0	0	0	2	0	0	1	0	4
	Enhanced Street Sweeping	1[3]	0	1	0	0	1	0	0	19[3]	0	22
	Extra Trash Cans	0	0	0	0	50	0	242	0	959[3]	0	1,251
	Concrete Waste Management	0	0	0	0	0	0	0	0	6	0	6
	Concrete Wash Containers	0	0	0	0	0	0	3[3]	0	12[3]	0	15
	Construction Road Entrance Wash Rack	0	0	0	0	0	0	0	0	5	0	5
	Containment Berms	0	0	0	0	1	0	0	0	0	0	1
	Covered Waste Fuel Tank	0	0	0	0	0	0	2	0	0	0	2
	Hazardous Waste Management	0	0	0	0	0	0	0	0	7[3]	0	7
	Pig Oil Skimmer for Wash Rack Clarifier	0	0	0	0	0	0	0	0	3	0	3

Table H-1 Existing BMPs According to Review of 2011-2012 MS4 Annual Report

EWMP Subcategory	BMP Name	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	LA County (San Gabriel River)	LACFCD (San Gabriel River)	LA County (LA River)	LACFCD (LA River)	TOTAL
Institutional	Secondary Containment for Waste Oil Tanks	0	0	0	0	0	0	2	0	1	0	3
	Signage & Stenciling	134[3]	0	0	0	0	0	0	0	0	0	134
	Street Sweeping & Vacuuming	0	0	0	0	0	0	0	0	1[3]	0	1
	Vehicle & Equipment Cleaning	0	0	0	0	0	0	0	0	2	0	2
	Vehicle & Equipment Maintenance	0	0	0	0	0	0	0	0	4[3]	0	4
	Wash Rack Clarifier	0	0	0	0	0	0	0	0	1	0	1
	Waste Oil Recycling Center	0	0	0	0	0	0	0	0	1	0	1
	Water Conservation Practices	0	0	0	0	0	0	0	0	3[3]	0	3
	Wind Erosion Control	0	0	0	0	0	0	0	0	11[3]	0	11
	Wind Screen	0	0	0	0	0	0	1	0	0	0	1
	Liquid Waste Management	0	0	0	0	0	0	0	0	3[3]	0	3
	Material Delivery & Storage	0	0	0	0	0	0	0	0	4[3]	0	4
	Material Use	0	0	0	0	0	0	0	0	1[3]	0	1
	Sanitary/Septic Waste Management	0	0	0	0	0	0	0	0	4[3]	0	4
	Scheduling	0	0	0	0	0	0	0	0	4[3]	0	4
	Solid Waste Management	0	0	0	0	0	0	0	0	9[3]	0	9
	Spill Containment - Temp. Hazardous Material	0	0	0	0	0	0	0	0	17[3]	0	17
	Spill Prevention & Control	0	0	0	0	0	0	0	0	3[3]	0	3
	Stockpile Management	0	0	0	0	0	0	0	0	6[3]	0	6
	Vehicle & Equipment Fueling	0	0	0	0	0	0	0	0	3[3]	0	3
	Dust Control	0	0	0	0	0	0	0	0	9[3]	0	9
	Erosion Control	0	0	0	0	0	0	0	0	4[3]	0	4
	Fiber Rolls	0	0	0	0	0	0	0	0	330[3]	0	330
Other	Concrete Curing	0	0	0	0	0	0	0	0	9[3]	0	9
	Concrete Finishing	0	0	0	0	0	0	0	0	9[3]	0	9
	Restaurant Vent Traps	0	0	0	0	17	0	0	0	1	0	18
	Check Dam	0	0	0	0	0	0	0	0	1	0	1
	Dewatering Operations	0	0	0	0	0	0	0	0	2[3]	0	2

Table H-1 Existing BMPs According to Review of 2011-2012 MS4 Annual Report

EWMP Subcategory	BMP Name	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	LA County (San Gabriel River)	LACFCD (San Gabriel River)	LA County (LA River)	LACFCD (LA River)	TOTAL
Other	Earth Dikes/Drainage Swales	0	0	0	0	0	0	0	0	4[3]	0	4
	Geotextiles Materials/Plastic Covers Blankets	0	0	0	0	0	0	0	0	1	0	1
	Gravel Bag Berm	0	0	0	0	0	0	0	0	2[3]	0	2
	Outlet Protection/ Velocity Dissipation	0	0	0	0	0	0	0	0	1[3]	0	1
	Paving & Grinding Operations	0	0	0	0	0	0	0	0	6[3]	0	6
	Preserved Existing Vegetation	0	0	0	0	0	0	0	0	8[3]	0	8
	Sandbag	0	0	0	0	0	0	2,123[3]	0	17,162[3]	0	19,285
	Sewer Lift Station	0	0	0	0	0	0	0	0	2	0	2
	Shakers	0	0	0	0	0	0	0	0	13	0	13
	Silt Fence	0	0	0	0	0	0	102[3]	0	20[3]	0	122
	Silt Screens	0	0	0	0	0	0	0	0	2	0	2
	Slope Stabilization	0	0	0	0	0	0	2	0	0	0	2
	Slope Vegetation	0	0	0	0	0	0	0	0	5	0	5
	Soil Stabilizer/ Irrigation	0	0	0	0	0	0	0	0	1	0	1
	Soil Stabilizer Tracking Control	0	0	0	0	0	0	0	0	1	0	1
	Stabilized Construction Entrance/Exit	0	0	0	0	0	0	4	0	32[3]	0	36
	Stabilized Construction Roadway	0	0	0	0	0	0	0	0	2[3]	0	2
	Steel Plate	0	0	0	0	0	0	0	0	20	0	20
	Upgraded Fuel System with Canopy	0	0	0	0	0	0	2	0	1	0	3
	Water Trucks	0	0	0	0	0	0	0	0	8	0	8
	Sediment Trap	0	0	0	0	0	0	0	0	950[3]	0	950
Total		306[3]	28	7	5[3]	163	5	2,537[3]	10[3]	26,717[3]	4,505	34,283[3]

[1] The numbers of BMPs herein were estimated based on adding the BMPs reported to be both installed and maintained in 2011-2012.

[2] BMPs reported by LA County and LACFCD in the Annual Report are not specific to the EWMP area, instead they are reported for their entire jurisdiction and thus the numbers herein are a gross overestimate of the BMPs in the EWMP area.

[3] These BMPs are highlighted as potentially double-counted because they may have been both installed and maintained in 2011-2012.

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Attachment I

Detailed List of Regional BMP Projects Identified in Planning Documents

This attachment includes a table summarizing the regional Best Management Practice (BMP) projects identified in planning documents within the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), corresponding with **Section 3.1.3** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP). The BMPs listed in the table correspond to **Figure 3-9** of the EWMP.

Table I-1 Potential Regional Projects

ID	Project Name	Jurisdiction	Location	Description	Sources[1]	Notes
Within RH/SGRWQG EWMP Area						
R4	Azusa Bike Trail Network	Azusa	See project description	Develop a system of street-side bicycle paths to help bicyclists enter Azusa Canyon from Sierra Madre Avenue or Azusa Canyon Road and connect to the San Gabriel River Bike Trail.	1	May be complete - trail exists
R5	Azusa Rock Quarry Restoration	Azusa	Off of Encanta Parkway near San Gabriel River	Rehabilitate and restore the area within the Azusa Rock Quarry once mining is complete.	1	
R6	Buena Vista Wetlands	LACFCD	Near Duarte Road and Buena Vista Road	Create bio-engineered wetlands for habitat restoration in spreading basin west of Santa Fe Dam.	1	
R7	Duarte Bike Trail Extension	Duarte	See project description	Extend an existing trail for an additional mile from Royal Oaks Park (Duarte) to historic Puente Largo Rail Bridge to the San Gabriel River Bike Trail (Azusa).	1	
R8	Forest Gateway Interpretive Center	Azusa	Entrance to Azusa Canyon	Create a new U.S. Department of Agriculture (USDA) Forest Service Station and Interpretive Center at the entrance to Azusa Canyon. "Green" building practices and watershed sensitive design principles will be incorporated into the site.	1	
R9	Hugo Reid Park - Infiltration Basin	Arcadia and Unincorporated County	Michillinda Avenue and Oakdale Avenue	Provide stormwater treatment and recreational facilities with aboveground treatment at the athletic fields and underground treatment at the tennis courts and parking lot. Provide additional storage and enhanced infiltration capacity at the park.	4	
R10	Improvements to San Gabriel River Diversion and San Gabriel River Water Committee Canal and Appurtenances	Azusa	San Gabriel Canyon Road and Mountain Laurel Way	Install liftgates to allow remote operation of the canal system and upgrade parts of the canal.	5	Canal lining improvements bid in 2013
R11	Pacific Electric Rails-To-Trails Project	Azusa/Duarte	See project description	Create an east-west bike trail on an abandoned rail line running parallel to Foothill Boulevard between Monrovia and Claremont.	1	May be complete - trail exists
R12	Peck Water Conservation Improvement Project	LACFCD	Flood Control Basin near Rio Hondo Parkway and Peck Road	Construction of a pump station at Peck Road Park that will divert water that would normally flow into the San Gabriel River into facilities for groundwater recharge. Sediment will be removed from the middle of Peck Road Spreading Basin, and water will flow freely between two drainage outlets at Santa Anita Wash.	2, 3, 5	Active in planning stages.
R13	Robert's Creek Restoration	Azusa	Robert's Creek	This will be a habitat restoration and park expansion in the canyon area behind Mountain Cove.	1	
R14	Route 66/Foothill Boulevard Gateway	Azusa/Duarte	Route 66 Highway	The future City of Duarte gateway project, in partnership with the City of Azusa, is located on the historic Route 66 Highway.	1	
R15	San Gabriel Canyon Spreading Grounds	LACFCD	Near San Gabriel Canyon Road and Sierra Madre Avenue	Provide landscaping, native habitat restoration, trails, and other park amenities for public enjoyment at two deep spreading basins near San Gabriel River.	1	
R16	San Gabriel River Bike Trail Extension	Azusa	See project description	This project will extend the 38-mile regional bike trail from its current terminus near the southern edge of San Gabriel Canyon to the proposed Azusa Canyon Park and eventually all the way to the Angeles National Forest. A one-mile extension is being built to the Mountain Cove development, near the mouth of the San Gabriel Canyon.	5	
R17	Santa Anita Dam Seismic Rehabilitation	Monrovia	Santa Anita Dam; Santa Anita Canyon Road	Rehabilitate dam by adding a partial buttress to meet current seismic standards and allow for increased long term storage of captured stormwater for groundwater recharge.	5	
R18	Sawpit Debris Dam Seismic Strengthening Project	Monrovia	Monrovia Canyon Trail and Canyon Boulevard	Remove and replace existing outlet tower of the debris basin with a more updated design. Rebuild spillway on bedrock for the Division of Safety of Dams (DSOD) approval of long term water impoundment in the basin for stormwater capture and diversion to spreading grounds.	5	

Table I-1 Potential Regional Projects

ID	Project Name	Jurisdiction	Location	Description	Sources[1]	Notes
R19	Station Square	Monrovia	Myrtle Avenue and Duarte Road	Variety of on-site improvements at the new Metro Gold Line Station including the creation of a trail network, create shade by adding vegetation, promote environmental education through exposed stormwater management facilities and vegetation.	7	Anticipated completion in 2015
R20	Todd Avenue Bike Trail Network	Azusa	See project description	Connect an existing City of Azusa bike path at the south end of the San Gabriel Canyon Spreading Grounds with the San Gabriel River Bike Trail.	1	
R21	West Riverbank Tree Planting Project at the San Gabriel Valley Gun Club	Azusa	Off of Encanta Parkway near San Gabriel River	Planting 200+ trees on the west levee of the San Gabriel River to provide shade, as well as to dampen the sounds that echo up the canyon from the Gun Club activities.	1	
R22	Wright-Romvary Properties	Duarte	North Duarte	Acquire a total of 3,365 acres of land for open space protection, trails, and habitat restoration. The property is adjacent to the Van Tassel Creek, a tributary of the San Gabriel River.	1	
Outside the RH/SGRWQG EWMP Area						
R23	Baldwin Park	Baldwin Park	Patritti Avenue and Bess Avenue	Upgrade an existing 2-acre right-of-way with landscaping and trails to connect Barnes Park, the San Gabriel River Bike Trail, and neighborhood schools.	1	Downstream of project area.
R24	Indirect Reuse Replenishment Project	Irwindale	Arrow Highway and Rivergrade Road	Provide additional treatment of tertiary treated recycled water prior to reuse for groundwater replenishment.	5	Downstream of project area.
R25	Miller Pit Spreading Basins	Irwindale	Santa Fe Dam near Interstate 710 and Interstate 605	Existing deep pits will be converted to spreading basins and an intake structure and pipeline will be constructed to divert stormwater from the San Gabriel River. The pits will recharge water and serve as a sediment placement site until enough material is imported.	5	Downstream of project area.
R26	Olive Pit Water Conservation Park	Irwindale	Azusa Canyon Road and Olive Street	Divide Olive Pit into sediment placement, water conservation, and future areas. Construct an inlet from Big Dalton Wash into Olive Pit to divert water. Construct a drain from the Santa Fe Dam headworks to Olive Pit.	5	Downstream of project area.
R27	San Gabriel River Discovery Center	South El Monte	Durfee Avenue and Santa Anita Avenue	Present the story of the San Gabriel River Watershed, emphasize the importance of water resources, and provide educational and outdoor experiences to people of all ages.	2	Downstream of project area. In planning phase - looking for funding
R28	Whittier Narrows Park	South El Monte	Durfee Avenue and Santa Anita Avenue	Divert stormwater flows into a constructed infiltration basin at a County Park facility	2	Downstream of project area.

[1] Sources: 1: (San Gabriel River Corridor Master Plan, 2006), 2: (Clean Water, Clean Beaches), 3: (Amigos de los Rios), 4: (Multi-Pollutant TMDL Implementation Plan, 2010), 5: (Opti.com/IRWMP, 2013), 6: (Green Street, 2013), and 7: (City of Monrovia)

Attachment J

Detailed List of Distributed BMP Projects Identified in Planning Documents

This attachment includes tables summarizing the distributed Best Management Practices (BMPs) identified in planning documents in the Rio Hondo/San Gabriel River Water Quality Management Group (RH/SGRWQG) area, corresponding with **Section 3.1.3** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP). The projects listed in the table are illustrated in **Figure 3-10** in the EWMP.

Table J-1 Detailed List of Planned Distributed BMPs in RH/SGRWQG EWMP Area

ID	Jurisdiction	Data Source	BMP Subcategory	BMP	Latitude	Longitude	Install Date	Comments
D75	Arcadia	IRWMP	Unk	Santa Anita Park and Shopping Mall Parking Lot BMP	34.138431	-118.04611		Large privately owned shopping mall to be retrofit with BMPs.
D76	Monrovia	NOI	Unk	Monrovia Station Square/Transit Village Multi-Benefit Park and Greenway Project	34.133716	-118.00361	4/1/2015	Design and develop a 2.5 acre multi-benefit green space along the future Metro Gold Line multi-use trail, native trees and shrubs, runoff storage and infiltration systems prior to discharging into Sawpit Wash and Peck Road Water Conservation Park to the south.
D77	Monrovia	City	GS	Duarte Avenue Green Street	34.132191	-118.00366	4/1/2015	Green streets will be designed and incorporated adjacent to the Monrovia Square/Transit Village.
D78	Monrovia	City	GS	Myrtle Avenue Green Street	34.133583	-118.00366	4/1/2015	Green streets will be designed and incorporated adjacent to the Monrovia Square/Transit Village.
D79	Monrovia	City	Unk	Gold Line Maintenance Yard	34.133625	-17.99286		On Duarte Avenue between California and Shamrock. BMPs will be implemented based on SUSMP requirements.
D80	Azusa	DR, WCA	Bio	Azusa River Wilderness Park	34.161121	-117.89261		Develop LID stormwater BMPs for new parking lot and developments
D81	Azusa	DR, WCA	PP	Azusa River Wilderness Park	34.161121	-117.89261		Develop LID stormwater BMPs for new parking lot and developments
D82	Azusa	NOI	Inf	Metro Gold Line Infiltration Project	Unknown		4/1/2015	The City of Azusa in coordination with the Foothill Construction Authority for the Gold Line Project has constructed infiltration systems at some of the major crossings in town. Infiltration will occur at the catch basins which are soft bottom. Anticipated tributary areas are approximately 17 acres and will include the rail corridor. The 10 year storm event is to be infiltrated.
D83	Monrovia	DR	SC	CPS Installation	City-wide			In response to trash TMDL requirements set forth by the MS4 Permit.

Notes Bio = Bioretention/Biofiltration, DR = Data Request, GS = Green Streets, Inf = Infiltration, PP = Permeable Pavement, RH = Rainfall Harvest, SC = Source Control Structural BMP, Unk = Unknown, WCA = Watershed Conservation Authority Website

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Attachment K

Potential Regional BMP Projects Worksheet

This attachment includes a worksheet used to evaluate potential regional project sites as identified within the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), corresponding with **Section 3.1.4** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP). The potential sites listed in the worksheet correspond to **Table 3-3** and **Figure 3-12** of the EWMP.

Table K-1 Potential Regional BMP Projects Worksheet in LAR Watershed

Ranking Criteria		Proximity to Receiving Waters		Ownership		Size of Catchment Area		Size of Opportunity Site			Jurisdictions		Catchment Area Land Use and Likely Pollutants[1]											Funding Opportunities		Local Knowledge	
Assigned Weight		1		3		1		3			1		2											1		2	
Project Sites	Type	Distance (ft)	Score	Owner	Score	Size (ac)	Score	Parcel (ac)	% Parcel	Score	No. Jurisd	Score	A	C	E	I	M	S	T	V	RW	%	Score	Sources	Score	Notes	Score
Parks																											
Aloysia Moore Park	EWMP	500	5	Public	10	60.7		0.81	59%	4	1	4	0%	24%	0%	22%	0%	41%	5%	8%	LAR	51%	8	Potential funds	5	Diversion pipe against natural slope - down	3
Bailey Canyon Park	Regional	< 100	10	Public	10	79.83		3.01	18%	8	1	4	0%	11%	0%	0%	0%	6%	0%	83%	LAR	11%	2	Potential funds	5	Too far upstream - down	0
Duarte Park	Regional	< 100	10	Public	10	612.7		2.95	144%	1	1	4	12%	8%	1%	2%	5%	49%	0%	23%	LAR	9%	2	Potential funds	5	Benefits various jurisdictions	6
Eisenhower Park	Regional	< 100	10	Public	10	1424.8		4.64	136%	1	3	10	0%	3%	0%	1%	1%	51%	2%	42%	LAR	5%	2	Potential funds	5	Close proximity to receiving water	8
Hugo Reid Park	EWMP	< 100	10	Public	10	164.7		4.76	19%	8	2	7	0%	22%	1%	1%	0%	64%	12%	1%	LAR	35%	5	Potential funds	5	Proposed groundwater well onsite	0
L. Garcia Park	EWMP	< 100	10	Public	10	264.9		1.66	109%	1	1	4	0%	7%	3%	0%	7%	79%	0%	4%	LAR	7%	2	Already looking into it	10	Large catchment area along receiving water	10
Library Park	Regional	< 100	10	Public	10	316.47		4.38	45%	6	1	4	0%	8%	0%	0%	2%	47%	0%	44%	LAR	8%	2	Potential funds	5	Park was recently upgraded	0
Memorial Park (Sierra Madre)	Regional	700	5	Public	10	444.62		2.17	115%	1	1	4	0%	5%	3%	1%	6%	54%	0%	32%	LAR	5%	2	Potential funds	5	High within the watershed	2
Michillinda Park	Regional	1300	3	Public	10	317.3		2.18	89%	2	2	7	0%	19%	0%	0%	2%	67%	8%	2%	LAR	28%	5	Potential funds	5		5
Peck Road Park	Regional	< 100	10	Public	10	10544		169.97	42%	6	4	10	1%	8%	2%	5%	5%	48%	2%	29%	Peck	45%	5	Potential funds	5	Not a lot of space upstream of receiving water	2
Recreation Park	EWMP	< 100	10	Public	10	106.20		18.85	4%	10	1	4	0%	0%	0%	0%	0%	88%	0%	11%	LAR	0%	2	Already looking into it	10		5
Sierra Vista Park	EWMP	< 100	10	Public	10	120		35.30	2%	10	1	4	0%	4%	8%	7%	18%	63%	0%	0%	LAR	12%	2	Potential funds	5	Entire parcel not available for project site	3
Golf Courses																											
Arcadia Golf Course	EWMP	1000	0	Public	10	62.4		25.87	1%	10	1	4	0%	0%	36%	0%	0%	46%	0%	18%	Peck	54%	8	Potential funds	5	Diversion pipe extremely costly	-4
Arcadia Golf Course - Regional	Regional	< 100	10	Public	10	3505.7		25.87	95%	2	4	10	0%	4%	1%	2%	4%	59%	1%	29%	Peck	36%	5	Potential funds	5		5
Santa Anita Golf Course	Regional	4000'	10	Public	10	445.9		181.71	2%	10	1	4	0%	15%	12%	0%	24%	9%	0%	40%	LAR	15%	2	Potential funds	5	Diversion pipe extremely costly	-4
Santa Anita Golf Course Alternative 2	Regional	1500'	10	Public	10	315.2		181.71	1%	10	1	4	0%	44%	1%	4%	2%	39%	2%	7%	LAR	50%	8	Potential partners and funds	8	Diversion pipe extremely costly	-4
Educational Facilities																											
Camino Grove Park/School	-	750	5	School	0	247.33		8.25	15%	8	2	7	0%	1%	2%	0%	1%	95%	0%	1%	LAR	1%	2	Potential funds	5	Difficulty working with schools	0
Duarte Park/School	-	< 100	10	School	0	189.37		33.18	4%	10	1	4	12%	8%	1%	2%	5%	49%	0%	23%	LAR	9%	2	Potential funds	5	Difficulty working with schools	0
Foothills Middle School	-	650	5	School	0	25.56		16.39	1%	10	1	4	0%	0%	61%	0%	0%	28%	0%	11%	LAR	0%	2	Potential funds	5	Difficulty working with schools	0
Highland Oaks Elementary	-	< 100	10	School	0	68.60		7.41	7%	9	1	4	0%	0%	7%	0%	0%	89%	0%	3%	LAR	0%	2	Potential funds	5	Difficulty working with schools	0
Longley Way Elementary	-	< 100	10	School	0	264.34		5.30	32%	6	1	4	0%	2%	6%	0%	0%	92%	0%	1%	LAR	2%	2	Potential funds	5	Difficulty working with schools	0
Other																											
Arboretum of LAC – Regional	Regional	< 100	10	Public	10	1658.38		110.07	11%	8	2	7	7%	5%	2%	0%	3%	67%	2%	14%	LAR	7%	2	Potential partners and funds	8	Drainage area too large	0
Arboretum of LAC	EWMP	< 100	10	Public	10	206.7		110.07	1%	10	1	4	20%	2%	0%	0%	0%	75%	3%	0%	LAR	5%	2	Potential partners and funds	8	Positive perception if restoring historical area	9
Buena Vista Spreading Grounds	Regional	< 100	10	Public	10	1307.4		9.69	85%	2	3	10	7%	17%	3%	4%	8%	40%	4%	17%	Peck	48%	5	Potential funds	5		5
Royal Oaks Trail (LAR)	EWMP	< 100	10	Public	10	660.7		14.29	28%	8	2	7	14%	0%	1%	0%	0%	56%	0%	29%	LAR	0%	2	Potential funds	5	May not be able to utilize entire trail due to slope or else system would be deep	2

[1] A = Agricultural, C = Commercial, E = Educational, I = Industrial, M = Multi-Family Residential, S = Single Family Residential, T = Transportation, V = Vacant, RW = Receiving Waters

Table K-1 Potential Regional BMP Projects Worksheet in LAR Watershed CONTINUED

Ranking Criteria		Seasonal High Groundwater Table Depth						Proximity to GW[2] Production Well		Pollutants in Soil or Groundwater			Geotechnical Hazards		Soil Type		Total:	Rank
Assigned Weight		1						1		1			1		1			
Project Sites	Type	Well	Min D	Date	Depth	Date	Score	Dist (ft)	Score	Superfund	Geotracker	Score	Hazard	Score	C_u	Score		
Parks																		
Aloysia Moore Park	EWMP	4227A	100.5	2/13/90	255	7/30/13	10	> 200	10		1	8		10	0.52	8	124	10
Bailey Canyon Park	Regional	4122A	47.9	4/16/93	58.5	10/18/07	10	> 200	10		0	10		10	0.74	6	123	11
Duarte Park	Regional	4246	128.2	9/21/06	312	7/30/13	10	> 200	10		1	8		10	0.52	8	114	17
Eisenhower Park	Regional	4175	214.8	1/21/70	286	11/26/13	10	> 200	10		0	10		10	0.3	10	128	6
Hugo Reid Park	EWMP	4136A	3.6	12/22/24	151	9/30/10	10	< 200	5		0	10	Fault	5	0.3	10	126	8
L. Garcia Park	EWMP	4175	214.8	1/21/70	286	11/26/13	10	> 200	10		0	10		10	0.52	8	129	5
Library Park	Regional	4216	203.2	5/30/80	274.8	10/7/91	10	> 200	10		1	8		10	0.52	8	117	15
Memorial Park (Sierra Madre)	Regional	4145G	0.4	1/7/31	118.6	10/18/07	10	> 200	10		1	8		10	0.52	8	101	20
Michillinda Park	Regional	4136I	29.2	4/9/54	127	11/26/13	10	> 200	10		0	10	Fault	5	0.52	8	114	17
Peck Road Park	Regional	4199E	0	10/16/09	0	10/14/10	5	> 200	10		0	10	Liquefaction	5	0.52	8	125	9
Recreation Park	EWMP	4216	203.2	5/30/80	274.8	10/7/91	10	> 200	10		1	8		10	0.52	8	144	1
Sierra Vista Park	EWMP	4164J	34.8	7/5/67	267	11/26/13	10	> 200	10		1	8		10	0.52	8	135	3
Golf Courses																		
Arcadia Golf Course	EWMP	4189G	39.8	4/30/96	137.6	10/16/09	10	> 200	10		0	10	Liquefaction	5	0.3	10	122	12
Arcadia Golf Course - Regional	Regional	4189G	39.8	4/30/96	137.6	10/16/09	10	> 200	10		0	10	Liquefaction	5	0.74	6	122	12
Santa Anita Golf Course	Regional	4167A	63.9	2/23/96	188	8/22/13	10	> 200	10		1	8		10	0.74	6	112	19
Santa Anita Golf Course Alternative 2	Regional	4167A	63.9	2/23/96	188	8/22/13	10	> 200	10		1	8		10	0.74	6	127	7
Educational Facilities																		
Camino Grove Park/School	-	4198L	63.5	8/15/68	174	5/14/04	10	> 200	10		0	10		10	0.3	10	95	22
Duarte Park/School	-	4246	128.2	9/21/06	312	7/30/13	10	> 200	10		1	8		10	0.52	8	99	21
Foothills Middle School	-	4175	214.8	1/21/70	286	11/26/13	10	> 200	10		0	10	Liquefaction, Fault	2	0.82	4	84	25
Highland Oaks Elementary	-	4164D	25.1	7/5/67	257	11/26/13	10	> 200	10		0	10		10	0.82	4	94	23
Longley Way Elementary	-	4149C	95.7	8/22/62	212	11/26/13	10	> 200	10		0	10		10	0.74	6	87	24
Other																		
Arboretum of LAC – Regional	Regional	4145G	0.4	1/7/31	118.6	10/18/07	10	> 200	10		1	8	Liquefaction, Fault	2	0.82	4	117	15
Arboretum of LAC	EWMP	4145G	0.4	1/7/31	118.6	10/18/07	10	> 200	10		1	8	Liquefaction, Fault	2	0.3	10	142	2
Buena Vista Spreading Grounds	Regional	4217	12.3	8/8/83	0	4/18/07	5	> 200	10		1	8	Liquefaction	5	0.3	10	119	14
Royal Oaks Trail (LAR)	EWMP	4255E	29.8	4/28/95	108	7/30/13	10	> 200	10		0	10		10	0.52	8	132	4

[2] GW = Groundwater

Table K-2 Potential Regional BMP Projects Worksheet in SGR Watershed

Ranking Criteria		Proximity to Receiving Waters		Ownership		Size of Catchment Area		Size of Opportunity Site			Jurisdictions		Catchment Area Land Use and Likely Pollutants[1]											Funding Opportunities		Local Knowledge	
Assigned Weight		1		3		1		3			1		2											1		2	
Project Sites	Type	Distance (ft)	Score	Owner	Score	Size (ac)	Score	Parcel (ac)	% Parcel	Score	No. Jurisd	Score	A	C	E	I	M	S	T	V	RW	%	Score	Sources	Score	Notes	Score
Parks																											
Encanto Park	EWMP	< 100	10	Public	10	189.5		11.14	10%	8	2	7	0%	0%	0%	0%	0%	58%	0%	41%	SGR	0%	2	Potential funds	5	In close proximity to receiving water	8
Gladstone Park	EWMP	Surface or 1500'	3	Public	10	54		4.90	7%	9	0	0	0%	1%	0%	0%	0%	87%	2%	10%	SGR	3%	2	Potential funds	5		5
Memorial Park (Azusa)	EWMP	< 100	10	Public	10	386.81		11.71	26%	8	1	4	0%	4%	3%	47%	7%	26%	3%	9%	SGR	54%	8	Potential funds	5		5
Northside Park	EWMP	< 100	10	Public	10	48.03		15.96	2%	10	1	4	0%	0%	23%	0%	47%	1%	0%	29%	SGR	0%	2	Potential funds	5		5
Pioneer Park	EWMP	< 100	10	Public	10	60.21		4.10	7%	9	2	7	38%	0%	0%	0%	0%	30%	0%	33%	SGR	0%	2	Potential funds	5	Upper portion of watershed	2
Royal Oaks Park	Regional	< 100	10	Public	10	305.40		5.38	38%	6	1	4	3%	0%	2%	0%	0%	53%	0%	41%	SGR	0%	2	Potential funds	5		5
Slauson Park	Regional	< 100	10	Public	10	477.64		4.05	68%	4	1	4	16%	10%	3%	1%	11%	53%	0%	5%	SGR	11%	2	Potential funds	5		5
Golf Course																											
Azusa Greens Country Club	Regional	< 100	10	Public	10	487.90		87.22	4%	10	2	7	7%	2%	0%	1%	19%	25%	0%	45%	SGR	3%	2	Potential funds	5		5
Educational Facilities																											
Gordon Sports Park/School	Regional	< 100	10	School	0	1781.5		12.97	86%	2	2	7	3%	1%	2%	1%	4%	36%	0%	53%	SGR	2%	2	Potential funds	5	Difficulty working with schools	0
Royal Oaks Elementary	Regional	< 100	10	School	0	357.80		12.83	19%	8	2	7	2%	0%	5%	0%	0%	57%	0%	36%	SGR	0%	2	Potential funds	5	Difficulty working with schools	0
Other																											
Royal Oaks Trail (SGR)	EWMP	< 100	10	Public	10	721.6		14.29	47%	6	3	10	4%	0%	0%	0%	2%	21%	0%	73%	SGR	0%	2	Potential funds	5		5
LADWP Easement	Regional	< 100	10	Public	10	240.1		8.71	16%	8	2	7	0%	2%	2%	41%	3%	41%	2%	8%	SGR	45%	5	Potential partners and funds	8		5

[1] A = Agricultural, C = Commercial, E = Educational, I = Industrial, M = Multi-Family Residential, S = Single Family Residential, T = Transportation, V = Vacant, RW = Receiving Waters

Table K-2 Potential Regional BMP Projects Worksheet in SGR Watershed CONTINUED

Ranking Criteria		Seasonal High Groundwater Table Depth						Proximity to GW[2] Production Well		Pollutants in Soil or Groundwater			Geotechnical Hazards		Soil Type		Total:	Rank
Assigned Weight		1						1		1			1		1			
Project Sites	Type	Well	Min D	Date	Depth	Date	Score	Dist (ft)	Score	Superfund	Geotracker	Score	Hazard	Score	C_u	Score		
Parks																		
Encanto Park	EWMP	4265A	62	3/29/70	135.2	8/18/13	10	> 200	10		0	10	Liquefaction	5	0.52	8	139	2
Gladstone Park	EWMP	4288A	36	2/1/98	294.4	8/1/13	10	> 200	10		0	10		10	0.74	6	125	8
Memorial Park (Azusa)	EWMP	4306Q	2.4	8/7/75	12.7	5/6/12	5	> 200	10		0	10	Liquefaction	5	0.9	2	131	3
Northside Park	EWMP	4285C	19.2	3/20/35	127.3	8/1/13	10	> 200	10		0	10	Liquefaction	5	0.9	2	130	5
Pioneer Park	EWMP	4295A	19	5/18/58	105	8/1/13	10	> 200	10		0	10	Liquefaction	5	0.52	8	130	5
Royal Oaks Park	Regional	4255E	29.8	4/28/95	108	7/30/13	10	> 200	10		0	10		10	0.52	8	129	7
Slauson Park	Regional	4306Q	2.4	8/7/75	12.7	5/6/12	5	> 200	10		0	10	Liquefaction	5	0.52	8	113	10
Golf Courses																		
Azusa Greens Country Club	Regional	4285B	16.4	3/20/35	144.8	8/1/13	10	175	5		2	5	Liquefaction	5	0.9	2	123	9
Educational Facilities																		
Gordon Sports Park/School	Regional	4256	198.3	2/9/71	372	7/30/13	10	> 200	10		0	10		10	0.52	8	80	12
Royal Oaks Elementary	Regional	4256	198.3	2/9/71	372	7/30/13	10	> 200	10		0	10		10	0.52	8	98	11
Other																		
Royal Oaks Trail (SGR)	EWMP	4255E	29.8	4/28/95	108	7/30/13	10	> 200	10		0	10		10	0.82	4	131	3
LADWP Easement	Regional	4228A	36	2/1/98	294.4	8/1/13	10	> 200	10		1	8		10	0.52	8	145	1

[2] GW = Groundwater

Attachment L

Potential Regional BMP Project Figures

This attachment includes figures associated with all of the regional Best Management Practices (BMPs) evaluated for inclusion in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP), as discussed in **Section 3.2.4**. Figures are included for all of the sites evaluated within the Los Angeles River (LAR) and San Gabriel River (SGR) Watersheds along with the sites that were eliminated due to fatal flaws. For the LAR and SGR Watershed figures, the order the figures are presented is consistent with the ranking established using the methodology described in the EWMP. **Table L-1** summarizes the projects that were evaluated along with the score and ranking. **Table L-2** identifies the sites that were eliminated, the watershed they are in, and the reason they were eliminated.

Table L-1 Ranked Potential Regional Project Sites in the LAR Watershed

Potential Project Site	Score	Rank
LAR Watershed		
Recreation Park	144	1
Arboretum of Los Angeles County (LAC)	142	2
Sierra Vista Park	135	3
Royal Oaks Trail (LAR)	132	4
L. Garcia Park	129	5
Eisenhower Park	128	6
Santa Anita Golf Course Alternative 2	127	7
Hugo Reid Park	126	8
Peck Road Park	125	9
Aloysia Moore Park	124	10
Bailey Canyon Park	123	11
Arcadia Golf Course	122	12
Arcadia Golf Course - Regional	122	12
Buena Vista Spreading Grounds	119	14
Library Park	117	15
Arboretum of LAC – Regional	117	15
Duarte Park	114	17
Michillinda Park	114	17
Santa Anita Golf Course	112	19
Memorial Park (Sierra Madre)	101	20
Duarte Park/School	99	21
Camino Grove Park/School	95	22
Highland Oaks Elementary	94	23
Longley Way Elementary	87	24
Foothills Middle School	84	25
SGR Watershed		
LADWP Easement	145	1
Encanto Park	139	2
Memorial Park (Azusa)	131	3
Royal Oaks Trail (SGR)	131	3
Northside Park	130	5

Table L-1 Ranked Potential Regional Project Sites in the LAR Watershed		
Potential Project Site	**Score**	**Rank**
Pioneer Park	130	5
Royal Oaks Park	129	7
Gladstone Park	125	8
Azusa Greens Country Club	123	9
Slauson Park	113	10
Royal Oaks Elementary	98	11
Gordon Sports Park/School	80	12

Table L-2 Eliminated Regional EWMP Project Sites		
Potential Project Site	**Watershed**	**Reason for Elimination**
Parks		
Bonita Park	LAR	Upstream in subwatershed, no significant catchment
Dalton Park	SGR	Catchment area outside RH/SGRWQG
Grand Park	LAR	Upstream in subwatershed, no significant catchment
Pamela Park	LAR	Superfund site
Valleydale Park	SGR	Superfund site
Zacatecas Park	SGR	Superfund site
Golf Course		
Rancho Duarte Golf Course	SGR	Existing contamination issues
Educational Facilities		
Citrus Community College	SGR	Catchment area outside RH/SGRWQG

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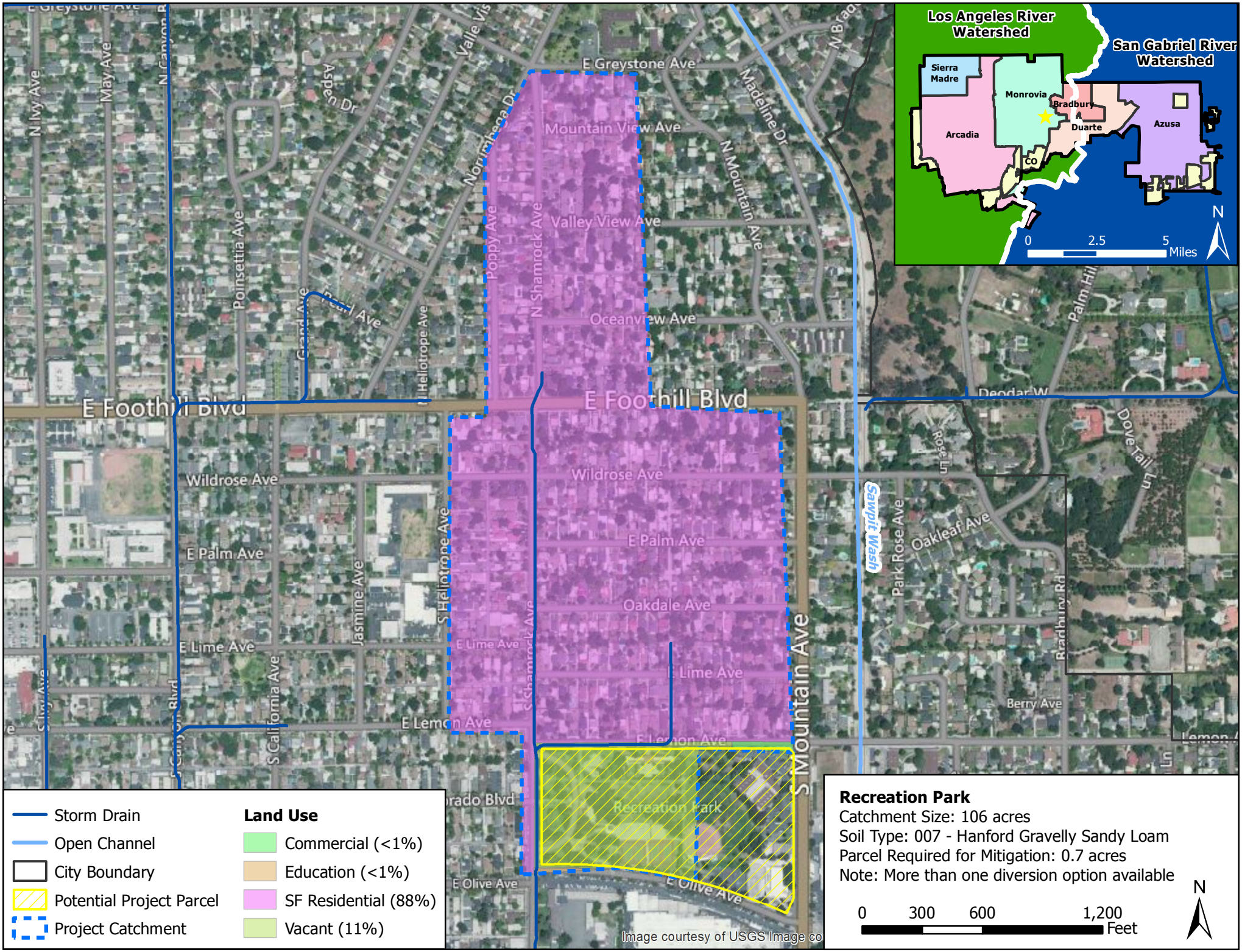
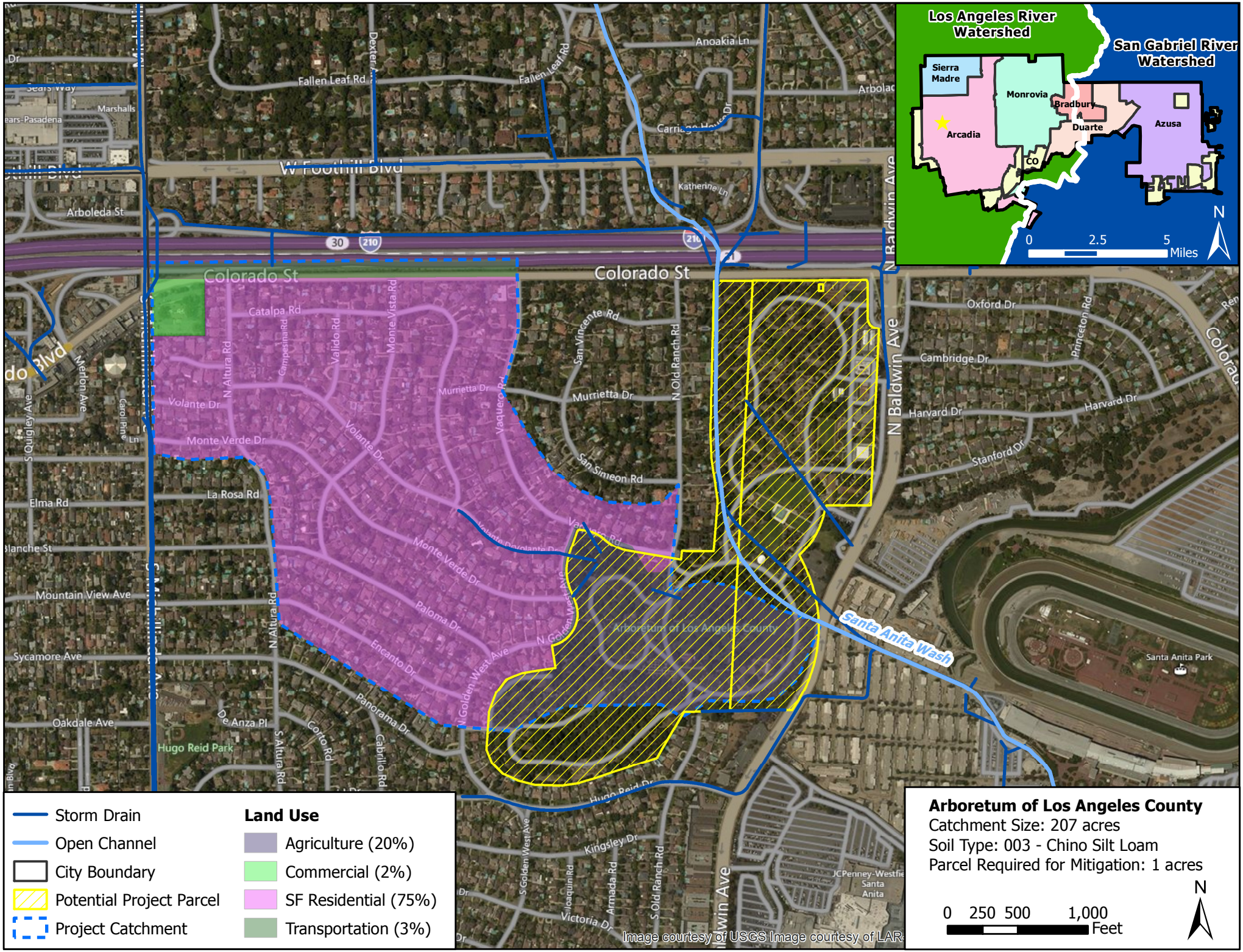
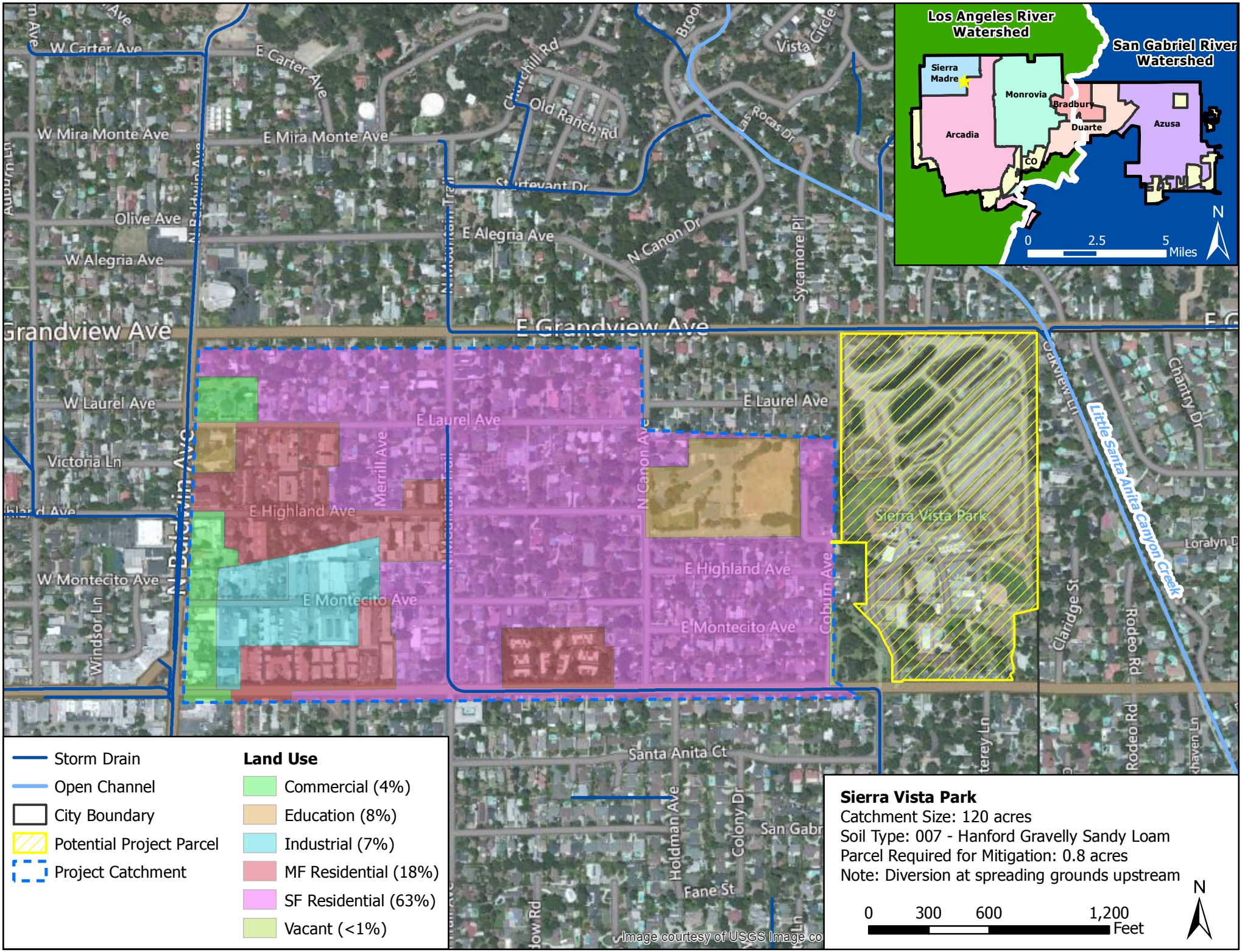
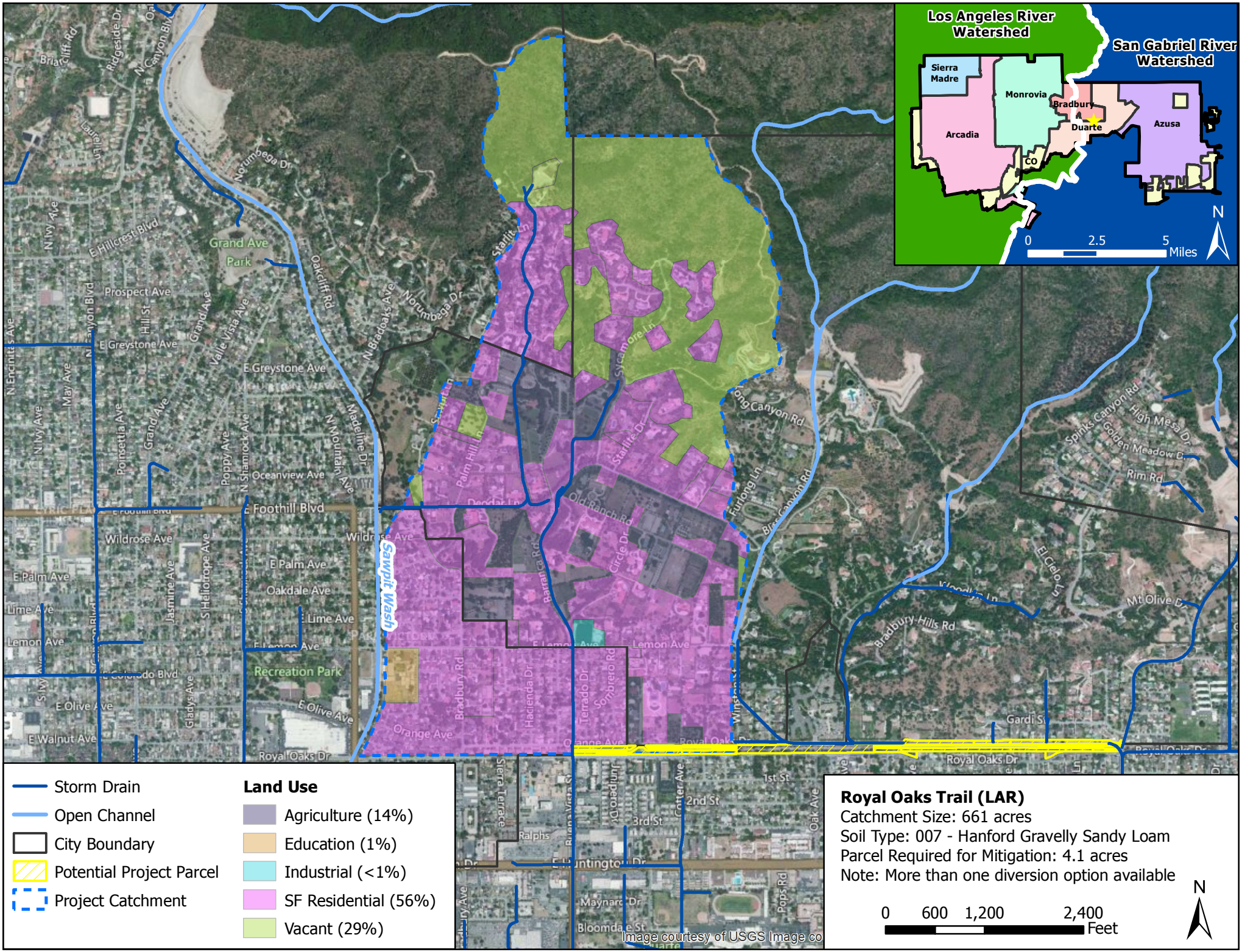
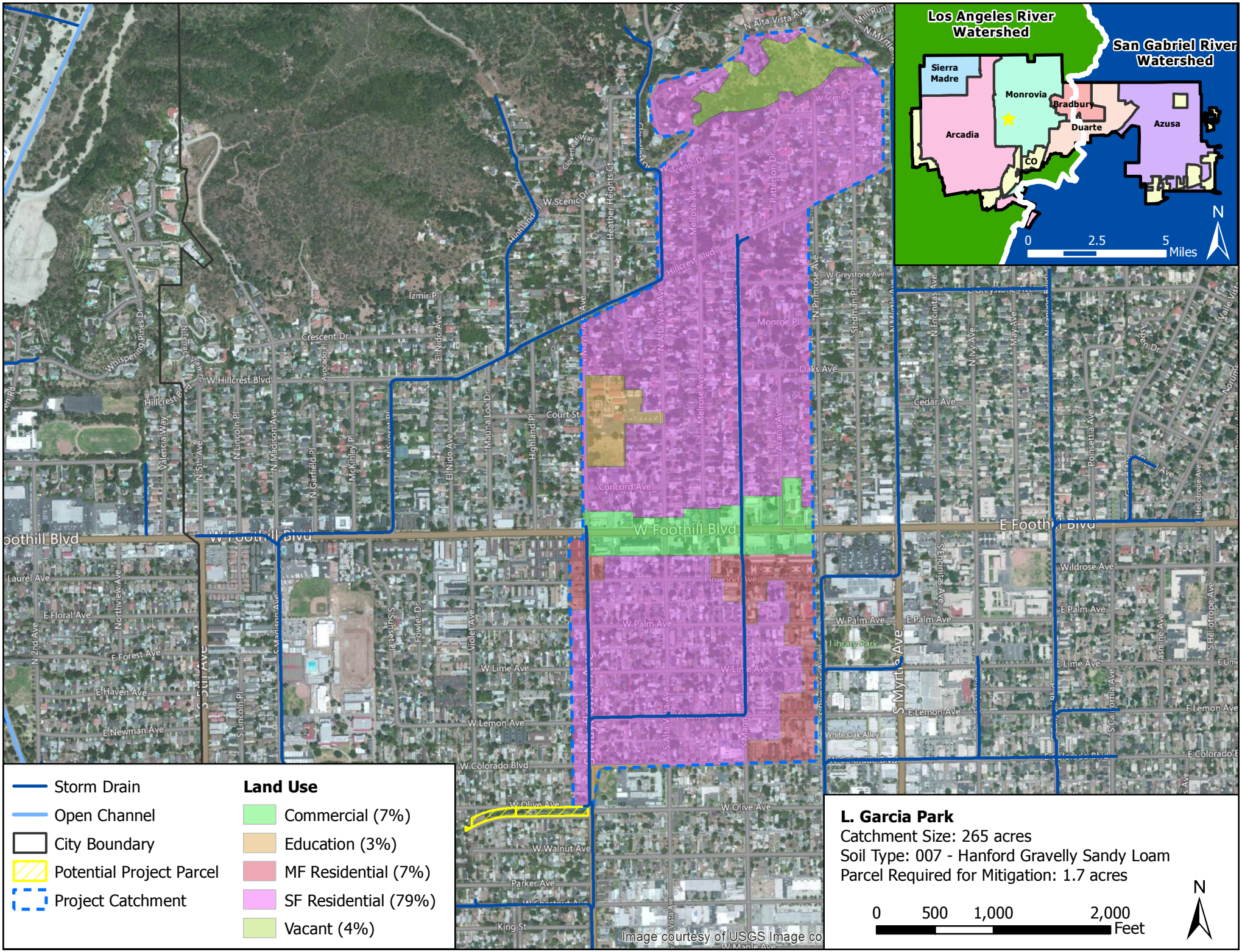
LAR Watershed

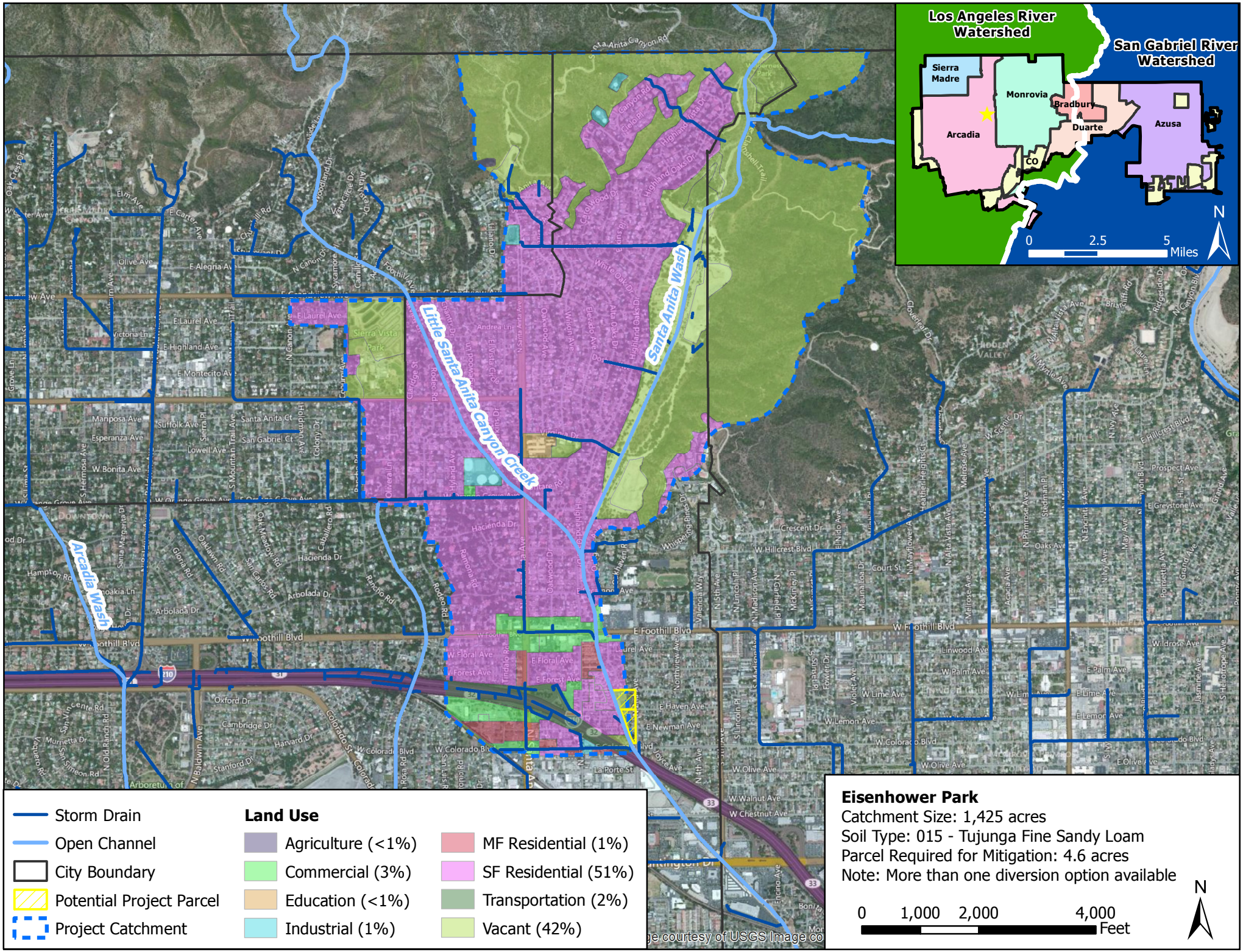

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0 2.5 5 Miles
N
E Greystone Ave
Mountain View Ave
Valley View Ave
Oceanview Ave
E Foothill Blvd
Wildrose Ave
E Palm Ave
Oakdale Ave
E Lime Ave
Lime Ave
E Lemon Ave
S Mountain Ave
Recreation Park
E Olive Ave
Sawpit Wash
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (<1%)
Education (<1%)
SF Residential (88%)
Vacant (11%)
Recreation Park
Catchment Size: 106 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 0.7 acres
Note: More than one diversion option available
0 300 600 1,200 Feet
N
Image courtesy of USGS Image co

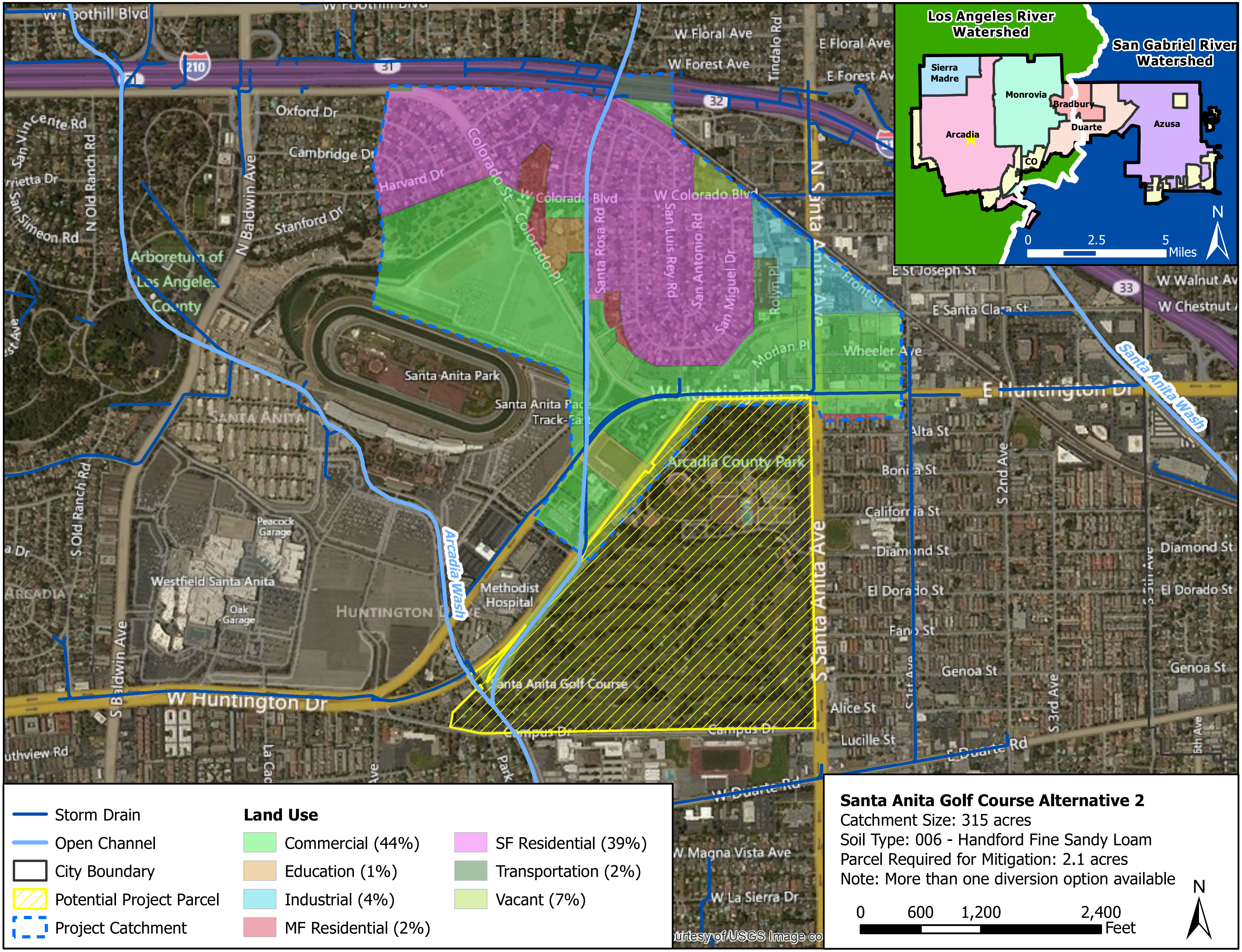

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0 2.5 5 Miles
N
Colorado St
W Foothill Blvd
Arboleda St
Fallen Leaf Rd
Anoakia Ln
Katherine Ln
Carriage House Dr
N Baldwin Ave
Oxford Dr
Cambridge Dr
Harvard Dr
Stanford Dr
Princeton Rd
Catalpa Rd
Monte Vista Rd
Valido Rd
Gempesaw Rd
N Altura Rd
Volante Dr
Monte Verde Dr
Murrietta Dr
San Vicente Rd
N Old Ranch Rd
San Simeon Rd
Vaquero Rd
La Rosa Rd
Elma Rd
Mountain View Ave
Sycamore Ave
Oakdale Ave
Hugo Reid Park
De Anza Pl
Corto Rd
Panorama Dr
Gabrillo Rd
S Altura Rd
Paloma Dr
Encanto Dr
N Golden West Ave
S Golden West Ave
Kingsley Dr
Armada Rd
Victoria Dr
S Old Ranch Rd
Merlon Ave
S Quigley Ave
Arboretum of Los Angeles County
Santa Anita Wash
Santa Anita Park
JCPenney-Westfield Santa Anita
Image courtesy of USGS Image courtesy of LAR-
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (20%)
Commercial (2%)
SF Residential (75%)
Transportation (3%)
Arboretum of Los Angeles County
Catchment Size: 207 acres
Soil Type: 003 - Chino Silt Loam
Parcel Required for Mitigation: 1 acres
N
0 250 500 1,000 Feet

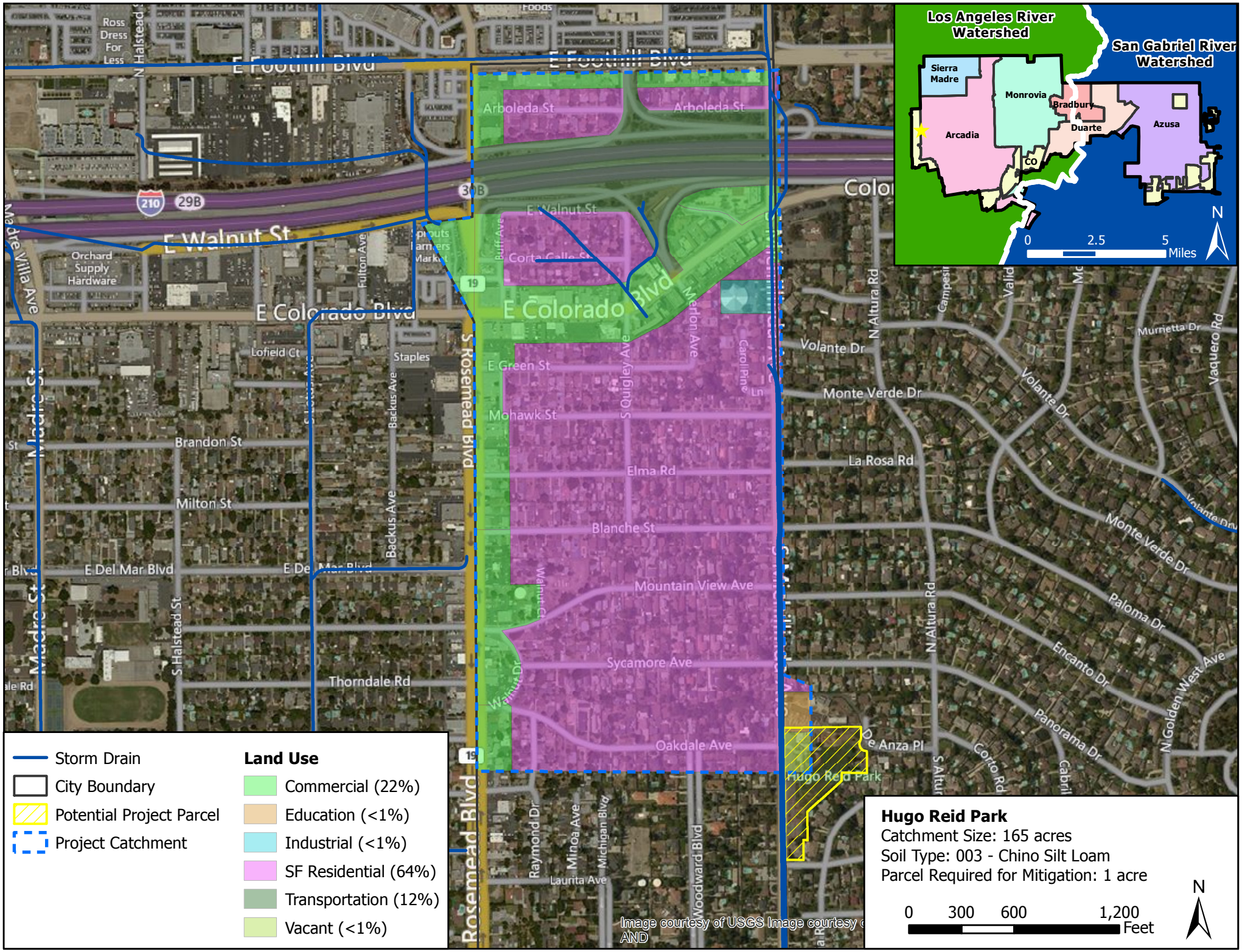

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0
2.5
5
Miles
N
W Carter Ave
E Carter Ave
W Mira Monte Ave
E Mira Monte Ave
Old Ranch Rd
Churchill Rd
Vista Circle
Las Rocas Dr
Sturtevant Dr
Olive Ave
W Alegria Ave
E Alegria Ave
N Canon Dr
Sycamore Pl
Grandview Ave
E Grandview Ave
W Laurel Ave
E Laurel Ave
Victoria Ln
Merrill Ave
E Highland Ave
N Canon Ave
Sierra Vista Park
Oakview Ln
Chantry Dr
Little Santa Anita Canyon Creek
W Montecito Ave
E Montecito Ave
Windsor Ln
Coburn Ave
Claridge St
Rodeo Rd
Loralyn D
Santa Anita Ct
Holdman Ave
Colony Dr
Fane St
San Gabr
Terey Ln
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (4%)
Education (8%)
Industrial (7%)
MF Residential (18%)
SF Residential (63%)
Vacant (<1%)
Image courtesy of USGS Image co
Sierra Vista Park
Catchment Size: 120 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 0.8 acres
Note: Diversion at spreading grounds upstream
0
300
600
1,200
Feet
N

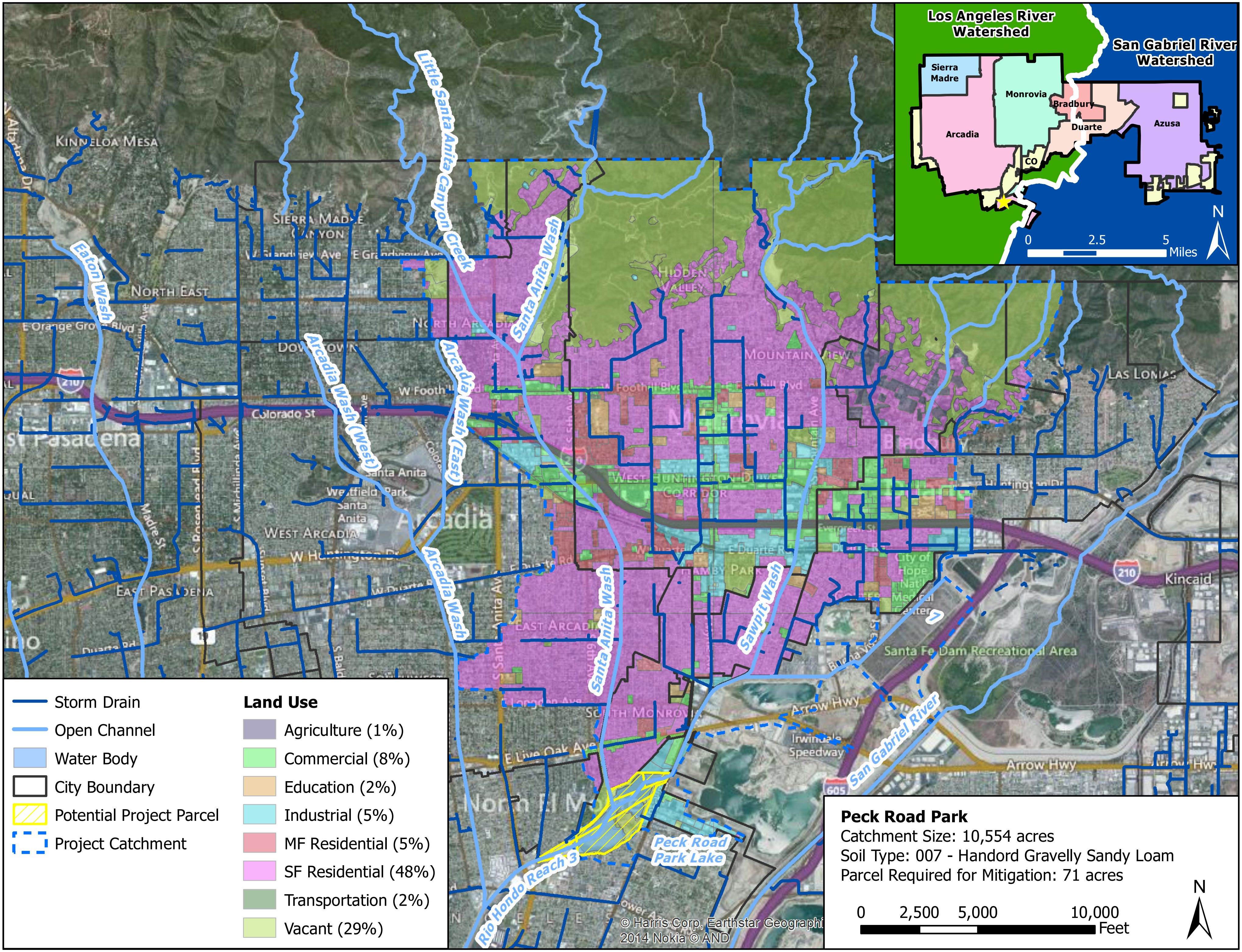

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
N
0 2.5 5 Miles
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (14%)
Education (1%)
Industrial (<1%)
SF Residential (56%)
Vacant (29%)
Royal Oaks Trail (LAR)
Catchment Size: 661 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 4.1 acres
Note: More than one diversion option available
0 600 1,200 2,400 Feet
N
Sawpit Wash
Grand Ave Park
Recreation Park
Image courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
N
0
2.5
5
Miles
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (7%)
Education (3%)
MF Residential (7%)
SF Residential (79%)
Vacant (4%)
L. Garcia Park
Catchment Size: 265 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 1.7 acres
0
500
1,000
2,000
Feet
N
Image courtesy of USGS Image co
W Foothill Blvd
E Foothill Blvd
S Myrtle Ave
Library Park
W Scenic Dr
Hillcrest Blvd
Crescent Dr
Izmir Pl
Court St
Concord Ave
Monroe Pl
Oaks Ave
W Greystone Ave
Cedar Ave
Laurel Ave
E Floral Ave
E Forest Ave
E Haven Ave
E Newman Ave
W Lime Ave
W Palm Ave
E Palm Ave
W Lemon Ave
E Lemon Ave
W Colorado Blvd
W Olive Ave
W Walnut Ave
Parker Ave
King St
Wildrose Ave
White Oak Alley


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Little Santa Anita Canyon Creek
Santa Anita Wash
Arcadia Wash
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (<1%)
Commercial (3%)
Education (<1%)
Industrial (1%)
MF Residential (1%)
SF Residential (51%)
Transportation (2%)
Vacant (42%)
Eisenhower Park
Catchment Size: 1,425 acres
Soil Type: 015 - Tujunga Fine Sandy Loam
Parcel Required for Mitigation: 4.6 acres
Note: More than one diversion option available
0
1,000
2,000
4,000
Feet
N


Santa Anita Golf Course Alternative 2
Catchment Size: 315 acres
Soil Type: 006 - Handford Fine Sandy Loam
Parcel Required for Mitigation: 2.1 acres
Note: More than one diversion option available
0
600
1,200
2,400
Feet
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (44%)
Education (1%)
Industrial (4%)
MF Residential (2%)
SF Residential (39%)
Transportation (2%)
Vacant (7%)
Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
0
2.5
5
Miles
N
Santa Anita Park
Santa Anita Golf Course
Arcadia County Park
Arcadia Wash
Santa Anita Wash
Methodist Hospital
Westfield Santa Anita
W Huntington Dr
E Huntington Dr
S Santa Anita Ave
W Colorado Blvd
Colorado St
W Foothill Blvd
W Floral Ave
W Forest Ave
Oxford Dr
Cambridge Dr
Stanford Dr
Harvard Dr
N Baldwin Ave
S Baldwin Ave
Campus Dr
W Duarte Rd
E Duarte Rd
W Magna Vista Ave
W La Sierra Dr
Courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
E Foothill Blvd
E Walnut St
E Colorado Blvd
Arboleda St
Corta Calle St
Buff Ave
Fulton Ave
Orchard Supply Hardware
Lofield Ct
Staples
Backus Ave
S Rosemead Blvd
Meadow Ave
S Quigley Ave
Caroline Ln
E Green St
Mohawk St
Elma Rd
Blanche St
Mountain View Ave
Sycamore Ave
Oakdale Ave
Walnut Dr
Brandon St
Milton St
E Del Mar Blvd
S Halstead St
Thorndale Rd
Madre Villa Ave
Madre St
N Altura Rd
Volante Dr
Monte Verde Dr
La Rosa Rd
Murrieta Dr
Vaquero Rd
Paloma Dr
Encanto Dr
Panorama Dr
N Golden West Ave
Corto Rd
De Anza Pl
Hugo Reid Park
Raymond Dr
Minoa Ave
Michigan Blvd
Laurita Ave
Woodward Blvd
Image courtesy of USGS Image courtesy
AND
Storm Drain
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (22%)
Education (<1%)
Industrial (<1%)
SF Residential (64%)
Transportation (12%)
Vacant (<1%)
Hugo Reid Park
Catchment Size: 165 acres
Soil Type: 003 - Chino Silt Loam
Parcel Required for Mitigation: 1 acre
0
300
600
1,200
Feet
N



Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Arcadia
Bradbury
Duarte
Azusa
CO
0 2.5 5 Miles
N
Little Santa Anita Canyon Creek
Eaton Wash
Santa Anita Wash
Arcadia Wash (West)
Arcadia Wash (East)
Arcadia Wash
Sawpit Wash
San Gabriel River
Rio Hondo Reach 3
Peck Road Park Lake
Santa Fe Dam Recreational Area
Storm Drain
Open Channel
Water Body
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (1%)
Commercial (8%)
Education (2%)
Industrial (5%)
MF Residential (5%)
SF Residential (48%)
Transportation (2%)
Vacant (29%)
Peck Road Park
Catchment Size: 10,554 acres
Soil Type: 007 - Handord Gravelly Sandy Loam
Parcel Required for Mitigation: 71 acres
0 2,500 5,000 10,000 Feet
N
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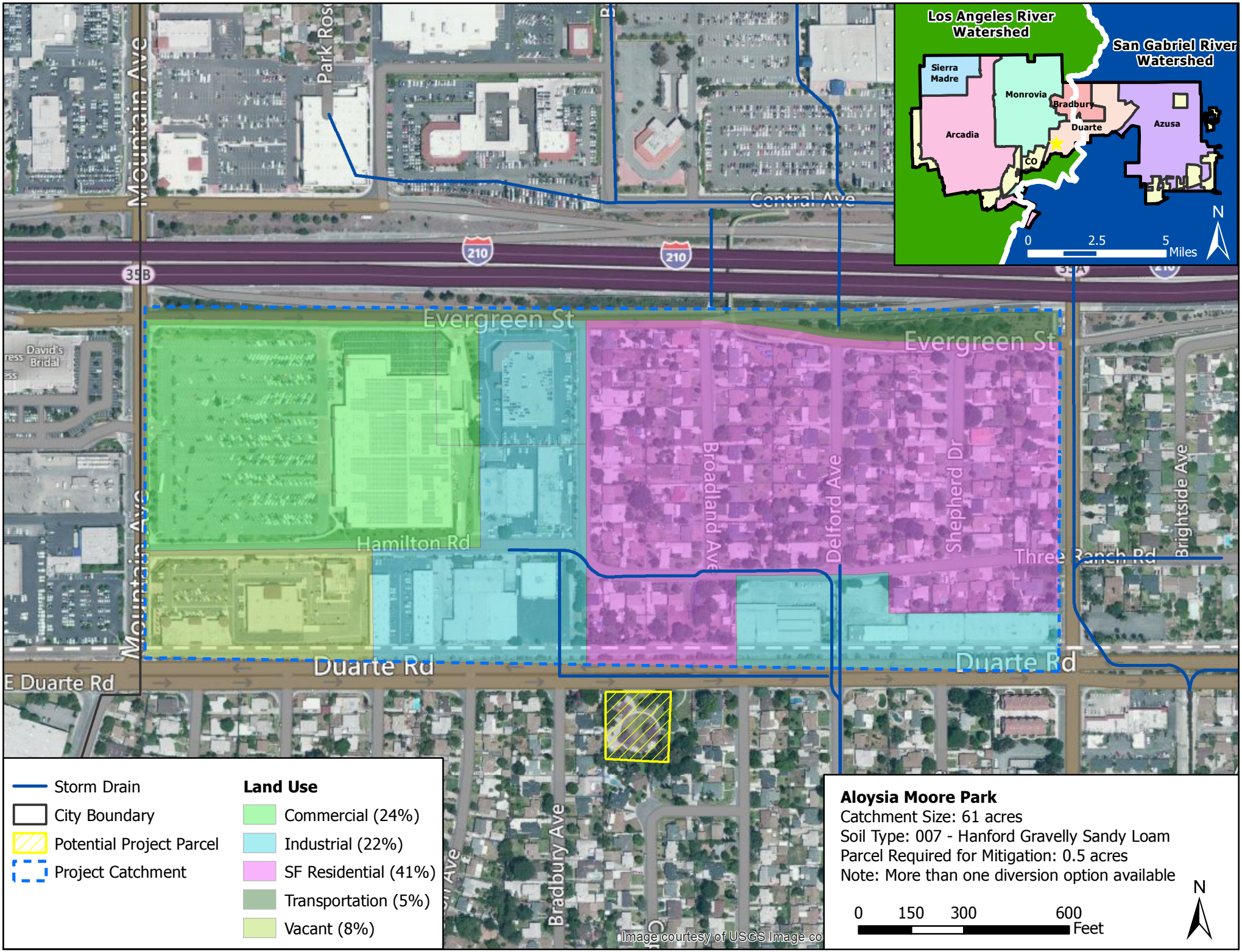
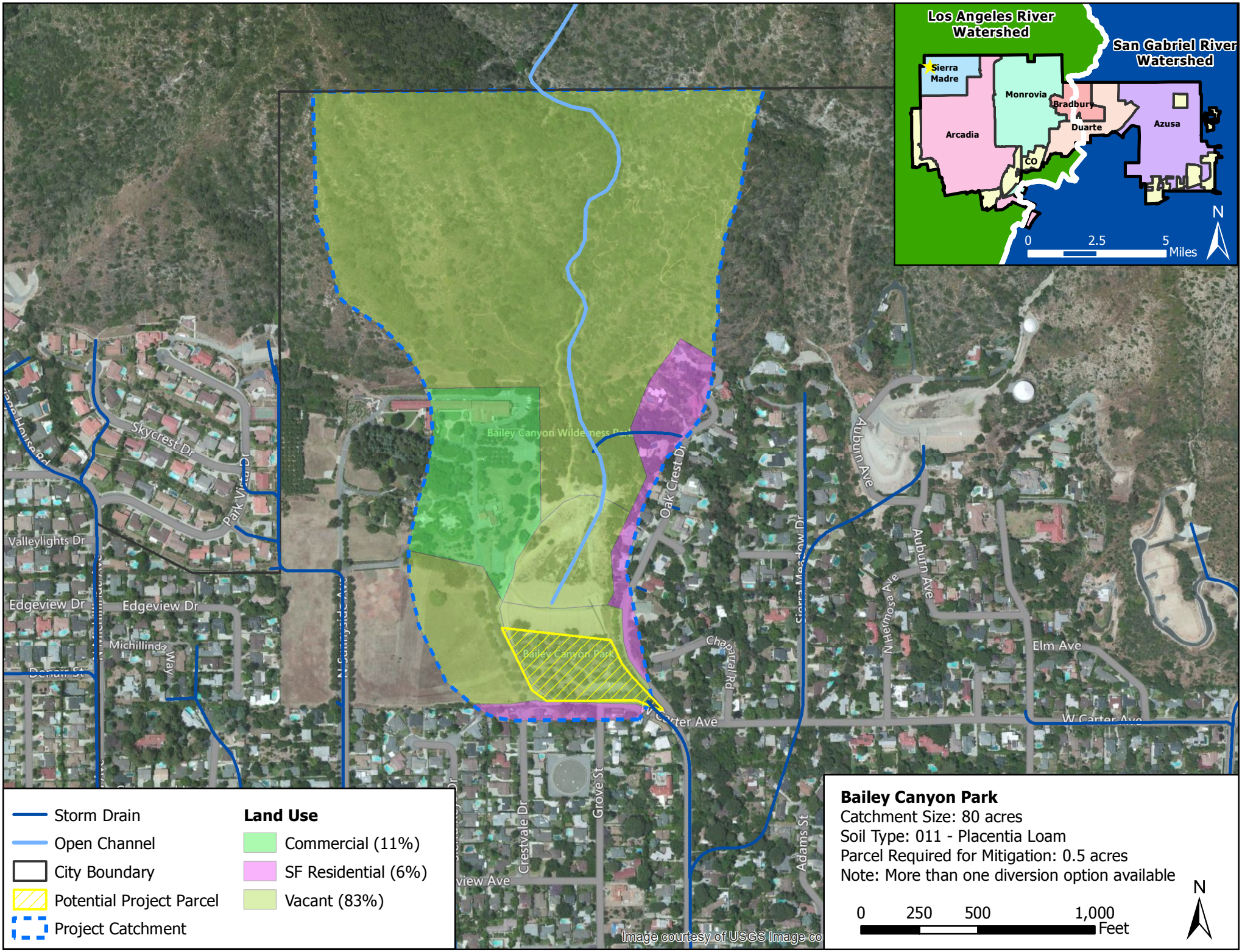
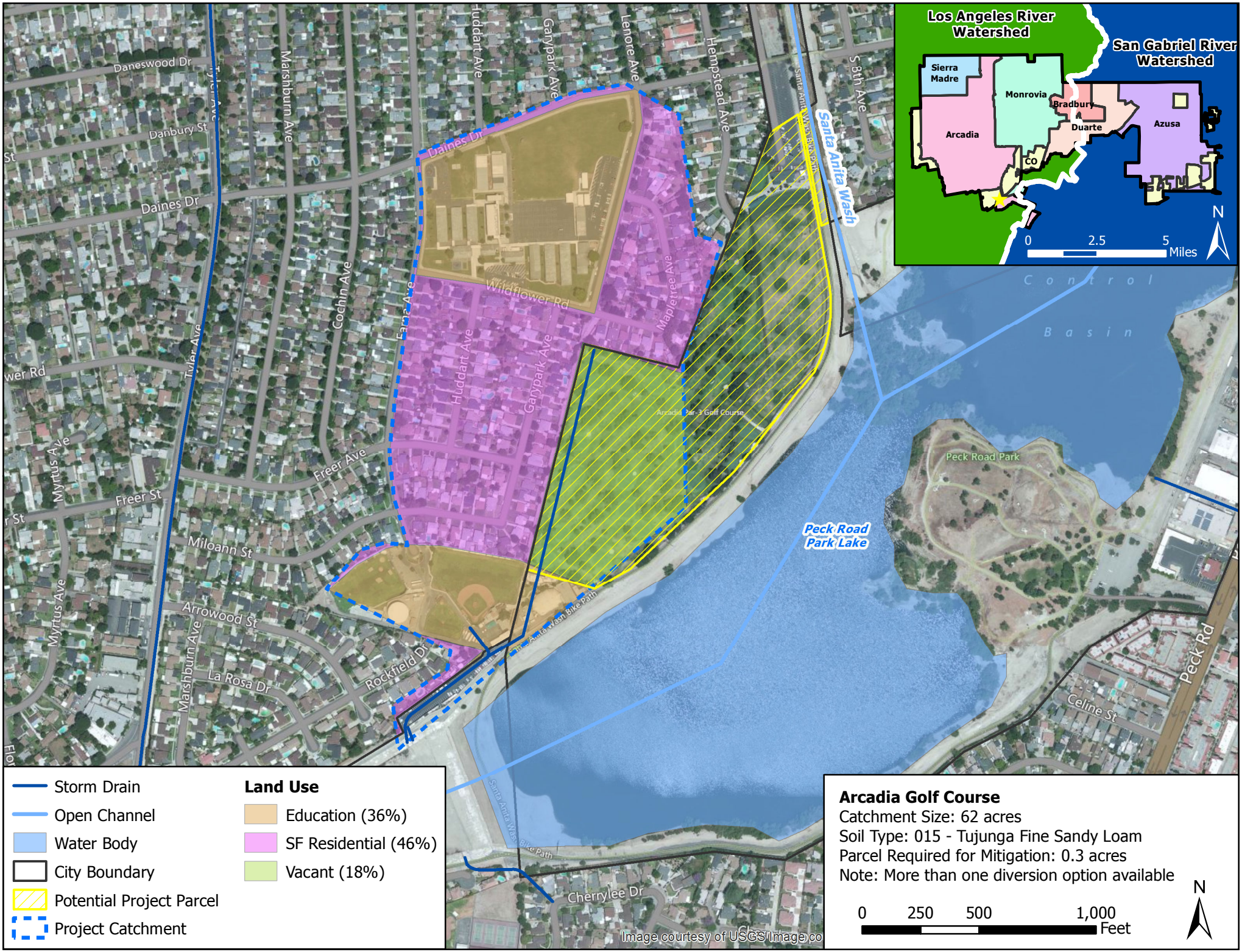
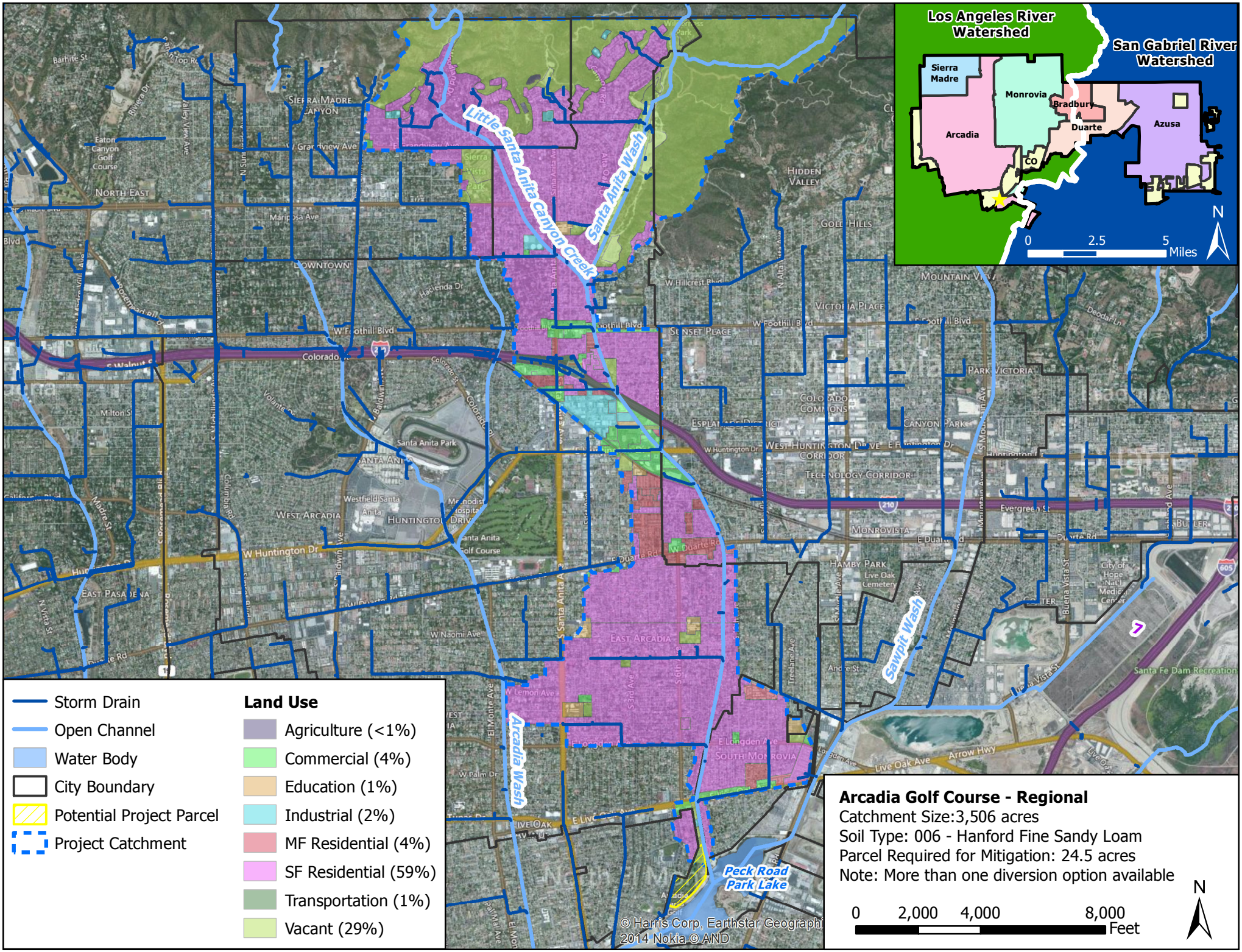

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0 2.5 5 Miles
N
Mountain Ave
Park Rose
Central Ave
210
210
Evergreen St
Evergreen St
David's Bridal
Broadland Ave
Delford Ave
Shepherd Dr
Brightside Ave
Hamilton Rd
Three Ranch Rd
Duarte Rd
Duarte Rd
E Duarte Rd
Bradbury Ave
Image courtesy of USGS Image co
Storm Drain
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (24%)
Industrial (22%)
SF Residential (41%)
Transportation (5%)
Vacant (8%)
Aloysia Moore Park
Catchment Size: 61 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 0.5 acres
Note: More than one diversion option available
0 150 300 600 Feet
N


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
N
0
2.5
5
Miles
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (11%)
SF Residential (6%)
Vacant (83%)
Bailey Canyon Park
Catchment Size: 80 acres
Soil Type: 011 - Placentia Loam
Parcel Required for Mitigation: 0.5 acres
Note: More than one diversion option available
0
250
500
1,000
Feet
N
Skycrest Dr
Park View Dr
Valleylights Dr
Edgeview Dr
Michillinda Way
Oak Crest Dr
Auburn Ave
Elm Ave
W Carter Ave
Crestvale Dr
Grove St
Adams St
Image courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0
2.5
5
Miles
N
Daneswood Dr
Danbury St
Daines Dr
Wildflower Rd
Huddart Ave
Galypark Ave
Lenore Ave
Hempstead Ave
S 8th Ave
Marshburn Ave
Cochin Ave
Tyler Ave
Mapletree Ave
Santa Anita Wash
Control Basin
Arcadia Par-3 Golf Course
Peck Road Park
Peck Road Park Lake
Myrtus Ave
Freer Ave
Freer St
Miloann St
Arrowood St
La Rosa Dr
Rockfield Dr
Santa Anita Wash Bike Path
Cherrylee Dr
Celine St
Peck Rd
Image courtesy of USGS Image co
Storm Drain
Open Channel
Water Body
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Education (36%)
SF Residential (46%)
Vacant (18%)
Arcadia Golf Course
Catchment Size: 62 acres
Soil Type: 015 - Tujunga Fine Sandy Loam
Parcel Required for Mitigation: 0.3 acres
Note: More than one diversion option available
0
250
500
1,000
Feet
N


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
N
0
2.5
5
Miles
Little Santa Anita Canyon Creek
Santa Anita Wash
Sawpit Wash
Arcadia Wash
Peck Road Park Lake
Storm Drain
Open Channel
Water Body
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (<1%)
Commercial (4%)
Education (1%)
Industrial (2%)
MF Residential (4%)
SF Residential (59%)
Transportation (1%)
Vacant (29%)
Arcadia Golf Course - Regional
Catchment Size:3,506 acres
Soil Type: 006 - Hanford Fine Sandy Loam
Parcel Required for Mitigation: 24.5 acres
Note: More than one diversion option available
0
2,000
4,000
8,000
Feet
N
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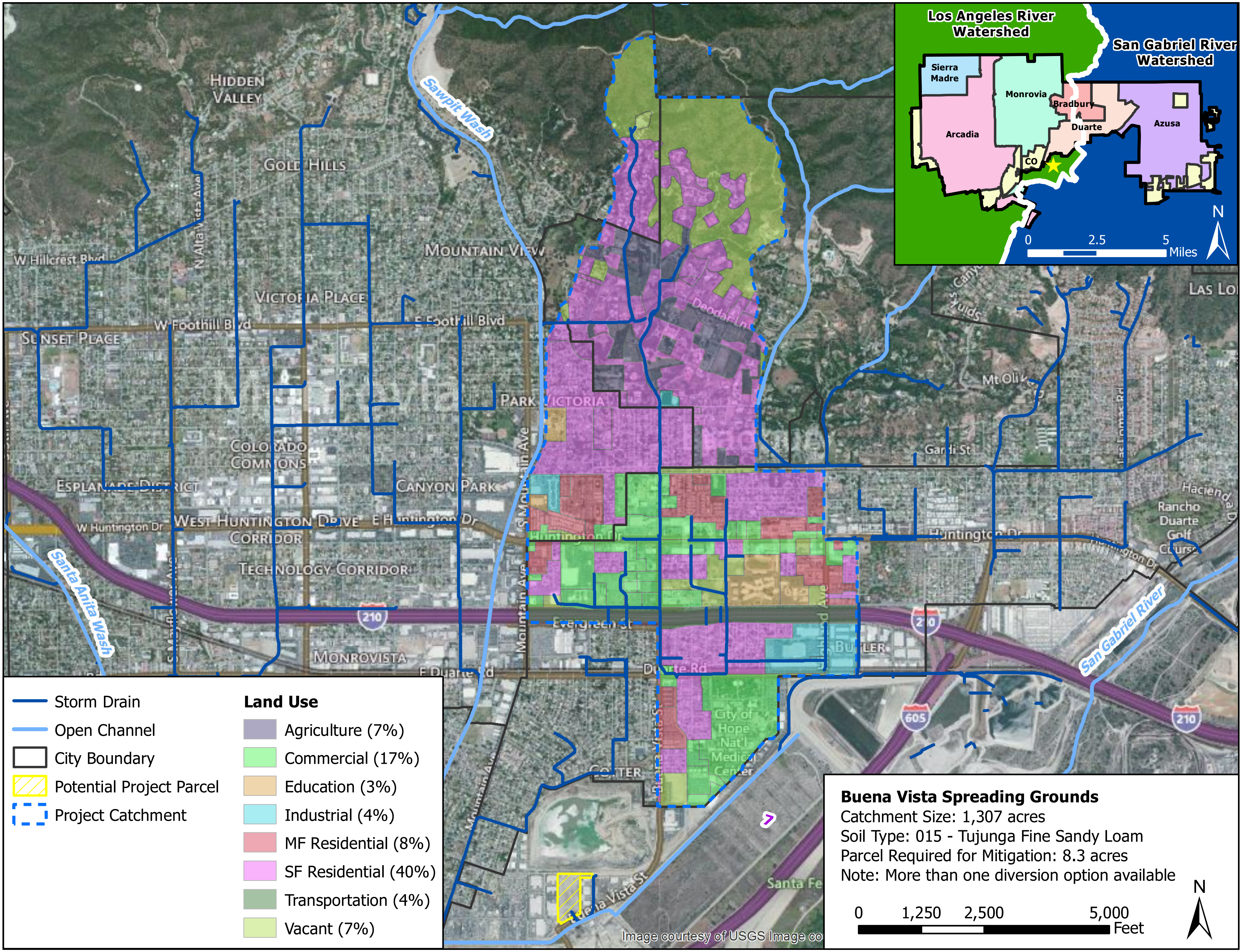
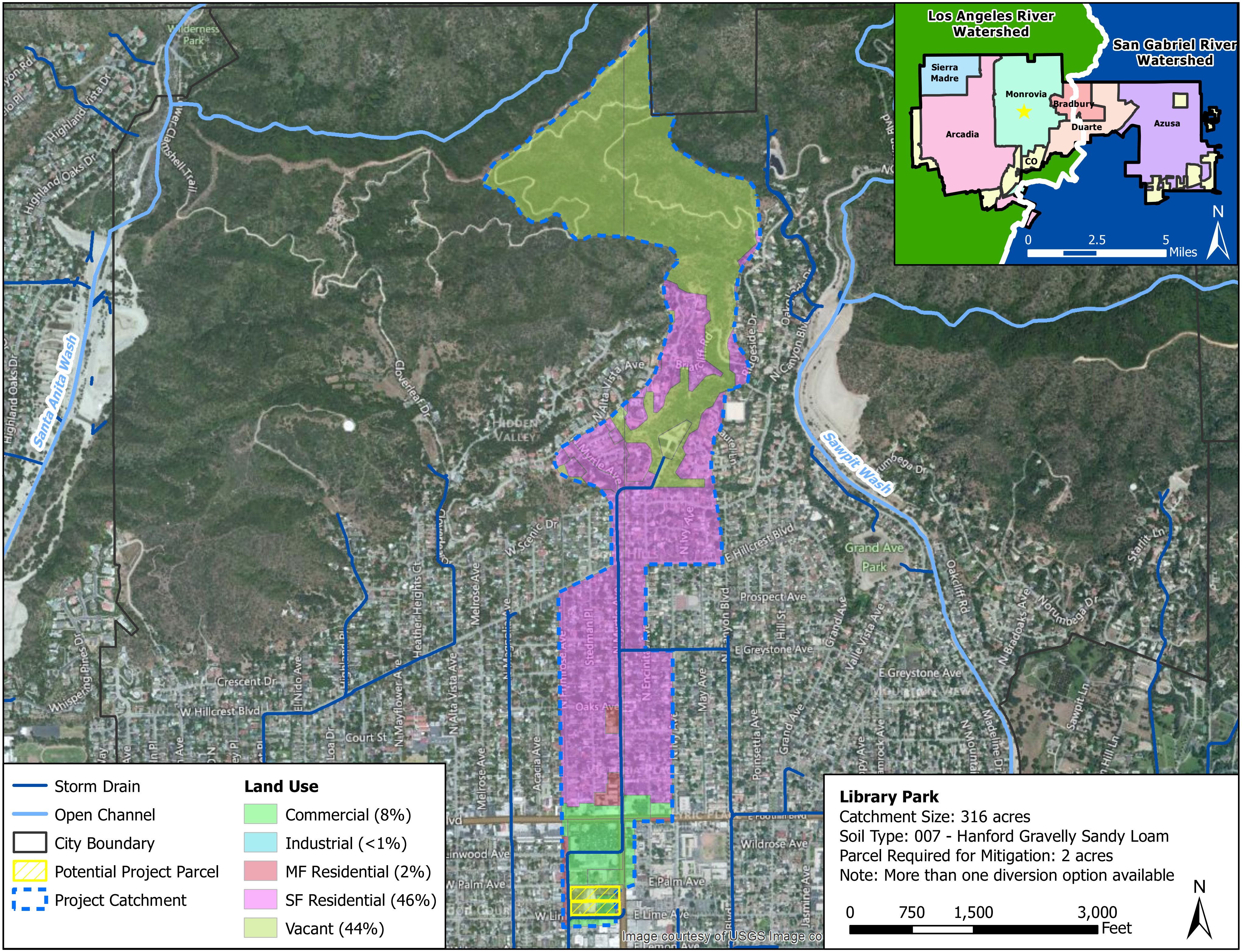
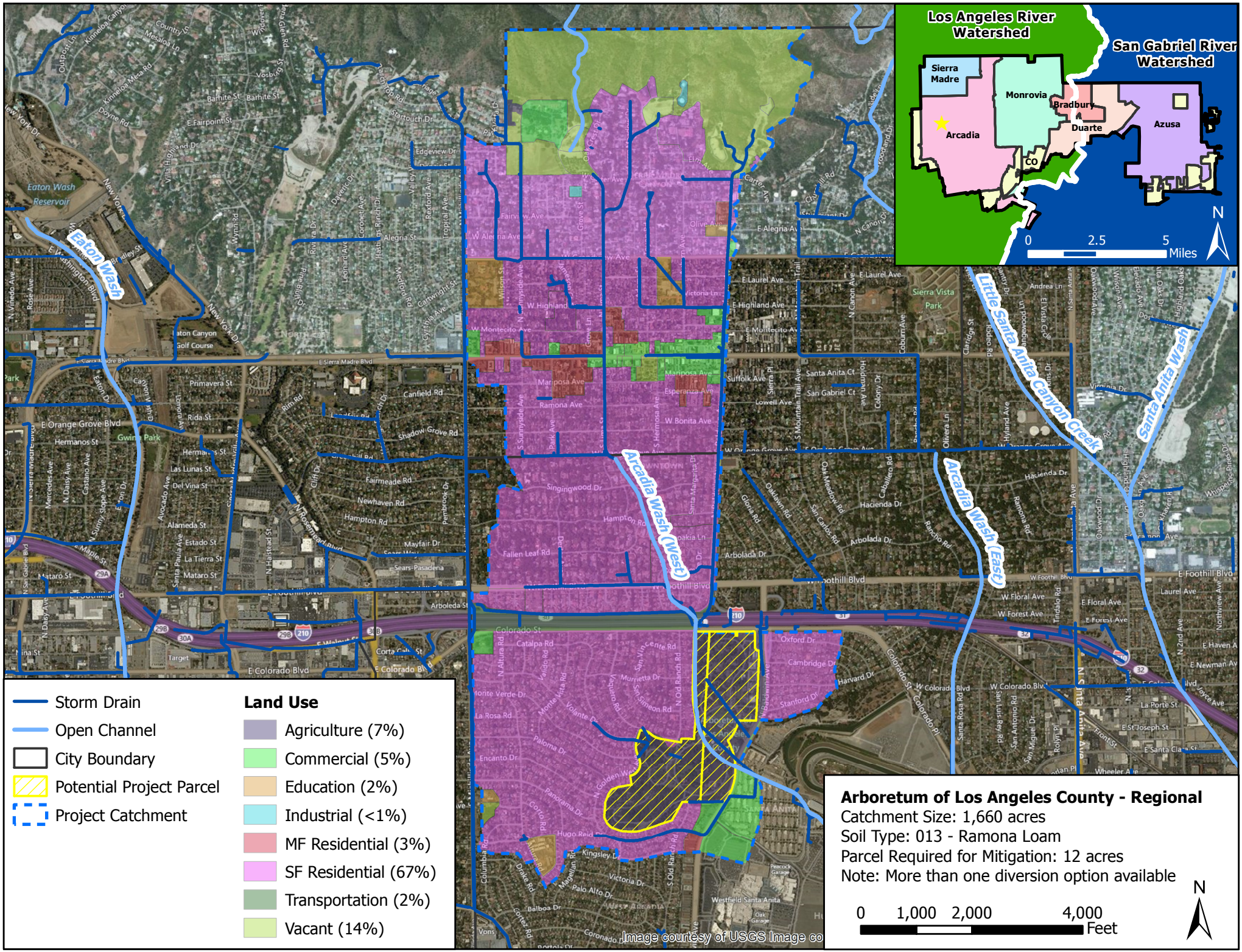
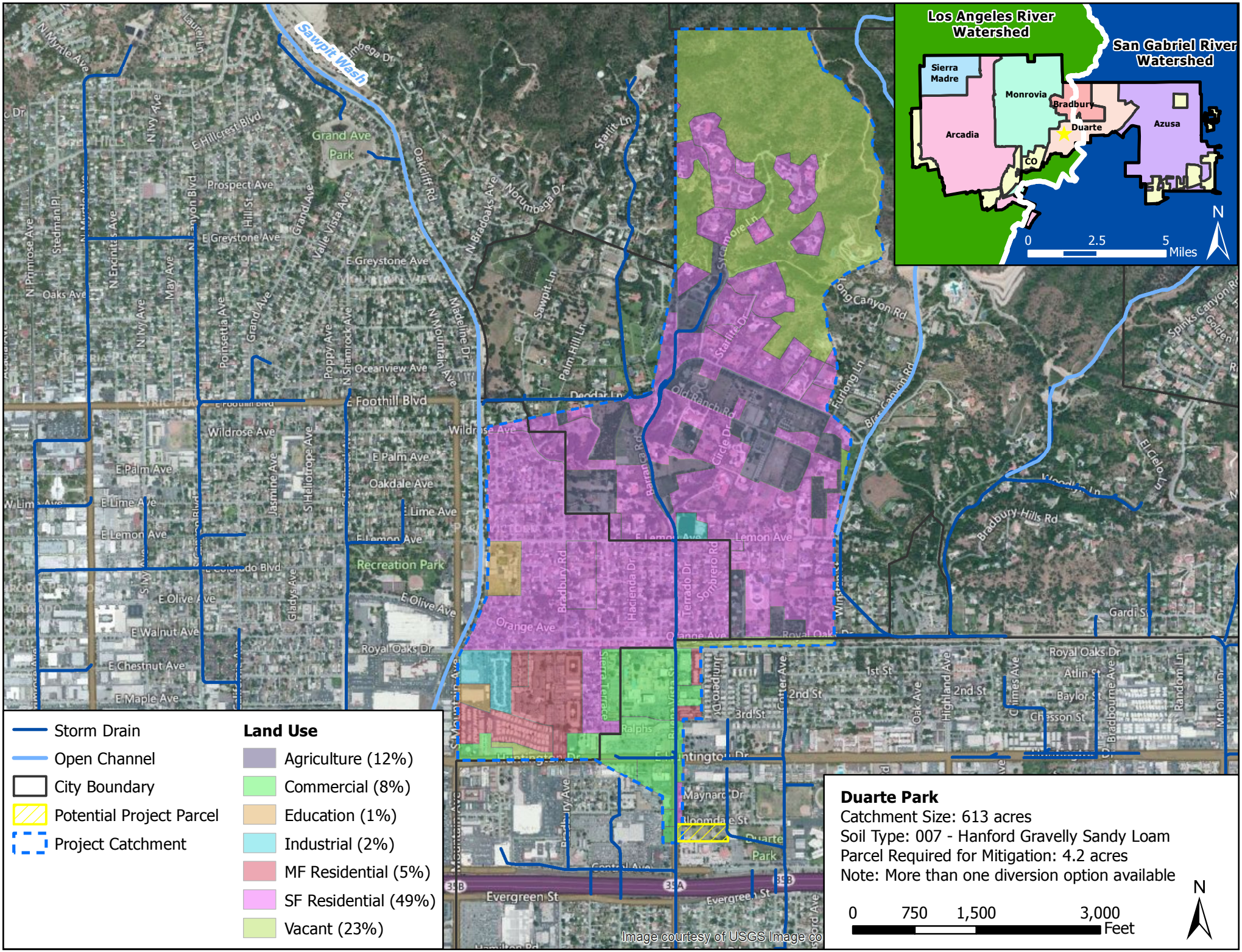
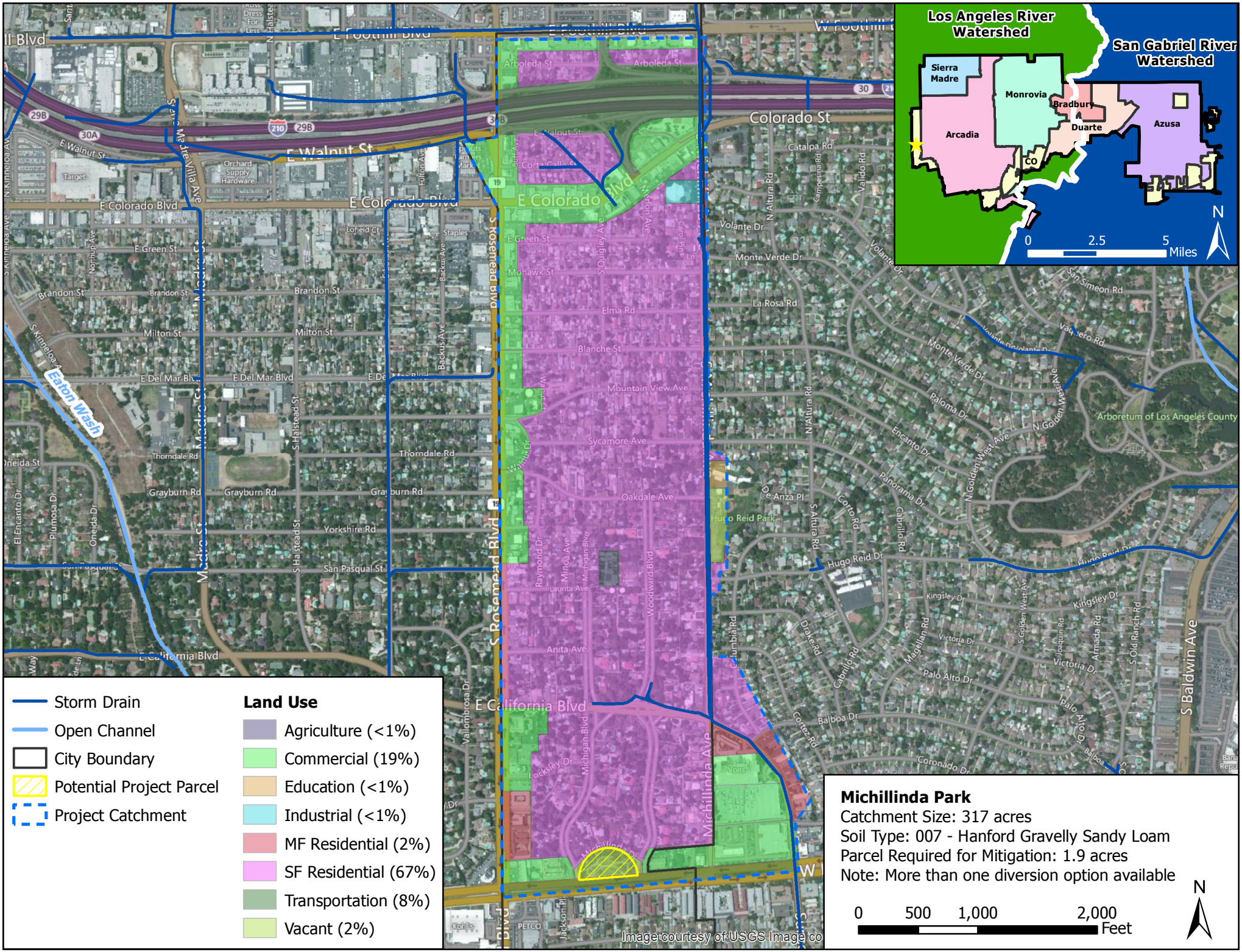
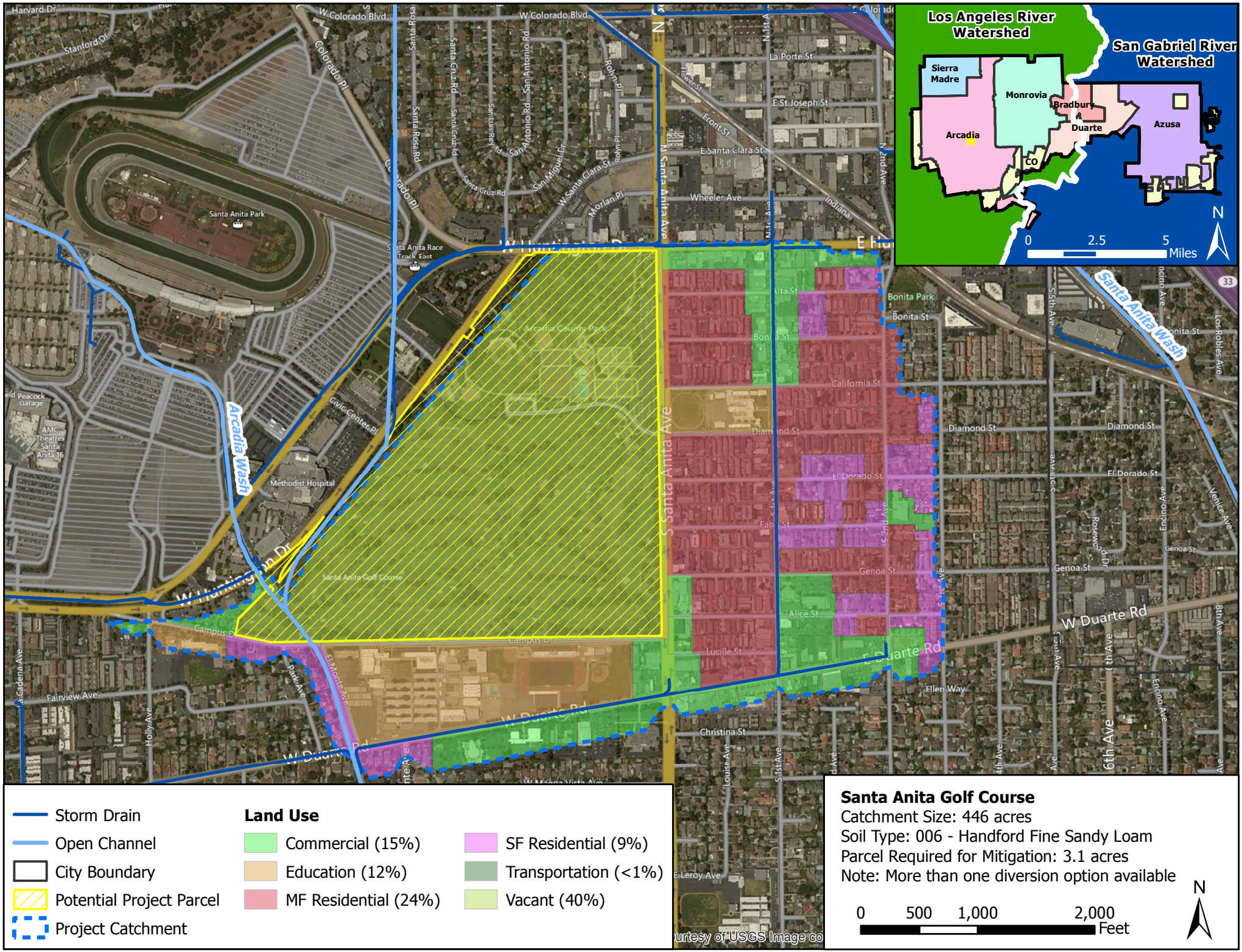

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
0 2.5 5 Miles
N
Hidden Valley
Gold Hills
Mountain View
Victoria Place
Sunset Place
W Foothill Blvd
E Foothill Blvd
W Hillcrest Blvd
Sawpit Wash
Park Victoria
Colorado Commons
Esplanade District
Canyon Park
West Huntington Drive Corridor
W Huntington Dr
Technology Corridor
Santa Anita Wash
Monrovista
E Duarte Rd
Evergreen St
Deodar Ln
Mt Olive
Gardi St
Las Lo
Huntington Dr
Rancho Duarte Golf Course
San Gabriel River
Butler
Duarte Rd
City of Hope Nat'l Medical Center
Cotter
Buena Vista St
Santa Fe
210
605
Image courtesy of USGS Image co
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (7%)
Commercial (17%)
Education (3%)
Industrial (4%)
MF Residential (8%)
SF Residential (40%)
Transportation (4%)
Vacant (7%)
Buena Vista Spreading Grounds
Catchment Size: 1,307 acres
Soil Type: 015 - Tujunga Fine Sandy Loam
Parcel Required for Mitigation: 8.3 acres
Note: More than one diversion option available
0 1,250 2,500 5,000 Feet
N

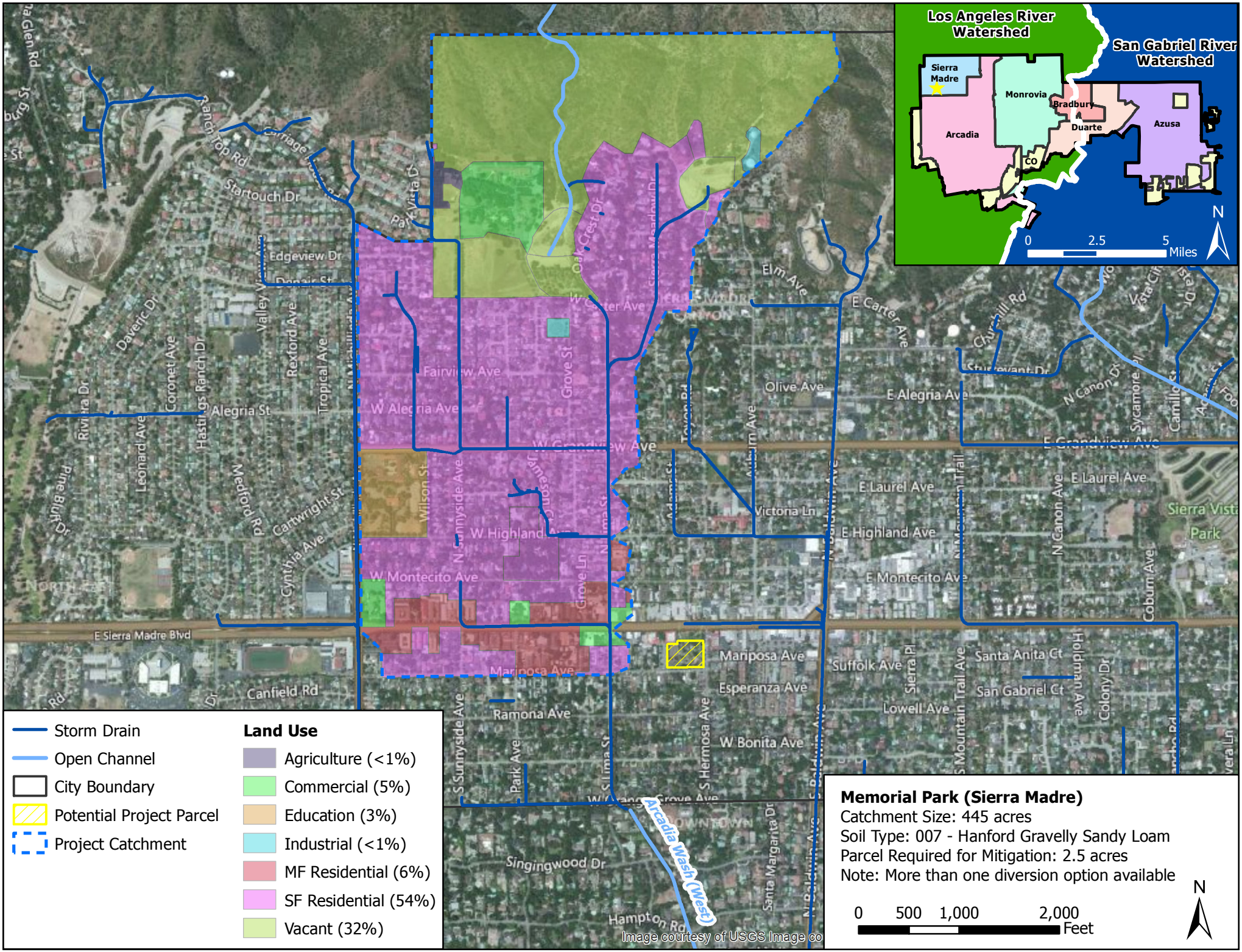

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
N
0
2.5
5
Miles
Santa Anita Wash
Sawpit Wash
Hidden Valley
Grand Ave Park
Wilderness Park
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (8%)
Industrial (<1%)
MF Residential (2%)
SF Residential (46%)
Vacant (44%)
Library Park
Catchment Size: 316 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 2 acres
Note: More than one diversion option available
0
750
1,500
3,000
Feet
N
Image courtesy of USGS Image co

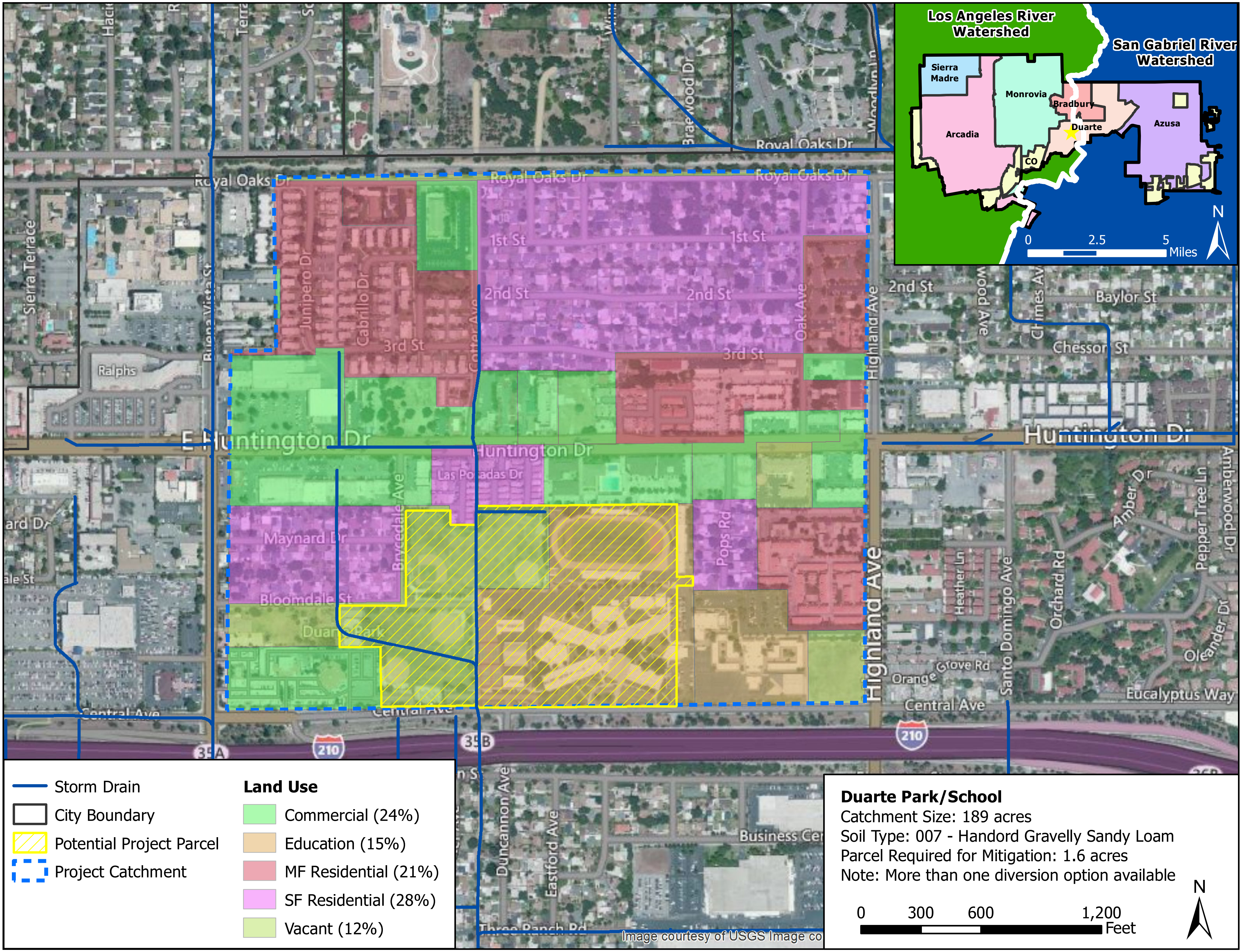

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Eaton Wash
Eaton Wash Reservoir
Little Santa Anita Canyon Creek
Santa Anita Wash
Arcadia Wash (West)
Arcadia Wash (East)
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (7%)
Commercial (5%)
Education (2%)
Industrial (<1%)
MF Residential (3%)
SF Residential (67%)
Transportation (2%)
Vacant (14%)
Arboretum of Los Angeles County - Regional
Catchment Size: 1,660 acres
Soil Type: 013 - Ramona Loam
Parcel Required for Mitigation: 12 acres
Note: More than one diversion option available
0
1,000
2,000
4,000
Feet
N
Image courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
CO
Azusa
0
2.5
5
Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (12%)
Commercial (8%)
Education (1%)
Industrial (2%)
MF Residential (5%)
SF Residential (49%)
Vacant (23%)
Duarte Park
Catchment Size: 613 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 4.2 acres
Note: More than one diversion option available
0
750
1,500
3,000
Feet
N
Image courtesy of USGS Image co
Sawpit Wash
Grand Ave Park
Recreation Park
Duarte Park
Foothill Blvd
Evergreen St
Lemon Ave
Orange Ave
Royal Oaks Dr
Bradbury Hills Rd

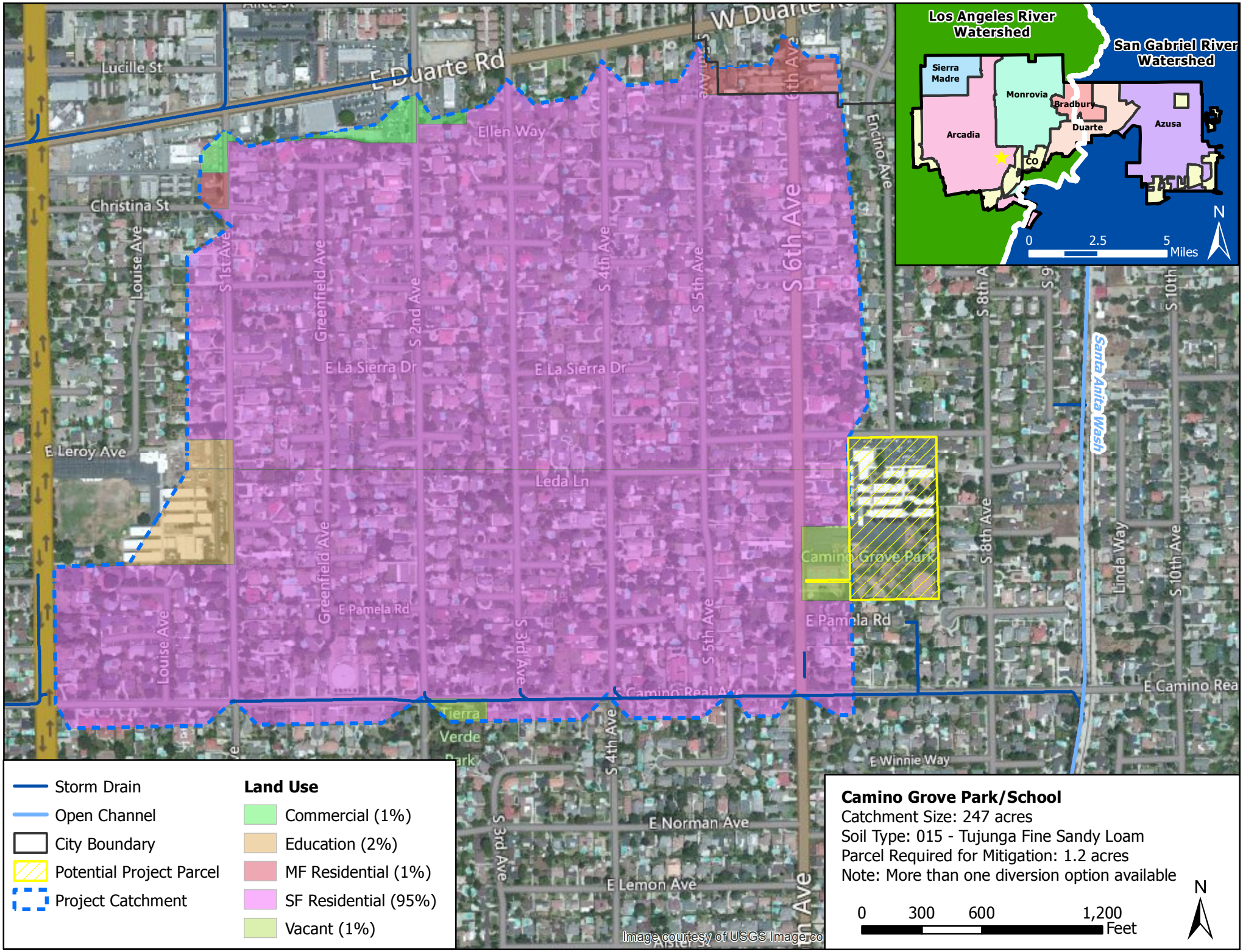

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0 2.5 5 Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (<1%)
Commercial (19%)
Education (<1%)
Industrial (<1%)
MF Residential (2%)
SF Residential (67%)
Transportation (8%)
Vacant (2%)
Michillinda Park
Catchment Size: 317 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 1.9 acres
Note: More than one diversion option available
0 500 1,000 2,000 Feet
N
Image courtesy of USGS Image co
E Colorado Blvd
E Walnut St
Colorado St
E California Blvd
Eaton Wash
Arboretum of Los Angeles County
Hugo Reid Park
S Rosemead Blvd
Michillinda Ave
S Baldwin Ave

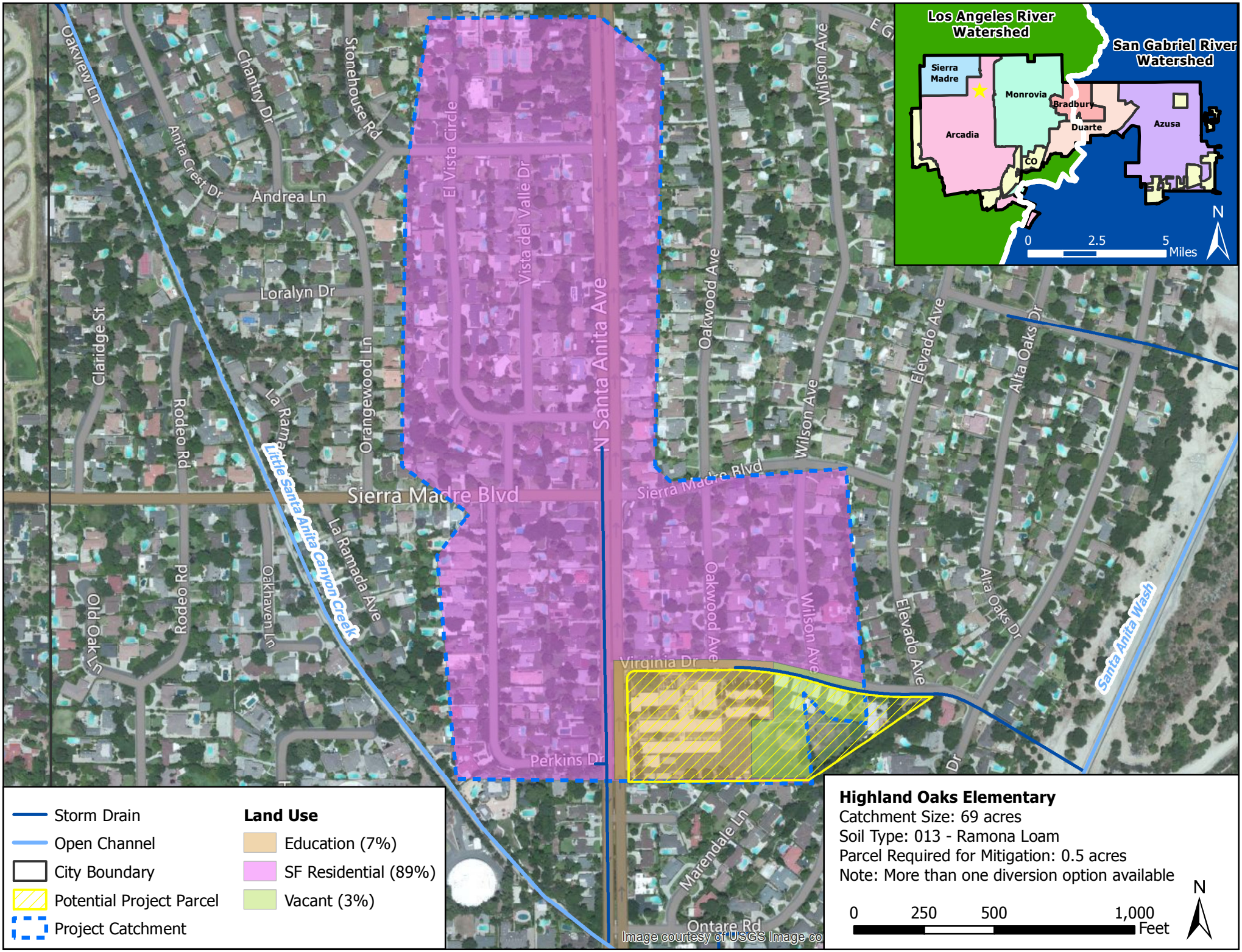

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (15%)
Education (12%)
MF Residential (24%)
SF Residential (9%)
Transportation (<1%)
Vacant (40%)
Santa Anita Golf Course
Catchment Size: 446 acres
Soil Type: 006 - Handford Fine Sandy Loam
Parcel Required for Mitigation: 3.1 acres
Note: More than one diversion option available
0
500
1,000
2,000
Feet
N
Arcadia Wash
Santa Anita Wash
Santa Anita Golf Course
Arcadia County Park
Santa Anita Park
Methodist Hospital
W Colorado Blvd
S Santa Anita Ave
W Duarte Rd
E Duarte Rd
Campus Dr
Wheeler Ave
E Santa Clara St
California St
Diamond St
El Dorado St
Genoa St
Alice St
Lucille St
Bonita St
Bonita Park
Christina St
Ellen Way
Fairview Ave
6th Ave

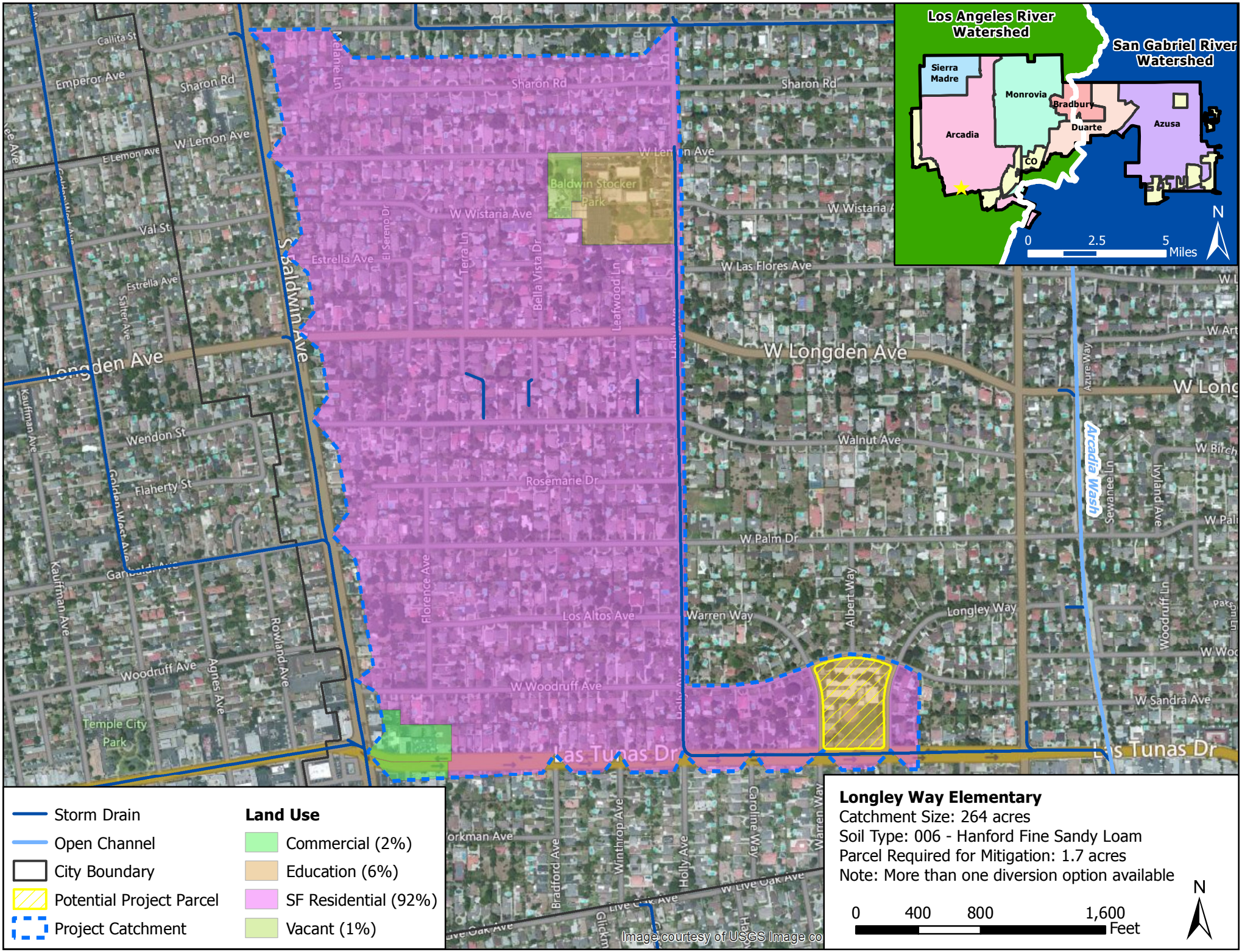

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0 2.5 5 Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (<1%)
Commercial (5%)
Education (3%)
Industrial (<1%)
MF Residential (6%)
SF Residential (54%)
Vacant (32%)
Memorial Park (Sierra Madre)
Catchment Size: 445 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 2.5 acres
Note: More than one diversion option available
0 500 1,000 2,000 Feet
N
Arcadia Wash (West)
Image courtesy of USGS Image co

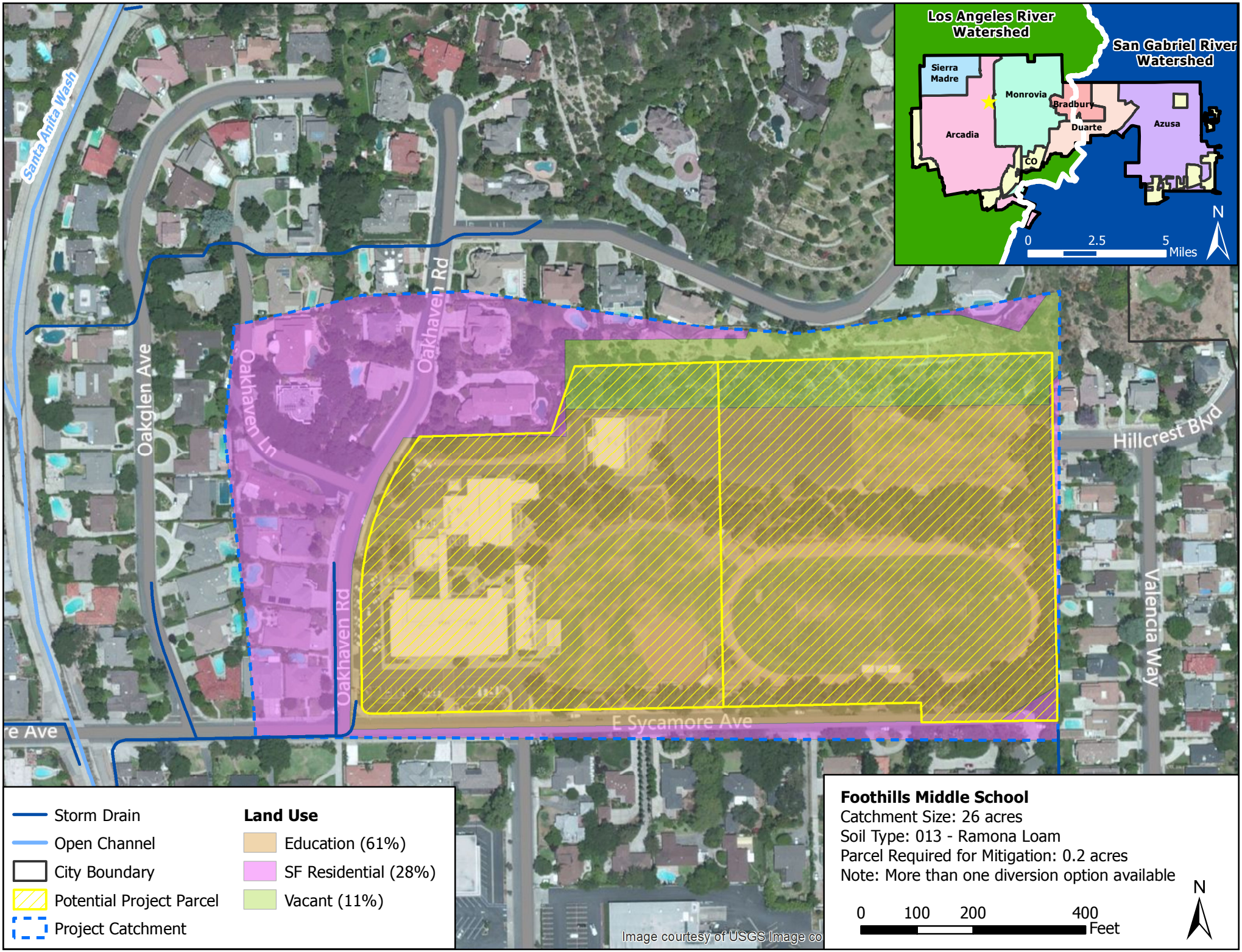


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
0
2.5
5
Miles
N
Royal Oaks Dr
1st St
2nd St
3rd St
Junipero Dr
Cabrillo Dr
Oak Ave
Highland Ave
Buena Vista St
Sierra Terrace
Ralphs
E Huntington Dr
Huntington Dr
Las Posadas Dr
Maynard Dr
Bloomdale St
Brycedale Ave
Pops Rd
Duarte Park
Central Ave
Baylor St
Chesson St
Amber Dr
Pepper Tree Ln
Heather Ln
Santo Domingo Ave
Orchard Rd
Orange Grove Rd
Eucalyptus Way
Oleander Dr
Duncannon Ave
Eastford Ave
Three Ranch Rd
210
35A
35B
Image courtesy of USGS Image co
Storm Drain
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (24%)
Education (15%)
MF Residential (21%)
SF Residential (28%)
Vacant (12%)
Duarte Park/School
Catchment Size: 189 acres
Soil Type: 007 - Handord Gravelly Sandy Loam
Parcel Required for Mitigation: 1.6 acres
Note: More than one diversion option available
0
300
600
1,200
Feet
N

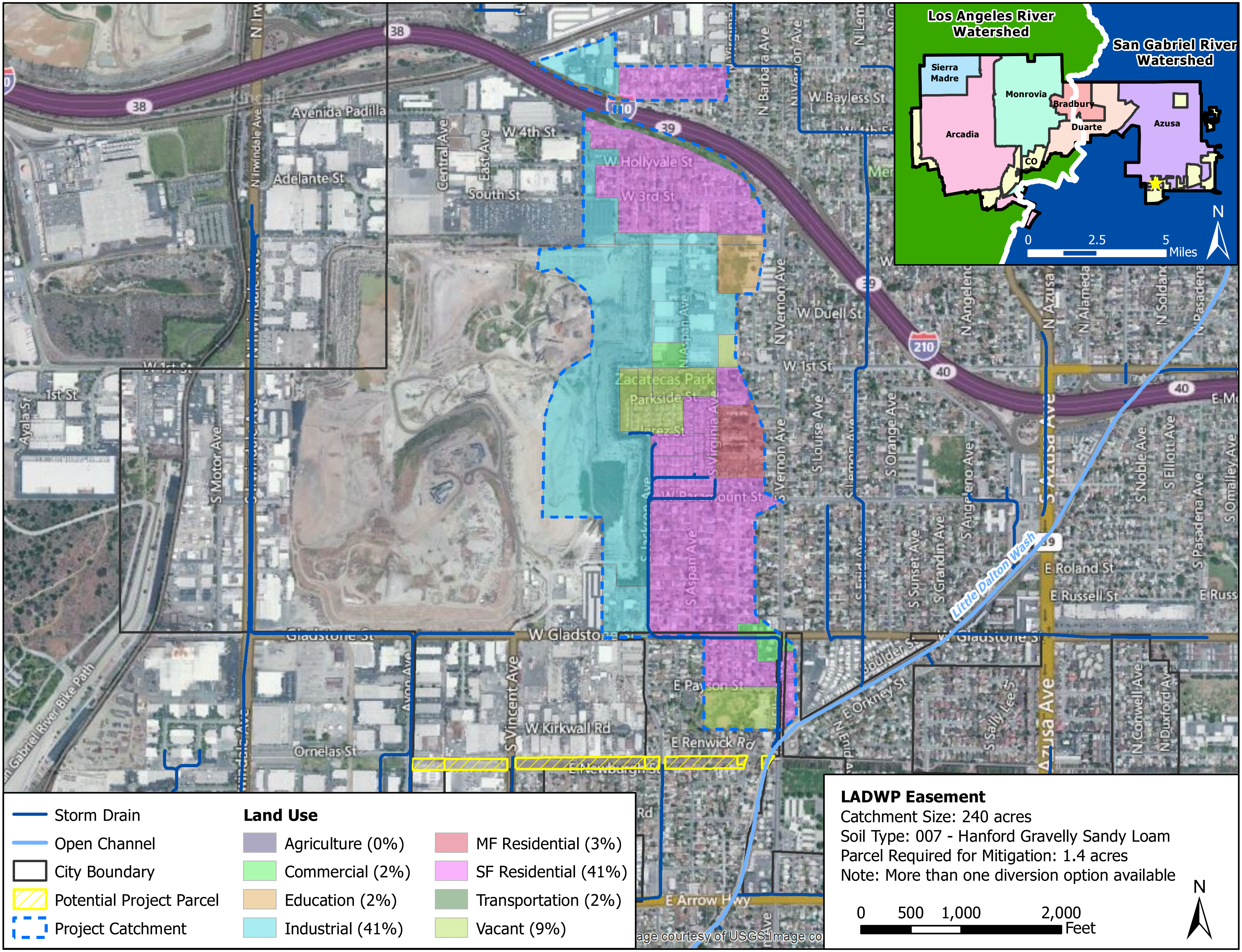

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0
2.5
5
Miles
N
E Duarte Rd
W Duarte Rd
Lucille St
Christina St
Louise Ave
Greenfield Ave
S 1st Ave
S 2nd Ave
S 3rd Ave
S 4th Ave
S 5th Ave
S 6th Ave
Encino Ave
Ellen Way
E La Sierra Dr
E Leroy Ave
Leda Ln
Camino Grove Park
E Pamela Rd
S 8th Ave
S 10th Ave
Santa Anita Wash
Linda Way
E Camino Real Ave
E Camino Rea
Tierra Verde Park
E Winnie Way
E Norman Ave
E Lemon Ave
Image courtesy of USGS Image co
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (1%)
Education (2%)
MF Residential (1%)
SF Residential (95%)
Vacant (1%)
Camino Grove Park/School
Catchment Size: 247 acres
Soil Type: 015 - Tujunga Fine Sandy Loam
Parcel Required for Mitigation: 1.2 acres
Note: More than one diversion option available
0
300
600
1,200
Feet
N

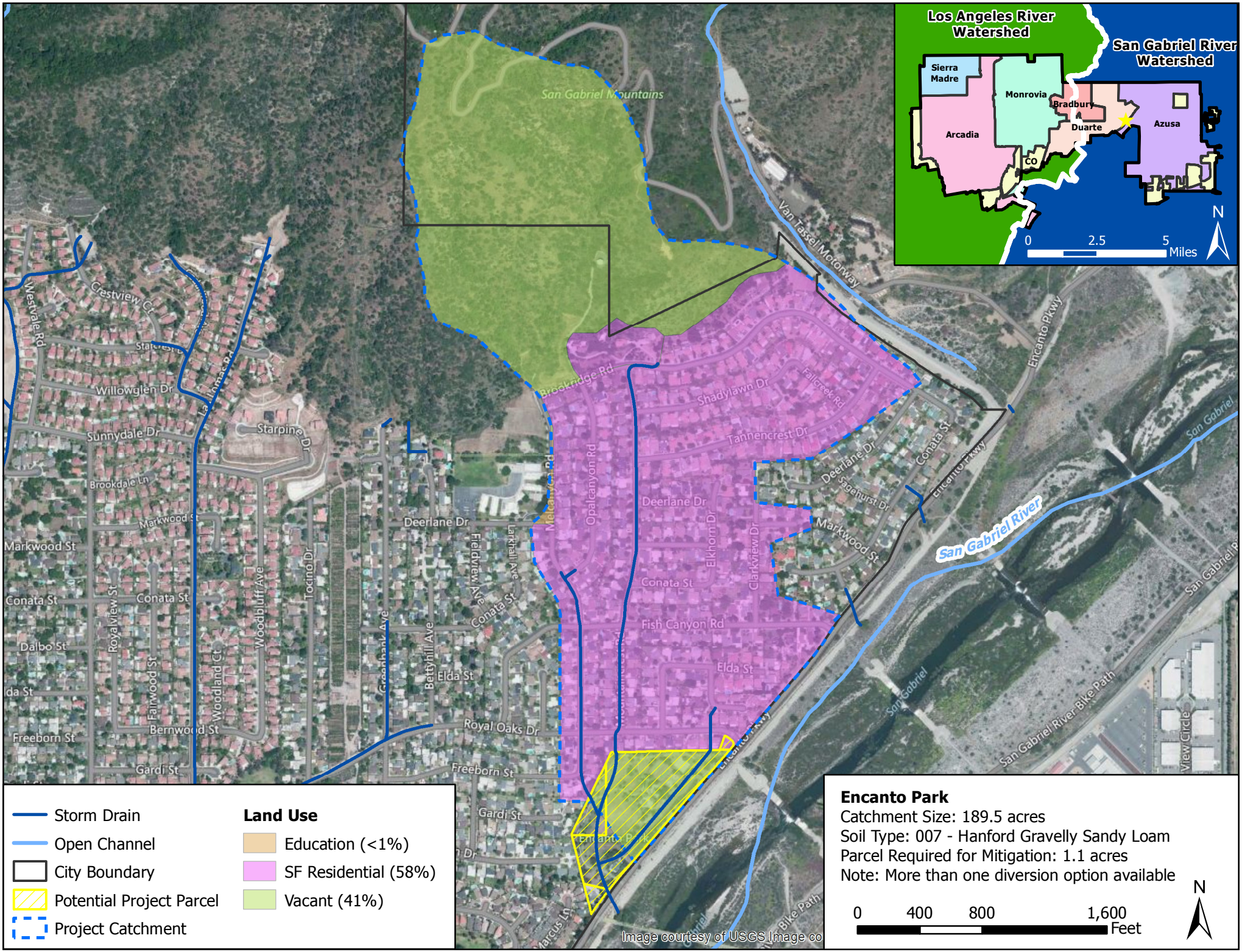

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0 2.5 5 Miles
N
Oakview Ln
Chantry Dr
Stonehouse Rd
Anita Crest Dr
Andrea Ln
El Vista Circle
Vista del Valle Dr
N Santa Anita Ave
Wilson Ave
Oakwood Ave
Elevado Ave
Alta Oaks Dr
Loralyn Dr
Claridge St
Rodeo Rd
La Ramada Ln
Orangewood Ln
Little Santa Anita Canyon Creek
Sierra Madre Blvd
La Ramada Ave
Old Oak Ln
Oakhaven Ln
Virginia Dr
Perkins Dr
Marendale Ln
Ontare Rd
Santa Anita Wash
Image courtesy of USGS Image co
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Education (7%)
SF Residential (89%)
Vacant (3%)
Highland Oaks Elementary
Catchment Size: 69 acres
Soil Type: 013 - Ramona Loam
Parcel Required for Mitigation: 0.5 acres
Note: More than one diversion option available
0 250 500 1,000 Feet
N

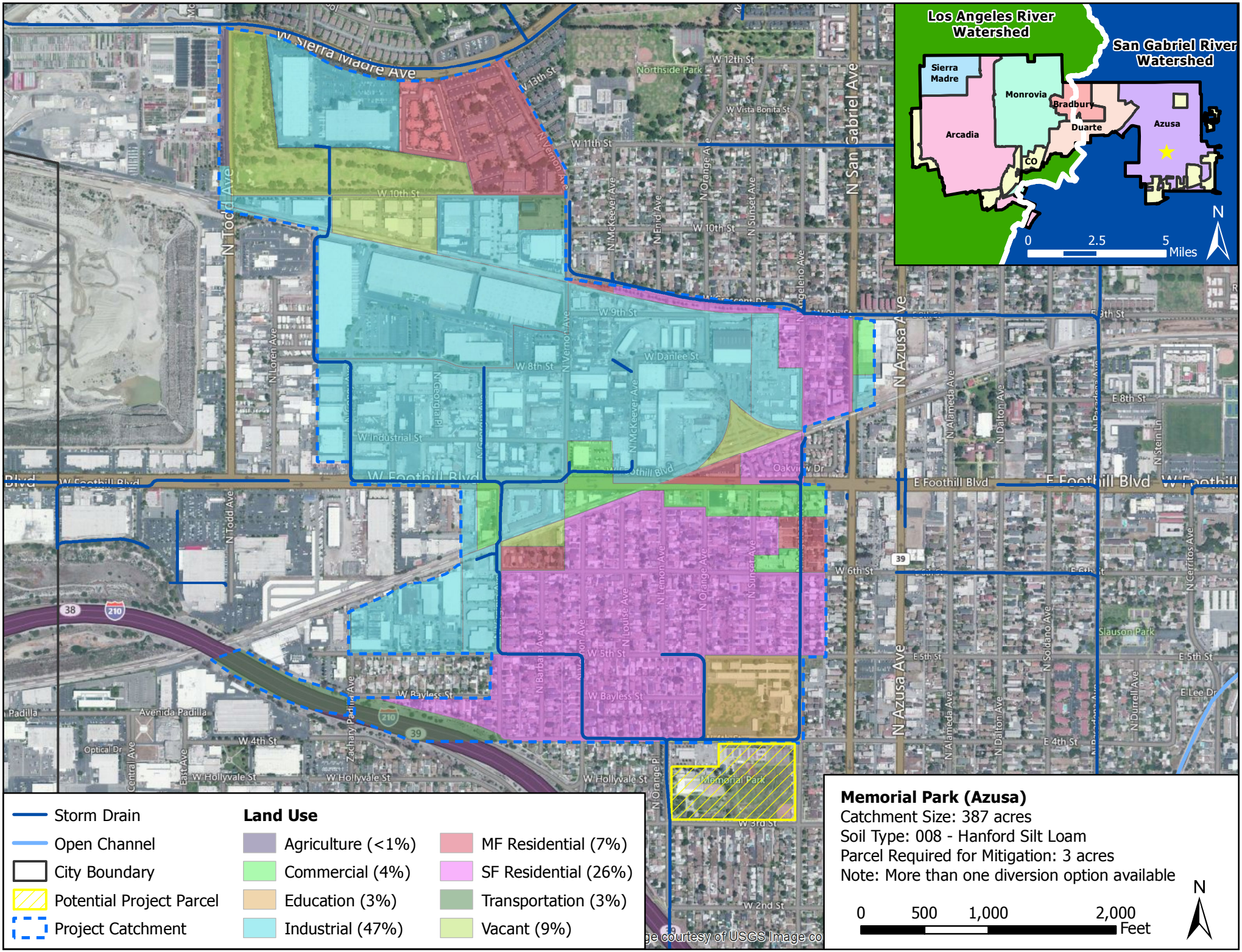

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (2%)
Education (6%)
SF Residential (92%)
Vacant (1%)
Longley Way Elementary
Catchment Size: 264 acres
Soil Type: 006 - Hanford Fine Sandy Loam
Parcel Required for Mitigation: 1.7 acres
Note: More than one diversion option available
0
400
800
1,600
Feet
N
Image courtesy of USGS Image co

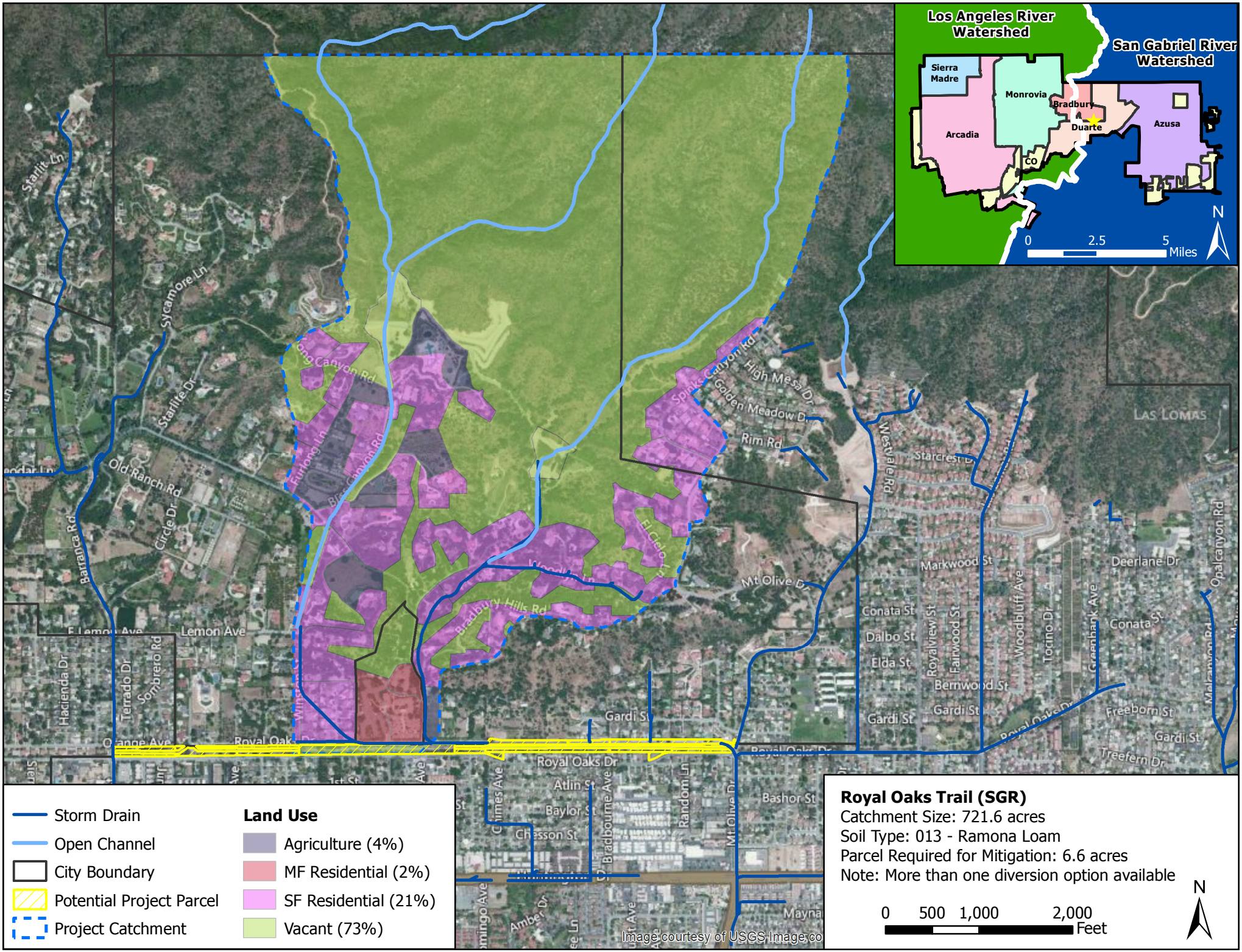

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
N
0
2.5
5
Miles
Santa Anita Wash
Oakglen Ave
Oakhaven Rd
Oakhaven Ln
Oakhaven Rd
Hillcrest Blvd
Valencia Way
E Sycamore Ave
e Ave
Image courtesy of USGS Image co
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Education (61%)
SF Residential (28%)
Vacant (11%)
Foothills Middle School
Catchment Size: 26 acres
Soil Type: 013 - Ramona Loam
Parcel Required for Mitigation: 0.2 acres
Note: More than one diversion option available
0
100
200
400
Feet
N

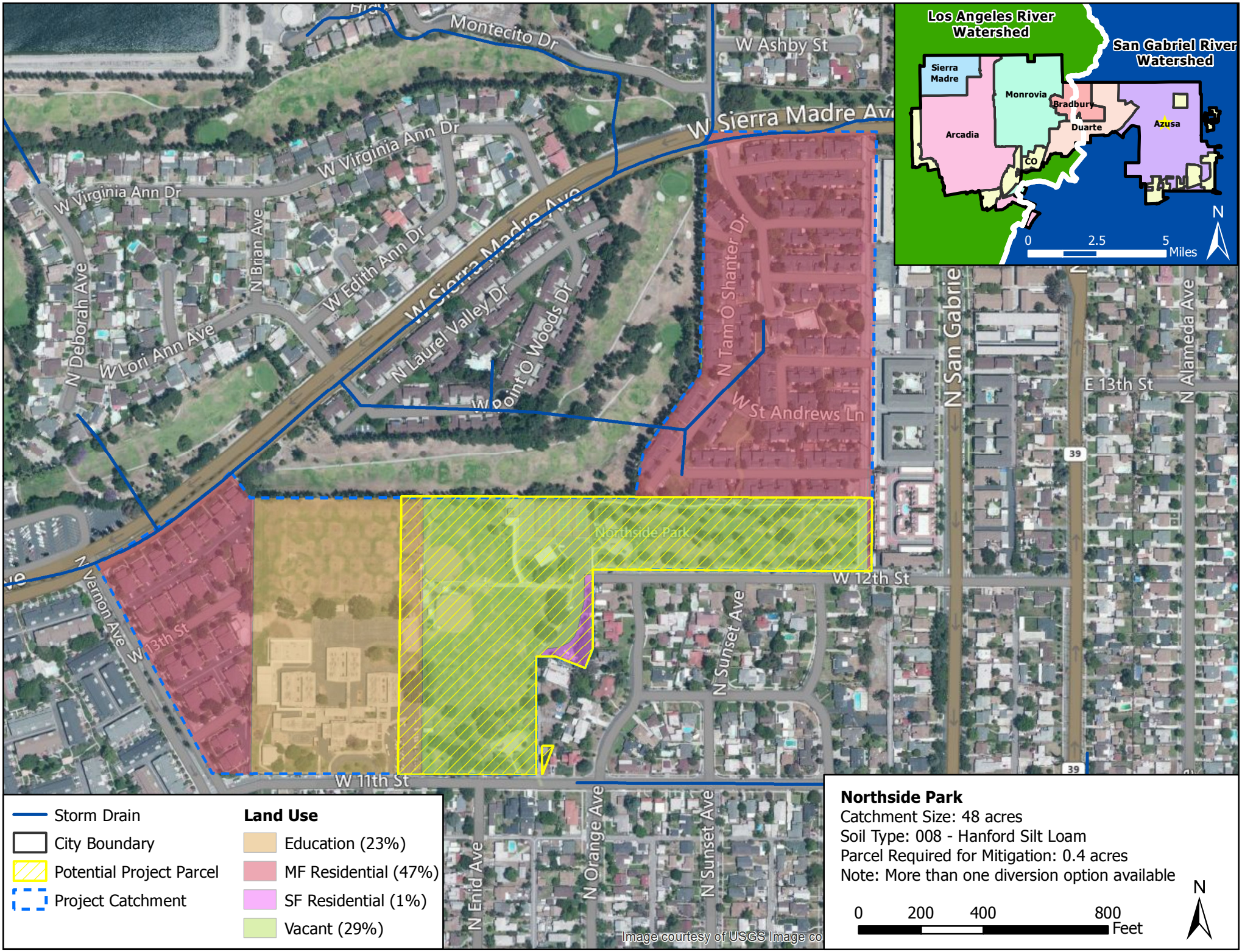
SGR Watershed

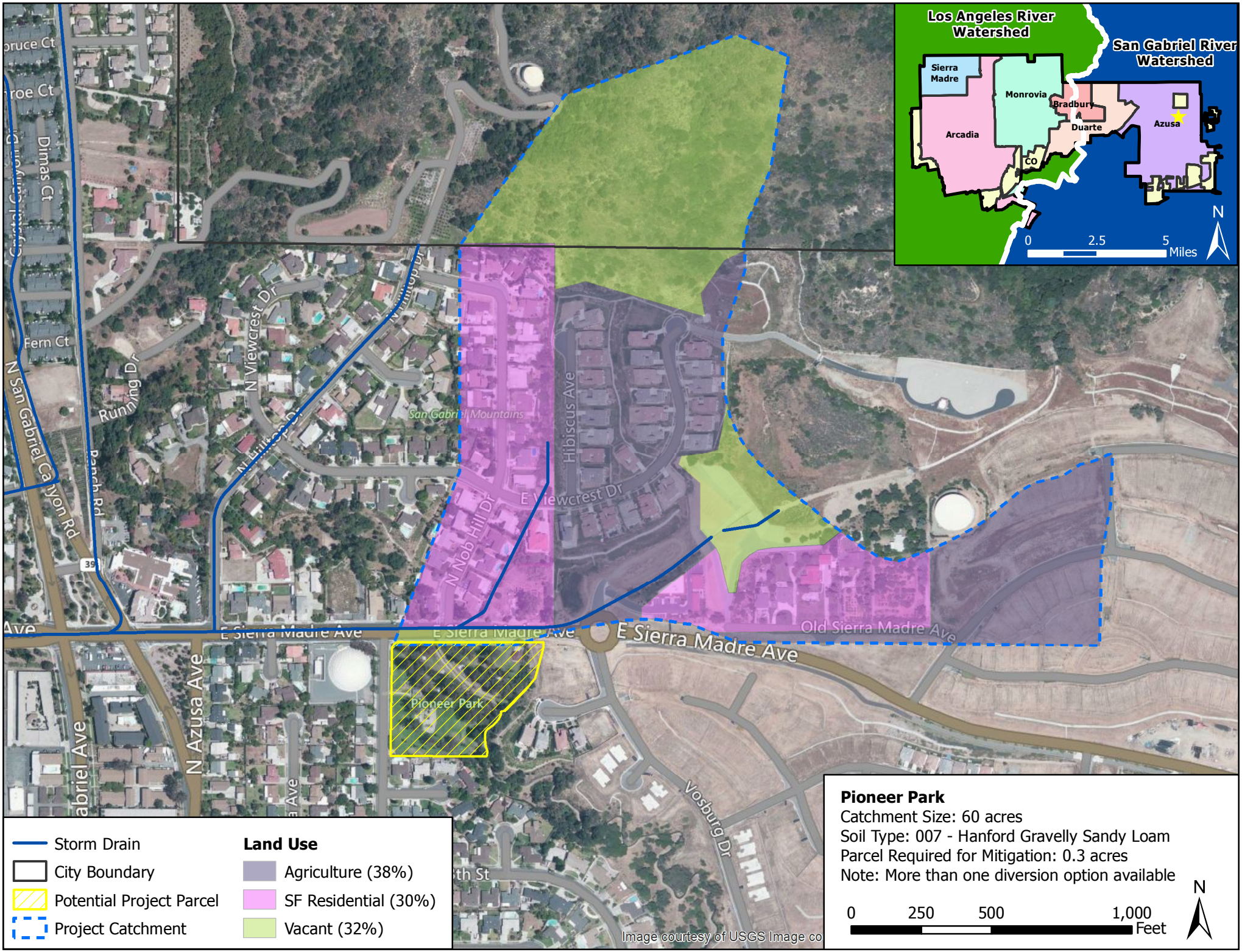

LADWP Easement
Catchment Size: 240 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 1.4 acres
Note: More than one diversion option available
0 500 1,000 2,000 Feet
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (0%)
Commercial (2%)
Education (2%)
Industrial (41%)
MF Residential (3%)
SF Residential (41%)
Transportation (2%)
Vacant (9%)
Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
0 2.5 5 Miles
N
Avenida Padilla
Adelante St
W 4th St
South St
W Hollyvale St
W 3rd St
W Bayless St
W Duell St
W 1st St
Zacatecas Park
Parkside St
W Gladstone St
E Payson St
W Kirkwall Rd
E Renwick Rd
Ornelas St
E Arrow Hwy
E Roland St
E Russell St
Little Dalton Wash
San Gabriel River Bike Path
N Irwindale Ave
Central Ave
East Ave
N Barbara Ave
N Vernon Ave
S Vernon Ave
N Aspan Ave
S Aspan Ave
S Virginia Ave
S Louise Ave
S Orange Ave
S Motor Ave
S Vincent Ave
S Azusa Ave
Azusa Ave
N Azusa Ave
S Noble Ave
S Elliott Ave
S Pasadena Ave
S Sunset Ave
S Grandin Ave
E Orkney St
N Cornwell Ave
N Duxford Ave
210
39
40
38
Image courtesy of USGS Image co

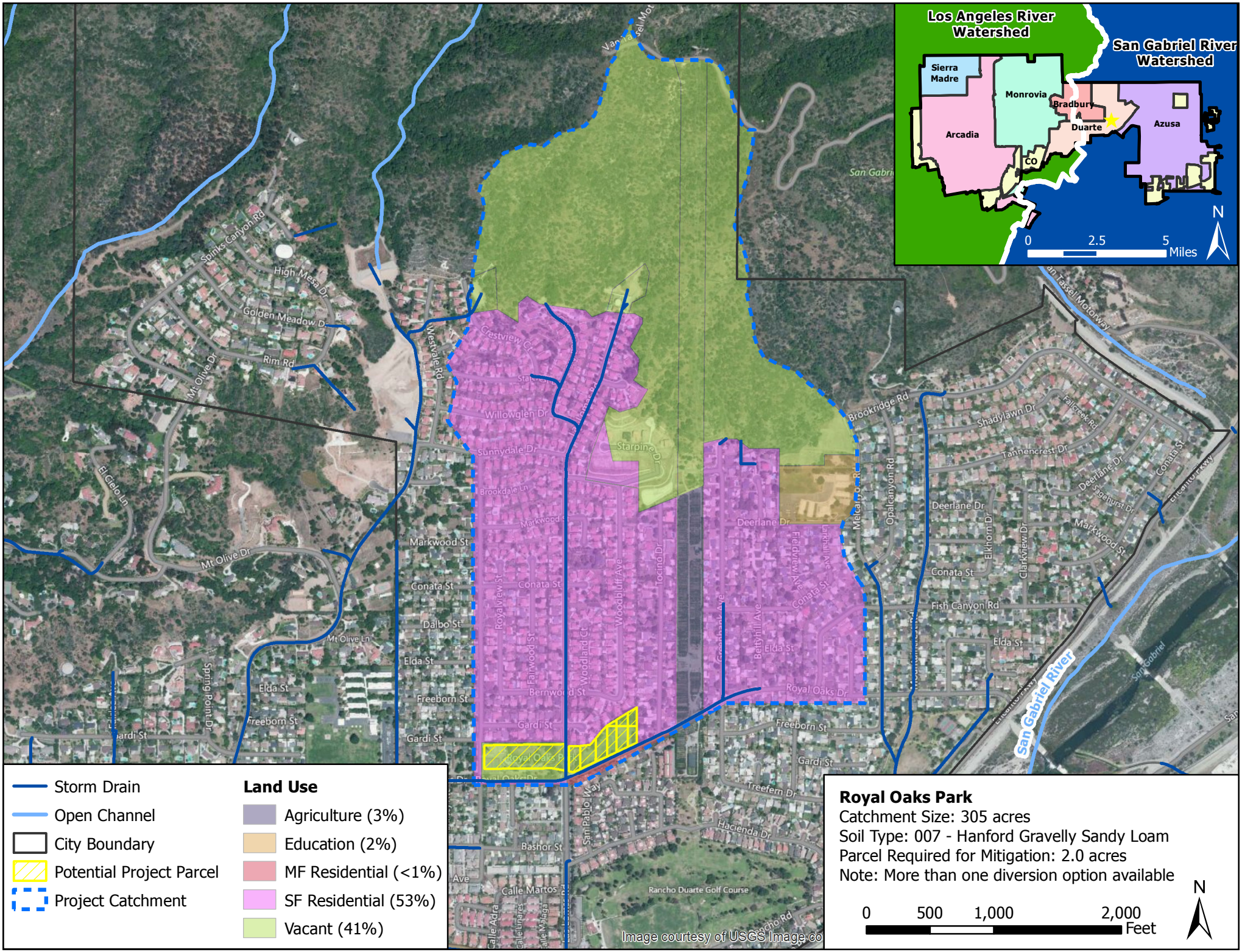

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
San Gabriel Mountains
Van Tassel Motorway
Encanto Pkwy
Brookridge Rd
Shadylawn Dr
Tannencrest Dr
Deerlane Dr
Opalcanyon Rd
Elkhorn Dr
Clarkview Dr
Conata St
Fish Canyon Rd
Elda St
Markwood St
San Gabriel River
San Gabriel River Bike Path
Crestview Ct
Westvale Rd
Willowglen Dr
Sunnydale Dr
Starpine Dr
Brookdale Ln
Royalview St
Woodbluff Ave
Toccino Dr
Fieldview Ave
Larkhall Ave
Greenbank Ave
Bettyhill Ave
Royal Oaks Dr
Freeborn St
Gardi St
Dalbo St
Bernwood St
Fairwood St
Woodland Ct
Sagehurst Dr
Falcreek Rd
View Circle
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Education (<1%)
SF Residential (58%)
Vacant (41%)
Encanto Park
Catchment Size: 189.5 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 1.1 acres
Note: More than one diversion option available
0
400
800
1,600
Feet
N
Image courtesy of USGS Image co

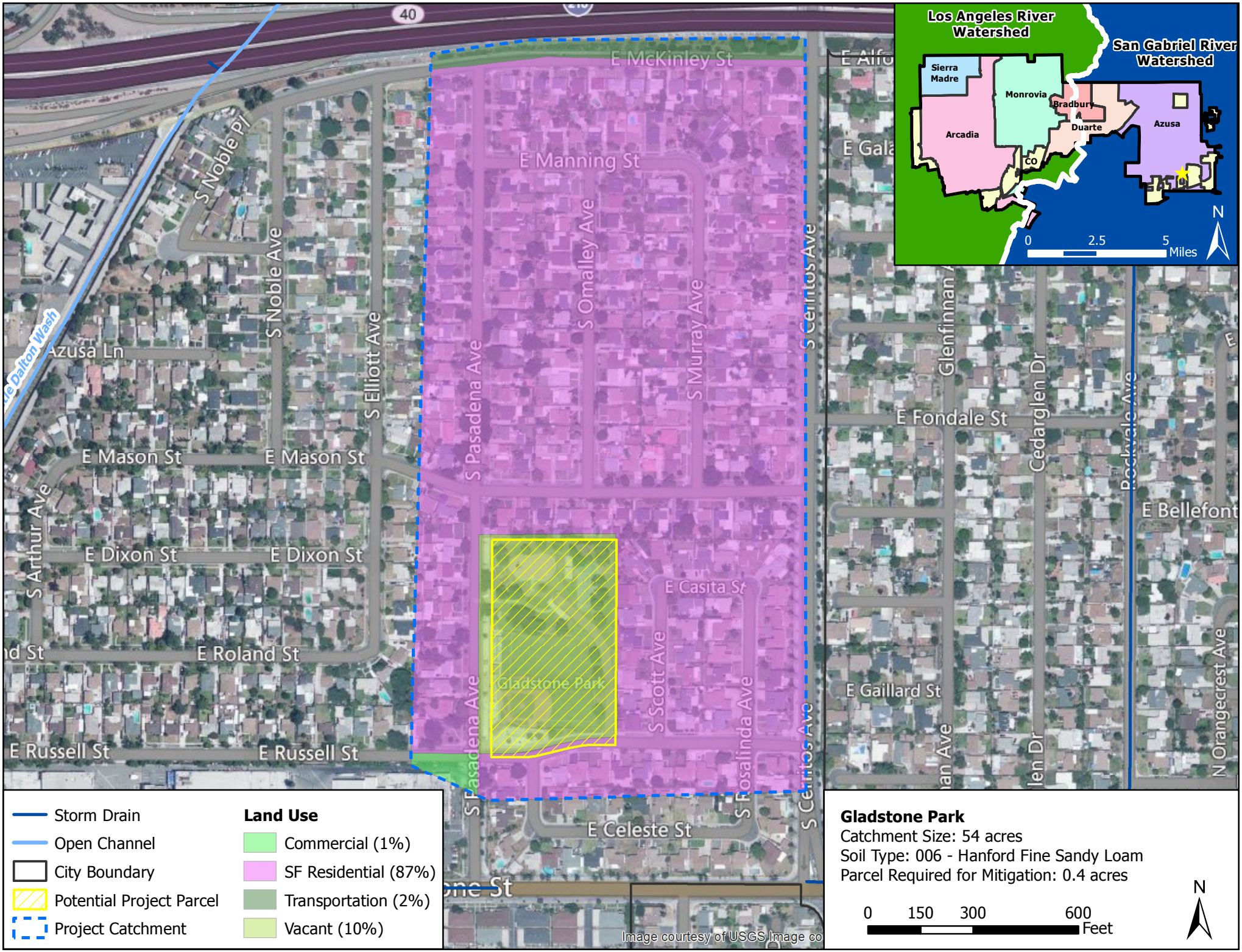

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
W Sierra Madre Ave
N Todd Ave
N San Gabriel Ave
N Azusa Ave
W Foothill Blvd
E Foothill Blvd
W 12th St
W 11th St
W 10th St
W 9th St
W 8th St
W Danlee St
W Industrial St
W 6th St
W 5th St
W Bayless St
W 4th St
W Hollyvale St
E 8th St
E 5th St
E 4th St
Northside Park
Slauson Park
Memorial Park
Avenida Padilla
Padilla
Optical Dr
38
210
39
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (<1%)
Commercial (4%)
Education (3%)
Industrial (47%)
MF Residential (7%)
SF Residential (26%)
Transportation (3%)
Vacant (9%)
Memorial Park (Azusa)
Catchment Size: 387 acres
Soil Type: 008 - Hanford Silt Loam
Parcel Required for Mitigation: 3 acres
Note: More than one diversion option available
0
500
1,000
2,000
Feet
N

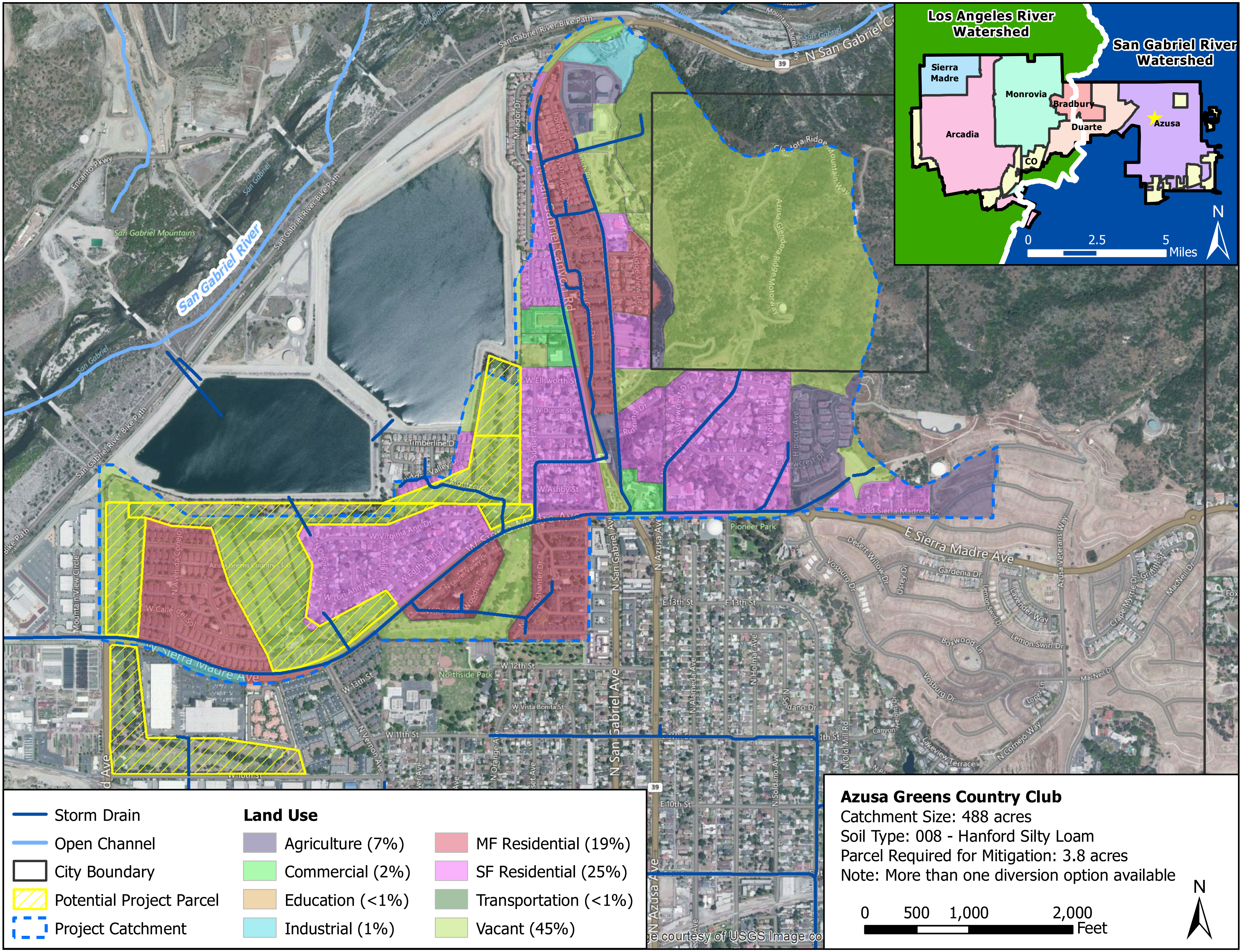

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (4%)
MF Residential (2%)
SF Residential (21%)
Vacant (73%)
Royal Oaks Trail (SGR)
Catchment Size: 721.6 acres
Soil Type: 013 - Ramona Loam
Parcel Required for Mitigation: 6.6 acres
Note: More than one diversion option available
0
500
1,000
2,000
Feet
N
Image courtesy of USGS Image co

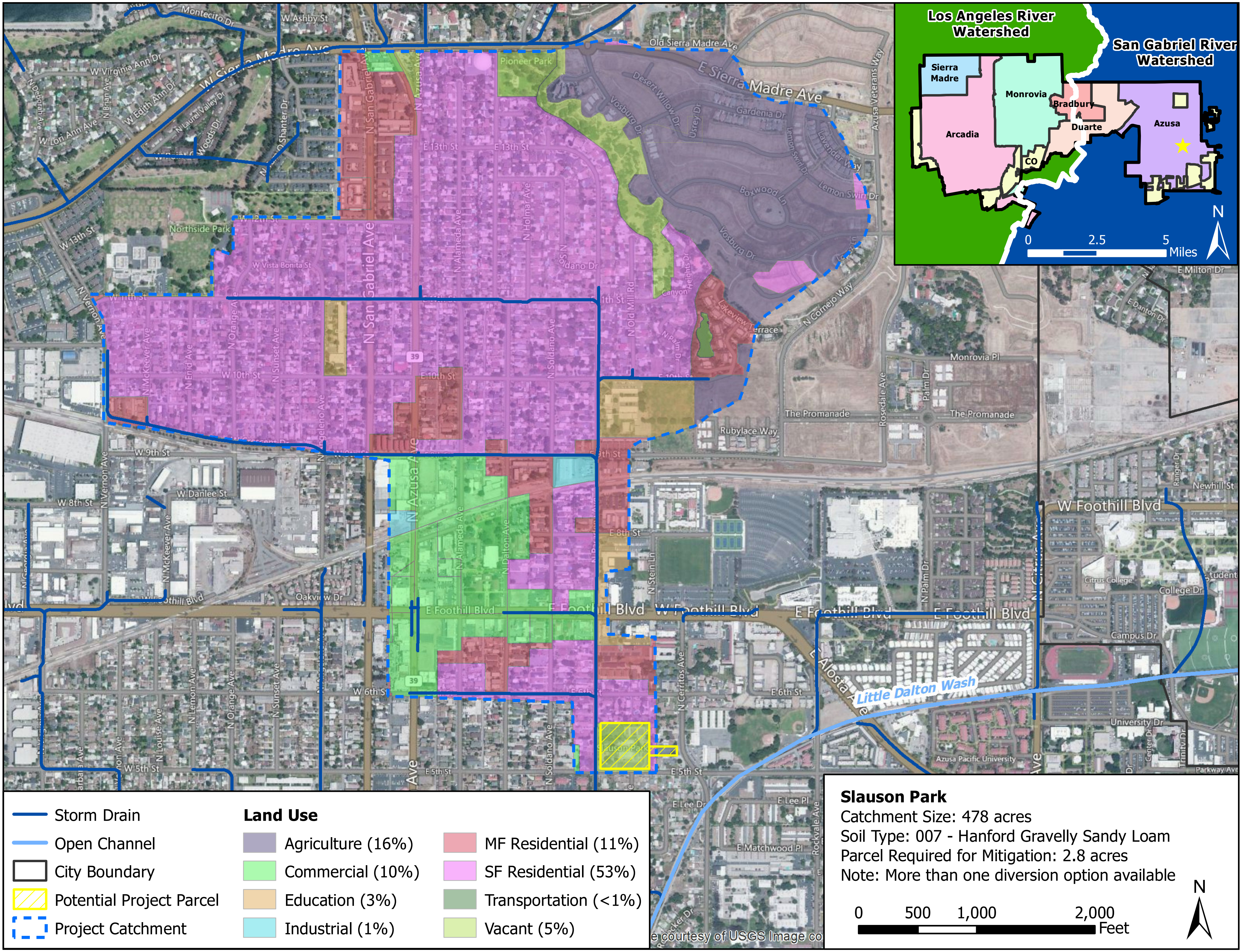

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0 2.5 5 Miles
N
Montecito Dr
W Ashby St
W Sierra Madre Ave
W Virginia Ann Dr
N Brian Ave
W Edith Ann Dr
N Deborah Ave
W Lori Ann Ave
N Laurel Valley Dr
Point O Woods Dr
N Tam O Shanter Dr
W St Andrews Ln
N San Gabriel
E 13th St
N Alameda Ave
39
Northside Park
W 12th St
N Sunset Ave
N Vernon Ave
W 13th St
W 11th St
N Orange Ave
N Enid Ave
Image courtesy of USGS Image co
Storm Drain
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Education (23%)
MF Residential (47%)
SF Residential (1%)
Vacant (29%)
Northside Park
Catchment Size: 48 acres
Soil Type: 008 - Hanford Silt Loam
Parcel Required for Mitigation: 0.4 acres
Note: More than one diversion option available
0 200 400 800 Feet
N


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Storm Drain
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (38%)
SF Residential (30%)
Vacant (32%)
Pioneer Park
Catchment Size: 60 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 0.3 acres
Note: More than one diversion option available
0
250
500
1,000
Feet
N
E Sierra Madre Ave
Old Sierra Madre Ave
N Azusa Ave
Vosburg Dr
N Viewcrest Dr
E Viewcrest Dr
N Nob Hill Dr
Hibiscus Ave
N San Gabriel Canyon Rd
Running Dr
Ranch Rd
Fern Ct
Dimas Ct
San Gabriel Mountains
Image courtesy of USGS Image co

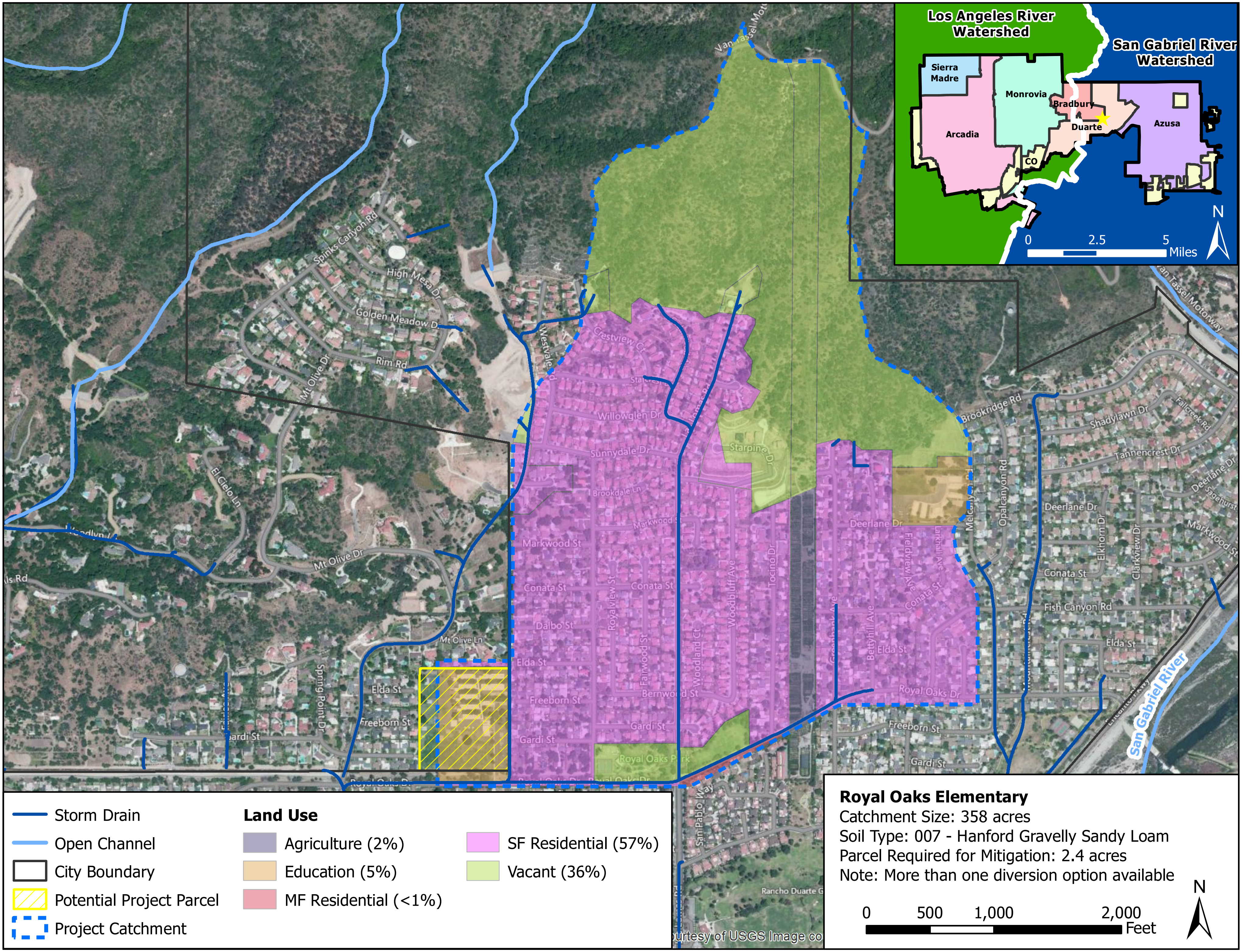

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
N
0
2.5
5
Miles
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (3%)
Education (2%)
MF Residential (<1%)
SF Residential (53%)
Vacant (41%)
Royal Oaks Park
Catchment Size: 305 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 2.0 acres
Note: More than one diversion option available
0
500
1,000
2,000
Feet
N
Image courtesy of USGS Image co
San Gabriel River
Rancho Duarte Golf Course
Spinks Canyon Rd
High Mesa Dr
Golden Meadow Dr
Rim Rd
Mt Olive Dr
Westvale Rd
Willowglen Dr
Sunnydale Dr
Brookdale Ln
Markwood St
Conata St
Dalbo St
Elda St
Freeborn St
Gardi St
Royal Oaks Dr
Deerlane Dr
Brookridge Rd
Opalcanyon Rd
Shadylawn Dr
Tannencrest Dr
Fish Canyon Rd
Bashor St
Calle Martos
Hacienda Dr
San Pablo Way


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0
2.5
5
Miles
N
E McKinley St
E Manning St
S Noble Pl
S Noble Ave
S Elliott Ave
S Omalley Ave
S Murray Ave
S Cerritos Ave
S Pasadena Ave
Azusa Ln
E Mason St
E Dixon St
S Arthur Ave
E Roland St
E Russell St
E Casita St
S Scott Ave
S Rosalinda Ave
Gladstone Park
E Celeste St
E Fondale St
Glenfinnan
Cedarglen Dr
E Gaillard St
E Bellefont
N Orangecrest Ave
Image courtesy of USGS Image co
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (1%)
SF Residential (87%)
Transportation (2%)
Vacant (10%)
Gladstone Park
Catchment Size: 54 acres
Soil Type: 006 - Hanford Fine Sandy Loam
Parcel Required for Mitigation: 0.4 acres
0
150
300
600
Feet
N

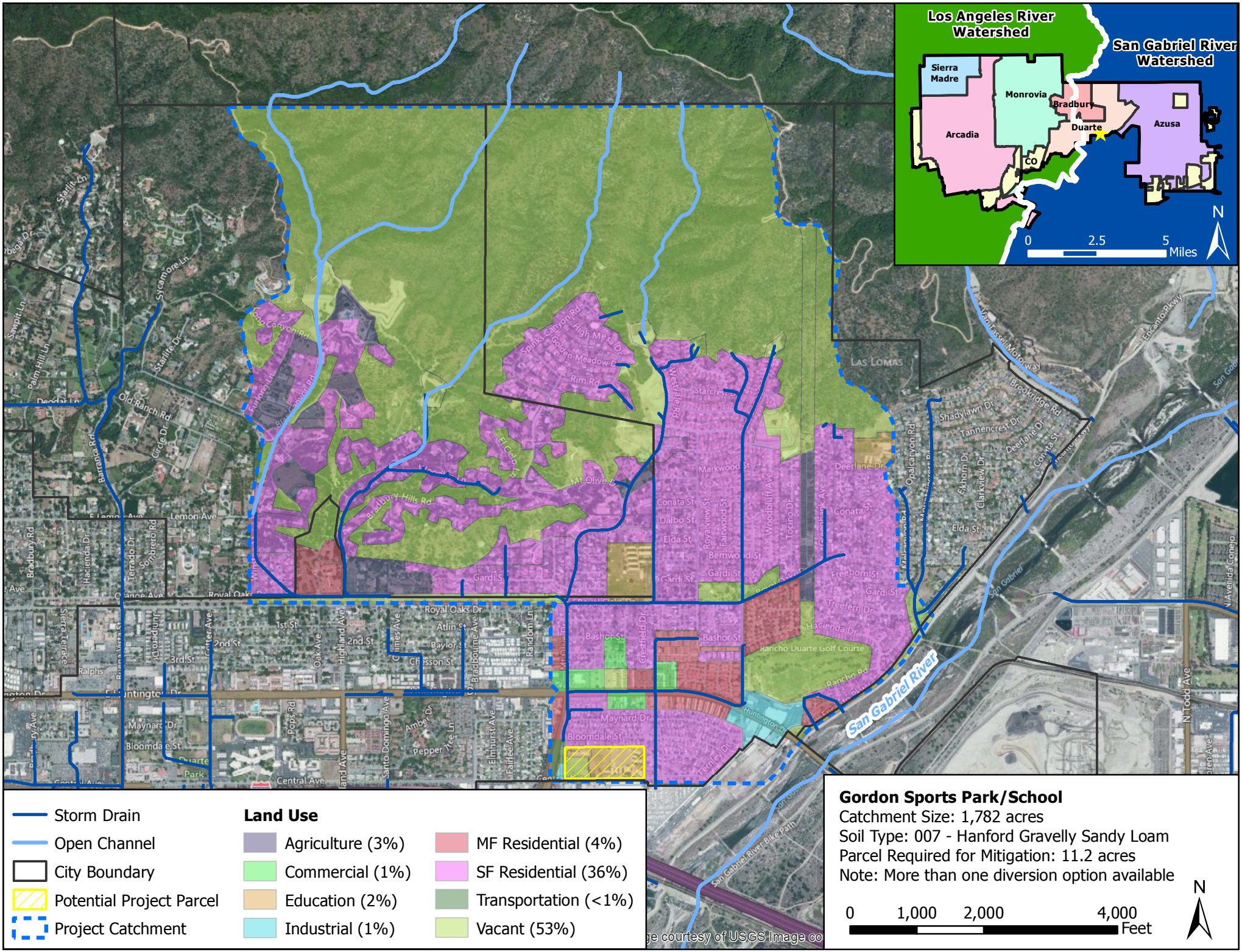

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
N
0 2.5 5 Miles
San Gabriel River
San Gabriel Mountains
N San Gabriel Canyon Rd
W Sierra Madre Ave
E Sierra Madre Ave
Pioneer Park
Northside Park
Azusa Greens Country Club
N San Gabriel Ave
N Azusa Ave
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (7%)
Commercial (2%)
Education (<1%)
Industrial (1%)
MF Residential (19%)
SF Residential (25%)
Transportation (<1%)
Vacant (45%)
Azusa Greens Country Club
Catchment Size: 488 acres
Soil Type: 008 - Hanford Silty Loam
Parcel Required for Mitigation: 3.8 acres
Note: More than one diversion option available
N
0 500 1,000 2,000 Feet



Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0
2.5
5
Miles
N
E Sierra Madre Ave
W Sierra Madre Ave
Old Sierra Madre Ave
Pioneer Park
Northside Park
N San Gabriel Ave
N Azusa Ave
W Foothill Blvd
E Foothill Blvd
E Alosta Ave
Little Dalton Wash
Citrus College
Azusa Pacific University
The Promanade
Rubylace Way
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (16%)
Commercial (10%)
Education (3%)
Industrial (1%)
MF Residential (11%)
SF Residential (53%)
Transportation (<1%)
Vacant (5%)
Slauson Park
Catchment Size: 478 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 2.8 acres
Note: More than one diversion option available
0
500
1,000
2,000
Feet
N



Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
N
0
2.5
5
Miles
San Gabriel River
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (2%)
Education (5%)
MF Residential (<1%)
SF Residential (57%)
Vacant (36%)
Royal Oaks Elementary
Catchment Size: 358 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 2.4 acres
Note: More than one diversion option available
0
500
1,000
2,000
Feet
N


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (3%)
Commercial (1%)
Education (2%)
Industrial (1%)
MF Residential (4%)
SF Residential (36%)
Transportation (<1%)
Vacant (53%)
Gordon Sports Park/School
Catchment Size: 1,782 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 11.2 acres
Note: More than one diversion option available
0
1,000
2,000
4,000
Feet
N
San Gabriel River
Las Lomas
Rancho Duarte Golf Course

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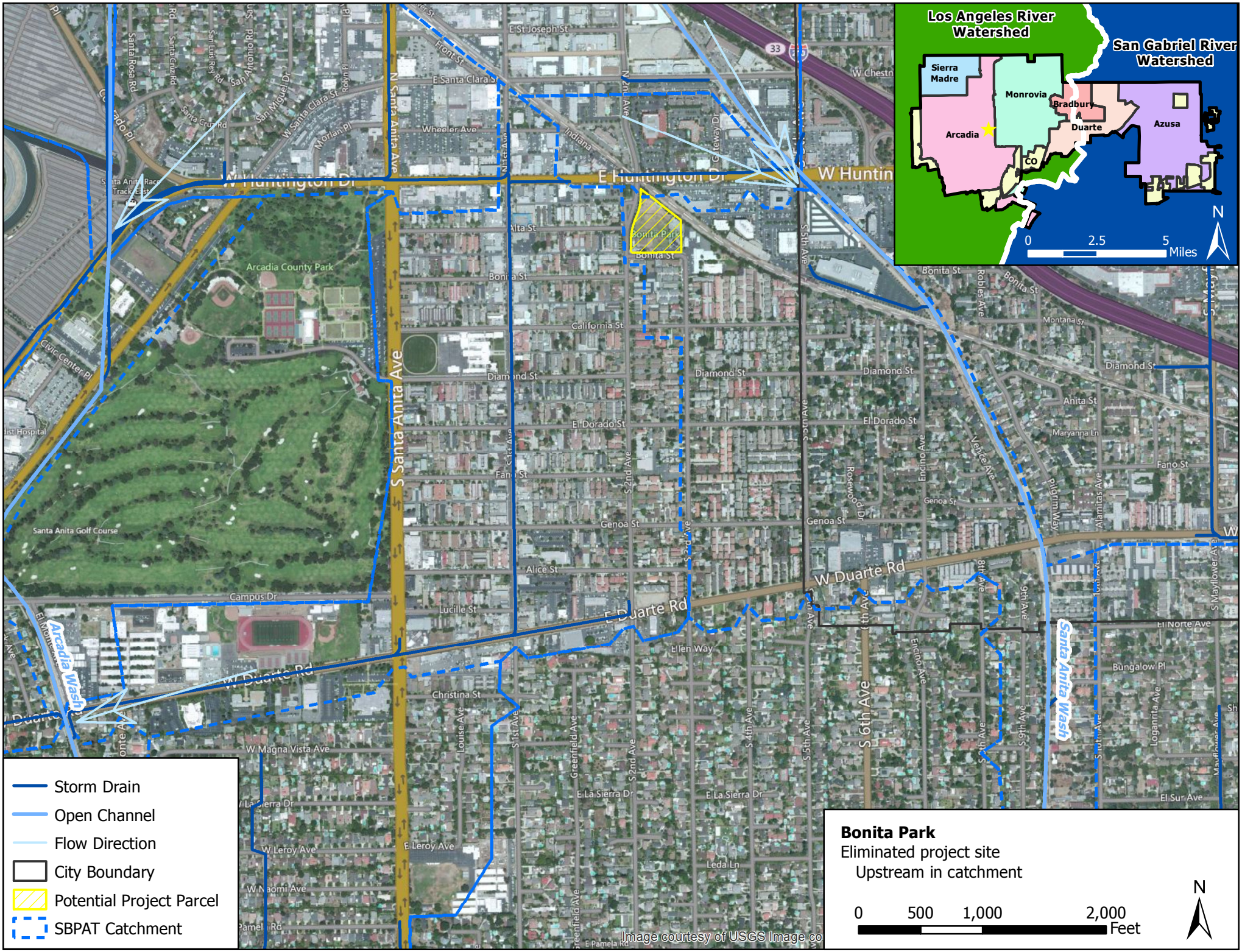
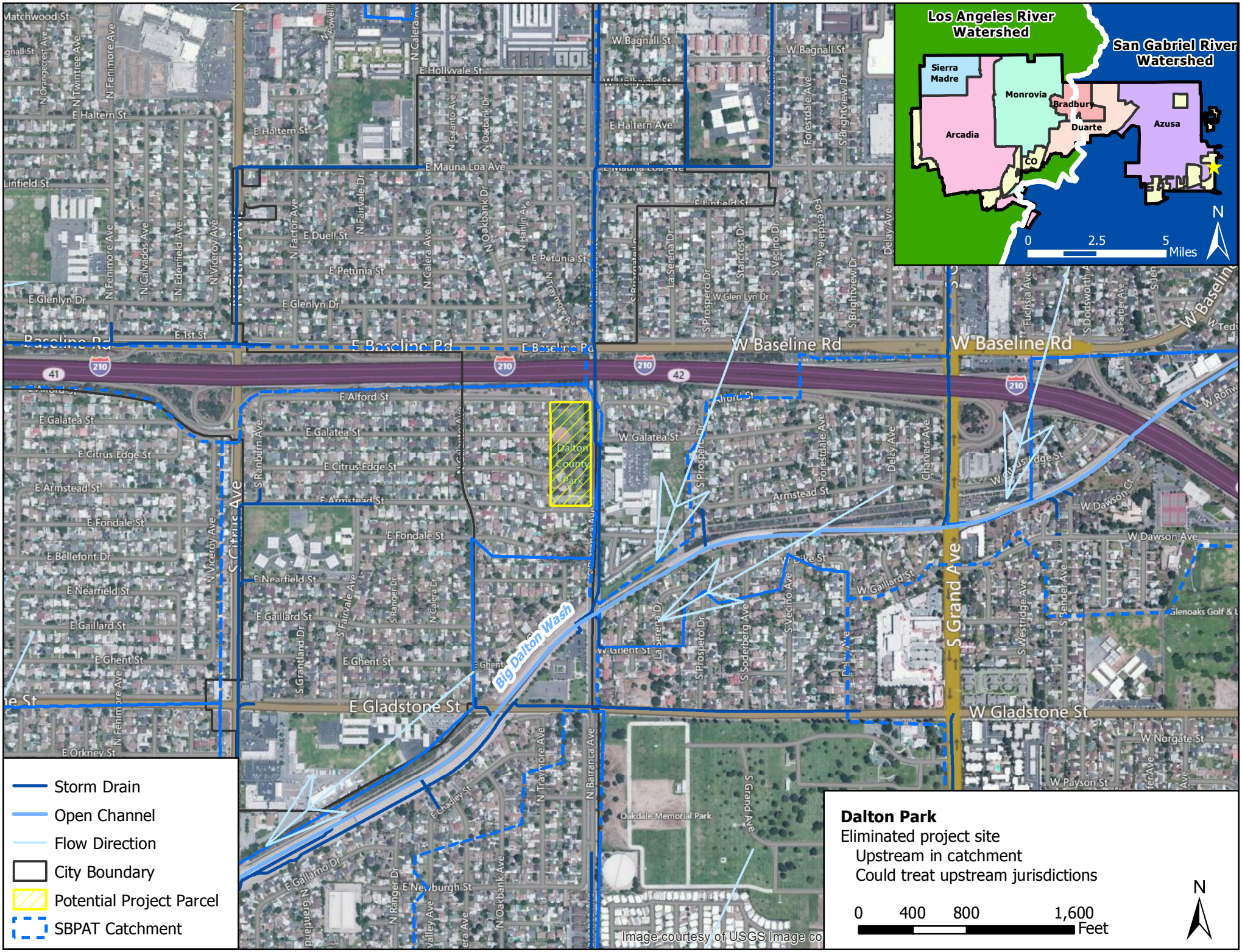
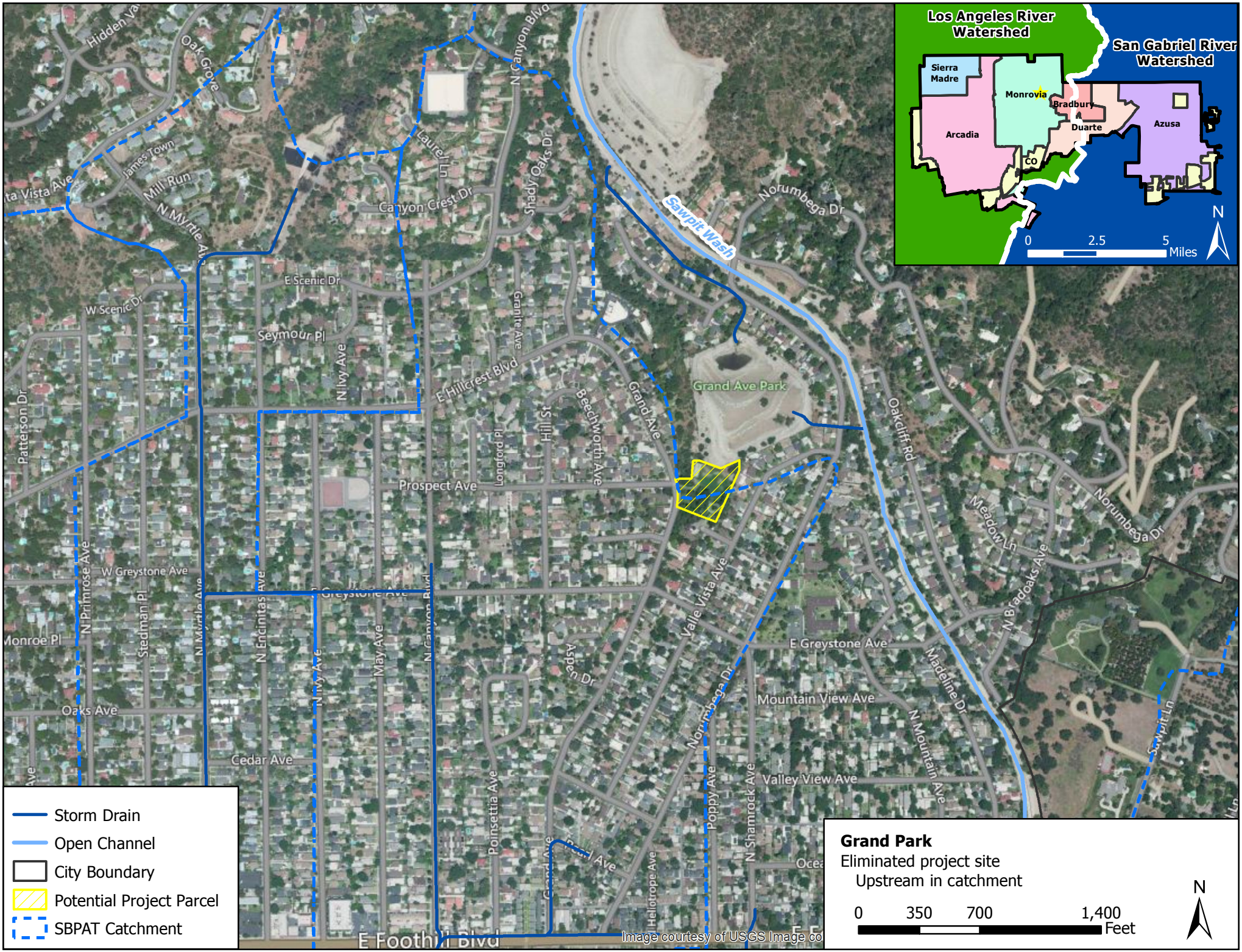
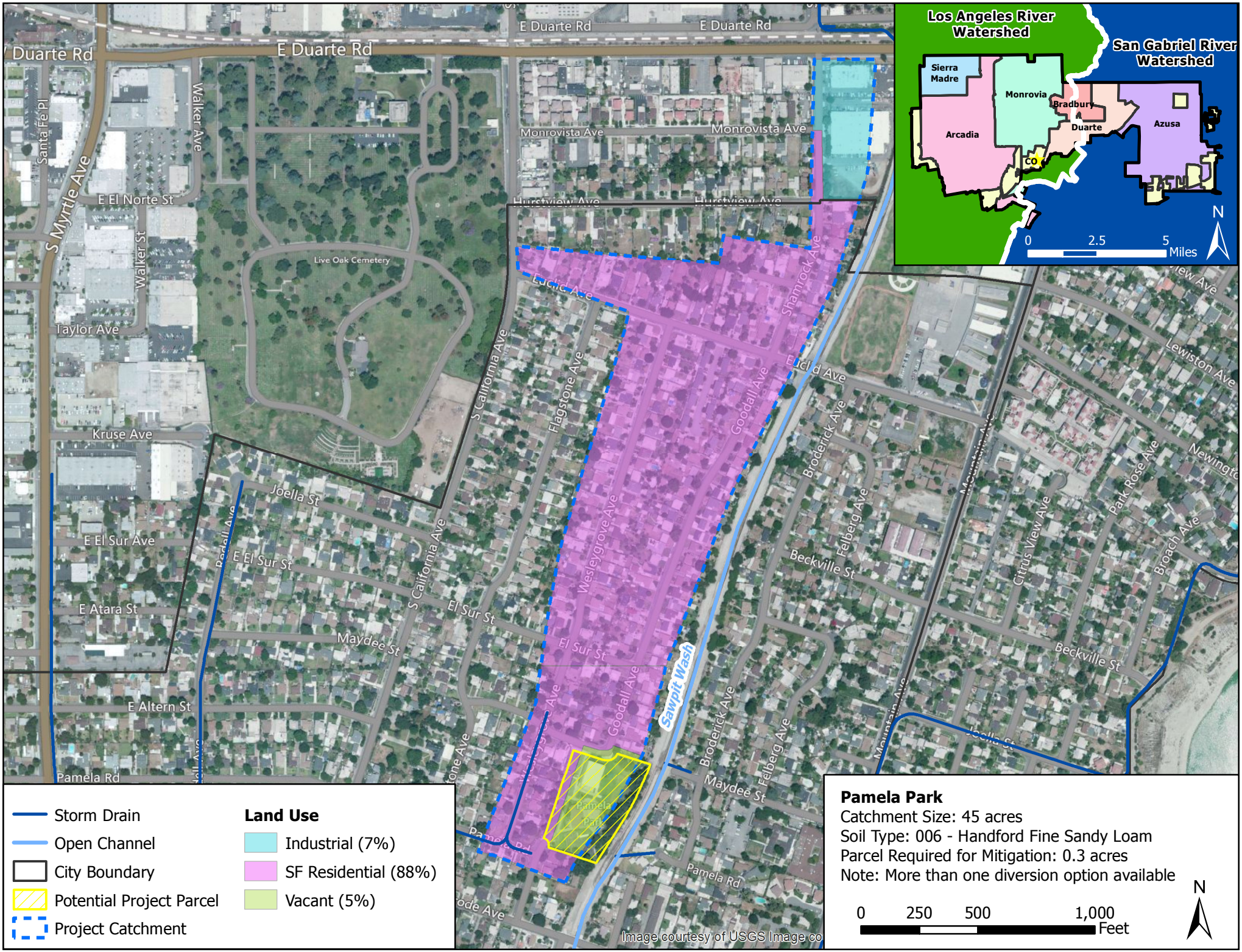
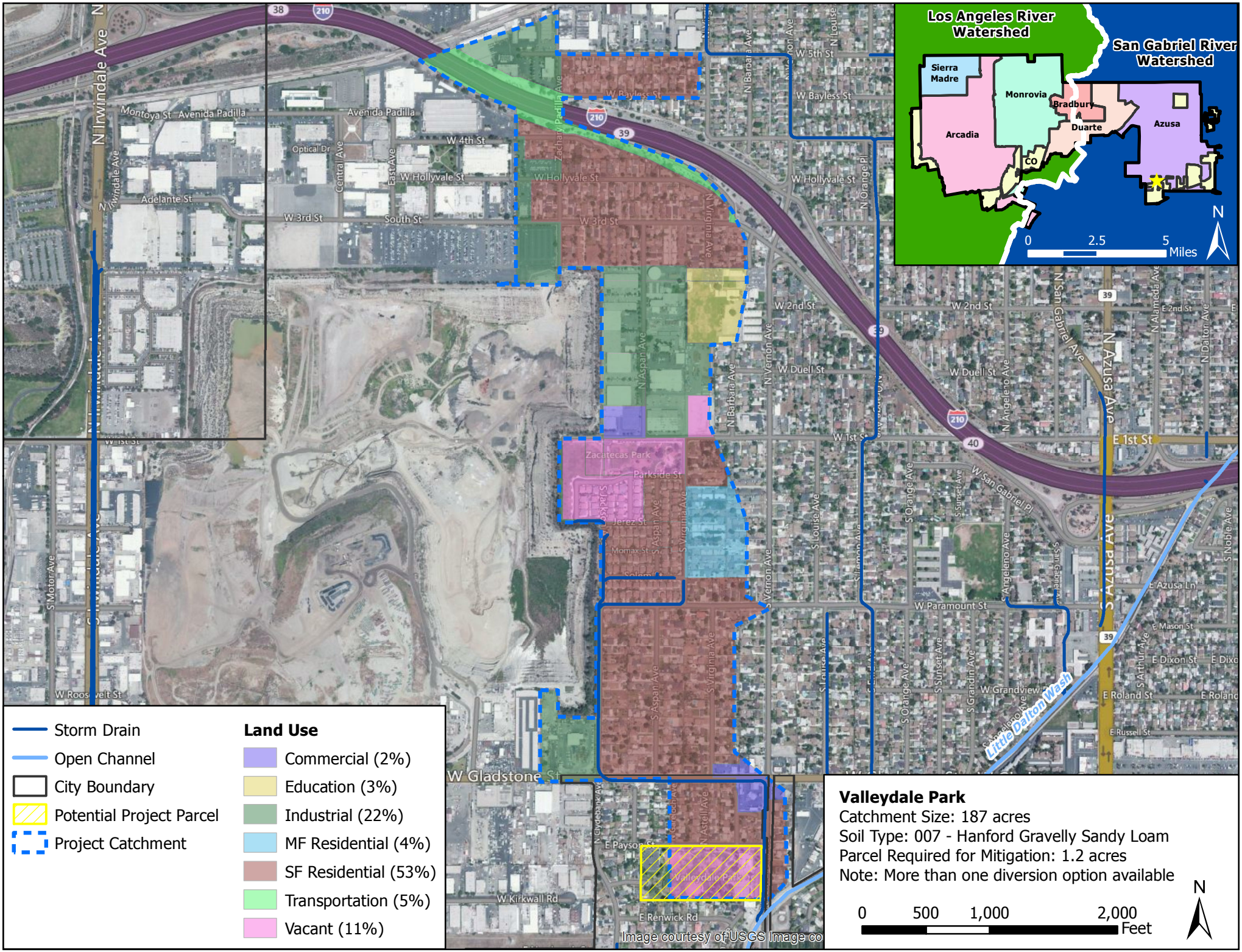
Eliminated Project Sites

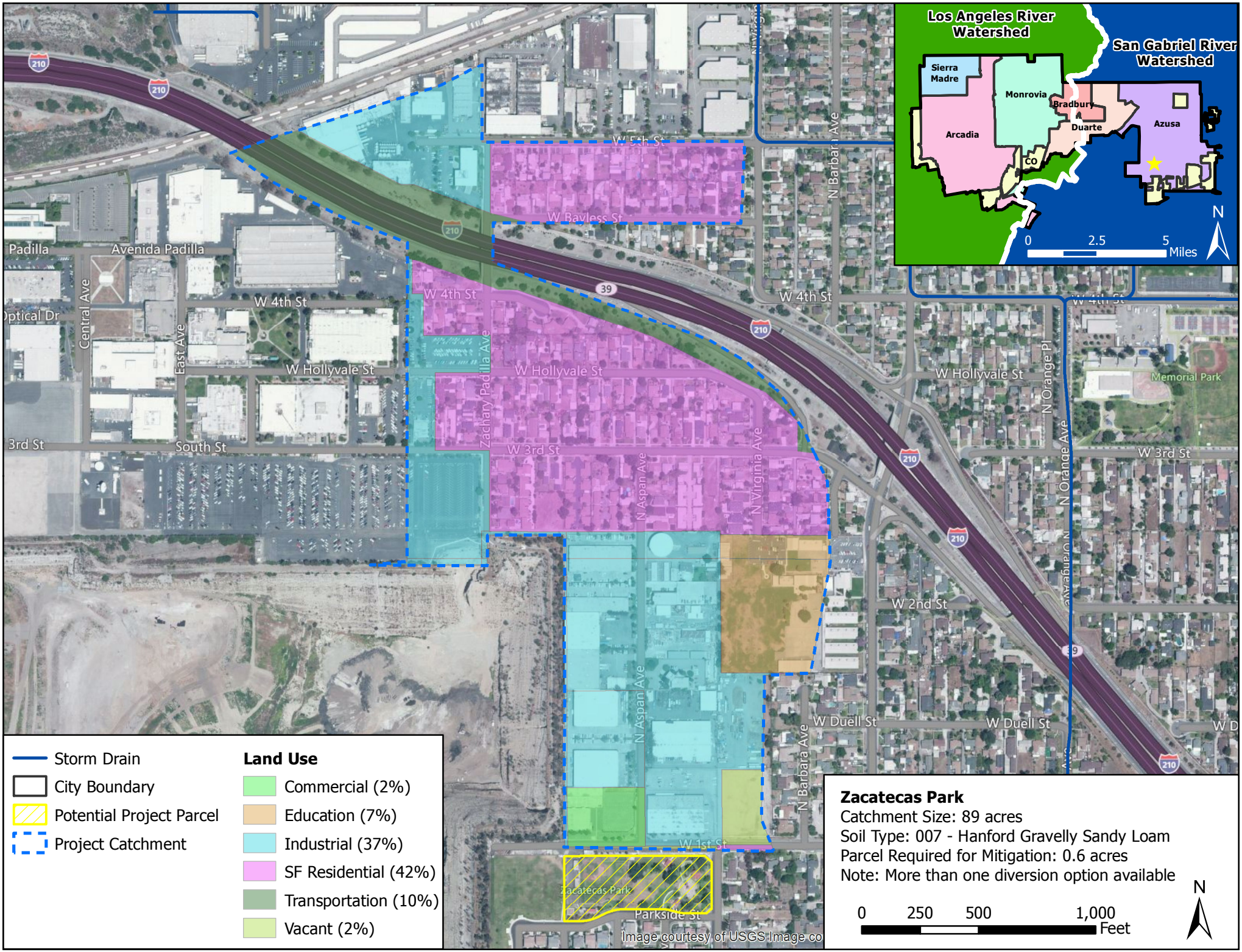

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0 2.5 5 Miles
N
Storm Drain
Open Channel
Flow Direction
City Boundary
Potential Project Parcel
SBPAT Catchment
Bonita Park
Eliminated project site
Upstream in catchment
0 500 1,000 2,000 Feet
N
Image courtesy of USGS Image co
Arcadia County Park
Santa Anita Golf Course
Bonita Park
Arcadia Wash
Santa Anita Wash
S Santa Anita Ave
S 6th Ave
W Duarte Rd
E Duarte Rd
E Huntington Dr
W Huntington Dr
Wheeler Ave
California St
Diamond St
El Dorado St
Genoa St
Alice St
Campus Dr
Lucille St
Ellen Way
Christina St
W Magna Vista Ave
E La Sierra Dr
E Leroy Ave
W Leroy Ave
Leda Ln
Bungalow Pl
El Norte Ave
El Sur Ave
Bonita St
Fano St
Anita St
Maryanna Ln
Montana St
E Santa Clara St
E St Joseph St

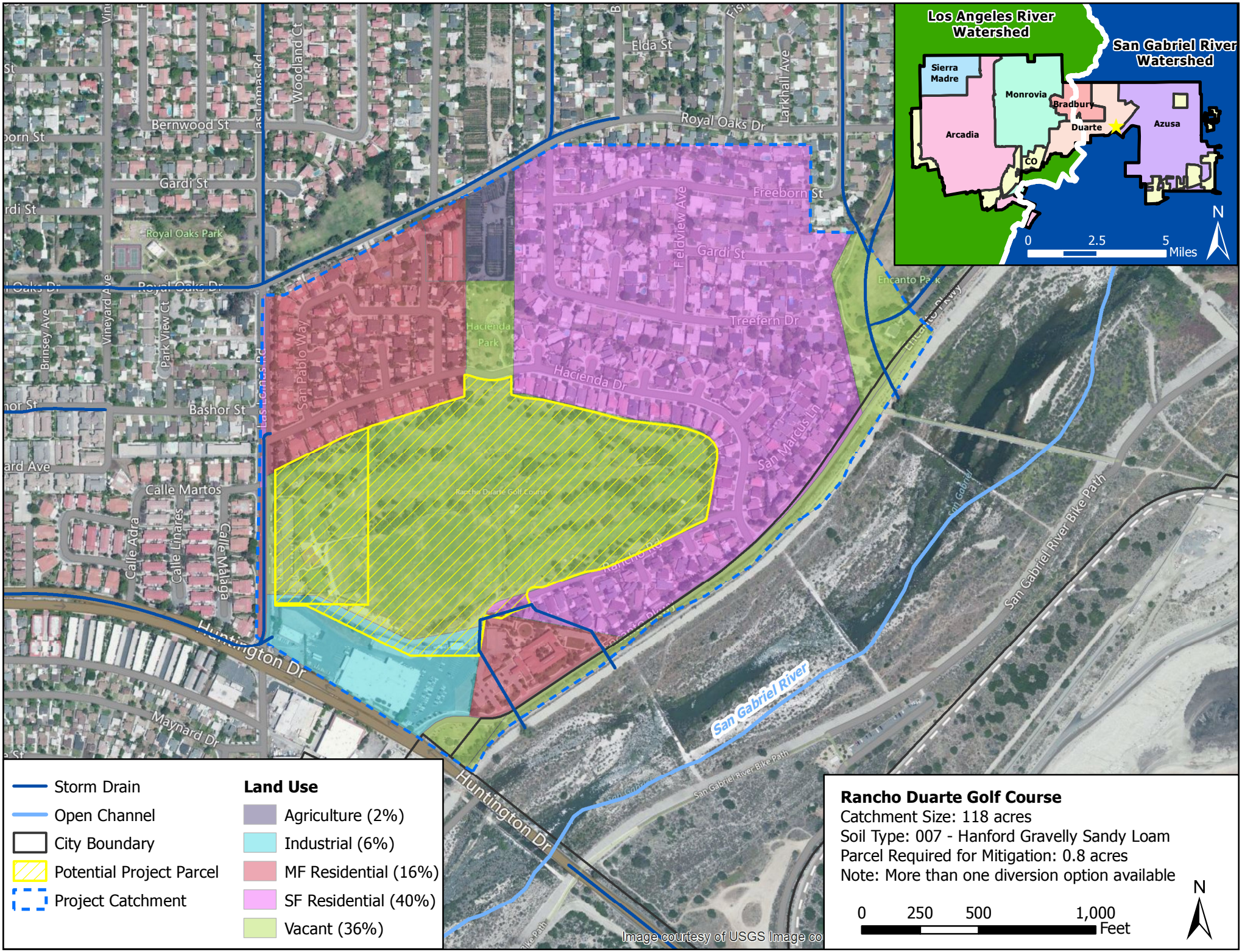

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
CO
Azusa
0 2.5 5 Miles
N
Storm Drain
Open Channel
Flow Direction
City Boundary
Potential Project Parcel
SBPAT Catchment
Dalton Park
Eliminated project site
Upstream in catchment
Could treat upstream jurisdictions
0 400 800 1,600 Feet
N
Big Dalton Wash
Dalton County Park
E Baseline Rd
W Baseline Rd
S Citrus Ave
S Grand Ave
E Gladstone St
W Gladstone St
Oakdale Memorial Park
Image courtesy of USGS Image co

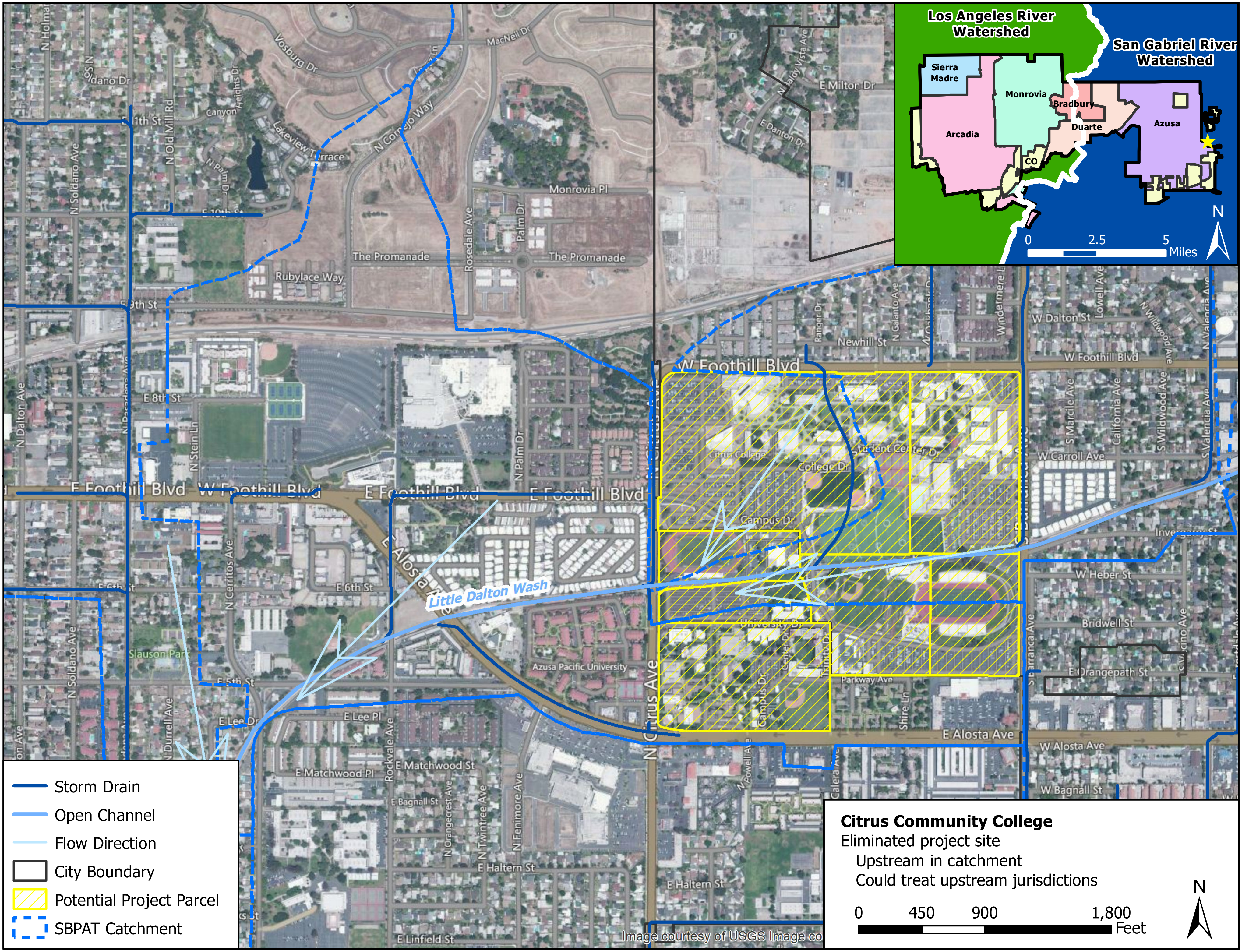

Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
CO
Azusa
0
2.5
5
Miles
N
Sawpit Wash
Grand Ave Park
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
SBPAT Catchment
Grand Park
Eliminated project site
Upstream in catchment
0
350
700
1,400
Feet
N
Image courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
CO
Azusa
0 2.5 5 Miles
N
E Duarte Rd
Duarte Rd
Monrovista Ave
Hurstview Ave
Live Oak Cemetery
Santa Fe Pl
Walker Ave
S Myrtle Ave
E El Norte St
Taylor Ave
Kruse Ave
Joella St
E El Sur Ave
E El Sur St
E Atara St
Maydee St
E Altern St
Pamela Rd
S California Ave
Flagstone Ave
Wesleygrove Ave
Goodall Ave
Shamrock Ave
Sawpit Wash
Broderick Ave
Felberg Ave
Beckville St
Citrus View Ave
Park Rose Ave
Broach Ave
Lewiston Ave
Pamela Park
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Industrial (7%)
SF Residential (88%)
Vacant (5%)
Pamela Park
Catchment Size: 45 acres
Soil Type: 006 - Handford Fine Sandy Loam
Parcel Required for Mitigation: 0.3 acres
Note: More than one diversion option available
0 250 500 1,000 Feet
N
Image courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0 2.5 5 Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (2%)
Education (3%)
Industrial (22%)
MF Residential (4%)
SF Residential (53%)
Transportation (5%)
Vacant (11%)
Valleydale Park
Catchment Size: 187 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 1.2 acres
Note: More than one diversion option available
0 500 1,000 2,000 Feet
N
Little Dalton Wash
Image courtesy of USGS Image co


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Arcadia
Azusa
CO
0 2.5 5 Miles
N
Storm Drain
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Commercial (2%)
Education (7%)
Industrial (37%)
SF Residential (42%)
Transportation (10%)
Vacant (2%)
Zacatecas Park
Catchment Size: 89 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 0.6 acres
Note: More than one diversion option available
0 250 500 1,000 Feet
N
Image courtesy of USGS Image co
W 5th St
W Bayless St
W 4th St
W Hollyvale St
W 3rd St
W 2nd St
W 1st St
W Duell St
Parkside St
Padilla
Avenida Padilla
Central Ave
East Ave
South St
Zachary Padilla Ave
N Aspan Ave
N Virginia Ave
N Barbara Ave
N Orange Pl
N Orange Ave
Memorial Park


Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Duarte
Azusa
Arcadia
CO
0
2.5
5
Miles
N
Storm Drain
Open Channel
City Boundary
Potential Project Parcel
Project Catchment
Land Use
Agriculture (2%)
Industrial (6%)
MF Residential (16%)
SF Residential (40%)
Vacant (36%)
Rancho Duarte Golf Course
Catchment Size: 118 acres
Soil Type: 007 - Hanford Gravelly Sandy Loam
Parcel Required for Mitigation: 0.8 acres
Note: More than one diversion option available
0
250
500
1,000
Feet
N
Image courtesy of USGS Image co
Elda St
Bernwood St
Royal Oaks Dr
Gardi St
Royal Oaks Park
Freeborn St
Fieldview Ave
Treefern Dr
Hacienda Park
Hacienda Dr
San Pablo Way
San Marcus Ln
Encanto Park
Bashor St
Calle Martos
Calle Adra
Calle Linares
Calle Málaga
Huntington Dr
Maynard Dr
San Gabriel River
San Gabriel River Bike Path
Woodland Ct
Larkhall Ave
Brinsey Ave
Vineyard Ave
Park View Ct



Citrus Community College
Eliminated project site
Upstream in catchment
Could treat upstream jurisdictions
0
450
900
1,800
Feet
N
Storm Drain
Open Channel
Flow Direction
City Boundary
Potential Project Parcel
SBPAT Catchment
Los Angeles River Watershed
San Gabriel River Watershed
Sierra Madre
Monrovia
Bradbury
Arcadia
Duarte
Azusa
CO
0
2.5
5
Miles
N
Little Dalton Wash
E Foothill Blvd
W Foothill Blvd
E Alosta Ave
W Alosta Ave
N Citrus Ave
Citrus College
College Dr
Campus Dr
Student Center Dr
Azusa Pacific University
Slauson Park
The Promanade
Monrovia Pl
Rubylace Way
E 8th St
E 6th St
E 5th St
E Lee Dr
E Lee Pl
E Matchwood Pl
E Matchwood St
E Bagnall St
E Haltern St
E Linfield St
W Dalton St
W Carroll Ave
W Heber St
Bridwell St
E Orangepath St
Parkway Ave
Newhill St
E Milton Dr
W Bagnall St
Image courtesy of USGS Image co

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Attachment M

Detailed Summary Statistics for BMP Inflow and Outflow for all 23 Constituents

This attachment includes summary tables created to compare statistics for pollutants in each pollutant category (metals, solids, bacteria, nutrients) among each of the Best Management Practice (BMP) subcategories (site scale detention, flow-through treatment, catch basin inserts, and constructed wetlands) for Southern California. The BMP performance data will be used by the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) during the BMP selection process required in the Enhanced Watershed Management Program (EWMP) development. This attachment corresponds with **Section 3.2** of the RH/SGRWQG EWMP. The tables presented can be summarized as follows:

- **Tables M-1** through **M-8** represent metals for each BMP subcategory.
- **Tables M-9** through **M-11** represent solids for each BMP subcategory.
- **Tables M-12** through **M-13** represent bacteria for each BMP subcategory.
- **Tables M-14** through **M-22** represent nutrients for each BMP subcategory.

Attachment M List of Tables

Table M-1 Influent/Effluent Summary Statistics for Total Arsenic (ug/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	41	39	1.80	1.50	2.50	1.90	3.25	2.50
Flow Through Treatment BMP	11	11	94	91	0.90	0.78	1.35	1.10	3.05	2.50
Constructed Wetland	2	2	8	9	1.28	0.50	1.80	0.63	2.93	1.03
Catch Basin Insert	0	6	---	27	---	2.2	---	3.05	---	5.8
Bioswale (non-Caltrans)	12	12	63	44	1.60	1.10	4.30	2.40	11	4.65
Bioswale (combined)	31	31	118	76	1.14	1.16	2.85	2.23	7.15	4.28
Bioswale (Caltrans only)	19	19	55	32	0.92	1.21	1.71	2.22	3.19	4.04

Table M-2 Influent/Effluent Summary Statistics for Total Cadmium (ug/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	41	39	3.65	1.80	6.20	3.10	9.20	3.90
Flow Through Treatment BMP	11	11	95	91	0.30	0.20	0.50	0.26	0.90	0.60
Constructed Wetland	2	2	16	17	0.22	0.15	0.47	0.18	1.00	0.21
Catch Basin Insert	0	6	---	27	---	0.3	---	0.6	---	0.8
Bioswale (non-Caltrans)	12	12	100	75	0.24	0.10	0.56	0.19	1.30	0.36
Bioswale (combined)	31	31	119	76	0.49	0.19	0.82	0.34	1.35	0.60
Bioswale (Caltrans only)	19	19	55	32	0.41	0.14	0.66	0.33	1.07	0.82

Table M-3 Influent/Effluent Summary Statistics for Total Chromium (ug/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	76	68	26.25	15.00	39.45	20.50	63.75	28.00
Flow Through Treatment BMP	11	11	95	91	1.50	1.00	2.70	1.70	4.00	2.90
Constructed Wetland	2	2	8	9	3.78	1.00	8.55	1.00	9.93	1.60
Catch Basin Insert	0	6	---	27	---	2.1	---	3.5	---	5.3
Bioswale (non-Caltrans)	12	12	64	44	2.83	1.40	5.65	2.20	9.95	4.55
Bioswale (combined)	31	31	119	76	3.50	1.73	6.90	4.00	9.60	6.20
Bioswale (Caltrans only)	19	19	55	32	5.70	3.78	7.40	5.30	9.20	7.13

Table M-4 Influent/Effluent Summary Statistics for Total Copper (ug/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	76	68	26.25	15.00	39.45	20.50	63.75	28.00
Flow Through Treatment BMP	11	11	150	146	11.98	6.20	18.00	11.00	33.00	21.25
Constructed Wetland	2	2	21	22	11.15	5.55	62.00	8.80	110.00	14.75
Catch Basin Insert	0	6	---	88	---	5.95	---	13	---	22
Bioswale (non-Caltrans)	12	12	131	99	11.00	5.40	25.20	10.00	64.0	16.0
Bioswale (combined)	31	31	150	100	22.00	8.23	41.00	13.00	70.50	19.90
Bioswale (Caltrans only)	19	19	55	32	24.00	9.95	41.00	16.00	60.00	26.00

Table M-5 Influent/Effluent Summary Statistics for Total Iron (ug/L)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	---	---	---	---	---	---	---	---	---	---
Flow Through Treatment BMP	---	---	---	---	---	---	---	---	---	---
Constructed Wetland	---	---	---	---	---	---	---	---	---	---
Catch Basin Insert	---	---	---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	---	---	---	---	---	---	---	---	---	---
Bioswale (combined)	8	8	9	7	1060	690	2500	970	3400	1500
Bioswale (Caltrans only)	8	8	8	7	990	690	1850	970	3175	1500

Table M-6 Influent/Effluent Summary Statistics for Total Lead (ug/L)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	76	69	34.40	13.00	54.00	22.00	108.25	36.50
Flow Through Treatment BMP	11	11	149	146	6.50	1.00	13.00	3.10	25.50	7.10
Constructed Wetland	2	2	21	22	3.32	2.70	170.00	4.40	315.00	8.32
Catch Basin Insert	0	6	---	88	---	2.3	---	6	---	12.45
Bioswale (non-Caltrans)	12	12	131	99	9.67	3.60	21.85	7.06	73.0	18.26
Bioswale (combined)	31	31	150	100	13.92	3.53	32.89	7.55	77.75	21.50
Bioswale (Caltrans only)	19	19	55	32	11.16	2.95	26.02	6.50	60.68	15.00

TableM-7 Influent/Effluent Summary Statistics for Total Nickel (ug/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	41	39	4.75	2.70	7.30	4.00	13.00	5.20
Flow Through Treatment BMP	11	11	95	91	2.90	2.00	4.90	3.50	8.50	6.40
Constructed Wetland	2	2	8	9	5.90	3.70	8.70	5.50	16.50	6.65
Catch Basin Insert	0	6	---	27	---	3	---	4.7	---	9.8
Bioswale (non-Caltrans)	12	12	64	44	4.43	2.00	9.25	2.50	15.75	4.15
Bioswale (combined)	31	31	119	76	4.50	2.10	8.00	2.85	13.00	5.08
Bioswale (Caltrans only)	19	19	55	32	4.50	2.53	7.30	3.90	10.00	6.40

Table M-8 Influent/Effluent Summary Statistics for Total Zinc (ug/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	76	68	152.75	68.25	280.00	99.00	504.75	150.00
Flow Through Treatment BMP	11	11	150	146	110	23.00	221	55.5	400	131
Constructed Wetland	2	2	21	22	109.00	28.53	270.00	39.00	450.00	84.35
Catch Basin Insert	0	6	---	88	---	50.5	---	107	---	220
Bioswale (non-Caltrans)	12	12	131	99	90.00	29.00	160	50.16	313	76
Bioswale (combined)	31	31	150	100	110	29.5	228	55.5	360	82.5
Bioswale (Caltrans only)	19	19	55	32	110	24.75	220	52.50	350	84.50

Table M-9 Influent/Effluent Summary Statistics for Total Suspended Solids (TSS, mg/L)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	76	69	75	23	100	38	169	59
Flow Through Treatment BMP	13	13	230	218	8.875	2.875	39.5	7.00	89.25	22.25
Constructed Wetland	1	1	13	14	140	3.50	230	11.0	255	13.5
Catch Basin Insert	0	6	---	88	---	20	---	37.5	---	71
Bioswale (non-Caltrans)	12	12	104	71	47.3	18.0	72.0	30.0	134	50.0
Bioswale (combined)	31	31	159	103	45.0	18.0	76.0	31.0	130	54
Bioswale (Caltrans only)	19	19	55	32	39	20.5	78	38	124	81.75

Table M-10 Influent/Effluent Summary Statistics for Total Dissolved Solids (mg/L)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	49	37	65	66	88	88	135	120
Flow Through Treatment BMP	10	11	85	90	32.0	44.0	48.0	56.0	96.0	98.25
Constructed Wetland	1	1	8	9	63	940	87	1600	178	1850
Catch Basin Insert	0	6	---	27	---	38	---	58	---	76
Bioswale (non-Caltrans)	12	12	71	45	42.0	57.0	80.0	78.0	154	120
Bioswale (combined)	31	31	126	77	47.5	61.0	82.0	88.0	126.75	120
Bioswale (Caltrans only)	19	19	55	32	56	77.5	89	100	112	128.5

Table M-11 Influent/Effluent Summary Statistics for Turbidity (NTU)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	0	0	---	---	---	---	---	---	---	---
Flow Through Treatment BMP	1	1	3	3	---	2.69	---	6.29	---	6.30
Constructed Wetland	0	0	---	---	---	---	---	---	---	---
Catch Basin Insert	0	0	---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	0	0	---	---	---	---	---	---	---	---
Bioswale (combined)	11	11	16	11	29.0	18.0	75.0	37.0	140	42
Bioswale (Caltrans only)	11	11	16	11	29	18	75	37	140	42

Table M-12 Influent/Effluent Summary Statistics for Fecal Coliform (#/100ml)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	9	9	34	30	300	475	600	850	1700	3075
Flow Through Treatment BMP	11	11	172	152	300	7.47	900	77.1	3000	797
Constructed Wetland	2	2	13	14	230	20.0	1300	95.0	3800	255
Catch Basin Insert	0	6	---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	8	8	33	19	500	130	5000	900	16500	5000
Bioswale (combined)	8	8	33	19	500	130	5000	900	16500	5000
Bioswale (Caltrans only)	0	0	---	---	---	---	---	---	---	---

Table M-13 Influent/Effluent Summary Statistics for Total Coliform (#/100ml)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	0	0	---	---	---	---	---	---	---	---
Flow Through Treatment BMP	1	1	64	64	5000	3.86	20000	20.0	90000	40.0
Constructed Wetland	1	1	8	8	1875	278	3700	1370	50000	24750
Catch Basin Insert	0	0	---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	0	0	---	---	---	---	---	---	---	---
Bioswale (combined)	0	0	---	---	---	---	---	---	---	---
Bioswale (Caltrans only)	0	0	---	---	---	---	---	---	---	---

Table M-14 Influent/Effluent Summary Statistics for Kjeldahl Nitrogen, TKN (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	76	68	1.33	1.10	1.88	1.50	2.70	2.17
Flow Through Treatment BMP	11	11	149	146	1.2	0.6675	1.76	1.215	2.8	2.415
Constructed Wetland	2	2	21	22	1.15	1.48	1.80	1.95	3.86	2.36
Catch Basin Insert		6	---	78	---	1.37	---	1.70	---	2.39
Bioswale (non-Caltrans)	12	12	105	72	1.43	1.035	2.1	1.57	3.39	2.3425
Bioswale (combined)	31	31	160	102	1.17	0.97	1.80	1.53	2.98	2.22
Bioswale (Caltrans only)	19	19	55	30	0.79	0.80	1.20	1.40	2.00	2.22

Table M-15 Influent/Effluent Summary Statistics for Nitrogen, ammonia as N (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention			---	---	---	---	---	---	---	---
Flow Through Treatment BMP	2	1	8	9	0.2	0.575	0.8	1.2	2	3.45
Constructed Wetland	1	2	13	21	0.13	0.052	0.28	0.12	0.47	0.20
Catch Basin Insert			---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	1		10	---	0.65	---	0.91	---	1.15	---
Bioswale (combined)	20	19	58	30	0.20	0.12	0.38	0.29	0.74	0.71
Bioswale (Caltrans only)	19	19	48	30	0.16	0.12	0.31	0.29	0.61	0.71

Table M-16 Influent/Effluent Summary Statistics for Nitrogen, Nitrate (NO3) as N (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	75	68	0.52	0.51	0.85	0.76	1.20	1.16
Flow Through Treatment BMP	11	11	150	145	0.29	0.45	0.495	0.7	0.8075	1.105
Constructed Wetland	2	2	26	24	0.75	0.057	1.74	0.21	3.00	0.78
Catch Basin Insert		6	---	78	---	0.43	---	0.67	---	1.148
Bioswale (non-Caltrans)	12	12	104	71	0.435	0.30	0.73	0.56	1.375	0.9
Bioswale (combined)	31	31	159	103	0.42	0.29	0.79	0.62	1.48	1.10
Bioswale (Caltrans only)	19	19	55	32	0.46	0.24	0.79	0.78	1.36	1.75

Table M-17 Influent/Effluent Summary Statistics for Nitrogen, Nitrite (NO2) as N (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	---	---	---	---	---	---	---	---	---	---
Flow Through Treatment BMP	---	---	---	---	---	---	---	---	---	---
Constructed Wetland	1	1	8	8	0.017	---	0.05	---	0.16	---
Catch Basin Insert	---	---	---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	---	---	---	---	---	---	---	---	---	---
Bioswale (combined)	19	11	16	11	0.03	0.03	0.06	0.07	0.12	0.20
Bioswale (Caltrans only)	19	11	16	11	0.03	0.03	0.06	0.07	0.12	0.20

Table M-18 Influent/Effluent Summary Statistics for Organic carbon, Dissolved (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	41	38	9.55	8.65	11.00	12.00	20.50	19.75
Flow Through Treatment BMP	11	11	95	91	8.4	8.7	14	13	26	24
Constructed Wetland	1	1	7	9	10.00	10.00	22.00	13.00	30.00	16.50
Catch Basin Insert	---	6	---	27	---	8.3	---	14.1	---	23.0
Bioswale (non-Caltrans)	9	9	58	42	9.875	8.15	14.5	12.45	31.5	22
Bioswale (combined)	28	28	113	74	7.00	8.55	12.00	12.90	23.50	22.00
Bioswale (Caltrans only)	19	19	55	32	6.20	8.68	9.70	13.00	19.00	21.75

TableM-19 Influent/Effluent Summary Statistics for Organic carbon, Total (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	41	39	10.00	10.00	13.20	14.00	23.50	20.00
Flow Through Treatment BMP	11	11	95	91	11	10	17.2	15	31	26
Constructed Wetland	1	1	7	9	11.00	12.00	15.00	14.00	33.00	20.50
Catch Basin Insert	---	6	---	27	---	8.8	---	19.0	---	31.0
Bioswale (non-Caltrans)	9	9	59	42	12	11	18	17	33	23.25
Bioswale (combined)	28	28	114	74	7.98	11.00	15.00	15.00	28.00	23.00
Bioswale (Caltrans only)	19	19	55	32	7.40	10.25	11.00	13.00	21.00	23.00

TableM-20 Influent/Effluent Summary Statistics for Phosphorus as P, Dissolved (mg/L)										
BMP Category	**Number of BMP Sampling Locations**		**Number of Samples Analyzed**		**25th Percentile**		**Median (50th Percentile)**		**75th Percentile**	
	Inflow	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**	**Inflow**	**Outflow**
Site Scale Detention	5	5	41	39	0.06	0.07	0.09	0.11	0.17	0.18
Flow Through Treatment BMP	11	11	85	91	-0.03	-0.03	0.09	0.08	0.155	0.14
Constructed Wetland	1	1	8	8	0.071	0.075	0.08	0.16	0.18	0.36
Catch Basin Insert	---	6	---	27	---	-0.03	---	0.07	---	0.1
Bioswale (non-Caltrans)	9	9	58	41	0.058	0.175	0.08	0.28	0.14	0.5
Bioswale (combined)	9	9	58	41	0.06	0.18	0.08	0.28	0.14	0.50
Bioswale (Caltrans only)	---	---	---	---	---	---	---	---	---	---

Table M-21 Influent/Effluent Summary Statistics for Phosphorus as P, Total (mg/L)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	5	5	74	69	0.24	0.20	0.36	0.29	0.66	0.40
Flow Through Treatment BMP	11	11	147	146	0.17	0.1	0.24	0.18	0.42	0.28
Constructed Wetland	2	2	20	21	0.28	0.26	0.46	0.39	0.76	1.10
Catch Basin Insert	---	6	---	77	---	0.07	---	0.10	---	0.18
Bioswale (non-Caltrans)	11	11	105	72	0.12	0.26	0.22	0.37	0.4	0.5825
Bioswale (combined)	30	30	160	102	0.11	0.25	0.20	0.40	0.36	0.67
Bioswale (Caltrans only)	19	19	55	30	0.08	0.18	0.15	0.57	0.29	0.92

Table M-22 Influent/Effluent Summary Statistics for Phosphorus, orthophosphate as P (mg/L)

BMP Category	Number of BMP Sampling Locations		Number of Samples Analyzed		25th Percentile		Median (50th Percentile)		75th Percentile	
	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow	Inflow	Outflow
Site Scale Detention	1	1	---	---	---	---	---	---	---	---
Flow Through Treatment BMP	2	2	20		0.049		0.07		0.315	
Constructed Wetland	1	1	---	---	---	---	---	---	---	---
Catch Basin Insert	---	---	---	---	---	---	---	---	---	---
Bioswale (non-Caltrans)	3	3	12	4	0.0725	0.09	0.235	0.31	0.3325	0.65
Bioswale (combined)	21	22	67	34	0.03	0.09	0.06	0.39	0.13	0.67
Bioswale (Caltrans only)	18	19	55	30	0.02	0.09	0.05	0.42	0.10	0.67

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Attachment N

Detailed Performance Metrics for all BMP Categories and Constituents

This attachment includes summary tables and box plots to show Best Management Practice (BMP) effectiveness based on statistics for each common pollutant of concern (Total Suspended Solids [TSS], fecal coliform, total copper, total lead, and total zinc) for each BMP subcategory (site scale detention, flow-through treatment, catch basin inserts, and constructed wetlands) for Southern California. The BMP performance data will be used by the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) during the BMP selection process required in the Enhanced Watershed Management Program (EWMP) development. This attachment corresponds with **Section 3.2** of the RH/SGRWQG EWMP. The tables presented can be summarized as follows:

- **Tables N-1** through **N-5** represent site scale detention
- **Tables N-6** through **N-10** represent bioswales
- **Tables N-11** through **N-15** represent flow through treatment BMPs
- **Tables N-16** through **N-19** represent catch basin inserts
- **Tables N-20** through **N-24** represent constructed wetlands
- **Tables N-25** through **N-29** represent non-Caltrans bioswales
- **Tables N-30** through **N-33** represent Caltrans only bioswales

The following tables were created to show statistics for all pollutants category (metals, bacteria, nutrients, and solids) and each BMP subcategory (site scale detention, bioswales, flow-through treatment, catch basin inserts, and constructed wetlands) for Southern California.

- **Tables N-34** through **N-37** represent site scale detention.
- **Tables N-38** through **N-41** represent bioswales.
- **Tables N-42** through **N-45** represent flow through treatment BMPs.
- **Tables N-46** through **N-48** represent catch basin inserts.
- **Tables N-49** through **N-52** represent constructed wetlands.
- **Tables N-53** through **N-56** represent non-Caltrans bioswales.
- **Tables N-57** through **N-59** represent Caltrans only bioswales.

Attachment N List of Tables

Table N-1 Site Scale Detention – TSS			
Run ID	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**76**	**69**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**133**	**50**	**-62.82%**
Standard Deviation	**94**	**46**	**---**
Coefficient of Variation	**0.71**	**0.94**	**---**
Lower 95% Confidence Limit about Mean	**112**	**39**	**---**
Upper 95% Confidence Limit about Mean	**154**	**60**	**---**
Lower Quartile (25th percentile)	**75**	**23**	**-69.80%**
Median (50th percentile)	**100**	**38**	**-62.00%**
Upper Quartile (75th percentile)	**169**	**59**	**-65.33%**
Inter Quartile Range	**94**	**36**	**---**
Minimum Detected Value	**19**	**9**	**---**
Maximum Detected Value	**500**	**260**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.686 + 0.667*z	ln(y) = 3.637 + 0.722*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

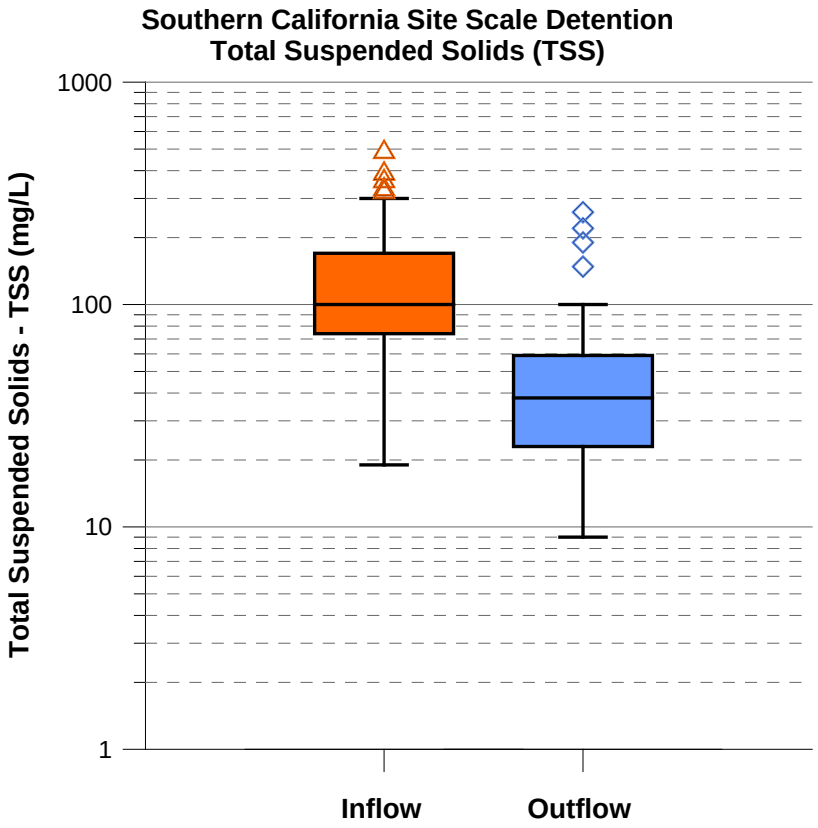

Table N-2 Site Scale Detention – Fecal Coliform			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**34**	**30**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**2504**	**4987**	**99.1%**
Standard Deviation	**6023**	**21843**	**---**
Coefficient of Variation	**2.4**	**4.4**	**---**
Lower 95% Confidence Limit about Mean	**479**	**-2830**	**---**
Upper 95% Confidence Limit about Mean	**4529**	**12803**	**---**
Lower Quartile (25th percentile)	**300**	**475**	**58.3%**
Median (50th percentile)	**600**	**850**	**41.7%**
Upper Quartile (75th percentile)	**1700**	**3075**	**80.9%**
Inter Quartile Range	**1400**	**2600**	**---**
Minimum Detected Value	**110**	**2**	**---**
Maximum Detected Value	**28000**	**90000**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 6.703 + 1.447*z	ln(y) = 6.955 + 1.811*z	**---**
Note:	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

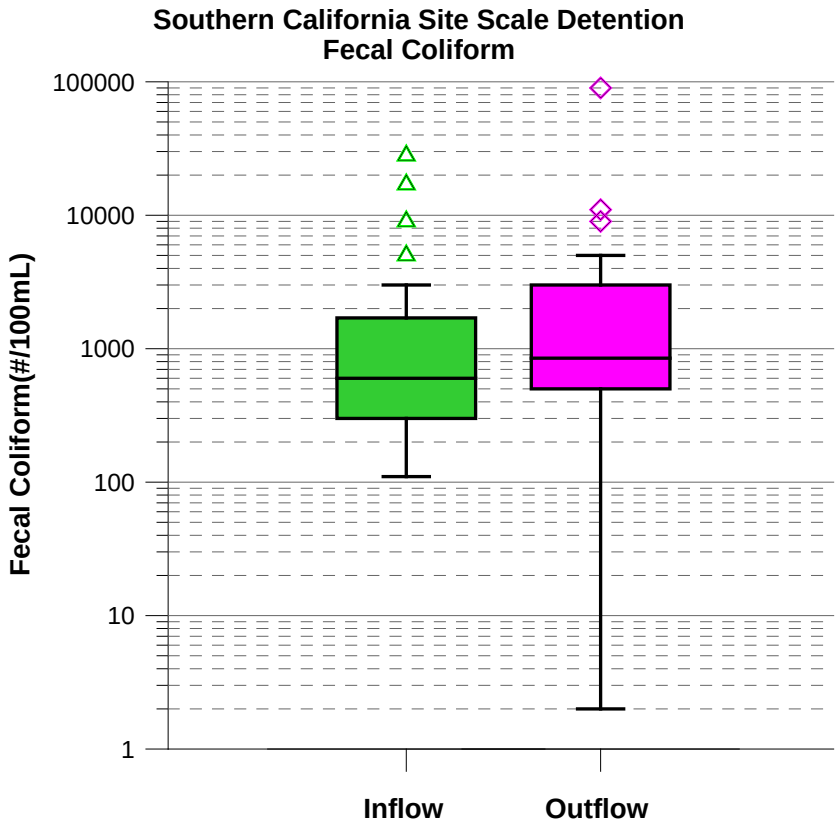

Table N-3 Site Scale Detention – Total Copper			
Run ID	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**76**	**68**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**48.69**	**23.45**	**-51.83%**
Standard Deviation	**35.12**	**13.93**	**---**
Coefficient of Variation	**0.72**	**0.59**	**---**
Lower 95% Confidence Limit about Mean	**40.80**	**20.14**	**---**
Upper 95% Confidence Limit about Mean	**56.59**	**26.76**	**---**
Lower Quartile (25th percentile)	**26.25**	**15.00**	**-42.86%**
Median (50th percentile)	**39.45**	**20.50**	**-48.04%**
Upper Quartile (75th percentile)	**63.75**	**28.00**	**-56.08%**
Inter Quartile Range	**37.50**	**13.00**	**---**
Minimum Detected Value	**6.3**	**6.7**	**---**
Maximum Detected Value	**230**	**82**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 3.682 + 0.670*z	ln(y) = 3.014 + 0.549*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

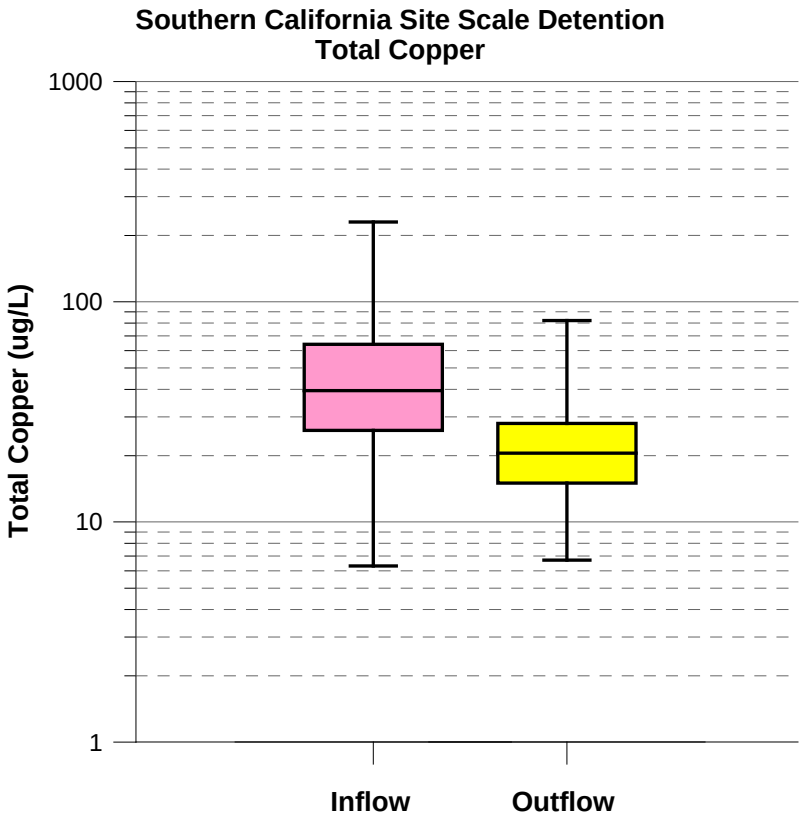

Table N-4 Site Scale Detention – Total Lead			
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**76**	**69**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**83.02**	**28.03**	**-66.23%**
Standard Deviation	**80.13**	**24.39**	**---**
Coefficient of Variation	**0.97**	**0.87**	**---**
Lower 95% Confidence Limit about Mean	**65.00**	**22.28**	**---**
Upper 95% Confidence Limit about Mean	**101.03**	**33.79**	**---**
Lower Quartile (25th percentile)	**34.40**	**13.00**	**-62.21%**
Median (50th percentile)	**54.00**	**22.00**	**-59.26%**
Upper Quartile (75th percentile)	**108.25**	**36.50**	**-66.28%**
Inter Quartile Range	**73.85**	**23.50**	**---**
Minimum Detected Value	**5.1**	**5.3**	**---**
Maximum Detected Value	**440**	**140**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.066 + 0.886*z	ln(y) = 3.061 + 0.766*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

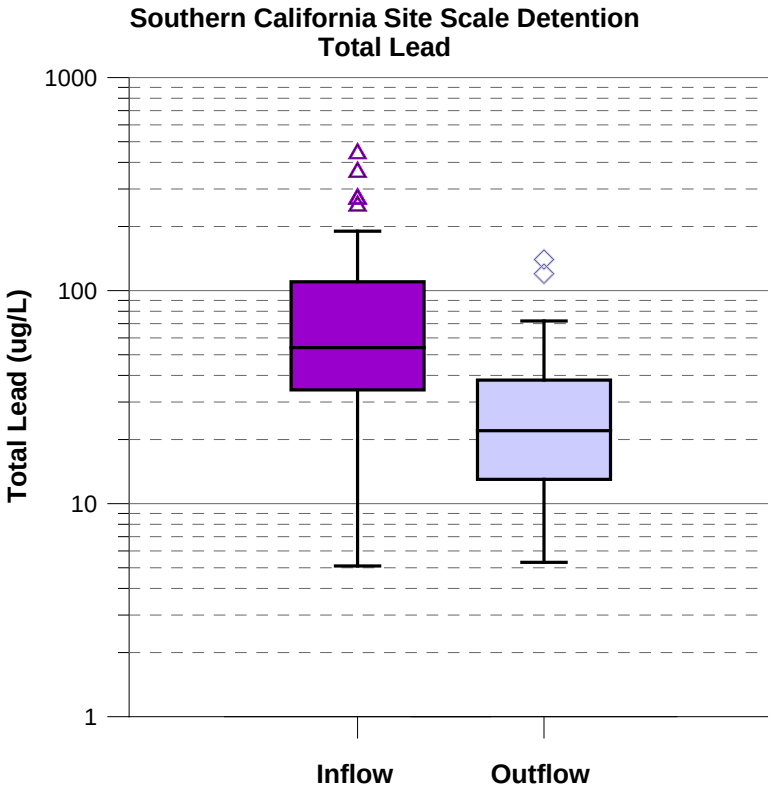

Table N-5 Site Scale Detention – Total Zinc			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**76**	**68**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**378.89**	**117.54**	**-68.98%**
Standard Deviation	**357.12**	**69.82**	**---**
Coefficient of Variation	**0.94**	**0.59**	**---**
Lower 95% Confidence Limit about Mean	**298.60**	**100.95**	**---**
Upper 95% Confidence Limit about Mean	**459.18**	**134.14**	**---**
Lower Quartile (25th percentile)	**152.75**	**68.25**	**-55.32%**
Median (50th percentile)	**280.00**	**99.00**	**-64.64%**
Upper Quartile (75th percentile)	**504.75**	**150.00**	**-70.28%**
Inter Quartile Range	**352.00**	**81.75**	**---**
Minimum Detected Value	**4.6**	**29**	**---**
Maximum Detected Value	**2100**	**390**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.591 + 0.904*z	ln(y) = 4.608 + 0.596*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

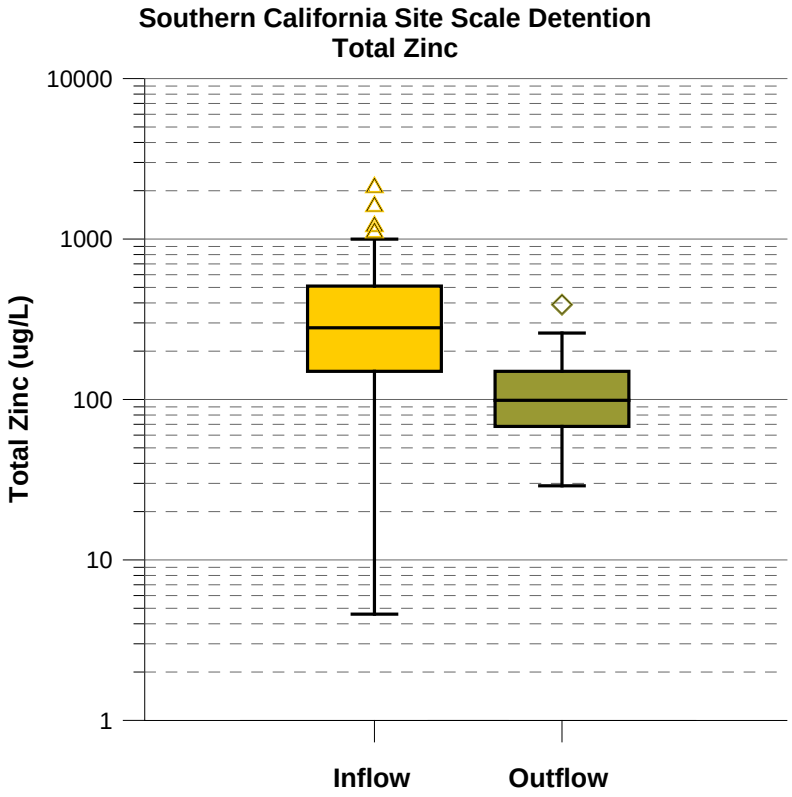

Table N-6 Bioswales – TSS			
Run ID	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**159**	**103**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**98.9**	**49.0**	**-50.46%**
Standard Deviation	**80.5**	**55.1**	**---**
Coefficient of Variation	**0.81**	**1.12**	**---**
Lower 95% Confidence Limit about Mean	**86.3**	**38.3**	**---**
Upper 95% Confidence Limit about Mean	**111.4**	**59.6**	**---**
Lower Quartile (25th percentile)	**45.0**	**18.0**	**-60.00%**
Median (50th percentile)	**76.0**	**31.0**	**-59.21%**
Upper Quartile (75th percentile)	**130**	**54**	**-58.46%**
Inter Quartile Range	**85**	**36**	**---**
Minimum Detected Value	**2**	**1**	**---**
Maximum Detected Value	**474**	**330**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.290 + 0.842*z	ln(y) = 3.472 + 0.948*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

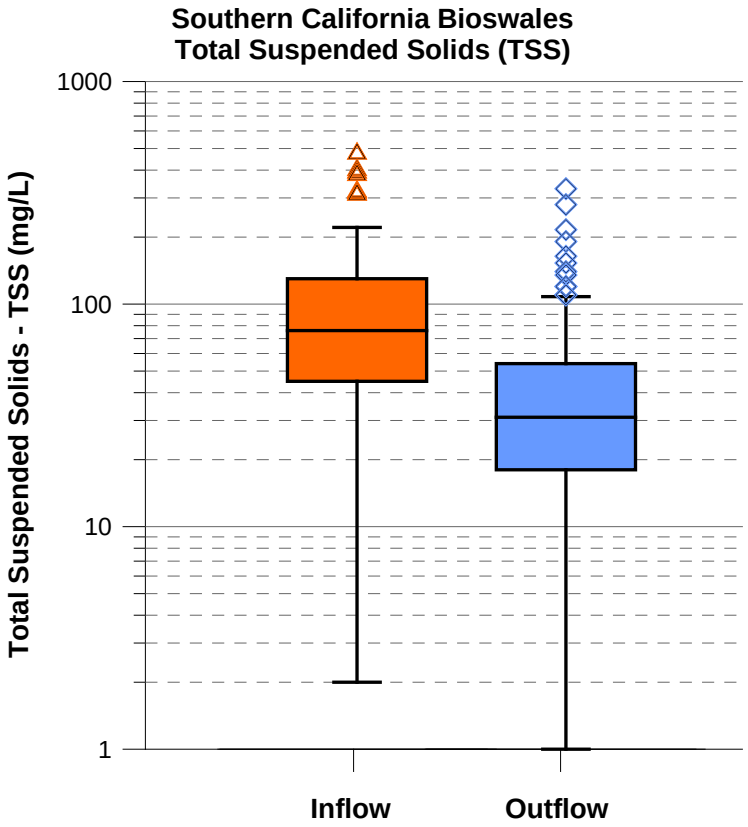

Table N-7 Bioswales – Fecal Coliform			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**33**	**19**	**---**
Percent detected	**97.0%**	**100.0%**	**---**
Mean	12725	**10982**	**-13.70%**
Standard Deviation	22363	**49927**	**---**
Coefficient of Variation	1.76	**4.55**	**---**
Lower 95% Confidence Limit about Mean	5095	**-11468**	**---**
Upper 95% Confidence Limit about Mean	20355	**33432**	**---**
Lower Quartile (25th percentile)	**500**	**130**	**-74.00%**
Median (50th percentile)	**5000**	**900**	**-82.00%**
Upper Quartile (75th percentile)	**16500**	**5000**	**-69.70%**
Inter Quartile Range	**16000**	**4870**	**---**
Minimum Detected Value	**17**	**17**	**---**
Maximum Detected Value	**90000**	**160000**	**---**
Minimum Reporting Limit	**1**	**---**	**---**
Maximum Reporting Limit	**1**	**---**	**---**
Regression Equation	ln(y) = 7.667 + 2.695*z	ln(y) = 6.585 + 2.773*z	**---**
Note:	3	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

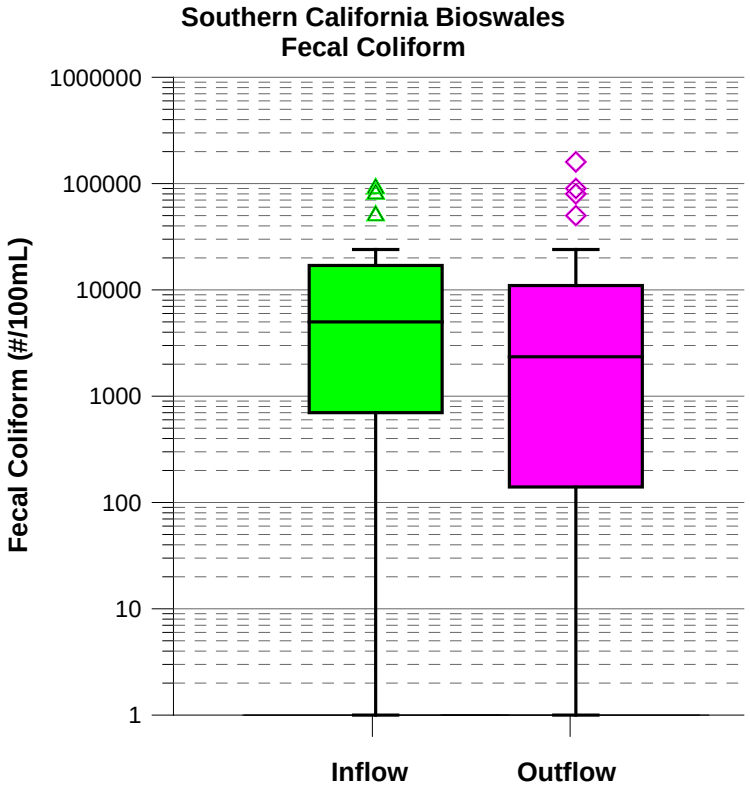

Table N-8 Bioswales – Copper			
Run ID	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**150**	**100**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**49.82**	**15.43**	**-69.02%**
Standard Deviation	**37.27**	**11.07**	**---**
Coefficient of Variation	**0.75**	**0.72**	**---**
Lower 95% Confidence Limit about Mean	**43.86**	**13.26**	**---**
Upper 95% Confidence Limit about Mean	**55.79**	**17.60**	**---**
Lower Quartile (25th percentile)	**22.00**	**8.23**	**-62.61%**
Median (50th percentile)	**41.00**	**13.00**	**-68.29%**
Upper Quartile (75th percentile)	**70.50**	**19.90**	**-71.77%**
Inter Quartile Range	**48.50**	**11.68**	**---**
Minimum Detected Value	**1.1**	**1**	**---**
Maximum Detected Value	**232**	**73**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 3.593 + 0.894*z	ln(y) = 2.484 + 0.786*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

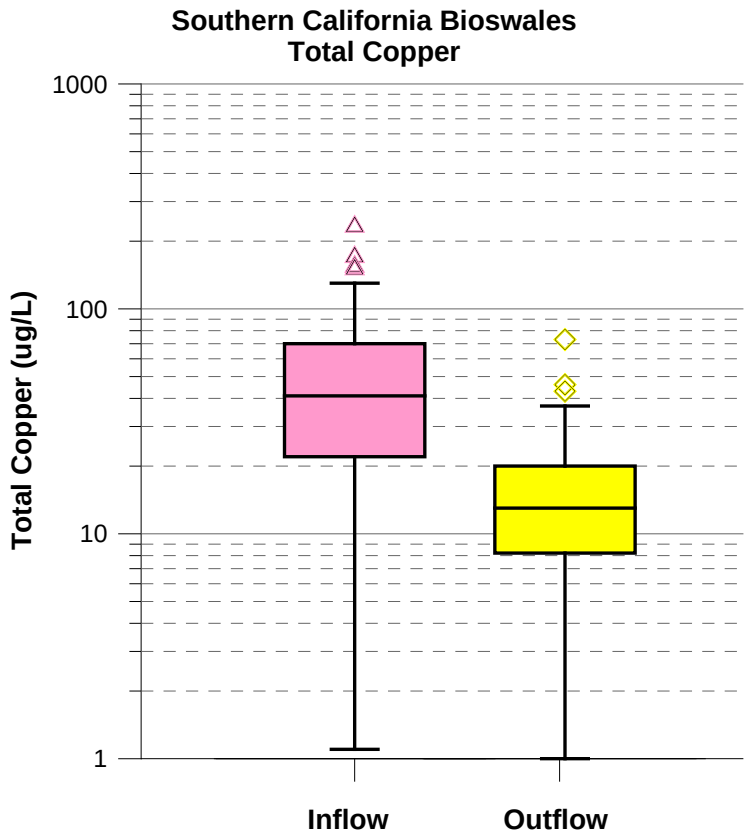

Table N-9 Bioswales – Lead			
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**150**	**100**	**---**
Percent detected	**98.7%**	**99.0%**	**---**
Mean	73.08	17.93	**-75.46%**
Standard Deviation	213	27.42	**---**
Coefficient of Variation	2.91	1.53	**---**
Lower 95% Confidence Limit about Mean	39.00	12.56	**---**
Upper 95% Confidence Limit about Mean	107	23.31	**---**
Lower Quartile (25th percentile)	13.92	**3.53**	**-74.67%**
Median (50th percentile)	32.89	**7.55**	**-77.05%**
Upper Quartile (75th percentile)	77.75	**21.50**	**-72.35%**
Inter Quartile Range	63.83	**17.98**	**---**
Minimum Detected Value	**1.3**	**1**	**---**
Maximum Detected Value	**2086**	**189**	**---**
Minimum Reporting Limit	**0.7**	**0.03**	**---**
Maximum Reporting Limit	**0.8**	**0.03**	**---**
Regression Equation	ln(y) = 3.493 + 1.275*z	ln(y) = 2.161 + 1.240*z	**---**
Note:	3	3	2

Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

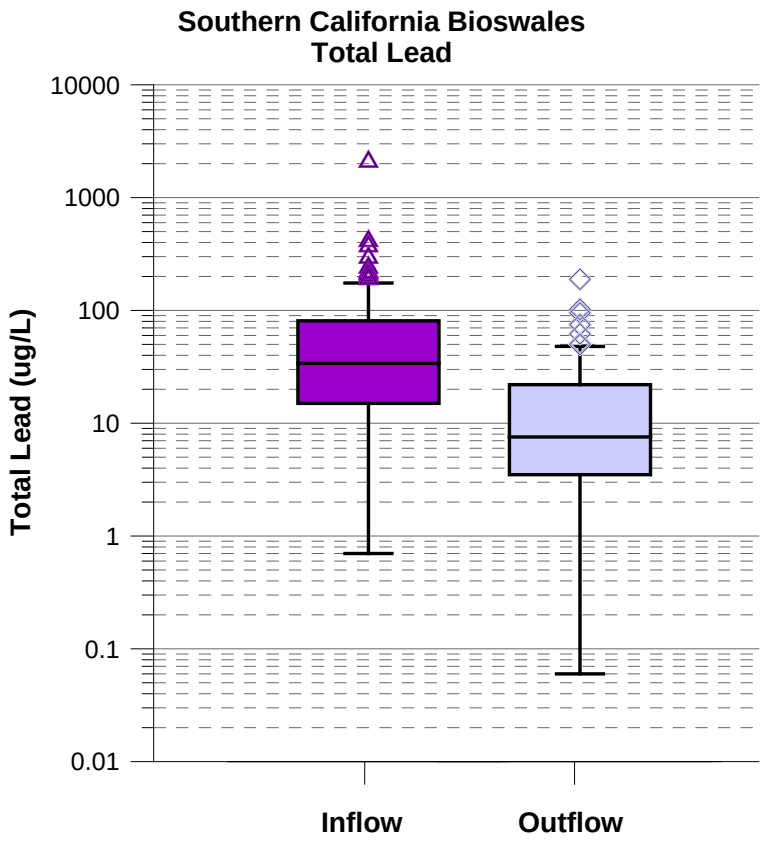

Table N-10 Bioswales – Zinc			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**150**	**100**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**275**	**71.4**	**-74.08%**
Standard Deviation	**225**	**78.7**	**---**
Coefficient of Variation	**0.82**	**1.10**	**---**
Lower 95% Confidence Limit about Mean	**239**	**56.0**	**---**
Upper 95% Confidence Limit about Mean	**311**	**86.8**	**---**
Lower Quartile (25th percentile)	**110**	**29.5**	**-73.20%**
Median (50th percentile)	**228**	**55.5**	**-75.66%**
Upper Quartile (75th percentile)	**360**	**82.5**	**-77.09%**
Inter Quartile Range	**250**	**53.0**	**---**
Minimum Detected Value	**13**	**4.2**	**---**
Maximum Detected Value	**1542**	**501**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.297 + 0.877*z	ln(y) = 3.932 + 0.819*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

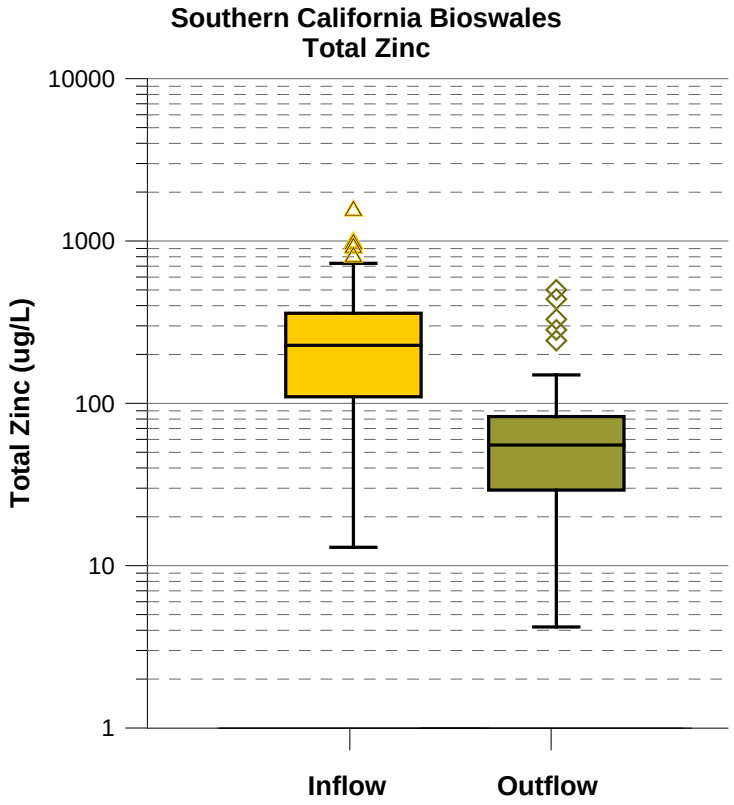

Table N-11 Flow Through BMPs – TSS			
Run ID	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**230**	**218**	**---**
Percent detected	**98.3%**	**88.1%**	**---**
Mean	65.6	23.0	**-65.0%**
Standard Deviation	80.9	42.0	**---**
Coefficient of Variation	1.23	1.83	**---**
Lower 95% Confidence Limit about Mean	55.1	17.4	**---**
Upper 95% Confidence Limit about Mean	76.1	28.6	**---**
Lower Quartile (25th percentile)	**8.875**	**2.875**	**-67.61%**
Median (50th percentile)	**39.5**	**7.00**	**-82.28%**
Upper Quartile (75th percentile)	**89.25**	**22.25**	**-75.07%**
Inter Quartile Range	**80.375**	**19.375**	**---**
Minimum Detected Value	**2**	**1**	**---**
Maximum Detected Value	**629**	**280**	**---**
Minimum Reporting Limit	**1**	**1**	**---**
Maximum Reporting Limit	**1**	**1**	**---**
Regression Equation	ln(y) = 3.419 + 1.425*z	ln(y) = 1.959 + 1.657*z	**---**
Note:	3	3	2

Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

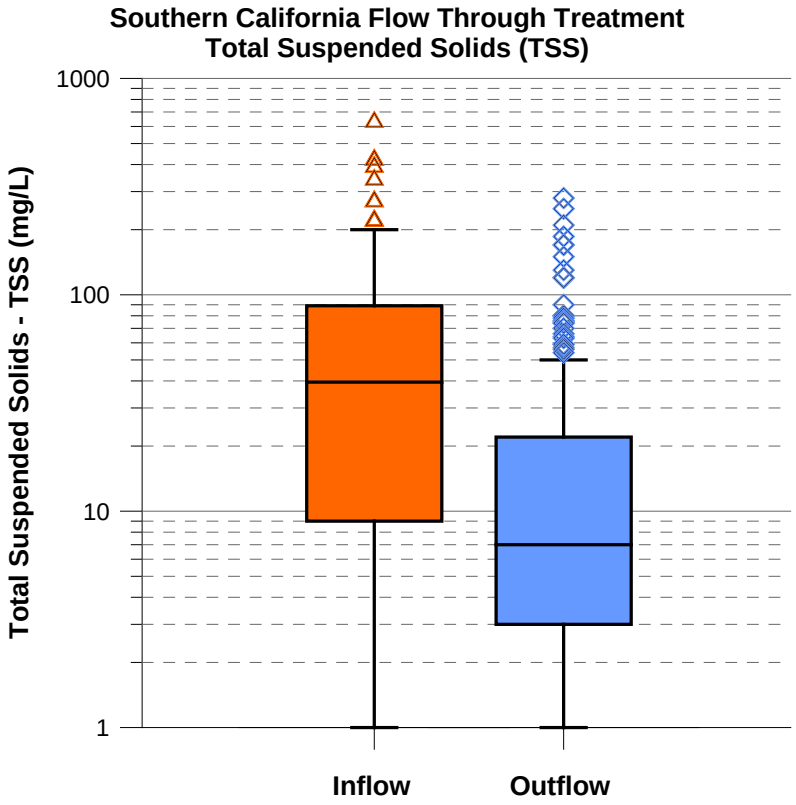

Table N-12 Flow Through BMPs – Fecal Coliform			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**172**	**152**	**---**
Percent detected	**100.0%**	**73.7%**	**---**
Mean	**6450**	4750	**-26.36%**
Standard Deviation	**19225**	21431	**---**
Coefficient of Variation	**2.98**	4.51	**---**
Lower 95% Confidence Limit about Mean	**3577**	1343	**---**
Upper 95% Confidence Limit about Mean	**9324**	8157	**---**
Lower Quartile (25th percentile)	**300**	7.47	**-97.51%**
Median (50th percentile)	**900**	77.1	**-91.43%**
Upper Quartile (75th percentile)	**3000**	797	**-73.44%**
Inter Quartile Range	**2700**	789	**---**
Minimum Detected Value	**8**	**2**	**---**
Maximum Detected Value	**160000**	**160000**	**---**
Minimum Reporting Limit	**---**	**2**	**---**
Maximum Reporting Limit	**---**	**10**	**---**
Regression Equation	ln(y) = 6.984 + 1.871*z	ln(y) = 4.345 + 3.463*z	**---**
Note:	1	3	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

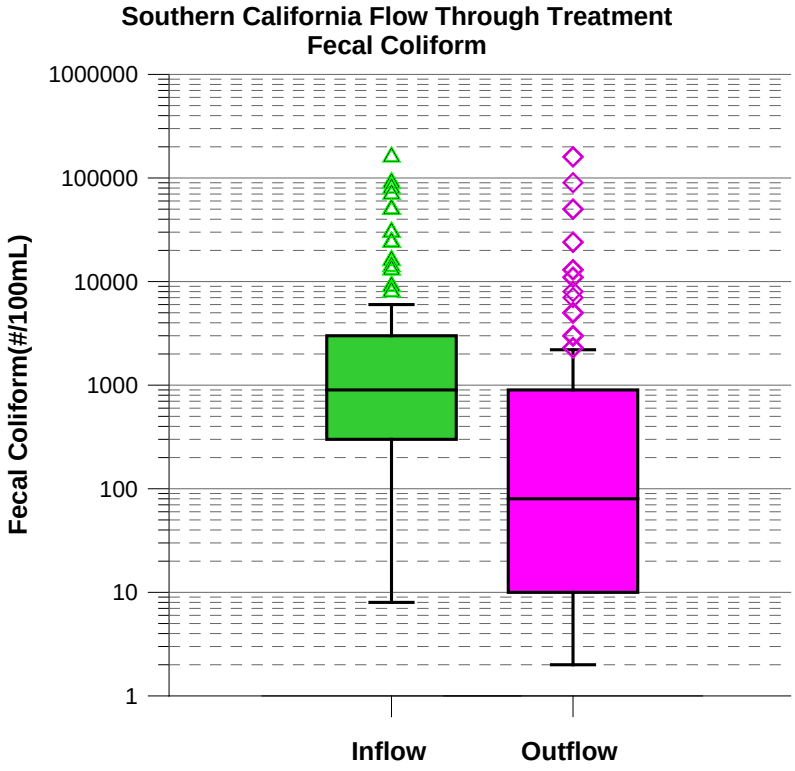

Table N-13 Flow Through BMPs – Copper			
Run ID	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**150**	**146**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**41.89**	**18.84**	**-55.03%**
Standard Deviation	**144**	**21.81**	**---**
Coefficient of Variation	**3.43**	**1.16**	**---**
Lower 95% Confidence Limit about Mean	**18.89**	**15.30**	**---**
Upper 95% Confidence Limit about Mean	**64.88**	**22.38**	**---**
Lower Quartile (25th percentile)	**11.98**	**6.20**	**-48.27%**
Median (50th percentile)	**18.00**	**11.00**	**-38.89%**
Upper Quartile (75th percentile)	**33.00**	**21.25**	**-35.61%**
Inter Quartile Range	**21.03**	**15.06**	**---**
Minimum Detected Value	**2.7**	**1.56**	**---**
Maximum Detected Value	**1400**	**150**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 3.040 + 0.943*z	ln(y) = 2.477 + 0.965*z	**---**
Note:	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

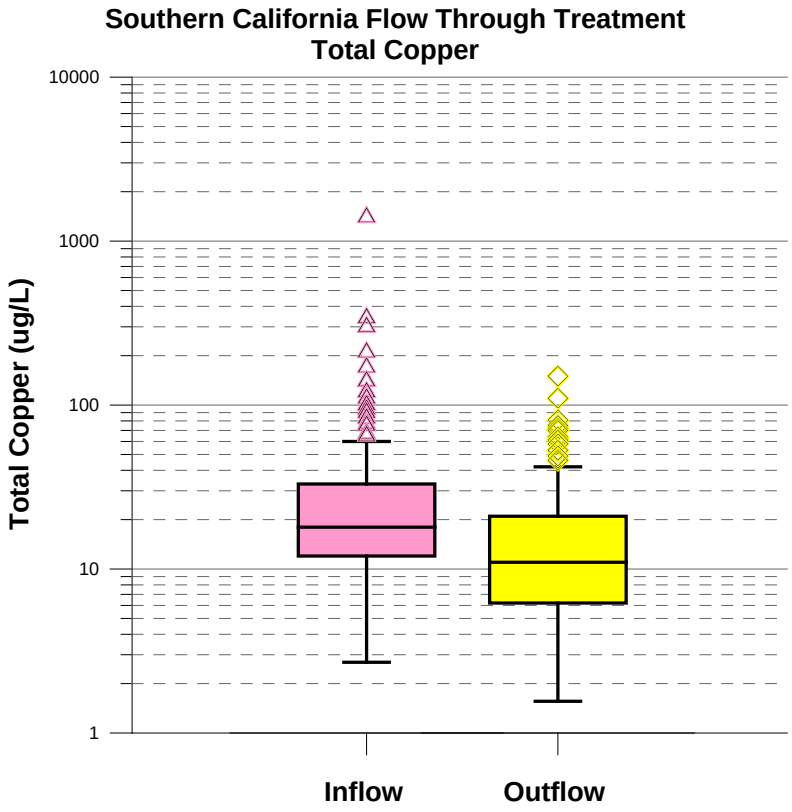

Table N-14 Flow Through BMPs – Lead			
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**149**	**146**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**20.70**	**7.51**	**-63.71%**
Standard Deviation	**23.57**	**13.49**	**---**
Coefficient of Variation	**1.14**	**1.80**	**---**
Lower 95% Confidence Limit about Mean	**16.92**	**5.32**	**---**
Upper 95% Confidence Limit about Mean	**24.49**	**9.70**	**---**
Lower Quartile (25th percentile)	**6.50**	**1.00**	**-84.62%**
Median (50th percentile)	**13.00**	**3.10**	**-76.15%**
Upper Quartile (75th percentile)	**25.50**	**7.10**	**-72.16%**
Inter Quartile Range	**19.00**	**6.10**	**---**
Minimum Detected Value	**1**	**1**	**---**
Maximum Detected Value	**140**	**110**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 2.558 + 1.032*z	ln(y) = 1.253 + 1.128*z	**---**
Note:	1	1	**2**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

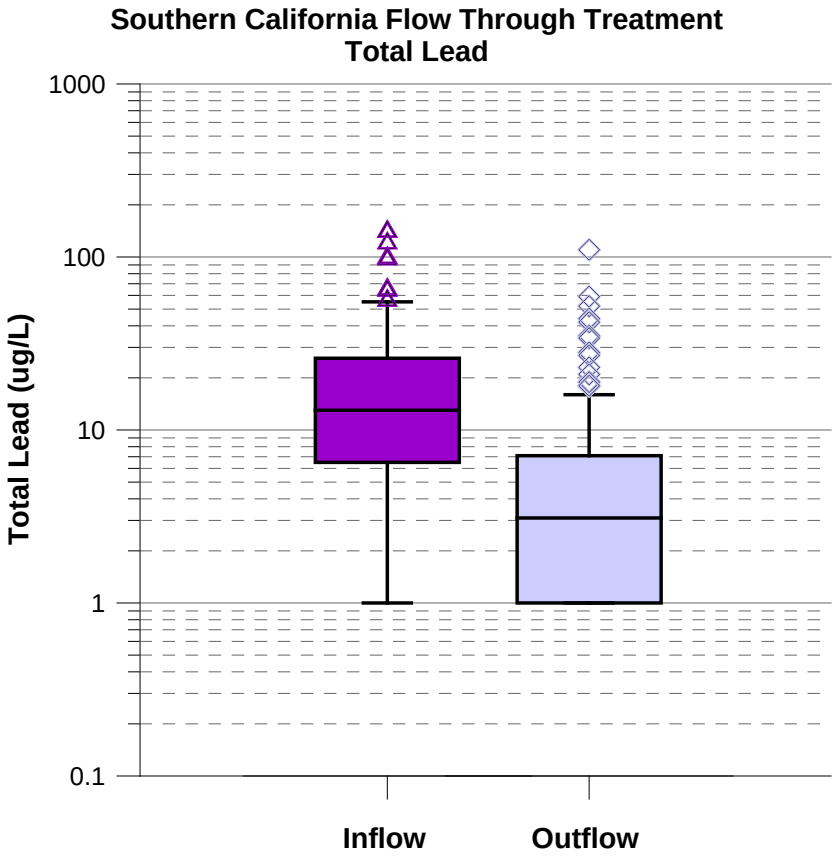

Table N-15 Flow Through BMPs – Zinc			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**150**	**146**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**311**	**117**	**-62.40%**
Standard Deviation	**309**	**183**	**---**
Coefficient of Variation	**0.99**	**1.57**	**---**
Lower 95% Confidence Limit about Mean	**262**	**87.3**	**---**
Upper 95% Confidence Limit about Mean	**361**	**147**	**---**
Lower Quartile (25th percentile)	**110**	**23.00**	**-79.09%**
Median (50th percentile)	**221**	**55.5**	**-74.89%**
Upper Quartile (75th percentile)	**400**	**131**	**-67.31%**
Inter Quartile Range	**290**	**108**	**---**
Minimum Detected Value	**15**	**1**	**---**
Maximum Detected Value	**1900**	**1400**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.361 + 0.903*z	ln(y) = 3.976 + 1.350*z	**---**
Note:	1	1	**2**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

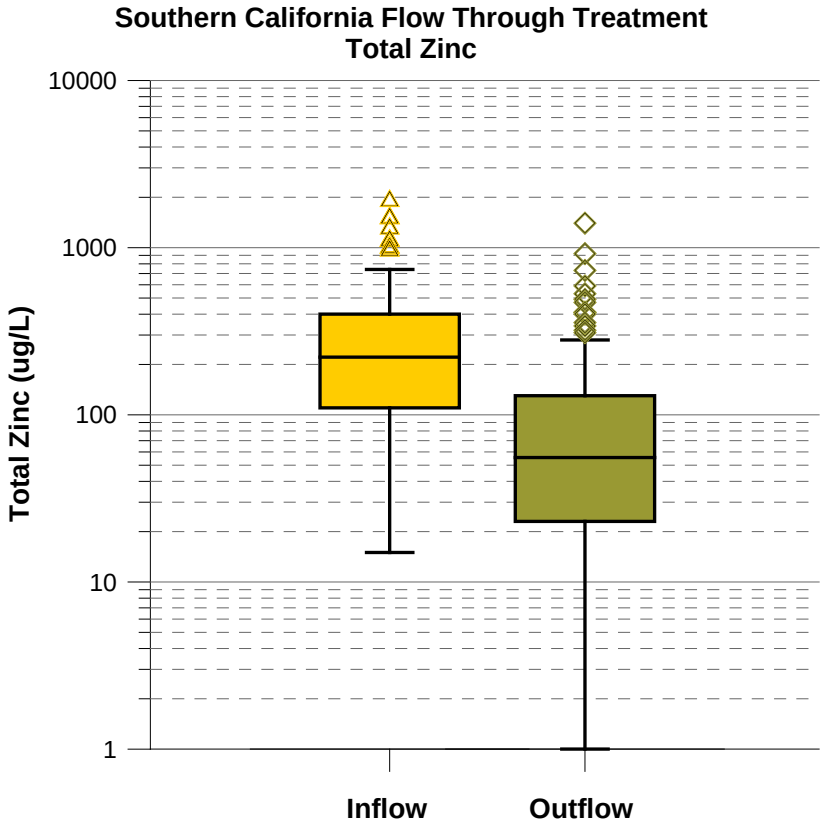

Table N-16 Catch Basin Inserts –TSS	
Run ID	**Total suspended solids, Outflow (mg/L)**
n	**88**
Percent detected	**100.0%**
Mean	**52.9**
Standard Deviation	**55.7**
Coefficient of Variation	**1.05**
Lower 95% Confidence Limit about Mean	**41.3**
Upper 95% Confidence Limit about Mean	**64.6**
Lower Quartile (25th percentile)	**20**
Median (50th percentile)	**37.5**
Upper Quartile (75th percentile)	**71**
Inter Quartile Range	**51**
Minimum Detected Value	**4**
Maximum Detected Value	**320**
Minimum Reporting Limit	**---**
Maximum Reporting Limit	**---**
Regression Equation	ln(y) = 3.552 + 0.972*z
Note:	1

Note 1: All data reported as detected. Bolded values are exact calculations.

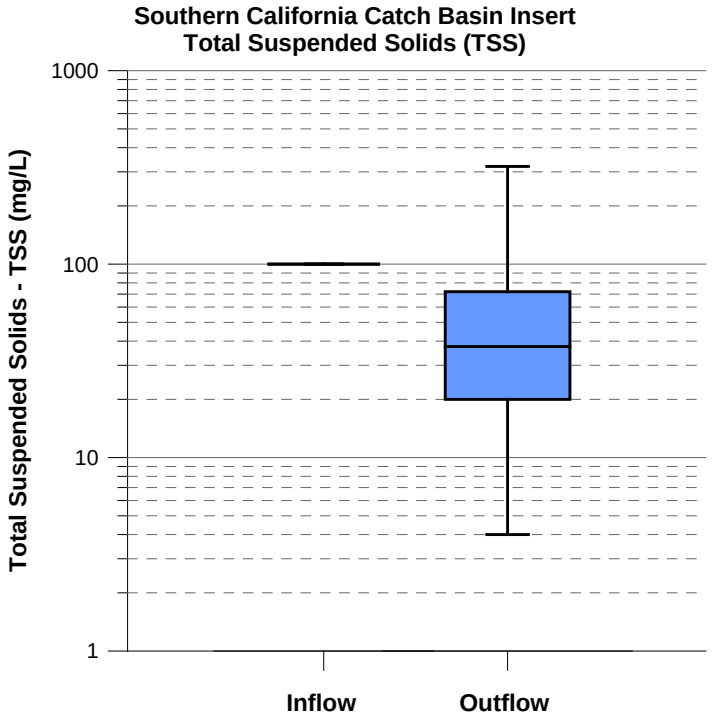

Table N-17 Catch Basin Inserts – Copper	
Run ID	**Total Copper, Outflow (ug/L)**
n	**88**
Percent detected	**100.0%**
Mean	**16.80**
Standard Deviation	**16.57**
Coefficient of Variation	**0.99**
Lower 95% Confidence Limit about Mean	**13.34**
Upper 95% Confidence Limit about Mean	**20.27**
Lower Quartile (25th percentile)	**5.95**
Median (50th percentile)	**13**
Upper Quartile (75th percentile)	**22**
Inter Quartile Range	**16.05**
Minimum Detected Value	**1.2**
Maximum Detected Value	**90**
Minimum Reporting Limit	
Maximum Reporting Limit	
Regression Equation	ln(y) = 2.387 + 1.041*z
Note:	1

Note 1: All data reported as detected. Bolded values are exact calculations.

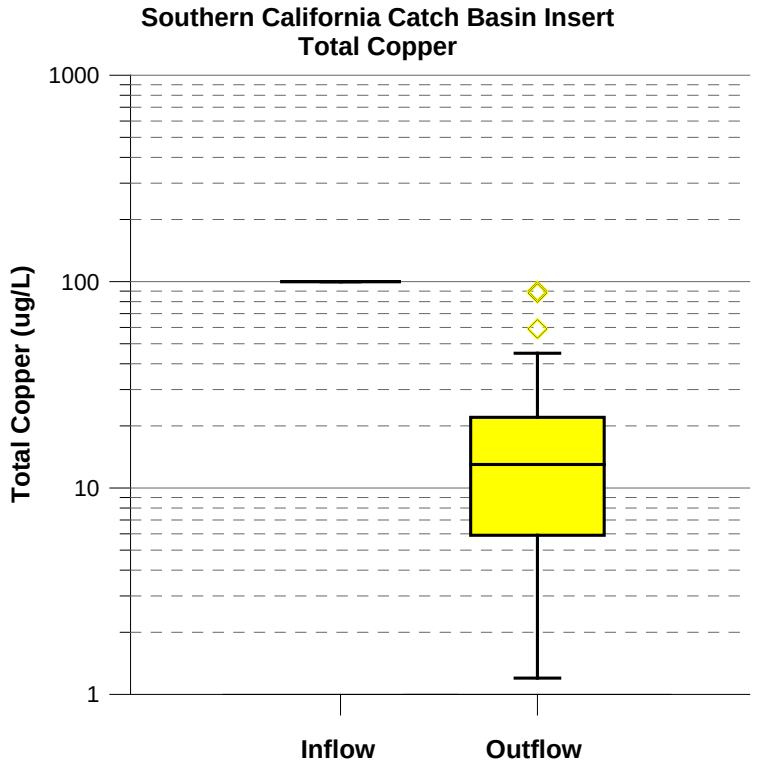

Table N-18 Catch Basin Inserts – Lead	
Run ID	**Total Lead, Outflow (ug/L)**
n	**88**
Percent detected	**100.0%**
Mean	**12.45**
Standard Deviation	**19.61**
Coefficient of Variation	**1.58**
Lower 95% Confidence Limit about Mean	**8.35**
Upper 95% Confidence Limit about Mean	**16.54**
Lower Quartile (25th percentile)	**2.3**
Median (50th percentile)	**6**
Upper Quartile (75th percentile)	**12.45**
Inter Quartile Range	**10.15**
Minimum Detected Value	**1**
Maximum Detected Value	**110**
Minimum Reporting Limit	
Maximum Reporting Limit	
Regression Equation	ln(y) = 1.798 + 1.223*z
Note:	1

Note 1: All data reported as detected. Bolded values are exact calculations.

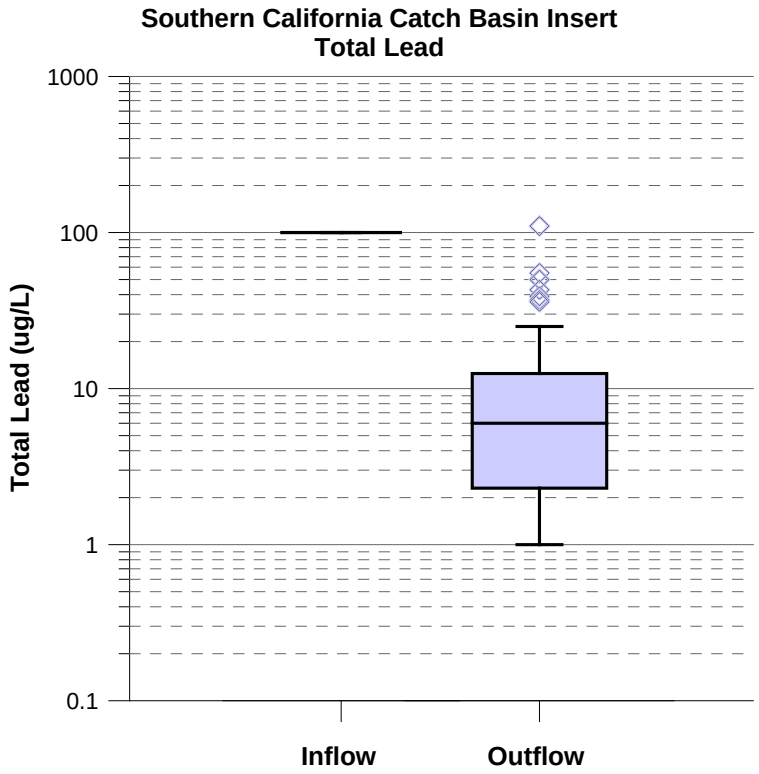

Table N-19 Catch Basin Inserts – Zinc	
Run ID	**Total Zinc, Outflow (ug/L)**
n	**88**
Percent detected	**100.0%**
Mean	**173**
Standard Deviation	**215**
Coefficient of Variation	**1.24**
Lower 95% Confidence Limit about Mean	**128**
Upper 95% Confidence Limit about Mean	**218**
Lower Quartile (25th percentile)	**50.5**
Median (50th percentile)	**107**
Upper Quartile (75th percentile)	**220**
Inter Quartile Range	**169**
Minimum Detected Value	**9.4**
Maximum Detected Value	**1250**
Minimum Reporting Limit	
Maximum Reporting Limit	
Regression Equation	ln(y) = 4.582 + 1.162*z
Note:	1

Note 1: All data reported as detected. Bolded values are exact calculations.

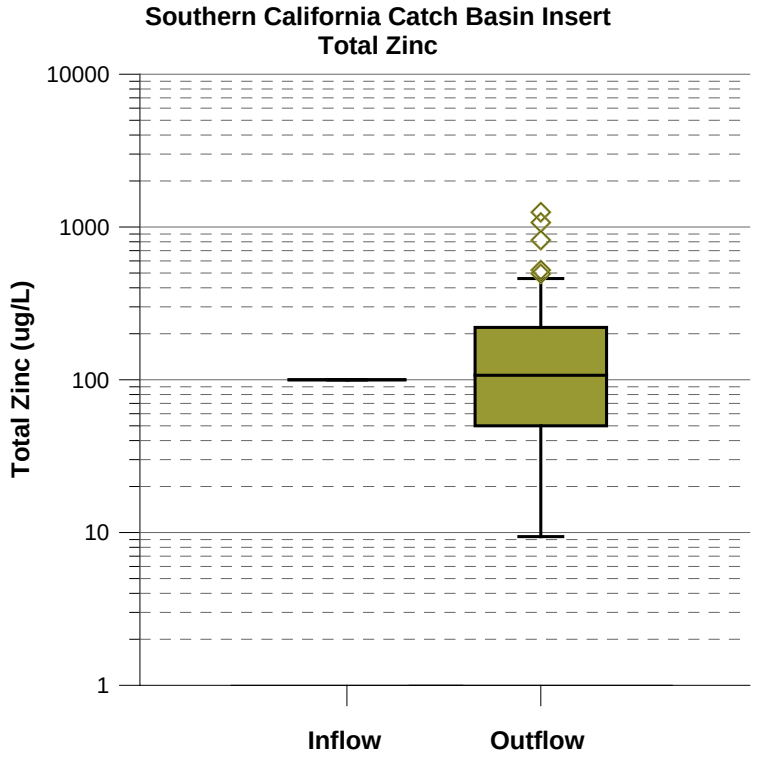

Table N-20 Constructed Wetlands – TSS			
Run ID	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**13**	**14**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**203**	**11.1**	**-94.55%**
Standard Deviation	**88**	**8.9**	**---**
Coefficient of Variation	**0.43**	**0.81**	**---**
Lower 95% Confidence Limit about Mean	**155**	**6.38**	**---**
Upper 95% Confidence Limit about Mean	**251**	**15.7**	**---**
Lower Quartile (25th percentile)	**140**	**3.50**	**-97.50%**
Median (50th percentile)	**230**	**11.0**	**-95.22%**
Upper Quartile (75th percentile)	**255**	**13.5**	**-94.71%**
Inter Quartile Range	**115**	**10.0**	**---**
Minimum Detected Value	**60**	**1.00**	**---**
Maximum Detected Value	**350**	**28**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.197 + 0.595*z	ln(y) = 2.014 + 1.142*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

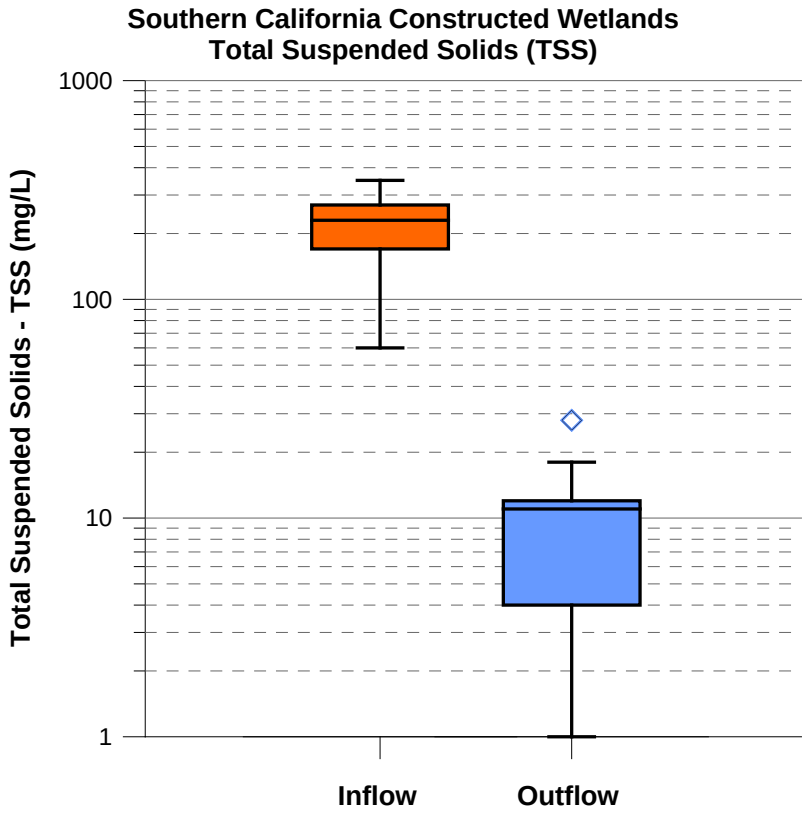

Table N-21 Constructed Wetlands – Fecal Coliform			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**13**	**14**	**---**
Percent detected	**92.3%**	**100.0%**	**---**
Mean	5407	**295**	**-94.54%**
Standard Deviation	18323	**795**	**---**
Coefficient of Variation	3.39	**2.69**	**---**
Lower 95% Confidence Limit about Mean	-4554	**-121**	**---**
Upper 95% Confidence Limit about Mean	15368	**712**	**---**
Lower Quartile (25th percentile)	**230**	**20.0**	**-91.30%**
Median (50th percentile)	**1300**	**95.0**	**-92.69%**
Upper Quartile (75th percentile)	**3800**	**255**	**-93.29%**
Inter Quartile Range	**3570**	**235**	**---**
Minimum Detected Value	**20**	**8**	**---**
Maximum Detected Value	**50000**	**2400**	**---**
Minimum Reporting Limit	**10**		**---**
Maximum Reporting Limit	**10**		**---**
Regression Equation	ln(y) = 6.794 + 2.447*z	ln(y) = 4.484 + 1.786*z	**---**
Note:	3	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

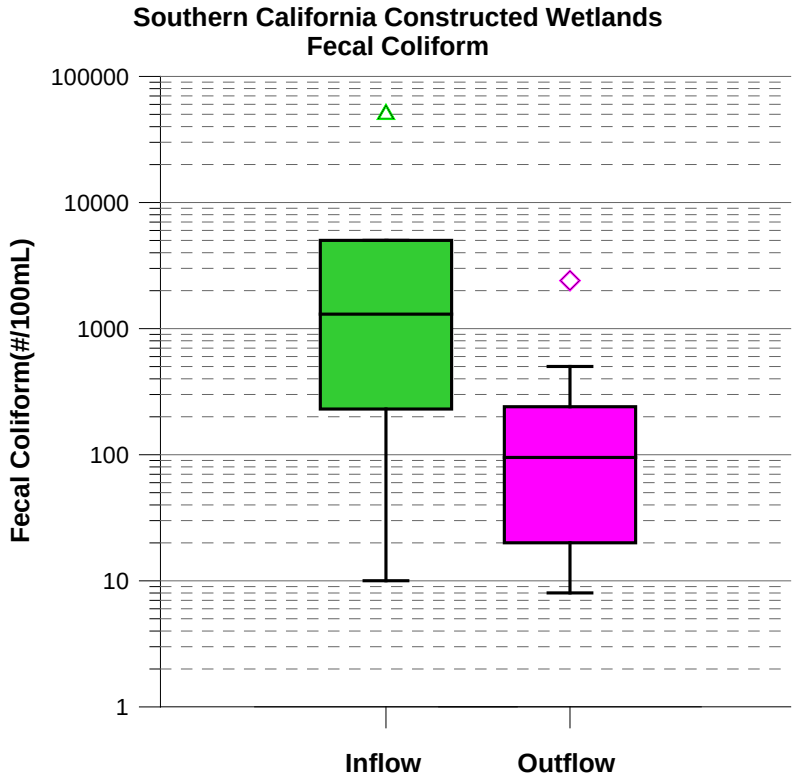

Table N-22 Constructed Wetlands – Total Copper			
Run ID	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**21**	**22**	**---**
Percent detected	**90.5%**	**95.5%**	**---**
Mean	543.94	10.78	**-98.02%**
Standard Deviation	2890.84	7.17	**---**
Coefficient of Variation	5.31	0.66	**---**
Lower 95% Confidence Limit about Mean	-692.50	7.79	**---**
Upper 95% Confidence Limit about Mean	1780.37	13.78	**---**
Lower Quartile (25th percentile)	**11.15**	**5.55**	**-50.22%**
Median (50th percentile)	**62.00**	**8.80**	**-85.81%**
Upper Quartile (75th percentile)	**110.00**	**14.75**	**-86.59%**
Inter Quartile Range	**98.85**	**9.20**	**---**
Minimum Detected Value	**3.23**	**3.4**	**---**
Maximum Detected Value	**9500**	**31**	**---**
Minimum Reporting Limit	**0.25**	**0.25**	**---**
Maximum Reporting Limit	**0.25**	**0.25**	**---**
Regression Equation	ln(y) = 3.738 + 2.215*z	ln(y) = 2.185 + 0.717*z	**---**
Note:	3	3	**---**

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

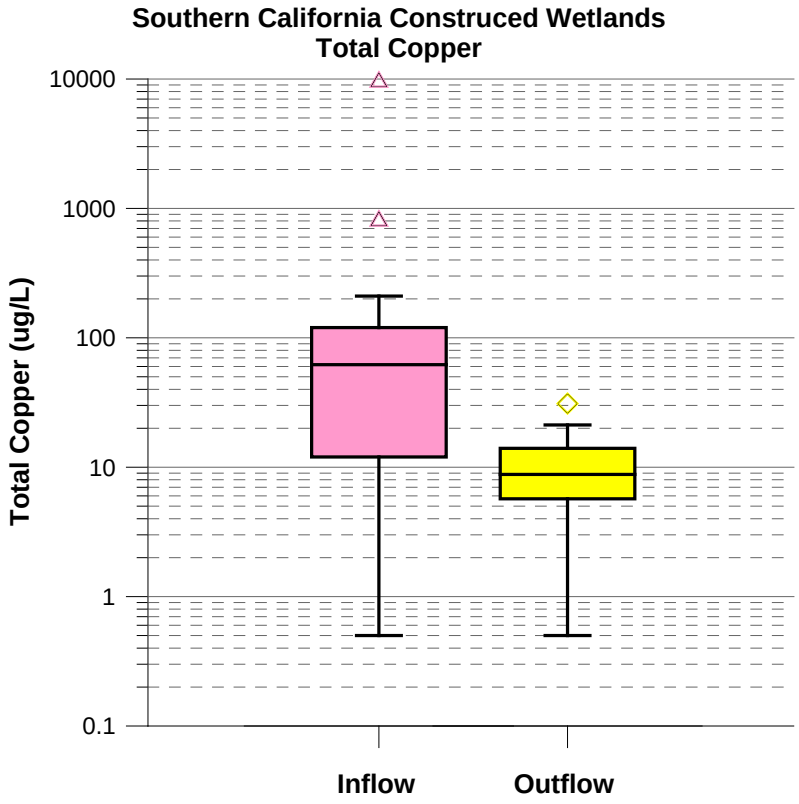

Table N-23 Constructed Wetlands – Total Lead			
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**21**	**22**	**---**
Percent detected	**90.5%**	**95.5%**	**---**
Mean	277.65	5.23	**-98.11%**
Standard Deviation	593.03	3.50	**---**
Coefficient of Variation	2.14	0.67	**---**
Lower 95% Confidence Limit about Mean	24.01	3.77	**---**
Upper 95% Confidence Limit about Mean	531.30	6.69	**---**
Lower Quartile (25th percentile)	**3.32**	**2.70**	**-18.55%**
Median (50th percentile)	**170.00**	**4.40**	**-97.41%**
Upper Quartile (75th percentile)	**315.00**	**8.32**	**-97.36%**
Inter Quartile Range	**311.69**	**5.62**	**---**
Minimum Detected Value	**1.25**	**1**	**---**
Maximum Detected Value	**2300**	**14**	**---**
Minimum Reporting Limit	**0.25**	**0.25**	**---**
Maximum Reporting Limit	**0.25**	**0.25**	**---**
Regression Equation	ln(y) = 3.918 + 2.654*z	ln(y) = 1.426 + 0.804*z	**---**
Note:	3	3	---

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

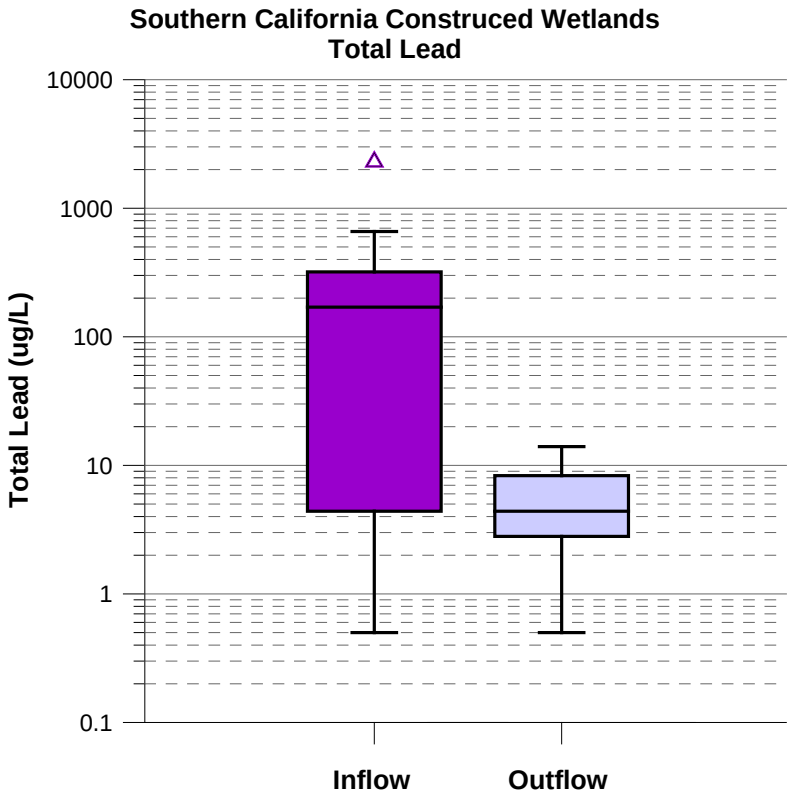

Table N-24 Constructed Wetlands – Total Zinc			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**21**	**22**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**363.79**	**56.46**	**-84.48%**
Standard Deviation	**483.79**	**43.15**	**---**
Coefficient of Variation	**1.33**	**0.76**	**---**
Lower 95% Confidence Limit about Mean	**156.87**	**38.43**	**---**
Upper 95% Confidence Limit about Mean	**570.71**	**74.50**	**---**
Lower Quartile (25th percentile)	**109.00**	**28.53**	**-73.83%**
Median (50th percentile)	**270.00**	**39.00**	**-85.56%**
Upper Quartile (75th percentile)	**450.00**	**84.35**	**-81.26%**
Inter Quartile Range	**341.00**	**55.83**	**---**
Minimum Detected Value	**35.7**	**18**	**---**
Maximum Detected Value	**2000**	**165**	**---**
Minimum Reporting Limit			**---**
Maximum Reporting Limit			**---**
Regression Equation	ln(y) = 5.403 + 1.142*z	ln(y) = 3.812 + 0.702*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

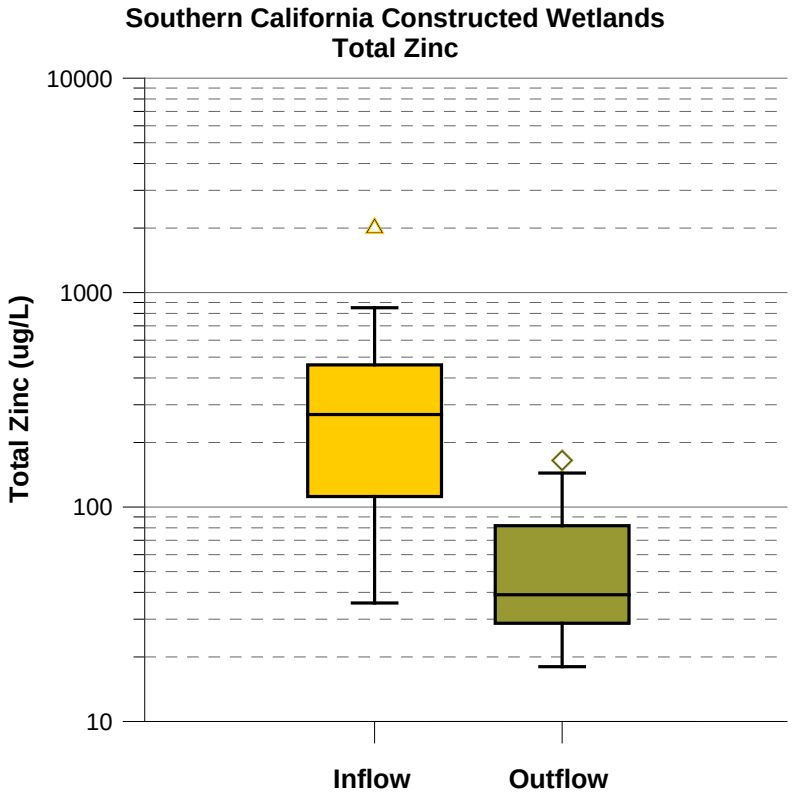

Table N-25 Non-Caltrans Bioswales –TSS			
Run ID	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**104**	**71**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**102**	**39.5**	**-61.37%**
Standard Deviation	**85.8**	**35.6**	**---**
Coefficient of Variation	**0.84**	**0.90**	**---**
Lower 95% Confidence Limit about Mean	**85.9**	**31.3**	**---**
Upper 95% Confidence Limit about Mean	**119**	**47.8**	**---**
Lower Quartile (25th percentile)	**47.3**	**18.0**	**-61.90%**
Median (50th percentile)	**72.0**	**30.0**	**-58.33%**
Upper Quartile (75th percentile)	**134**	**50.0**	**-62.76%**
Inter Quartile Range	**87**	**32**	**---**
Minimum Detected Value	**2**	**1**	**---**
Maximum Detected Value	**474**	**191**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.319 + 0.853*z	ln(y) = 3.343 + 0.898*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

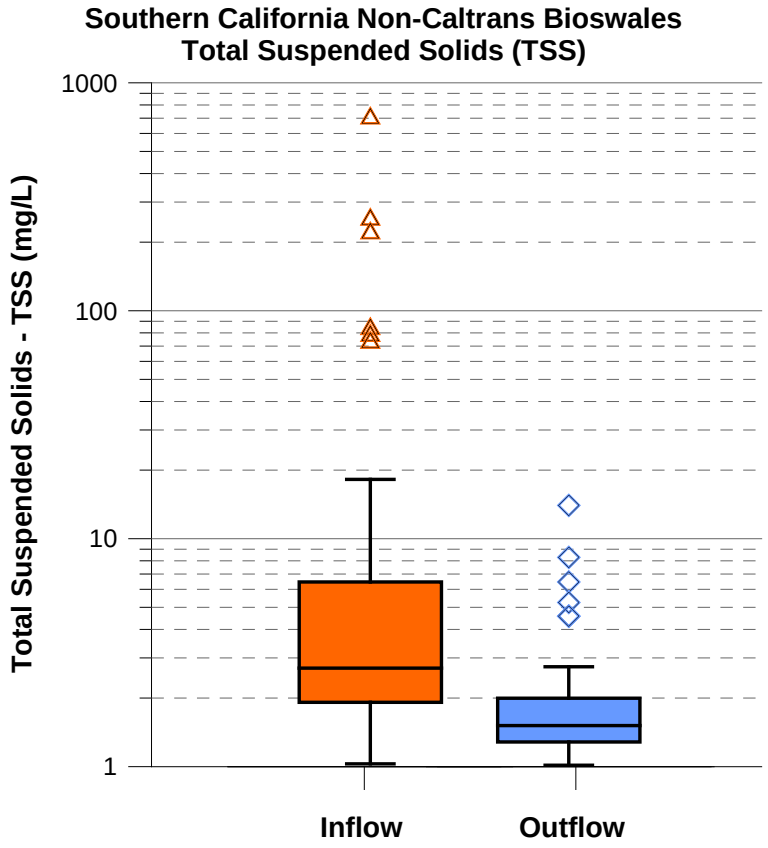

Table N-26 Non-Caltrans Bioswales –Fecal Coliform			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**33**	**19**	**---**
Percent detected	**97.0%**	**100.0%**	**---**
Mean	12725	**10982**	**-13.70%**
Standard Deviation	22363	**49927**	**---**
Coefficient of Variation	1.76	**4.55**	**---**
Lower 95% Confidence Limit about Mean	5095	**-11468**	**---**
Upper 95% Confidence Limit about Mean	20355	**33432**	**---**
Lower Quartile (25th percentile)	**500**	**130**	**-74.00%**
Median (50th percentile)	**5000**	**900**	**-82.00%**
Upper Quartile (75th percentile)	**16500**	**5000**	**-69.70%**
Inter Quartile Range	**16000**	**4870**	**---**
Minimum Detected Value	**17**	**17**	**---**
Maximum Detected Value	**90000**	**160000**	**---**
Minimum Reporting Limit	**1**	**---**	**---**
Maximum Reporting Limit	**1**	**---**	**---**
Regression Equation	ln(y) = 7.667 + 2.695*z	ln(y) = 6.585 + 2.773*z	**---**
Note:	3	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

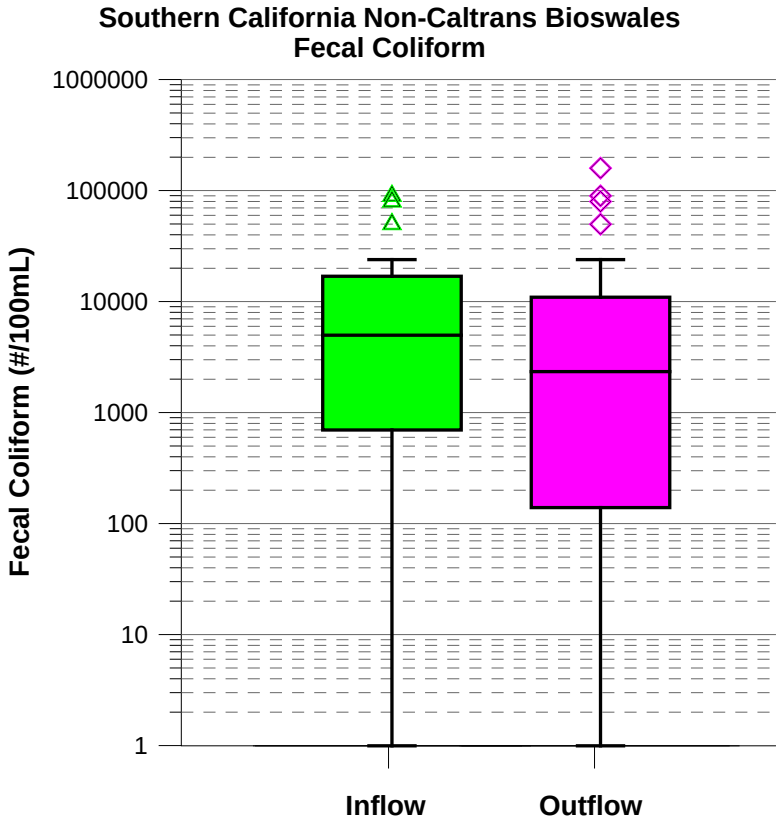

Table N-27 Non-Caltrans Bioswales – Copper			
Run ID	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**131**	**99**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**41.20**	**12.20**	**-70.39%**
Standard Deviation	**40.59**	**10.35**	**---**
Coefficient of Variation	**0.99**	**0.85**	**---**
Lower 95% Confidence Limit about Mean	**34.25**	**10.16**	**---**
Upper 95% Confidence Limit about Mean	**48.15**	**14.24**	**---**
Lower Quartile (25th percentile)	**11.00**	**5.40**	**-50.91%**
Median (50th percentile)	**25.20**	**10.00**	**-60.32%**
Upper Quartile (75th percentile)	**64.0**	**16.0**	**-75.00%**
Inter Quartile Range	**53**	**10.6**	**---**
Minimum Detected Value	**1.1**	**1**	**---**
Maximum Detected Value	**232**	**73**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 3.205 + 1.128*z	ln(y) = 2.207 + 0.828*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

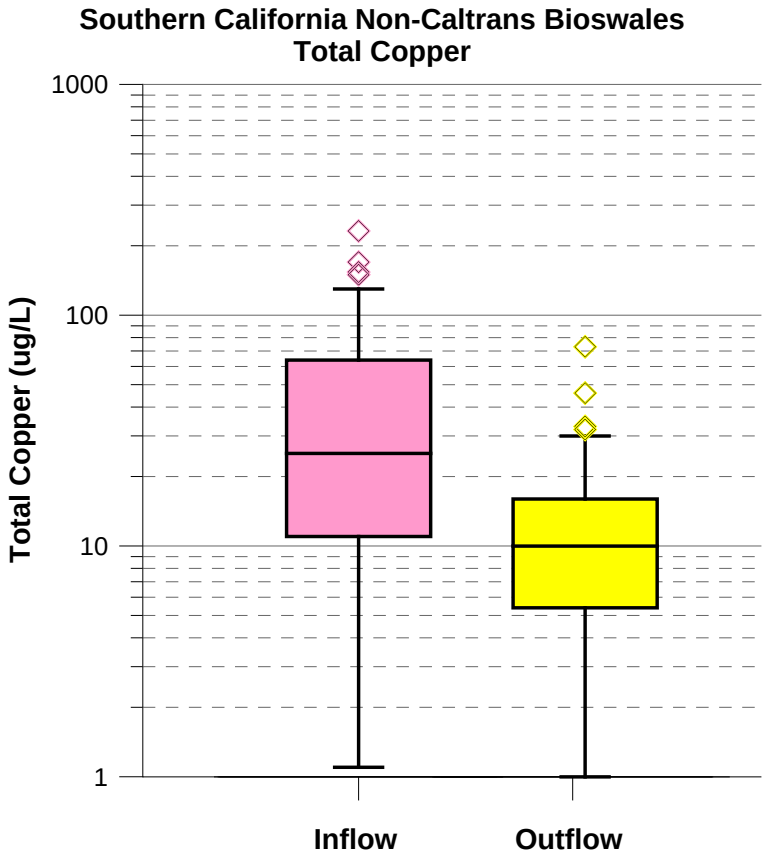

Table N-28 Non-Caltrans Bioswales – Lead			
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**131**	**99**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**66.47**	**15.88**	**-76.11%**
Standard Deviation	**229**	**26.28**	**---**
Coefficient of Variation	**3.45**	**1.65**	**---**
Lower 95% Confidence Limit about Mean	**27.20**	**10.70**	**---**
Upper 95% Confidence Limit about Mean	**106**	**21.06**	**---**
Lower Quartile (25th percentile)	**9.67**	**3.60**	**-62.78%**
Median (50th percentile)	**21.85**	**7.06**	**-67.68%**
Upper Quartile (75th percentile)	**73.0**	**18.26**	**-74.99%**
Inter Quartile Range	**63.3**	**14.66**	**---**
Minimum Detected Value	**0.55585**	**0.755025**	**---**
Maximum Detected Value	**2086**	**189**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 3.222 + 1.374*z	ln(y) = 2.085 + 1.168*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

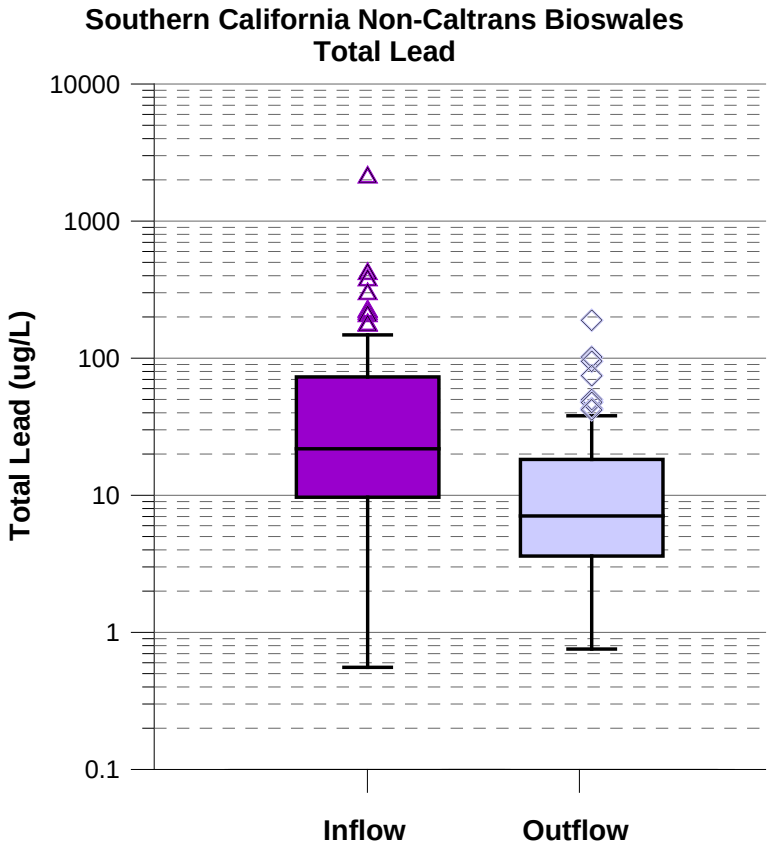

Table N-29 Non-Caltrans Bioswales – Zinc			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**131**	**99**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**228**	**65.07**	**-71.42%**
Standard Deviation	**223**	**66.77**	**---**
Coefficient of Variation	**0.98**	**1.03**	**---**
Lower 95% Confidence Limit about Mean	**190**	**51.92**	**---**
Upper 95% Confidence Limit about Mean	**266**	**78.23**	**---**
Lower Quartile (25th percentile)	**90.00**	**29.00**	**-67.78%**
Median (50th percentile)	**160**	**50.16**	**-68.65%**
Upper Quartile (75th percentile)	**313**	**76**	**-75.72%**
Inter Quartile Range	**223**	**47**	**---**
Minimum Detected Value	**13**	**4.2**	**---**
Maximum Detected Value	**1542**	**501**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.007 + 0.995*z	ln(y) = 3.866 + 0.811*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

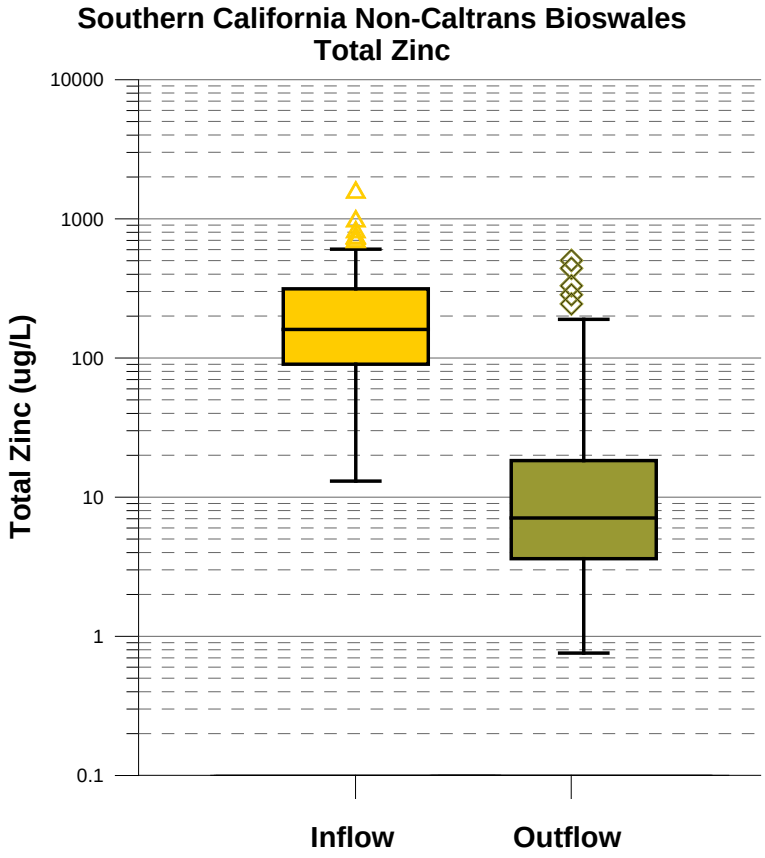

Table N-30 Caltrans Only Bioswales – TSS			
Run ID	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**92.2**	**69.9**	**-24.21%**
Standard Deviation	**70.8**	**81.0**	**---**
Coefficient of Variation	**0.77**	**1.16**	**---**
Lower 95% Confidence Limit about Mean	**73.5**	**41.8**	**---**
Upper 95% Confidence Limit about Mean	**110.9**	**97.9**	**---**
Lower Quartile (25th percentile)	**39**	**20.5**	**-47.44%**
Median (50th percentile)	**78**	**38**	**-51.28%**
Upper Quartile (75th percentile)	**124**	**81.75**	**-34.07%**
Inter Quartile Range	**85**	**61.25**	**---**
Minimum Detected Value	**12**	**7**	**---**
Maximum Detected Value	**380**	**330**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.234 + 0.852*z	ln(y) = 3.758 + 1.056*z	**---**
Note:	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

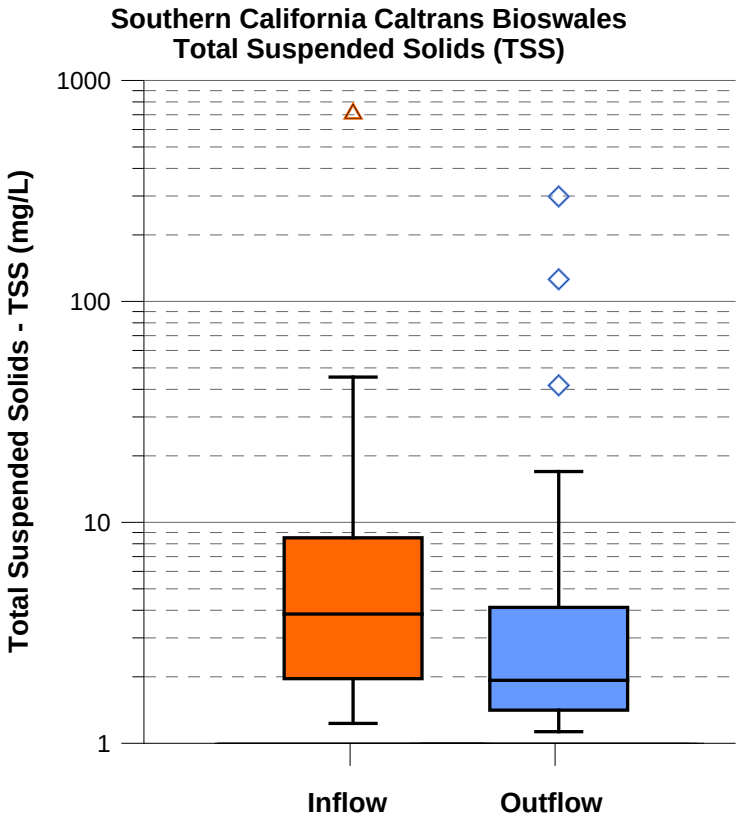

Table N-31 Caltrans Only Bioswales – Copper			
Run ID	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**44.99**	**18.34**	**-59.24%**
Standard Deviation	**26.58**	**9.99**	**---**
Coefficient of Variation	**0.59**	**0.55**	**---**
Lower 95% Confidence Limit about Mean	**37.97**	**14.87**	**---**
Upper 95% Confidence Limit about Mean	**52.01**	**21.80**	**---**
Lower Quartile (25th percentile)	**24.00**	**9.95**	**-58.54%**
Median (50th percentile)	**41.00**	**16.00**	**-60.98%**
Upper Quartile (75th percentile)	**60.00**	**26.00**	**-56.67%**
Inter Quartile Range	**36.00**	**16.05**	**---**
Minimum Detected Value	**10**	**5**	**---**
Maximum Detected Value	**130**	**43**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 3.617 + 0.683*z	ln(y) = 2.762 + 0.606*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

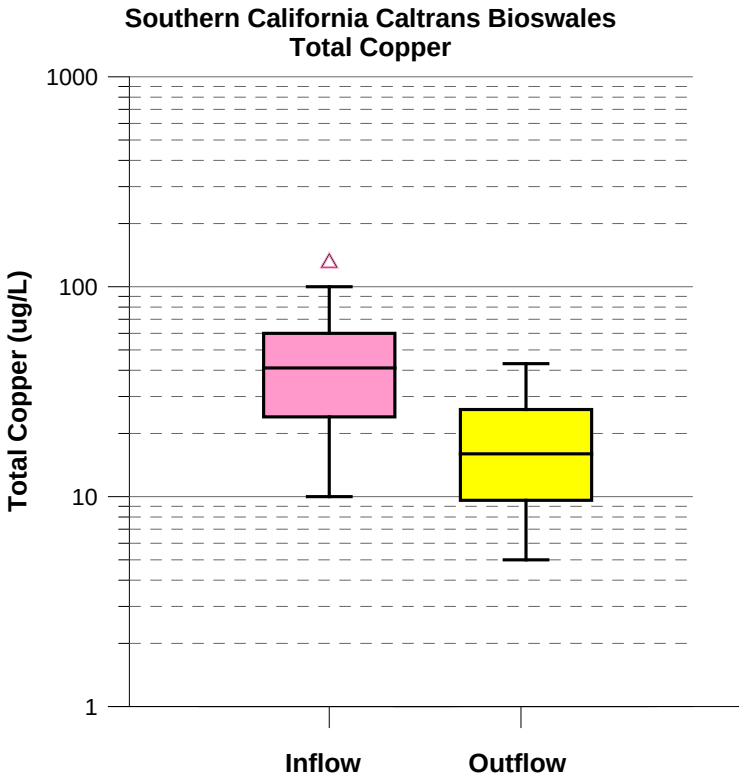

Table N-32 Caltrans Only Bioswales – Lead			
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**55**	**32**	**---**
Percent detected	**96.4%**	**96.9%**	**---**
Mean	48.42	14.57	**-69.92%**
Standard Deviation	56.49	19.68	**---**
Coefficient of Variation	1.17	1.35	**---**
Lower 95% Confidence Limit about Mean	33.49	7.75	**---**
Upper 95% Confidence Limit about Mean	63.35	21.39	**---**
Lower Quartile (25th percentile)	11.16	**2.95**	**-73.56%**
Median (50th percentile)	26.02	**6.50**	**-75.02%**
Upper Quartile (75th percentile)	60.68	**15.00**	**-75.28%**
Inter Quartile Range	49.52	**12.05**	**---**
Minimum Detected Value	**2.9**	**1.8**	**---**
Maximum Detected Value	**240**	**75**	**---**
Minimum Reporting Limit	**0.7**	**0.03**	**---**
Maximum Reporting Limit	**0.8**	**0.03**	**---**
Regression Equation	ln(y) = 3.258 + 1.255*z	ln(y) = 1.986 + 1.252*z	**---**
Note:	3	3	2

Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

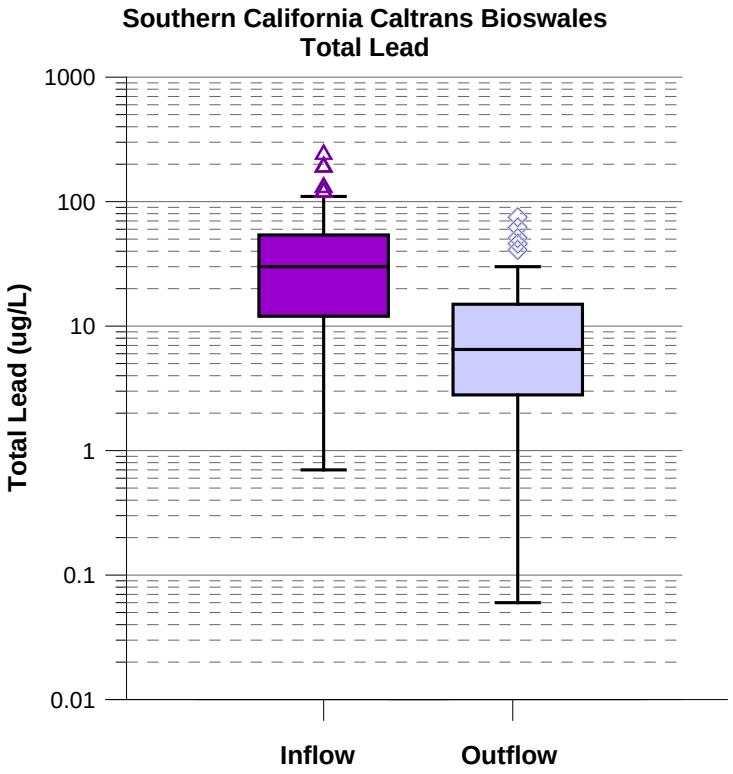

Table N-33 Caltrans Only Bioswales – Zinc			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**260**	**74**	**-71.53%**
Standard Deviation	**207**	**94**	**---**
Coefficient of Variation	**0.80**	**1.27**	**---**
Lower 95% Confidence Limit about Mean	**205**	**41.6**	**---**
Upper 95% Confidence Limit about Mean	**315**	**107**	**---**
Lower Quartile (25th percentile)	**110**	**24.75**	**-77.50%**
Median (50th percentile)	**220**	**52.50**	**-76.14%**
Upper Quartile (75th percentile)	**350**	**84.50**	**-75.86%**
Inter Quartile Range	**240**	**59.75**	**---**
Minimum Detected Value	**32**	**19**	**---**
Maximum Detected Value	**980**	**440**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.247 + 0.890*z	ln(y) = 3.947 + 0.805*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

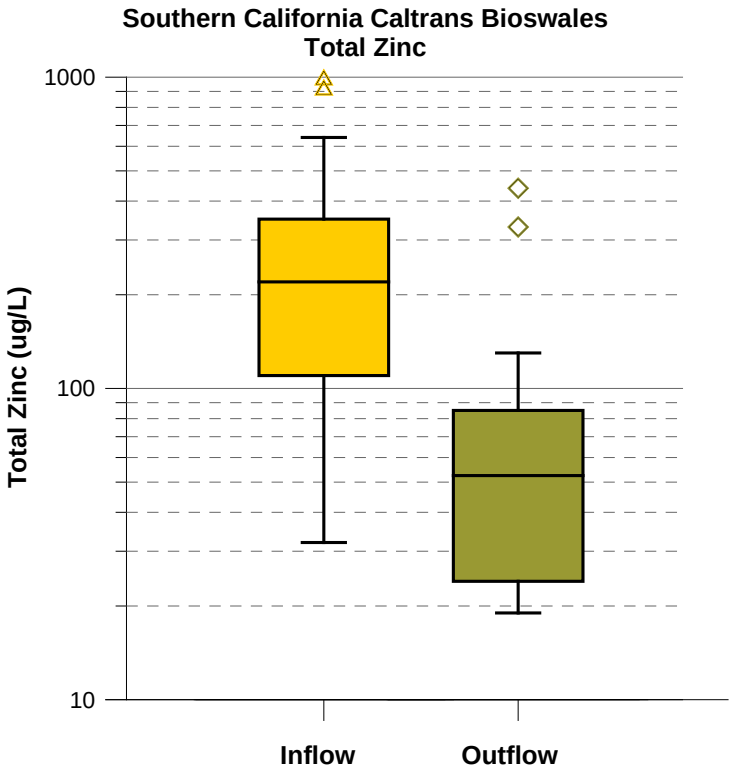

Table N-34 Site Scale Detention – Solids						
Run ID	**Total dissolved solids, Inflow (mg/L)**	**Total dissolved solids, Outflow (mg/L)**	**Change, Total dissolved solids, Inflow to Outflow**	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**49**	**37**	**---**	**76**	**69**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**100**	**100**	**-0.292%**	**133**	**50**	**-62.817%**
Standard Deviation	**47**	**57**	**---**	**94**	**46**	**---**
Coefficient of Variation	**0.47**	**0.57**	**---**	**0.71**	**0.94**	**---**
Lower 95% Confidence Limit about Mean	**87**	**82**	**---**	**112**	**39**	**---**
Upper 95% Confidence Limit about Mean	**114**	**118**	**---**	**154**	**60**	**---**
Lower Quartile (25th percentile)	**65**	**66**	**1.538%**	**75**	**23**	**-69.799%**
Median (50th percentile)	**88**	**88**	**0.000%**	**100**	**38**	**-62.000%**
Upper Quartile (75th percentile)	**135**	**120**	**-11.111%**	**169**	**59**	**-65.333%**
Inter Quartile Range	**70**	**54**	**---**	**94**	**36**	**---**
Minimum Detected Value	**22**	**23**	**---**	**19**	**9**	**---**
Maximum Detected Value	**208**	**286**	**---**	**500**	**260**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 4.497 + 0.517*z	ln(y) = 4.464 + 0.586*z	**---**	ln(y) = 4.686 + 0.667*z	ln(y) = 3.637 + 0.722*z	**---**
Note:	1	1	---	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-35 Site Scale Detention – Bacteria			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**34**	**30**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**2504**	**4987**	**99.1%**
Standard Deviation	**6023**	**21843**	**---**
Coefficient of Variation	**2.4**	**4.4**	**---**
Lower 95% Confidence Limit about Mean	**479**	**-2830**	**---**
Upper 95% Confidence Limit about Mean	**4529**	**12803**	**---**
Lower Quartile (25th percentile)	**300**	**475**	**58.3%**
Median (50th percentile)	**600**	**850**	**41.7%**
Upper Quartile (75th percentile)	**1700**	**3075**	**80.9%**
Inter Quartile Range	**1400**	**2600**	**---**
Minimum Detected Value	**110**	**2**	**---**
Maximum Detected Value	**28000**	**90000**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 6.703 + 1.447*z	ln(y) = 6.955 + 1.811*z	**---**
Note:	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-36 Site Scale Detention – Nutrients						
Run ID	**Kjeldahl nitrogen (TKN), Inflow (mg/L)**	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Change, Kjeldahl nitrogen (TKN), Inflow to Outflow**	**Nitrogen, Nitrate (NO3) as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrate (NO3) as N, Inflow to Outflow**
n	**76**	**68**	**---**	**75**	**68**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**2.24**	**1.91**	**-14.86%**	**1.14**	**0.98**	**-13.89%**
Standard Deviation	**1.52**	**1.52**	**---**	**1.34**	**0.80**	**---**
Coefficient of Variation	**0.68**	**0.80**	**---**	**1.18**	**0.82**	**---**
Lower 95% Confidence Limit about Mean	**1.90**	**1.55**	**---**	**0.84**	**0.79**	**---**
Upper 95% Confidence Limit about Mean	**2.58**	**2.27**	**---**	**1.45**	**1.17**	**---**
Lower Quartile (25th percentile)	**1.33**	**1.10**	**-16.98%**	**0.52**	**0.51**	**-2.40%**
Median (50th percentile)	**1.88**	**1.50**	**-20.21%**	**0.85**	**0.76**	**-10.59%**
Upper Quartile (75th percentile)	**2.70**	**2.17**	**-19.72%**	**1.20**	**1.16**	**-3.33%**
Inter Quartile Range	**1.38**	**1.07**	**---**	**0.68**	**0.65**	**---**
Minimum Detected Value	**0.52**	**0.45**	**---**	**0.18**	**0.17**	**---**
Maximum Detected Value	**8.78**	**8.9**	**---**	**9.5**	**4.2**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 0.634 + 0.604*Z	ln(y) = 0.436 + 0.654*Z	**---**	ln(y) = -0.150 + 0.711*Z	ln(y) = -0.262 + 0.727*Z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-36 Site Scale Detention – Nutrients (cont.)						
Run ID	**Organic carbon, Dissolved, Inflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Change, Organic carbon, Dissolved, Inflow to Outflow**	**Organic carbon, Total, Inflow (mg/L)**	**Organic carbon, Total, Outflow (mg/L)**	**Change, Organic carbon, Total, Inflow to Outflow**
n	**41**	**38**	**---**	**41**	**39**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**14.24**	**15.23**	**6.92%**	**16.62**	**16.73**	**0.68%**
Standard Deviation	**7.96**	**8.77**	**---**	**9.07**	**8.84**	**---**
Coefficient of Variation	**0.56**	**0.58**	**---**	**0.55**	**0.53**	**---**
Lower 95% Confidence Limit about Mean	**11.80**	**12.44**	**---**	**13.84**	**13.96**	**---**
Upper 95% Confidence Limit about Mean	**16.68**	**18.01**	**---**	**19.39**	**19.50**	**---**
Lower Quartile (25th percentile)	**9.55**	**8.65**	**-9.42%**	**10.00**	**10.00**	**0.00%**
Median (50th percentile)	**11.00**	**12.00**	**9.09%**	**13.20**	**14.00**	**6.06%**
Upper Quartile (75th percentile)	**20.50**	**19.75**	**-3.66%**	**23.50**	**20.00**	**-14.89%**
Inter Quartile Range	**10.95**	**11.10**	**---**	**13.50**	**10.00**	**---**
Minimum Detected Value	**3.1**	**4.4**	**---**	**4.1**	**6.5**	**---**
Maximum Detected Value	**37**	**35**	**---**	**38**	**39**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 2.505 + 0.597*Z	ln(y) = 2.572 + 0.588*Z	**---**	ln(y) = 2.670 + 0.571*Z	ln(y) = 2.697+ 0.516*Z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-36 Site Scale Detention – Nutrients						
Run ID	**Phosphorus as P, Dissolved, Inflow (mg/L)**	**Phosphorus as P, Dissolved, Outflow (mg/L)**	**Change, Phosphorus as P, Dissolved, Inflow to Outflow**	**Phosphorus as P, Total, Inflow (mg/L)**	**Phosphorus as P, Total, Outflow (mg/L)**	**Change, Phosphorus as P, Total, Inflow to Outflow**
n	**41**	**39**	**---**	**74**	**69**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**0.14**	**0.14**	**-3.15%**	**0.51**	**0.33**	**-35.61%**
Standard Deviation	**0.17**	**0.11**	**---**	**0.44**	**0.21**	**---**
Coefficient of Variation	**1.21**	**0.79**	**---**	**0.86**	**0.63**	**---**
Lower 95% Confidence Limit about Mean	**0.09**	**0.11**	**---**	**0.41**	**0.28**	**---**
Upper 95% Confidence Limit about Mean	**0.20**	**0.17**	**---**	**0.61**	**0.38**	**---**
Lower Quartile (25th percentile)	**0.06**	**0.07**	**11.11%**	**0.24**	**0.20**	**-15.79%**
Median (50th percentile)	**0.09**	**0.11**	**22.22%**	**0.36**	**0.29**	**-19.44%**
Upper Quartile (75th percentile)	**0.17**	**0.18**	**9.09%**	**0.66**	**0.40**	**-39.39%**
Inter Quartile Range	**0.10**	**0.11**	**---**	**0.42**	**0.20**	**---**
Minimum Detected Value	**0.03**	**0.03**	**---**	**0.029**	**0.03**	**---**
Maximum Detected Value	**0.96**	**0.51**	**---**	**2.62**	**0.86**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -2.262 + 0.785*Z	ln(y) = -2.220 + 0.767*Z	**---**	ln(y) = -0.943 + 0.741*Z	ln(y) = -1.322 + 0.700*Z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-37 Site Scale Detention – Metals						
Run ID	**Total Arsenic, Inflow (ug/L)**	**Total Arsenic, Outflow (ug/L)**	**Change, Total Arsenic, Inflow to Outflow**	**Total Cadmium, Inflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Change, Total Cadmium, Inflow to Outflow**
n	**41**	**39**	**---**	**41**	**39**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**97.4%**	**---**
Mean	**2.53**	**2.03**	**-19.56%**	**1.17**	0.54	**-53.72%**
Standard Deviation	**0.98**	**0.75**	**---**	**0.83**	0.33	**---**
Coefficient of Variation	**0.39**	**0.37**	**---**	**0.71**	0.61	**---**
Lower 95% Confidence Limit about Mean	**2.23**	**1.80**	**---**	**0.92**	0.44	**---**
Upper 95% Confidence Limit about Mean	**2.83**	**2.27**	**---**	**1.43**	0.65	**---**
Lower Quartile (25th percentile)	**1.80**	**1.50**	**-16.67%**	**0.58**	**0.30**	**-47.83%**
Median (50th percentile)	**2.50**	**1.90**	**-24.00%**	**0.89**	**0.45**	**-49.44%**
Upper Quartile (75th percentile)	**3.25**	**2.50**	**-23.08%**	**1.55**	**0.73**	**-52.90%**
Inter Quartile Range	**1.45**	**1.00**	**---**	**0.98**	**0.43**	**---**
Minimum Detected Value	**0.5**	**0.5**	**---**	**0.2**	**0.2**	**---**
Maximum Detected Value	**5.3**	**3.5**	**---**	**3**	**1.6**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**0.1**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**0.1**	**---**
Regression Equation	ln(y) = 0.846 + 0.445*z	ln(y) = 0.637 + 0.422*z	**---**	ln(y) = -0.102 + 0.809*z	ln(y) = -0.777 + 0.630*z	**---**
Note:	1	1	---	1	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-37 Site Scale Detention – Metals (cont.)						
Run ID	**Total Chromium, Inflow (ug/L)**	**Total Chromium, Outflow (ug/L)**	**Change, Total Chromium, Inflow to Outflow**	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**41**	**39**	**---**	**76**	**68**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**8.38**	**3.29**	**-60.67%**	**48.69**	**23.45**	**-51.83%**
Standard Deviation	**16.35**	**2.02**	**---**	**35.12**	**13.93**	**---**
Coefficient of Variation	**1.95**	**0.61**	**---**	**0.72**	**0.59**	**---**
Lower 95% Confidence Limit about Mean	**3.37**	**2.66**	**---**	**40.80**	**20.14**	**---**
Upper 95% Confidence Limit about Mean	**13.38**	**3.93**	**---**	**56.59**	**26.76**	**---**
Lower Quartile (25th percentile)	**3.65**	**1.80**	**-50.68%**	**26.25**	**15.00**	**-42.86%**
Median (50th percentile)	**6.20**	**3.10**	**-50.00%**	**39.45**	**20.50**	**-48.04%**
Upper Quartile (75th percentile)	**9.20**	**3.90**	**-57.61%**	**63.75**	**28.00**	**-56.08%**
Inter Quartile Range	**5.55**	**2.10**	**---**	**37.50**	**13.00**	**---**
Minimum Detected Value	**1.5**	**1**	**---**	**6.3**	**6.7**	**---**
Maximum Detected Value	**86**	**10**	**---**	**230**	**82**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 1.786 + 0.712*z	ln(y) = 1.042 + 0.578*z	**---**	ln(y) = 3.682 + 0.670*z	ln(y) = 3.014 + 0.549*z	**---**
Note:	1	1	---	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-37 Site Scale Detention – Metals (cont.)						
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**	**Total Nickel, Inflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Change, Total Nickel, Inflow to Outflow**
n	**76**	**69**	**---**	**41**	**39**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**97.4%**	**---**
Mean	**83.02**	**28.03**	**-66.23%**	**11.82**	4.43	**-62.53%**
Standard Deviation	**80.13**	**24.39**	**---**	**21.41**	2.46	**---**
Coefficient of Variation	**0.97**	**0.87**	**---**	**1.81**	0.56	**---**
Lower 95% Confidence Limit about Mean	**65.00**	**22.28**	**---**	**5.27**	3.66	**---**
Upper 95% Confidence Limit about Mean	**101.03**	**33.79**	**---**	**18.38**	5.20	**---**
Lower Quartile (25th percentile)	**34.40**	**13.00**	**-62.21%**	**4.75**	**2.70**	**-43.16%**
Median (50th percentile)	**54.00**	**22.00**	**-59.26%**	**7.30**	**4.00**	**-45.21%**
Upper Quartile (75th percentile)	**108.25**	**36.50**	**-66.28%**	**13.00**	**5.20**	**-60.00%**
Inter Quartile Range	**73.85**	**23.50**	**---**	**8.25**	**2.50**	**---**
Minimum Detected Value	**5.1**	**5.3**	**---**	**2**	**2**	**---**
Maximum Detected Value	**440**	**140**	**---**	**116**	**12**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**1**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**1**	**---**
Regression Equation	ln(y) = 4.066 + 0.886*z	ln(y) = 3.061 + 0.766*z	**---**	ln(y) = 2.066 + 0.816*z	ln(y) = 1.362 + 0.537*z	**---**
Note:	1	1	2	1	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-37 Site Scale Detention – Metals (cont.)			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**76**	**68**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**378.89**	**117.54**	**-68.98%**
Standard Deviation	**357.12**	**69.82**	**---**
Coefficient of Variation	**0.94**	**0.59**	**---**
Lower 95% Confidence Limit about Mean	**298.60**	**100.95**	**---**
Upper 95% Confidence Limit about Mean	**459.18**	**134.14**	**---**
Lower Quartile (25th percentile)	**152.75**	**68.25**	**-55.32%**
Median (50th percentile)	**280.00**	**99.00**	**-64.64%**
Upper Quartile (75th percentile)	**504.75**	**150.00**	**-70.28%**
Inter Quartile Range	**352.00**	**81.75**	**---**
Minimum Detected Value	**4.6**	**29**	**---**
Maximum Detected Value	**2100**	**390**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.591 + 0.904*z	ln(y) = 4.608 + 0.596*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-38 Bioswales – Solids						
Run ID	**Total dissolved solids, Inflow (mg/L)**	**Total dissolved solids, Outflow (mg/L)**	**Change, Total dissolved solids, Inflow to Outflow**	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**126**	**77**	**---**	**159**	**103**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**99.5**	**95.8**	**-3.72%**	**98.9**	**49.0**	**-50.46%**
Standard Deviation	**70.1**	**49.8**	**---**	**80.5**	**55.1**	**---**
Coefficient of Variation	**0.70**	**0.52**	**---**	**0.81**	**1.12**	**---**
Lower 95% Confidence Limit about Mean	**87.2**	**84.7**	**---**	**86.3**	**38.3**	**---**
Upper 95% Confidence Limit about Mean	**111.7**	**106.9**	**---**	**111.4**	**59.6**	**---**
Lower Quartile (25th percentile)	**47.5**	**61.0**	**28.42%**	**45.0**	**18.0**	**-60.00%**
Median (50th percentile)	**82.0**	**88.0**	**7.32%**	**76.0**	**31.0**	**-59.21%**
Upper Quartile (75th percentile)	**126.75**	**120**	**-5.33%**	**130**	**54**	**-58.46%**
Inter Quartile Range	**79.25**	**59**	**---**	**85**	**36**	**---**
Minimum Detected Value	**1**	**1**	**---**	**2**	**1**	**---**
Maximum Detected Value	**350**	**264**	**---**	**474**	**330**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 4.301 + 0.887*z	ln(y) = 4.386 + 0.670*z	**---**	ln(y) = 4.290 + 0.842*z	ln(y) = 3.472 + 0.948*z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-38 Bioswales – Solids (cont.)			
Run ID	**Turbidity, Inflow (NTU)**	**Turbidity, Outflow (NTU)**	**Change, Turbidity, Inflow to Outflow**
n	**16**	**11**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**93.1**	**34.8**	**-62.65%**
Standard Deviation	**77.2**	**22.0**	**---**
Coefficient of Variation	**0.83**	**0.63**	**---**
Lower 95% Confidence Limit about Mean	**55.3**	**21.8**	**---**
Upper 95% Confidence Limit about Mean	**131.0**	**47.8**	**---**
Lower Quartile (25th percentile)	**29.0**	**18.0**	**-37.93%**
Median (50th percentile)	**75.0**	**37.0**	**-50.67%**
Upper Quartile (75th percentile)	**140**	**42**	**-70.00%**
Inter Quartile Range	**111**	**24**	**---**
Minimum Detected Value	**3.3**	**8.4**	**---**
Maximum Detected Value	**249**	**74**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.008 + 1.397*z	ln(y) = 3.341 + 0.835*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-39 Bioswales – Bacteria			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**33**	**19**	**---**
Percent detected	**97.0%**	**100.0%**	**---**
Mean	12725	**10982**	**-13.70%**
Standard Deviation	22363	**49927**	**---**
Coefficient of Variation	1.76	**4.55**	**---**
Lower 95% Confidence Limit about Mean	5095	**-11468**	**---**
Upper 95% Confidence Limit about Mean	20355	**33432**	**---**
Lower Quartile (25th percentile)	**500**	**130**	**-74.00%**
Median (50th percentile)	**5000**	**900**	**-82.00%**
Upper Quartile (75th percentile)	**16500**	**5000**	**-69.70%**
Inter Quartile Range	**16000**	**4870**	**---**
Minimum Detected Value	**17**	**17**	**---**
Maximum Detected Value	**90000**	**160000**	**---**
Minimum Reporting Limit	**1**	**---**	**---**
Maximum Reporting Limit	**1**	**---**	**---**
Regression Equation	ln(y) = 7.667 + 2.695*z	ln(y) = 6.585 + 2.773*z	**---**
Note:	3	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-40 Bioswales – Nutrients						
Run ID	**Kjeldahl nitrogen (TKN), Inflow (mg/L)**	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Change, Kjeldahl nitrogen (TKN), Inflow to Outflow**	**Nitrogen, ammonia as N, Inflow (mg/L)**	**Nitrogen, ammonia as N, Outflow (mg/L)**	**Change, Nitrogen, ammonia as N, Inflow to Outflow**
n	**160**	**102**	**---**	**58**	**30**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**86.2%**	**76.7%**	**---**
Mean	**2.44**	**1.99**	**-18.52%**	0.57	0.66	**15.93%**
Standard Deviation	**2.07**	**1.88**	**---**	0.55	1.44	**---**
Coefficient of Variation	**0.85**	**0.94**	**---**	0.96	2.18	**---**
Lower 95% Confidence Limit about Mean	**2.12**	**1.63**	**---**	0.43	0.15	**---**
Upper 95% Confidence Limit about Mean	**2.76**	**2.35**	**---**	0.71	1.18	**---**
Lower Quartile (25th percentile)	**1.17**	**0.97**	**-17.31%**	0.20	0.12	**-41.73%**
Median (50th percentile)	**1.80**	**1.53**	**-15.00%**	0.38	0.29	**-25.50%**
Upper Quartile (75th percentile)	**2.98**	**2.22**	**-25.48%**	0.74	0.71	**-4.73%**
Inter Quartile Range	**1.81**	**1.26**	**---**	0.54	0.59	**---**
Minimum Detected Value	**0.11**	**0.08**	**---**	**0.11**	**0.12**	**---**
Maximum Detected Value	**11**	**13**	**---**	**2.8**	**6.6**	**---**
Minimum Reporting Limit			**---**	**0.04**	**0.05**	**---**
Maximum Reporting Limit			**---**	**0.07**	**0.055**	**---**
Regression Equation	ln(y) = 0.553 + 0.896*z	ln(y) = 0.375 + 0.841*z	**---**	ln(y) = -0.958 + 0.975*z	ln(y) = -1.252 + 1.339*z	**---**
Note:	1	1	**---**	3	3	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-40 Bioswales – Nutrients (cont.)						
Run ID	**Nitrogen, Nitrate (NO3) as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrate (NO3) as N, Inflow to Outflow**	**Nitrogen, Nitrite (NO2) as N, Inflow (mg/L)**	**Nitrogen, Nitrite (NO2) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrite (NO2) as N, Inflow to Outflow**
n	**159**	**103**	**---**	**16**	**11**	**---**
Percent detected	**98.7%**	**99.0%**	**---**	**25.0%**	**54.5%**	**---**
Mean	1.18	1.04	**-12.14%**	0.09	0.16	**89.01%**
Standard Deviation	1.18	2.05	**---**	0.13	0.32	**---**
Coefficient of Variation	1.00	1.98	**---**	1.50	1.93	**---**
Lower 95% Confidence Limit about Mean	0.99	0.64	**---**	0.023	-0.023	**---**
Upper 95% Confidence Limit about Mean	1.36	1.43	**---**	0.15	0.35	**---**
Lower Quartile (25th percentile)	0.42	**0.29**	**-30.98%**	0.03	0.03	**-0.69%**
Median (50th percentile)	0.79	**0.62**	**-21.25%**	0.06	0.07	**31.91%**
Upper Quartile (75th percentile)	1.48	**1.10**	**-25.44%**	0.12	0.20	**75.21%**
Inter Quartile Range	1.06	**0.81**	**---**	0.09	0.18	**---**
Minimum Detected Value	**0.01**	**0.01**	**---**	**0.1**	**0.1**	**---**
Maximum Detected Value	**5.62**	**16.9**	**---**	**0.28**	**0.89**	**---**
Minimum Reporting Limit	**0.05**	**0.025**	**---**	**0.005**	**0.005**	**---**
Maximum Reporting Limit	**0.09**	**0.025**	**---**	**0.09**	**0.08**	**---**
Regression Equation	ln(y) = -0.239 + 0.931*z	ln(y) = -0.555 + 1.100*z	**---**	ln(y) = -2.888 + 1.090*z	ln(y) = -2.611 + 1.511*z	**---**
Note:	3	3	**---**	3	3	**---**

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-40 Bioswales – Nutrients (cont.)						
Run ID	**Nitrogen, unionized ammonia (NH3) as N, Inflow (mg/L)**	**Nitrogen, unionized ammonia (NH3) as N, Outflow (mg/L)**	**Change, Nitrogen, unionized ammonia (NH3) as N, Inflow to Outflow**	**Organic carbon, Dissolved, Inflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Change, Organic carbon, Dissolved, Inflow to Outflow**
n	**10**	**1**	**---**	**113**	**74**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**1.05**		**-100.00%**	**18.22**	**16.22**	**-10.96%**
Standard Deviation	**0.78**		**---**	**16.13**	**10.65**	**---**
Coefficient of Variation	**0.74**		**---**	**0.89**	**0.66**	**---**
Lower 95% Confidence Limit about Mean	**0.57**		**---**	**15.24**	**13.80**	**---**
Upper 95% Confidence Limit about Mean	**1.53**		**---**	**21.19**	**18.65**	**---**
Lower Quartile (25th percentile)	**0.66**		**-100.00%**	**7.00**	**8.55**	**22.14%**
Median (50th percentile)	**0.89**		**-100.00%**	**12.00**	**12.90**	**7.50%**
Upper Quartile (75th percentile)	**1.15**		**-100.00%**	**23.50**	**22.00**	**-6.38%**
Inter Quartile Range	**0.49**		**---**	**16.50**	**13.45**	**---**
Minimum Detected Value	**0.46**	**100**	**---**	**2.5**	**3.5**	**---**
Maximum Detected Value	**2.8**	**100**	**---**	**75**	**49**	**---**
Minimum Reporting Limit			**---**			**---**
Maximum Reporting Limit			**---**			**---**
Regression Equation	ln(y) = -0.077 + 0.569*z	#VALUE!	**---**	ln(y) = 2.568 + 0.840*z	ln(y) = 2.591 + 0.657*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-40 Bioswales – Nutrients (cont.)

Run ID	Organic carbon, Total, Inflow (mg/L)	Organic carbon, Total, Outflow (mg/L)	Change, Organic carbon, Total, Inflow to Outflow	Phosphorus as P, Dissolved, Inflow (mg/L)	Phosphorus as P, Dissolved, Outflow (mg/L)	Change, Phosphorus as P, Dissolved, Inflow to Outflow
n	**114**	**74**	**---**	**58**	**41**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**96.6%**	**100.0%**	**---**
Mean	**21.22**	**18.43**	**-13.17%**	0.14	**0.51**	**263%**
Standard Deviation	**18.66**	**11.35**	**---**	0.22	**0.65**	**---**
Coefficient of Variation	**0.88**	**0.62**	**---**	1.59	**1.28**	**---**
Lower 95% Confidence Limit about Mean	**17.80**	**15.84**	**---**	0.08	**0.31**	**---**
Upper 95% Confidence Limit about Mean	**24.65**	**21.01**	**---**	0.20	**0.70**	**---**
Lower Quartile (25th percentile)	**7.98**	**11.00**	**37.93%**	**0.06**	**0.18**	**202%**
Median (50th percentile)	**15.00**	**15.00**	**0.00%**	**0.08**	**0.28**	**250%**
Upper Quartile (75th percentile)	**28.00**	**23.00**	**-17.86%**	**0.14**	**0.50**	**257%**
Inter Quartile Range	**20.03**	**12.00**	**---**	**0.08**	**0.33**	**---**
Minimum Detected Value	**3**	**3.5**	**---**	**0.014**	**0.06**	**---**
Maximum Detected Value	**90**	**53**	**---**	**1.39**	**2.98**	**---**
Minimum Reporting Limit			**---**	**0.03**		**---**
Maximum Reporting Limit			**---**	**0.03**		**---**
Regression Equation	ln(y) = 2.726 + 0.834*z	ln(y) = 2.743 + 0.615*z	**---**	ln(y) = -2.420 + 0.906*z	ln(y) = -1.123 + 0.901*z	**---**
Note:	1	1	**---**	3	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-40 Bioswales – Nutrients (cont.)

Run ID	Phosphorus as P, Total, Inflow (mg/L)	Phosphorus as P, Total, Outflow (mg/L)	Change, Phosphorus as P, Total, Inflow to Outflow	Phosphorus, orthophosphate as P, Inflow (mg/L)	Phosphorus, orthophosphate as P, Outflow (mg/L)	Change, Phosphorus, orthophos-phate as P, Inflow to Outflow
n	**160**	**102**	**---**	**67**	**34**	**---**
Percent detected	**96.9%**	**99.0%**	**---**	**76.1%**	**97.1%**	**---**
Mean	0.28	0.63	**125%**	0.11	0.51	**369%**
Standard Deviation	0.25	0.66	**---**	0.13	0.55	**---**
Coefficient of Variation	0.90	1.05	**---**	1.16	1.07	**---**
Lower 95% Confidence Limit about Mean	0.24	0.50	**---**	0.08	0.33	**---**
Upper 95% Confidence Limit about Mean	0.32	0.76	**---**	0.14	0.70	**---**
Lower Quartile (25th percentile)	0.11	**0.25**	**123%**	0.03	**0.09**	**248%**
Median (50th percentile)	0.20	**0.40**	**100%**	0.06	**0.39**	**553%**
Upper Quartile (75th percentile)	0.36	**0.67**	**85.4%**	0.13	**0.67**	**401%**
Inter Quartile Range	0.25	**0.42**	**---**	0.11	**0.58**	**---**
Minimum Detected Value	**0.02**	**0.07**	**---**	**0.02**	**0.03**	**---**
Maximum Detected Value	**1.83**	**2.97**	**---**	**0.52**	**2.3**	**---**
Minimum Reporting Limit	**0.004**	**0.004**	**---**	**0.0015**	**0.0015**	**---**
Maximum Reporting Limit	**0.015**	**0.004**	**---**	**0.1**	**0.0015**	**---**
Regression Equation	ln(y) = -1.610 + 0.873*z	ln(y) = -0.847 + 0.873*z	**---**	ln(y) = -2.818 + 1.200*z	ln(y) = -1.301 + 1.372*z	**---**
Note:	3	3	**---**	3	3	**---**

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-41 Bioswales – Metals						
Run ID	**Total Arsenic, Inflow (ug/L)**	**Total Arsenic, Outflow (ug/L)**	**Change, Total Arsenic, Inflow to Outflow**	**Total Cadmium, Inflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Change, Total Cadmium, Inflow to Outflow**
n	**118**	**76**	**---**	**119**	**76**	**---**
Percent detected	**93.2%**	**93.4%**	**---**	**93.3%**	**94.7%**	**---**
Mean	8.19	4.00	**-51.14%**	1.06	0.52	**-51.15%**
Standard Deviation	15.38	11.35	**---**	0.98	0.67	**---**
Coefficient of Variation	1.88	2.84	**---**	0.92	1.30	**---**
Lower 95% Confidence Limit about Mean	5.41	1.45	**---**	0.88	0.37	**---**
Upper 95% Confidence Limit about Mean	10.96	6.55	**---**	1.24	0.67	**---**
Lower Quartile (25th percentile)	1.14	1.16	**2.02%**	0.49	0.19	**-61.01%**
Median (50th percentile)	2.85	2.23	**-21.85%**	0.82	0.34	**-58.47%**
Upper Quartile (75th percentile)	7.15	4.28	**-40.13%**	1.35	0.60	**-55.77%**
Inter Quartile Range	6.01	3.12	**---**	0.85	0.40	**---**
Minimum Detected Value	**0.6**	**0.5**	**---**	**0.2**	**0.1**	**---**
Maximum Detected Value	**66**	**79**	**---**	**8.3**	**3.9**	**---**
Minimum Reporting Limit	**0.3**	**0.03**	**---**	**0.005**	**0.005**	**---**
Maximum Reporting Limit	**0.61**	**0.98**	**---**	**0.14**	**0.11**	**---**
Regression Equation	ln(y) = 1.047 + 1.363*z	ln(y) = 0.801 + 0.967*z	**---**	ln(y) = -0.202 + 0.742*z	ln(y) = -1.081 + 0.835*z	**---**
Note:	3	3	**---**	3	3	2

Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-41 Bioswales – Metals (cont.)						
Run ID	**Total Chromium, Inflow (ug/L)**	**Total Chromium, Outflow (ug/L)**	**Change, Total Chromium, Inflow to Outflow**	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**119**	**76**	**---**	**150**	**100**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**7.43**	**5.59**	**-24.85%**	**49.82**	**15.43**	**-69.02%**
Standard Deviation	**5.18**	**13.07**	**---**	**37.27**	**11.07**	**---**
Coefficient of Variation	**0.70**	**2.34**	**---**	**0.75**	**0.72**	**---**
Lower 95% Confidence Limit about Mean	**6.50**	**2.65**	**---**	**43.86**	**13.26**	**---**
Upper 95% Confidence Limit about Mean	**8.36**	**8.52**	**---**	**55.79**	**17.60**	**---**
Lower Quartile (25th percentile)	**3.50**	**1.73**	**-50.71%**	**22.00**	**8.23**	**-62.61%**
Median (50th percentile)	**6.90**	**4.00**	**-42.03%**	**41.00**	**13.00**	**-68.29%**
Upper Quartile (75th percentile)	**9.60**	**6.20**	**-35.42%**	**70.50**	**19.90**	**-71.77%**
Inter Quartile Range	**6.10**	**4.48**	**---**	**48.50**	**11.68**	**---**
Minimum Detected Value	**1**	**1**	**---**	**1.1**	**1**	**---**
Maximum Detected Value	**39**	**92**	**---**	**232**	**73**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 1.783 + 0.717*z	ln(y) = 1.276 + 0.839*z	**---**	ln(y) = 3.593 + 0.894*z	ln(y) = 2.484 + 0.786*z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-41 Bioswales – Metals (cont.)						
Run ID	**Total Iron, Inflow (ug/L)**	**Total Iron, Outflow (ug/L)**	**Change, Total Iron, Inflow to Outflow**	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**
n	**9**	**7**	**---**	**150**	**100**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**98.7%**	**99.0%**	**---**
Mean	**2416**	**1031**	**-57.30%**	73.08	17.93	**-75.46%**
Standard Deviation	**1672**	**491**	**---**	213	27.42	**---**
Coefficient of Variation	**0.69**	**0.48**	**---**	2.91	1.53	**---**
Lower 95% Confidence Limit about Mean	**1323**	**667**	**---**	39.00	12.56	**---**
Upper 95% Confidence Limit about Mean	**3508**	**1395**	**---**	107	23.31	**---**
Lower Quartile (25th percentile)	**1060**	**690**	**-34.91%**	13.92	**3.53**	**-74.67%**
Median (50th percentile)	**2500**	**970**	**-61.20%**	32.89	**7.55**	**-77.05%**
Upper Quartile (75th percentile)	**3400**	**1500**	**-55.88%**	77.75	**21.50**	**-72.35%**
Inter Quartile Range	**2340**	**810**	**---**	63.83	**17.98**	**---**
Minimum Detected Value	**920**	**420**	**---**	**1.3**	**1**	**---**
Maximum Detected Value	**5700**	**1800**	**---**	**2086**	**189**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**0.7**	**0.03**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**0.8**	**0.03**	**---**
Regression Equation	ln(y) = 7.598 + 0.775*z	ln(y) = 6.843 + 0.599*z	**---**	ln(y) = 3.493 + 1.275*z	ln(y) = 2.161 + 1.240*z	**---**
Note:	1	1	**---**	3	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-41 Bioswales – Metals (cont.)						
Run ID	**Total Nickel, Inflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Change, Total Nickel, Inflow to Outflow**	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**119**	**76**	**---**	**150**	**100**	**---**
Percent detected	**99.2%**	**98.7%**	**---**	**100.0%**	**100.0%**	**---**
Mean	10.94	4.48	**-59.02%**	**275**	**71.4**	**-74.08%**
Standard Deviation	11.87	5.62	**---**	**225**	**78.7**	**---**
Coefficient of Variation	1.08	1.25	**---**	**0.82**	**1.10**	**---**
Lower 95% Confidence Limit about Mean	8.80	3.22	**---**	**239**	**56.0**	**---**
Upper 95% Confidence Limit about Mean	13.07	5.74	**---**	**311**	**86.8**	**---**
Lower Quartile (25th percentile)	**4.50**	**2.10**	**-53.33%**	**110**	**29.5**	**-73.20%**
Median (50th percentile)	**8.00**	**2.85**	**-64.38%**	**228**	**55.5**	**-75.66%**
Upper Quartile (75th percentile)	**13.00**	**5.08**	**-60.96%**	**360**	**82.5**	**-77.09%**
Inter Quartile Range	**8.50**	**2.98**	**---**	**250**	**53.0**	**---**
Minimum Detected Value	**2**	**1.8**	**---**	**13**	**4.2**	**---**
Maximum Detected Value	**89**	**40**	**---**	**1542**	**501**	**---**
Minimum Reporting Limit	**1.5**	**1.59**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**1.5**	**1.59**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 2.072 + 0.789*z	ln(y) = 1.238 + 0.606*z	**---**	ln(y) = 5.297 + 0.877*z	ln(y) = 3.932 + 0.819*z	**---**
Note:	3	3	2	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-42 Flow Through Treatment BMPs – Solids						
Run ID	**Total dissolved solids, Inflow (mg/L)**	**Total dissolved solids, Outflow (mg/L)**	**Change, Total dissolved solids, Inflow to Outflow**	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**85**	**90**	**---**	**230**	**218**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**98.3%**	**88.1%**	**---**
Mean	**74.5**	**83.6**	**12.12%**	65.6	23.0	**-65.0%**
Standard Deviation	**73.6**	**74.1**	**---**	80.9	42.0	**---**
Coefficient of Variation	**0.99**	**0.89**	**---**	1.23	1.83	**---**
Lower 95% Confidence Limit about Mean	**58.9**	**68.3**	**---**	55.1	17.4	**---**
Upper 95% Confidence Limit about Mean	**90.2**	**98.9**	**---**	76.1	28.6	**---**
Lower Quartile (25th percentile)	**32.0**	**44.0**	**37.50%**	**8.875**	**2.875**	**-67.61%**
Median (50th percentile)	**48.0**	**56.0**	**16.67%**	**39.5**	**7.00**	**-82.28%**
Upper Quartile (75th percentile)	**96.0**	**98.25**	**2.34%**	**89.25**	**22.25**	**-75.07%**
Inter Quartile Range	**64.0**	**54.25**	**---**	**80.375**	**19.375**	**---**
Minimum Detected Value	**1**	**1**	**---**	**2**	**1**	**---**
Maximum Detected Value	**400**	**390**	**---**	**629**	**280**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**1**	**1**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**1**	**1**	**---**
Regression Equation	ln(y) = 3.900 + 1.004*z	ln(y) = 4.121 + 0.811*z	**---**	ln(y) = 3.419 + 1.425*z	ln(y) = 1.959 + 1.657*z	**---**
Note:	1	1	**---**	3	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-42 Flow Through Treatment BMPs – Solids (cont.)			
Run ID	**Turbidity, Inflow (NTU)**	**Turbidity, Outflow (NTU)**	**Change, Total suspended solids, Inflow to Outflow**
n	**3**	**3**	---
Percent detected	**33.3%**	**100.0%**	---
Mean	**---**	**5.09**	---
Standard Deviation	**---**	**2.84**	---
Coefficient of Variation	**---**	**0.56**	---
Lower 95% Confidence Limit about Mean	**---**	**1.88**	---
Upper 95% Confidence Limit about Mean	**---**	**8.31**	---
Lower Quartile (25th percentile)	**---**	**2.69**	---
Median (50th percentile)	**---**	**6.29**	---
Upper Quartile (75th percentile)	**---**	**6.30**	---
Inter Quartile Range	**---**	**3.61**	---
Minimum Detected Value	**8.64**	**2.69**	---
Maximum Detected Value	**8.64**	**6.3**	---
Minimum Reporting Limit	**1.65**	**---**	---
Maximum Reporting Limit	**1**	**---**	---
Regression Equation	**---**	ln(y) = 1.556 + 0.631*z	---
Note:	3	1	---

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-43 Flow Through Treatment BMPs – Bacteria						
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**	**Total Coliform, Inflow (#/100mL)**	**Total Coliform, Outflow (#/100mL)**	**Change, Total Coliform, Inflow to Outflow**
n	**172**	**152**	**---**	**64**	**64**	**---**
Percent detected	**100.0%**	**73.7%**	**---**	**100.0%**	**53.1%**	**---**
Mean	**6450**	4750	**-26.36%**	**59854**	53.6	**-99.91%**
Standard Deviation	**19225**	21431	**---**	**77332**	108	**---**
Coefficient of Variation	**2.98**	4.51	**---**	**1.29**	2.01	**---**
Lower 95% Confidence Limit about Mean	**3577**	1343	**---**	**40908**	27	**---**
Upper 95% Confidence Limit about Mean	**9324**	8157	**---**	**78800**	80	**---**
Lower Quartile (25th percentile)	**300**	7.47	**-97.51%**	**5000**	3.86	**-99.92%**
Median (50th percentile)	**900**	77.1	**-91.43%**	**20000**	**20.0**	**-99.90%**
Upper Quartile (75th percentile)	**3000**	797	**-73.44%**	**90000**	**40.0**	**-99.96%**
Inter Quartile Range	**2700**	789	**---**	**85000**	36.1	**---**
Minimum Detected Value	**8**	**2**	**---**	**230**	**20**	**---**
Maximum Detected Value	**160000**	**160000**	**---**	**240000**	**500**	**---**
Minimum Reporting Limit	**---**	**2**	**---**	**---**	**10**	**---**
Maximum Reporting Limit	**---**	**10**	**---**	**---**	**10**	**---**
Regression Equation	ln(y) = 6.984 + 1.871*z	ln(y) = 4.345 + 3.463*z	**---**	ln(y) = 9.744 + 1.915*z	ln(y) = 2.583 + 1.830*z	**---**
Note:	1	3	**---**	1	3	**2**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-44 Flow Through Treatment BMPs – Nutrients						
Run ID	**Kjeldahl nitrogen (TKN), Inflow (mg/L)**	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Change, Kjeldahl nitrogen (TKN), Inflow to Outflow**	**Nitrogen, ammonia as N, Inflow (mg/L)**	**Nitrogen, ammonia as N, Outflow (mg/L)**	**Change, Nitrogen, ammonia as N, Inflow to Outflow**
n	**149**	**146**	**---**	**8**	**9**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**2.58**	**1.96**	**-24.22%**	**1.45**	**1.86**	**28.35%**
Standard Deviation	**2.55**	**2.42**	**---**	**2.16**	**1.70**	**---**
Coefficient of Variation	**0.99**	**1.24**	**---**	**1.49**	**0.91**	**---**
Lower 95% Confidence Limit about Mean	**2.18**	**1.57**	**---**	**-0.046**	**0.75**	**---**
Upper 95% Confidence Limit about Mean	**2.99**	**2.35**	**---**	**2.95**	**2.97**	**---**
Lower Quartile (25th percentile)	**1.2**	**0.6675**	**-44.38%**	**0.2**	**0.575**	**187.50%**
Median (50th percentile)	**1.76**	**1.215**	**-30.97%**	**0.8**	**1.2**	**50.00%**
Upper Quartile (75th percentile)	**2.8**	**2.415**	**-13.75%**	**2**	**3.45**	**72.50%**
Inter Quartile Range	**1.6**	**1.7475**	**---**	**1.8**	**2.875**	**---**
Minimum Detected Value	**0.01**	**0.01**	**---**	**0.1**	**0.4**	**---**
Maximum Detected Value	**17.7**	**21**	**---**	**5.7**	**4.9**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 0.577 + 0.922*z	ln(y) = 0.218 + 1.009*z	**---**	ln(y) = -0.431 + 1.723*z	ln(y) = 0.251 + 1.094*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-44 Flow Through Treatment BMPs – Nutrients (cont.)						
Run ID	**Nitrogen, Nitrate (NO3) as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrate (NO3) as N, Inflow to Outflow**	**Nitrogen, unionized ammonia (NH3) as N, Inflow (mg/L)**	**Nitrogen, unionized ammonia (NH3) as N, Outflow (mg/L)**	**Change, Nitrogen, unionized ammonia (NH3) as N, Inflow to Outflow**
n	**150**	**145**	**---**	**57**	**45**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**0.82**	**1.01**	**24.13%**	**1.09**	**0.48**	**-56.11%**
Standard Deviation	**1.25**	**1.23**	**---**	**0.98**	**0.49**	**---**
Coefficient of Variation	**1.53**	**1.21**	**---**	**0.90**	**1.03**	**---**
Lower 95% Confidence Limit about Mean	**0.62**	**0.81**	**---**	**0.84**	**0.33**	**---**
Upper 95% Confidence Limit about Mean	**1.02**	**1.21**	**---**	**1.34**	**0.62**	**---**
Lower Quartile (25th percentile)	**0.29**	**0.45**	**55.17%**	**0.5**	**0.155**	**-69.00%**
Median (50th percentile)	**0.495**	**0.7**	**41.41%**	**0.8**	**0.3**	**-62.50%**
Upper Quartile (75th percentile)	**0.8075**	**1.105**	**36.84%**	**1.2**	**0.575**	**-52.08%**
Inter Quartile Range	**0.5175**	**0.655**	**---**	**0.7**	**0.42**	**---**
Minimum Detected Value	**0.01**	**0.01**	**---**	**0.1**	**0.1**	**---**
Maximum Detected Value	**11**	**9.82**	**---**	**4.9**	**2.1**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -0.702 + 0.996*z	ln(y) = -0.370 + 0.916*z	**---**	ln(y) = -0.191 + 0.761*z	ln(y) = -1.142 + 0.926*z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-44 Flow Through Treatment BMPs – Nutrients (cont.)						
Run ID	**Organic carbon, Dissolved, Inflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Change, Organic carbon, Dissolved, Inflow to Outflow**	**Organic carbon, Total, Inflow (mg/L)**	**Organic carbon, Total, Outflow (mg/L)**	**Change, Organic carbon, Total, Inflow to Outflow**
n	**95**	**91**	**---**	**95**	**91**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**22.14**	**21.83**	**-1.43%**	**25.65**	**24.42**	**-4.78%**
Standard Deviation	**22.75**	**23.95**	**---**	**24.83**	**24.38**	**---**
Coefficient of Variation	**1.03**	**1.10**	**---**	**0.97**	**1.00**	**---**
Lower 95% Confidence Limit about Mean	**17.57**	**16.91**	**---**	**20.65**	**19.41**	**---**
Upper 95% Confidence Limit about Mean	**26.72**	**26.75**	**---**	**30.64**	**29.43**	**---**
Lower Quartile (25th percentile)	**8.4**	**8.7**	**3.57%**	**11**	**10**	**-9.09%**
Median (50th percentile)	**14**	**13**	**-7.14%**	**17.2**	**15**	**-12.79%**
Upper Quartile (75th percentile)	**26**	**24**	**-7.69%**	**31**	**26**	**-16.13%**
Inter Quartile Range	**17.6**	**15.3**	**---**	**20**	**16**	**---**
Minimum Detected Value	**2.2**	**3.4**	**---**	**4**	**3.9**	**---**
Maximum Detected Value	**113**	**128**	**---**	**122**	**134**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 2.720 + 0.874*z	ln(y) = 2.712 + 0.824*z	**---**	ln(y) = 2.909 + 0.821*z	ln(y) = 2.875 + 0.776*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-44 Flow Through Treatment BMPs – Nutrients (cont.)

Run ID	Phosphorus as P, Dissolved, Inflow (mg/L)	Phosphorus as P, Dissolved, Outflow (mg/L)	Change, Phosphorus as P, Dissolved, Inflow to Outflow	Phosphorus as P, Total, Inflow (mg/L)	Phosphorus as P, Total, Outflow (mg/L)	Change, Phosphorus as P, Total, Inflow to Outflow	Phosphorus, orthophosphate as P, Inflow (mg/L)
n	**85**	**91**	**---**	**147**	**146**	**---**	**20**
Percent detected	**97.6%**	**94.5%**	**---**	**100.0%**	**100.0%**	**---**	**100.0%**
Mean	0.14	0.13	**-7.14%**	**0.36**	**0.24**	**-34.10%**	**0.23**
Standard Deviation	0.17	0.19	**---**	**0.35**	**0.20**	**---**	**0.34**
Coefficient of Variation	1.24	1.45	**---**	**0.97**	**0.84**	**---**	**1.47**
Lower 95% Confidence Limit about Mean	0.10	0.09	**---**	**0.30**	**0.20**	**---**	**0.08**
Upper 95% Confidence Limit about Mean	0.18	0.17	**---**	**0.42**	**0.27**	**---**	**0.38**
Lower Quartile (25th percentile)	**-0.03**	**-0.03**	**0.00%**	**0.17**	**0.1**	**-41.18%**	**0.049**
Median (50th percentile)	**0.09**	**0.08**	**-11.11%**	**0.24**	**0.18**	**-25.00%**	**0.07**
Upper Quartile (75th percentile)	**0.155**	**0.14**	**-9.68%**	**0.42**	**0.28**	**-33.33%**	**0.315**
Inter Quartile Range	**0.185**	**0.17**	**---**	**0.25**	**0.18**	**---**	**0.266**
Minimum Detected Value	**0.03**	**0.03**	**---**	**0.02**	**0.002**	**---**	**0.016**
Maximum Detected Value	**0.95**	**1.3**	**---**	**2.3**	**1.3**	**---**	**1.3**
Minimum Reporting Limit	**0.03**	**0.03**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**0.03**	**0.03**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -2.470 + 0.988*z	ln(y) = -2.572 + 1.016*z	**---**	ln(y) = -1.331 + 0.786*z	ln(y) = -1.735 + 0.818*z	**---**	ln(y) = -2.169 + 1.320*z
Note:	3	3	**---**	1	1	2	1

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-45 Flow Through Treatment BMPs – Metals						
Run ID	**Total Arsenic, Inflow (ug/L)**	**Total Arsenic, Outflow (ug/L)**	**Change, Total Arsenic, Inflow to Outflow**	**Total Cadmium, Inflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Change, Total Cadmium, Inflow to Outflow**
n	**94**	**91**	**---**	**95**	**91**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**8.00**	**7.08**	**-11.57%**	**0.71**	**0.72**	**1.22%**
Standard Deviation	**19.82**	**16.52**	**---**	**0.57**	**3.52**	**---**
Coefficient of Variation	**2.48**	**2.33**	**---**	**0.80**	**4.88**	**---**
Lower 95% Confidence Limit about Mean	**4.00**	**3.68**	**---**	**0.60**	**0.00**	**---**
Upper 95% Confidence Limit about Mean	**12.01**	**10.47**	**---**	**0.83**	**1.45**	**---**
Lower Quartile (25th percentile)	**0.90**	**0.78**	**-13.33%**	**0.30**	**0.20**	**-33.33%**
Median (50th percentile)	**1.35**	**1.10**	**-18.52%**	**0.50**	**0.26**	**-48.00%**
Upper Quartile (75th percentile)	**3.05**	**2.50**	**-18.03%**	**0.90**	**0.60**	**-33.33%**
Inter Quartile Range	**2.15**	**1.72**	**---**	**0.60**	**0.40**	**---**
Minimum Detected Value	**0.5**	**0.5**	**---**	**0.2**	**0.2**	**---**
Maximum Detected Value	**91**	**78**	**---**	**2.7**	**25**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 0.679 + 1.281*z	ln(y) = 0.605 + 1.255*z	**---**	ln(y) = -0.596 + 0.724*z	ln(y) = -1.014 + 0.718*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-45 Flow Through Treatment BMPs – Metals (cont.)						
Run ID	**Total Chromium, Inflow (ug/L)**	**Total Chromium, Outflow (ug/L)**	**Change, Total Chromium, Inflow to Outflow**	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**95**	**91**	**---**	**150**	**146**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**3.50**	**2.27**	**-35.10%**	**41.89**	**18.84**	**-55.03%**
Standard Deviation	**3.51**	**1.73**	**---**	**144**	**21.81**	**---**
Coefficient of Variation	**1.00**	**0.76**	**---**	**3.43**	**1.16**	**---**
Lower 95% Confidence Limit about Mean	**2.79**	**1.92**	**---**	**18.89**	**15.30**	**---**
Upper 95% Confidence Limit about Mean	**4.21**	**2.63**	**---**	**64.88**	**22.38**	**---**
Lower Quartile (25th percentile)	**1.50**	**1.00**	**-33.33%**	**11.98**	**6.20**	**-48.27%**
Median (50th percentile)	**2.70**	**1.70**	**-37.04%**	**18.00**	**11.00**	**-38.89%**
Upper Quartile (75th percentile)	**4.00**	**2.90**	**-27.50%**	**33.00**	**21.25**	**-35.61%**
Inter Quartile Range	**2.50**	**1.90**	**---**	**21.03**	**15.06**	**---**
Minimum Detected Value	**1**	**1**	**---**	**2.7**	**1.56**	**---**
Maximum Detected Value	**27**	**9.6**	**---**	**1400**	**150**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 0.990 + 0.699*z	ln(y) = 0.601 + 0.612*z	**---**	ln(y) = 3.040 + 0.943*z	ln(y) = 2.477 + 0.965*z	**---**
Note:	1	1	**2**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-45 Flow Through Treatment BMPs – Metals (cont.)						
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**	**Total Nickel, Inflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Change, Total Nickel, Inflow to Outflow**
n	**149**	**146**	**---**	**95**	**91**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**20.70**	**7.51**	**-63.71%**	**7.11**	**5.61**	**-21.04%**
Standard Deviation	**23.57**	**13.49**	**---**	**6.28**	**5.34**	**---**
Coefficient of Variation	**1.14**	**1.80**	**---**	**0.88**	**0.95**	**---**
Lower 95% Confidence Limit about Mean	**16.92**	**5.32**	**---**	**5.85**	**4.52**	**---**
Upper 95% Confidence Limit about Mean	**24.49**	**9.70**	**---**	**8.37**	**6.71**	**---**
Lower Quartile (25th percentile)	**6.50**	**1.00**	**-84.62%**	**2.90**	**2.00**	**-31.03%**
Median (50th percentile)	**13.00**	**3.10**	**-76.15%**	**4.90**	**3.50**	**-28.57%**
Upper Quartile (75th percentile)	**25.50**	**7.10**	**-72.16%**	**8.50**	**6.40**	**-24.71%**
Inter Quartile Range	**19.00**	**6.10**	**---**	**5.60**	**4.40**	**---**
Minimum Detected Value	**1**	**1**	**---**	**2**	**2**	**---**
Maximum Detected Value	**140**	**110**	**---**	**29**	**24**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 2.558 + 1.032*z	ln(y) = 1.253 + 1.128*z	**---**	ln(y) = 1.679 + 0.731*z	ln(y) = 1.417 + 0.715*z	**---**
Note:	1	1	**2**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-45 Flow Through Treatment BMPs – Metals (cont.)			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**150**	**146**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**311**	**117**	**-62.40%**
Standard Deviation	**309**	**183**	**---**
Coefficient of Variation	**0.99**	**1.57**	**---**
Lower 95% Confidence Limit about Mean	**262**	**87.3**	**---**
Upper 95% Confidence Limit about Mean	**361**	**147**	**---**
Lower Quartile (25th percentile)	**110**	**23.00**	**-79.09%**
Median (50th percentile)	**221**	**55.5**	**-74.89%**
Upper Quartile (75th percentile)	**400**	**131**	**-67.31%**
Inter Quartile Range	**290**	**108**	**---**
Minimum Detected Value	**15**	**1**	**---**
Maximum Detected Value	**1900**	**1400**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.361 + 0.903*z	ln(y) = 3.976 + 1.350*z	**---**
Note:	1	1	**2**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-46 Catch Basin Inlets – Solids		
Run ID	**Total dissolved solids, Outflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**
n	**27**	**88**
Percent detected	**100.0%**	**100.0%**
Mean	**60.8**	**52.9**
Standard Deviation	**30.0**	**55.7**
Coefficient of Variation	**0.49**	**1.05**
Lower 95% Confidence Limit about Mean	**49.5**	**41.3**
Upper 95% Confidence Limit about Mean	**72.1**	**64.6**
Lower Quartile (25th percentile)	**38**	**20**
Median (50th percentile)	**58**	**37.5**
Upper Quartile (75th percentile)	**76**	**71**
Inter Quartile Range	**38**	**51**
Minimum Detected Value	**14**	**4**
Maximum Detected Value	**134**	**320**
Minimum Reporting Limit	**---**	**---**
Maximum Reporting Limit	**---**	**---**
Regression Equation	ln(y) = 3.979 + 0.587*z	ln(y) = 3.552 + 0.972*z
Note:	1	1

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-47 Catch Basin Inlets – Nutrients						
Run ID	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Organic carbon, Total, Outflow (mg/L)**	**Phosphorus as P, Dissolved, Outflow (mg/L)**	**Phosphorus as P, Total, Outflow (mg/L)**
n	**78**	**78**	**27**	**27**	**27**	**77**
Percent detected	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**92.6%**	**100.0%**
Mean	**2.26**	**1.07**	**18.2**	**21.7**	0.08	**0.14**
Standard Deviation	**2.47**	**1.28**	**17.0**	**17.6**	0.07	**0.12**
Coefficient of Variation	**1.09**	**1.20**	**0.94**	**0.81**	0.83	**0.85**
Lower 95% Confidence Limit about Mean	**1.71**	**0.78**	**11.7**	**15.1**	0.06	**0.11**
Upper 95% Confidence Limit about Mean	**2.81**	**1.35**	**24.6**	**28.4**	0.11	**0.16**
Lower Quartile (25th percentile)	**1.37**	**0.43**	**8.3**	**8.8**	**-0.03**	**0.07**
Median (50th percentile)	**1.70**	**0.67**	**14.1**	**19.0**	**0.07**	**0.10**
Upper Quartile (75th percentile)	**2.39**	**1.148**	**23.0**	**31.0**	**0.1**	**0.18**
Inter Quartile Range	**1.02**	**0.723**	**14.7**	**22.2**	**0.13**	**0.11**
Minimum Detected Value	**0.24**	**0.03**	**2.3**	**3.4**	**0.03**	**0.002**
Maximum Detected Value	**18.2**	**7.02**	**79**	**84**	**0.26**	**0.66**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**0.03**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**0.03**	**---**
Regression Equation	ln(y) = 0.594 + 0.601*z	ln(y) = -0.313 + 0.849*z	ln(y) = 2.587 + 0.887*z	ln(y) = 2.813 + 0.833*z	ln(y) = -2.788 + 0.856*z	ln(y) = -2.455 + 1.174*z
Note:	1	1	1	1	3	1

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-48 Catch Basin Inlets – Metals							
Run ID	**Total Arsenic, Outflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Total Chromium, Outflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Total Zinc, Outflow (ug/L)**
n	**27**	**27**	**27**	**88**	**88**	**27**	**88**
Percent detected	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Mean	**4.48**	**0.80**	**4.24**	**16.80**	**12.45**	**7.44**	**173**
Standard Deviation	**3.39**	**0.87**	**2.96**	**16.57**	**19.61**	**7.69**	**215**
Coefficient of Variation	**0.76**	**1.09**	**0.70**	**0.99**	**1.58**	**1.03**	**1.24**
Lower 95% Confidence Limit about Mean	**3.20**	**0.47**	**3.13**	**13.34**	**8.35**	**4.54**	**128**
Upper 95% Confidence Limit about Mean	**5.76**	**1.12**	**5.36**	**20.27**	**16.54**	**10.35**	**218**
Lower Quartile (25th percentile)	**2.2**	**0.3**	**2.1**	**5.95**	**2.3**	**3**	**50.5**
Median (50th percentile)	**3.05**	**0.6**	**3.5**	**13**	**6**	**4.7**	**107**
Upper Quartile (75th percentile)	**5.8**	**0.8**	**5.3**	**22**	**12.45**	**9.8**	**220**
Inter Quartile Range	**3.6**	**0.5**	**3.2**	**16.05**	**10.15**	**6.8**	**169**
Minimum Detected Value	**1**	**0.2**	**1**	**1.2**	**1**	**2**	**9.4**
Maximum Detected Value	**14.1**	**4.1**	**13.6**	**90**	**110**	**35**	**1250**
Minimum Reporting Limit							
Maximum Reporting Limit							
Regression Equation	ln(y) = 1.259 + 0.773*z	ln(y) = -0.542 + 0.826*z	ln(y) = 1.246 + 0.706*z	ln(y) = 2.387 + 1.041*z	ln(y) = 1.798 + 1.223*z	ln(y) = 1.725 + 0.746*z	ln(y) = 4.582 + 1.162*z
Note:	1	1	1	1	1	1	1

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-49 Constructed Wetlands – Solids						
Run ID	**Total dissolved solids, Inflow (mg/L)**	**Total dissolved solids, Outflow (mg/L)**	**Change, Total dissolved solids, Inflow to Outflow**	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**8**	**9**	**---**	**13**	**14**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**111**	**1412**	**1169%**	**203**	**11.1**	**-94.55%**
Standard Deviation	**58.9**	**534**	**---**	**88**	**8.9**	**---**
Coefficient of Variation	**0.53**	**0.38**	**---**	**0.43**	**0.81**	**---**
Lower 95% Confidence Limit about Mean	**70**	**1063**	**---**	**155**	**6.38**	**---**
Upper 95% Confidence Limit about Mean	**152**	**1761**	**---**	**251**	**15.7**	**---**
Lower Quartile (25th percentile)	**63**	**940**	**1404%**	**140**	**3.50**	**-97.50%**
Median (50th percentile)	**87**	**1600**	**1739%**	**230**	**11.0**	**-95.22%**
Upper Quartile (75th percentile)	**178**	**1850**	**942%**	**255**	**13.5**	**-94.71%**
Inter Quartile Range	**115**	**910**	**---**	**115**	**10.0**	**---**
Minimum Detected Value	**60**	**530**	**---**	**60**	**1.00**	**---**
Maximum Detected Value	**200**	**1900**	**---**	**350**	**28**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 4.599 + 0.584*z	ln(y) = 7.169 + 0.519*z	**---**	ln(y) = 5.197 + 0.595*z	ln(y) = 2.014 + 1.142*z	**---**
Note:	1	1	**2**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-50 Constructed Wetlands – Bacteria						
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**	**Total Coliform, Inflow (#/100mL)**	**Total Coliform, Outflow (#/100mL)**	**Change, Total Coliform, Inflow to Outflow**
n	**13**	**14**	**---**	**8**	**8**	**---**
Percent detected	**92.3%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	5407	**295**	**-94.54%**	**25350**	**25305**	**-0.18%**
Standard Deviation	18323	**795**	**---**	**35414**	**71666**	**---**
Coefficient of Variation	3.39	**2.69**	**---**	**1.40**	**2.83**	**---**
Lower 95% Confidence Limit about Mean	-4554	**-121**	**---**	**810**	**-24357**	**---**
Upper 95% Confidence Limit about Mean	15368	**712**	**---**	**49890**	**74967**	**---**
Lower Quartile (25th percentile)	**230**	**20.0**	**-91.30%**	**1875**	**278**	**-85.20%**
Median (50th percentile)	**1300**	**95.0**	**-92.69%**	**3700**	**1370**	**-62.97%**
Upper Quartile (75th percentile)	**3800**	**255**	**-93.29%**	**50000**	**24750**	**-50.50%**
Inter Quartile Range	**3570**	**235**	**---**	**48125**	**24473**	**---**
Minimum Detected Value	**20**	**8**	**---**	**1300**	**130**	**---**
Maximum Detected Value	**50000**	**2400**	**---**	**90000**	**160000**	**---**
Minimum Reporting Limit	**10**		**---**			**---**
Maximum Reporting Limit	**10**		**---**			**---**
Regression Equation	ln(y) = 6.794 + 2.447*z	ln(y) = 4.484 + 1.786*z	**---**	ln(y) = 8.967 + 2.010*z	ln(y) = 7.647 + 3.076*z	**---**
Note:	3	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-51 Constructed Wetlands – Nutrients						
Run ID	**Kjeldahl nitrogen (TKN), Inflow (mg/L)**	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Change, Kjeldahl nitrogen (TKN), Inflow to Outflow**	**Nitrogen, ammonia as N, Inflow (mg/L)**	**Nitrogen, ammonia as N, Outflow (mg/L)**	**Change, Nitrogen, ammonia as N, Inflow to Outflow**
n	**21**	**22**	**---**	**13**	**21**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**84.6%**	**66.7%**	**---**
Mean	**2.56**	**1.97**	**-22.91%**	0.52	0.20	**-61.86%**
Standard Deviation	**1.93**	**0.88**	**---**	0.78	0.39	**---**
Coefficient of Variation	**0.75**	**0.45**	**---**	1.48	1.94	**---**
Lower 95% Confidence Limit about Mean	**1.74**	**1.61**	**---**	0.10	0.034	**---**
Upper 95% Confidence Limit about Mean	**3.39**	**2.34**	**---**	0.95	0.37	**---**
Lower Quartile (25th percentile)	**1.15**	**1.48**	**28.82%**	**0.13**	0.052	**-59.75%**
Median (50th percentile)	**1.80**	**1.95**	**8.33%**	**0.28**	**0.12**	**-57.14%**
Upper Quartile (75th percentile)	**3.86**	**2.36**	**-38.99%**	**0.47**	**0.20**	**-56.99%**
Inter Quartile Range	**2.72**	**0.88**	**---**	**0.34**	0.15	**---**
Minimum Detected Value	**0.83**	**0.52**	**---**	**0.13**	**0.1**	**---**
Maximum Detected Value	**8.1**	**4.1**	**---**	**2.34**	**1.5**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**0.05**	**0.05**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**0.05**	**0.05**	**---**
Regression Equation	ln(y) = 0.721 + 0.726*z	ln(y) = 0.572 + 0.542*z	**---**	ln(y) = -1.375 + 1.400*z	ln(y) = -2.190 + 1.126*z	**---**
Note:	1	1	**---**	3	3	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-51 Constructed Wetlands – Nutrients (cont.)						
Run ID	**Nitrogen, Nitrate (NO3) as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrate (NO3) as N, Inflow to Outflow**	**Nitrogen, Nitrite (NO2) as N, Inflow (mg/L)**	**Nitrogen, Nitrite (NO2) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrite (NO2) as N, Inflow to Outflow**
n	**26**	**24**	**---**	**8**	**8**	**---**
Percent detected	**100.0%**	**66.7%**	**---**	**62.5%**	**12.5%**	**---**
Mean	**2.54**	0.84	**-66.90%**	0.07		**-100.00%**
Standard Deviation	**2.64**	2.00	**---**	0.081		**---**
Coefficient of Variation	**1.04**	2.39	**---**	1.10		**---**
Lower 95% Confidence Limit about Mean	**1.52**	0.038	**---**	0.018		**---**
Upper 95% Confidence Limit about Mean	**3.55**	1.64	**---**	0.13		**---**
Lower Quartile (25th percentile)	**0.75**	0.057	**-92.38%**	0.017		**-100.00%**
Median (50th percentile)	**1.74**	0.21	**-87.87%**	**0.05**		**-100.00%**
Upper Quartile (75th percentile)	**3.00**	0.78	**-74.12%**	**0.16**		**-100.00%**
Inter Quartile Range	**2.25**	0.72	**---**	0.14		**---**
Minimum Detected Value	**0.011**	**0.01**	**---**	**0.04**	**0.0419**	**---**
Maximum Detected Value	**11.4**	**8.2**	**---**	**0.209**	**0.0419**	**---**
Minimum Reporting Limit	**---**	**0.25**	**---**	**0.015**	**0.015**	**---**
Maximum Reporting Limit	**---**	**0.5**	**---**	**0.015**	**0.015**	**---**
Regression Equation	ln(y) = 0.424 + 1.260*z	ln(y) = -1.558 + 1.933*z	**---**	ln(y) = -3.172 + 1.378*z	**---**	**---**
Note:	1	3	**---**	3	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-51 Constructed Wetlands – Nutrients (cont.)							
Run ID	**Nitrogen, unionized ammonia (NH3) as N, Inflow (mg/L)**	**Organic carbon, Dissolved, Inflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Change, Organic carbon, Dissolved, Inflow to Outflow**	**Organic carbon, Total, Inflow (mg/L)**	**Organic carbon, Total, Outflow (mg/L)**	**Change, Organic carbon, Total, Inflow to Outflow**
n	**8**	**7**	**9**	**---**	**7**	**9**	**---**
Percent detected	**100.0%**	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**1.08**	**20.69**	**13.96**	**-32.54%**	**21.17**	**16.11**	**-23.90%**
Standard Deviation	**1.46**	**12.77**	**6.42**	**---**	**14.87**	**5.92**	**---**
Coefficient of Variation	**1.35**	**0.62**	**0.46**	**---**	**0.70**	**0.37**	**---**
Lower 95% Confidence Limit about Mean	**0.07**	**11.23**	**9.76**	**---**	**10.16**	**12.25**	**---**
Upper 95% Confidence Limit about Mean	**2.09**	**30.14**	**18.15**	**---**	**32.18**	**19.98**	**---**
Lower Quartile (25th percentile)	**0.46**	**10.00**	**10.00**	**0.00%**	**11.00**	**12.00**	**9.09%**
Median (50th percentile)	**0.61**	**22.00**	**13.00**	**-40.91%**	**15.00**	**14.00**	**-6.67%**
Upper Quartile (75th percentile)	**1.18**	**30.00**	**16.50**	**-45.00%**	**33.00**	**20.50**	**-37.88%**
Inter Quartile Range	**0.72**	**20.00**	**6.50**	**---**	**22.00**	**8.50**	**---**
Minimum Detected Value	**0.33**	**6.8**	**7.6**	**---**	**7.2**	**11**	**---**
Maximum Detected Value	**3.9**	**41**	**27**	**---**	**46**	**27**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -0.256 + 0.915*z	ln(y) = 2.857 + 0.813*z	ln(y) = 2.567 + 0.439*z	**---**	ln(y) = 2.860 + 0.834*z	ln(y) = 2.731 + 0.368*z	**---**
Note:	1	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-51 Constructed Wetlands – Nutrients (cont.)						
Run ID	**Phosphorus as P, Dissolved, Inflow (mg/L)**	**Phosphorus as P, Dissolved, Outflow (mg/L)**	**Change, Phosphorus as P, Dissolved, Inflow to Outflow**	**Phosphorus as P, Total, Inflow (mg/L)**	**Phosphorus as P, Total, Outflow (mg/L)**	**Change, Phosphorus as P, Total, Inflow to Outflow**
n	**8**	**8**	**---**	**20**	**21**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**0.12**	**0.33**	**186.92%**	**0.78**	**0.63**	**-19.33%**
Standard Deviation	**0.06**	**0.61**	**---**	**0.79**	**0.50**	**---**
Coefficient of Variation	**0.52**	**1.83**	**---**	**1.02**	**0.80**	**---**
Lower 95% Confidence Limit about Mean	**0.074**	**-0.089**	**---**	**0.43**	**0.41**	**---**
Upper 95% Confidence Limit about Mean	**0.16**	**0.75**	**---**	**1.13**	**0.84**	**---**
Lower Quartile (25th percentile)	**0.071**	**0.075**	**5.61%**	**0.28**	**0.26**	**-7.27%**
Median (50th percentile)	**0.08**	**0.16**	**90.18%**	**0.46**	**0.39**	**-14.29%**
Upper Quartile (75th percentile)	**0.18**	**0.36**	**97.22%**	**0.76**	**1.10**	**45.70%**
Inter Quartile Range	**0.11**	**0.28**	**---**	**0.48**	**0.85**	**---**
Minimum Detected Value	**0.067**	**0.011**	**---**	**0.16**	**0.16**	**---**
Maximum Detected Value	**0.21**	**1.5**	**---**	**2.6**	**1.9**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -2.260 + 0.539*z	ln(y) = -1.892 + 1.717*z	**---**	ln(y) = -0.619 + 0.911*z	ln(y) = -0.737 + 0.802*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-52 Constructed Wetlands – Metals						
Run ID	**Total Arsenic, Inflow (ug/L)**	**Total Arsenic, Outflow (ug/L)**	**Change, Total Arsenic, Inflow to Outflow**	**Total Cadmium, Inflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Change, Total Cadmium, Inflow to Outflow**
n	**8**	**9**	**---**	**16**	**17**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**68.8%**	**52.9%**	**---**
Mean	**2.10**	**0.75**	**-64.23%**	0.72	0.18	**-74.50%**
Standard Deviation	**1.01**	**0.37**	**---**	0.64	0.06	**---**
Coefficient of Variation	**0.48**	**0.49**	**---**	0.89	0.35	**---**
Lower 95% Confidence Limit about Mean	**1.40**	**0.51**	**---**	0.41	0.15	**---**
Upper 95% Confidence Limit about Mean	**2.80**	**0.99**	**---**	1.04	0.22	**---**
Lower Quartile (25th percentile)	**1.28**	**0.50**	**-60.78%**	0.22	0.15	**-33.95%**
Median (50th percentile)	**1.80**	**0.63**	**-65.00%**	0.47	0.18	**-62.40%**
Upper Quartile (75th percentile)	**2.93**	**1.03**	**-64.96%**	1.00	0.21	**-78.60%**
Inter Quartile Range	**1.65**	**0.53**	**---**	0.78	0.07	**---**
Minimum Detected Value	**1**	**0.5**	**---**	**0.28**	**0.2**	**---**
Maximum Detected Value	**3.8**	**1.4**	**---**	**1.9**	**0.35**	**---**
Minimum Reporting Limit			**---**	**0.125**	**0.1**	**---**
Maximum Reporting Limit			**---**	**0.21**	**0.17**	**---**
Regression Equation	ln(y) = 0.647 + 0.573*z	ln(y) = -0.367 + 0.448*z	**---**	ln(y) = -0.750 + 1.114*z	ln(y) = -1.728 + 0.278*z	**---**
Note:	1	1	2	3	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-52 Constructed Wetlands – Metals (cont.)						
Run ID	**Total Chromium, Inflow (ug/L)**	**Total Chromium, Outflow (ug/L)**	**Change, Total Chromium, Inflow to Outflow**	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**8**	**9**	**---**	**21**	**22**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**90.5%**	**95.5%**	**---**
Mean	**7.53**	**1.39**	**-81.54%**	543.94	10.78	**-98.02%**
Standard Deviation	**3.34**	**0.91**	**---**	2890.84	7.17	**---**
Coefficient of Variation	**0.44**	**0.65**	**---**	5.31	0.66	**---**
Lower 95% Confidence Limit about Mean	**5.21**	**0.80**	**---**	-692.50	7.79	**---**
Upper 95% Confidence Limit about Mean	**9.84**	**1.98**	**---**	1780.37	13.78	**---**
Lower Quartile (25th percentile)	**3.78**	**1.00**	**-73.51%**	**11.15**	**5.55**	**-50.22%**
Median (50th percentile)	**8.55**	**1.00**	**-88.30%**	**62.00**	**8.80**	**-85.81%**
Upper Quartile (75th percentile)	**9.93**	**1.60**	**-83.88%**	**110.00**	**14.75**	**-86.59%**
Inter Quartile Range	**6.15**	**0.60**	**---**	**98.85**	**9.20**	**---**
Minimum Detected Value	**3.7**	**1**	**---**	**3.23**	**3.4**	**---**
Maximum Detected Value	**12**	**3.3**	**---**	**9500**	**31**	**---**
Minimum Reporting Limit			**---**	**0.25**	**0.25**	**---**
Maximum Reporting Limit			**---**	**0.25**	**0.25**	**---**
Regression Equation	ln(y) = 1.917 + 0.572*z	ln(y) = 0.225 + 0.409*z	**---**	ln(y) = 3.738 + 2.215*z	ln(y) = 2.185 + 0.717*z	**---**
Note:	1	1	2	3	3	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-52 Constructed Wetlands – Metals (cont.)						
Run ID	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**	**Total Nickel, Inflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Change, Total Nickel, Inflow to Outflow**
n	**21**	**22**	**---**	**8**	**9**	**---**
Percent detected	**90.5%**	**95.5%**	**---**	**100.0%**	**100.0%**	**---**
Mean	277.65	5.23	**-98.11%**	**10.81**	**5.61**	**-48.11%**
Standard Deviation	593.03	3.50	**---**	**6.04**	**2.68**	**---**
Coefficient of Variation	2.14	0.67	**---**	**0.56**	**0.48**	**---**
Lower 95% Confidence Limit about Mean	24.01	3.77	**---**	**6.63**	**3.86**	**---**
Upper 95% Confidence Limit about Mean	531.30	6.69	**---**	**15.00**	**7.36**	**---**
Lower Quartile (25th percentile)	**3.32**	**2.70**	**-18.55%**	**5.90**	**3.70**	**-37.29%**
Median (50th percentile)	**170.00**	**4.40**	**-97.41%**	**8.70**	**5.50**	**-36.78%**
Upper Quartile (75th percentile)	**315.00**	**8.32**	**-97.36%**	**16.50**	**6.65**	**-59.70%**
Inter Quartile Range	**311.69**	**5.62**	**---**	**10.60**	**2.95**	**---**
Minimum Detected Value	**1.25**	**1**	**---**	**5.1**	**2.5**	**---**
Maximum Detected Value	**2300**	**14**	**---**	**21**	**11**	**---**
Minimum Reporting Limit	**0.25**	**0.25**	**---**			**---**
Maximum Reporting Limit	**0.25**	**0.25**	**---**			**---**
Regression Equation	ln(y) = 3.918 + 2.654*z	ln(y) = 1.426 + 0.804*z	**---**	ln(y) = 2.259 + 0.630*z	ln(y) = 1.639 + 0.525*z	**---**
Note:	3	3	---	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-52 Constructed Wetlands – Metals (cont.)			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**21**	**22**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**363.79**	**56.46**	**-84.48%**
Standard Deviation	**483.79**	**43.15**	**---**
Coefficient of Variation	**1.33**	**0.76**	**---**
Lower 95% Confidence Limit about Mean	**156.87**	**38.43**	**---**
Upper 95% Confidence Limit about Mean	**570.71**	**74.50**	**---**
Lower Quartile (25th percentile)	**109.00**	**28.53**	**-73.83%**
Median (50th percentile)	**270.00**	**39.00**	**-85.56%**
Upper Quartile (75th percentile)	**450.00**	**84.35**	**-81.26%**
Inter Quartile Range	**341.00**	**55.83**	**---**
Minimum Detected Value	**35.7**	**18**	**---**
Maximum Detected Value	**2000**	**165**	**---**
Minimum Reporting Limit			**---**
Maximum Reporting Limit			**---**
Regression Equation	ln(y) = 5.403 + 1.142*z	ln(y) = 3.812 + 0.702*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-53 Non-Caltrans Bioswales – Solids						
Run ID	**Total dissolved solids, Inflow (mg/L)**	**Total dissolved solids, Outflow (mg/L)**	**Change, Total dissolved solids, Inflow to Outflow**	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**71**	**45**	**---**	**104**	**71**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**105**	**87.1**	**-17.36%**	**102**	**39.5**	**-61.37%**
Standard Deviation	**82.0**	**44.9**	**---**	**85.8**	**35.6**	**---**
Coefficient of Variation	**0.78**	**0.51**	**---**	**0.84**	**0.90**	**---**
Lower 95% Confidence Limit about Mean	**86.3**	**74.0**	**---**	**85.9**	**31.3**	**---**
Upper 95% Confidence Limit about Mean	**124**	**100**	**---**	**119**	**47.8**	**---**
Lower Quartile (25th percentile)	**42.0**	**57.0**	**35.71%**	**47.3**	**18.0**	**-61.90%**
Median (50th percentile)	**80.0**	**78.0**	**-2.50%**	**72.0**	**30.0**	**-58.33%**
Upper Quartile (75th percentile)	**154**	**120**	**-22.08%**	**134**	**50.0**	**-62.76%**
Inter Quartile Range	**112**	**63**	**---**	**87**	**32**	**---**
Minimum Detected Value	**1**	**1**	**---**	**2**	**1**	**---**
Maximum Detected Value	**350**	**200**	**---**	**474**	**191**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 4.260 + 1.075*z	ln(y) = 4.272 + 0.729*z	**---**	ln(y) = 4.319 + 0.853*z	ln(y) = 3.343 + 0.898*z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-54 Non-Caltrans Bioswales – Bacteria			
Run ID	**Fecal Coliform, Inflow (#/100mL)**	**Fecal Coliform, Outflow (#/100mL)**	**Change, Fecal Coliform, Inflow to Outflow**
n	**33**	**19**	**---**
Percent detected	**97.0%**	**100.0%**	**---**
Mean	12725	**10982**	**-13.70%**
Standard Deviation	22363	**49927**	**---**
Coefficient of Variation	1.76	**4.55**	**---**
Lower 95% Confidence Limit about Mean	5095	**-11468**	**---**
Upper 95% Confidence Limit about Mean	20355	**33432**	**---**
Lower Quartile (25th percentile)	**500**	**130**	**-74.00%**
Median (50th percentile)	**5000**	**900**	**-82.00%**
Upper Quartile (75th percentile)	**16500**	**5000**	**-69.70%**
Inter Quartile Range	**16000**	**4870**	**---**
Minimum Detected Value	**17**	**17**	**---**
Maximum Detected Value	**90000**	**160000**	**---**
Minimum Reporting Limit	**1**	**---**	**---**
Maximum Reporting Limit	**1**	**---**	**---**
Regression Equation	ln(y) = 7.667 + 2.695*z	ln(y) = 6.585 + 2.773*z	**---**
Note:	3	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-55 Non-Caltrans Bioswales – Nutrients							
Run ID	**Kjeldahl nitrogen (TKN), Inflow (mg/L)**	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Change, Kjeldahl nitrogen (TKN), Inflow to Outflow**	**Nitrogen, ammonia as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrate (NO3) as N, Inflow to Outflow**
n	**105**	**72**	**---**	**10**	**104**	**71**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**100.0%**	**---**
Mean	**2.91**	**1.99**	**-31.7%**	**1.05**	**1.26**	**0.98**	**-22.5%**
Standard Deviation	**2.27**	**1.61**	**---**	**0.78**	**1.37**	**2.47**	**---**
Coefficient of Variation	**0.78**	**0.81**	**---**	**0.74**	**1.08**	**2.53**	**---**
Lower 95% Confidence Limit about Mean	**2.48**	**1.62**	**---**	**0.57**	**1.00**	**0.40**	**---**
Upper 95% Confidence Limit about Mean	**3.35**	**2.36**	**---**	**1.53**	**1.52**	**1.55**	**---**
Lower Quartile (25th percentile)	**1.43**	**1.04**	**-27.6%**	**0.65**	**0.435**	**0.30**	**-31.0%**
Median (50th percentile)	**2.1**	**1.57**	**-25.2%**	**0.91**	**0.73**	**0.56**	**-23.3%**
Upper Quartile (75th percentile)	**3.39**	**2.34**	**-30.9%**	**1.15**	**1.375**	**0.9**	**-34.5%**
Inter Quartile Range	**1.96**	**1.31**	**---**	**0.5**	**0.94**	**0.6**	**---**
Minimum Detected Value	**0.11**	**0.08**	**---**	**0.45**	**0.01**	**0.01**	**---**
Maximum Detected Value	**11**	**9.58**	**---**	**2.8**	**5.62**	**16.9**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 0.756 + 0.874*z	ln(y) = 0.393 + 0.850*z	**---**	ln(y) = -8.324 + 0.584*z	ln(y) = -0.231 + 0.983*z	ln(y) = -0.630 + 1.058*z	**---**
Note:	1	1	2	1	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-55 Non-Caltrans Bioswales – Nutrients (cont.)							
Run ID	**Nitrogen, unionized ammonia (NH3) as N, Inflow (mg/L)**	**Organic carbon, Dissolved, Inflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Change, Organic carbon, Dissolved, Inflow to Outflow**	**Organic carbon, Total, Inflow (mg/L)**	**Organic carbon, Total, Outflow (mg/L)**	**Change, Organic carbon, Total, Inflow to Outflow**
n	**10**	**58**	**42**	**---**	**59**	**42**	**---**
Percent detected	**100.0%**	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**1.05**	**21.84**	**15.67**	**-28.3%**	**25.79**	**18.13**	**-29.7%**
Standard Deviation	**0.78**	**18.86**	**9.68**	**---**	**21.28**	**10.18**	**---**
Coefficient of Variation	**0.74**	**0.86**	**0.62**	**---**	**0.83**	**0.56**	**---**
Lower 95% Confidence Limit about Mean	**0.57**	**16.99**	**12.74**	**---**	**20.36**	**15.05**	**---**
Upper 95% Confidence Limit about Mean	**1.53**	**26.70**	**18.60**	**---**	**31.23**	**21.21**	**---**
Lower Quartile (25th percentile)	**0.66**	**9.875**	**8.15**	**-17.5%**	**12**	**11**	**-8.3%**
Median (50th percentile)	**0.89**	**14.5**	**12.45**	**-14.1%**	**18**	**17**	**-5.6%**
Upper Quartile (75th percentile)	**1.15**	**31.5**	**22**	**-30.2%**	**33**	**23.25**	**-29.5%**
Inter Quartile Range	**0.49**	**21.63**	**13.85**	**---**	**21**	**12.25**	**---**
Minimum Detected Value	**0.46**	**2.5**	**3.5**	**---**	**3**	**3.5**	**---**
Maximum Detected Value	**2.8**	**75**	**44**	**---**	**90**	**48**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -0.077 + 0.569*z	ln(y) = 2.732 + 0.912*z	ln(y) = 2.559 + 0.688*z	**---**	ln(y) = 2.917 + 0.901*z	ln(y) = 2.736 + 0.636*z	**---**
Note:	1	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-55 Non-Caltrans Bioswales – Nutrients (cont.)						
Run ID	**Phosphorus as P, Dissolved, Inflow (mg/L)**	**Phosphorus as P, Dissolved, Outflow (mg/L)**	**Change, Phosphorus as P, Dissolved, Inflow to Outflow**	**Phosphorus as P, Total, Inflow (mg/L)**	**Phosphorus as P, Total, Outflow (mg/L)**	**Change, Phosphorus as P, Total, Inflow to Outflow**
n	**58**	**41**	**---**	**105**	**72**	**---**
Percent detected	**96.6%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	0.14	**0.51**	**263%**	**0.31**	**0.61**	**92.9%**
Standard Deviation	0.22	**0.65**	**---**	**0.28**	**0.66**	**---**
Coefficient of Variation	1.59	**1.28**	**---**	**0.90**	**1.08**	**---**
Lower 95% Confidence Limit about Mean	0.082	**0.31**	**---**	**0.26**	**0.45**	**---**
Upper 95% Confidence Limit about Mean	0.20	**0.70**	**---**	**0.37**	**0.76**	**---**
Lower Quartile (25th percentile)	**0.058**	**0.175**	**202%**	**0.12**	**0.26**	**116.7%**
Median (50th percentile)	**0.08**	**0.28**	**250%**	**0.22**	**0.37**	**68.2%**
Upper Quartile (75th percentile)	**0.14**	**0.5**	**257%**	**0.4**	**0.58**	**45.6%**
Inter Quartile Range	**0.082**	**0.325**	**---**	**0.28**	**0.32**	**---**
Minimum Detected Value	**0.014**	**0.06**	**---**	**0.002**	**0.15**	**---**
Maximum Detected Value	**1.39**	**2.98**	**---**	**1.83**	**2.97**	**---**
Minimum Reporting Limit	**0.03**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**0.03**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = -2.420 + 0.906*z	ln(y) = -1.123 + 0.901*z	**---**	ln(y) = -1.497 + 0.895*z	ln(y) = -0.840 + 0.737*z	**---**
Note:	3	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-55 Non-Caltrans Bioswales – Nutrients (cont.)			
Run ID	**Phosphorus, orthophosphate as P, Inflow (mg/L)**	**Phosphorus, orthophosphate as P, Outflow (mg/L)**	**Change, Phosphorus, orthophosphate as P, Inflow to Outflow**
n	**12**	**4**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**0.22**	**0.35**	**59.1%**
Standard Deviation	**0.15**	**0.33**	**---**
Coefficient of Variation	**0.67**	**0.95**	**---**
Lower 95% Confidence Limit about Mean	**0.14**	**0.02**	**---**
Upper 95% Confidence Limit about Mean	**0.30**	**0.68**	**---**
Lower Quartile (25th percentile)	**0.073**	**0.09**	**24.1%**
Median (50th percentile)	**0.235**	**0.31**	**31.9%**
Upper Quartile (75th percentile)	**0.333**	**0.65**	**95.5%**
Inter Quartile Range	**0.26**	**0.56**	**---**
Minimum Detected Value	**0.03**	**0.03**	**---**
Maximum Detected Value	**0.49**	**0.75**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = -1.837 + 1.066*z	ln(y) = -1.538 + 1.796*z	**---**
Note:	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-56 Non-Caltrans Bioswales – Metals						
Run ID	**Total Arsenic, Inflow (ug/L)**	**Total Arsenic, Outflow (ug/L)**	**Change, Total Arsenic, Inflow to Outflow**	**Total Cadmium, Inflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Change, Total Cadmium, Inflow to Outflow**
n	**63**	**44**	**---**	**100**	**75**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**94.7%**	**---**
Mean	**11.94**	**3.47**	**-70.90%**	**0.88**	0.28	**-68.14%**
Standard Deviation	**17.53**	**3.42**	**---**	**1.10**	0.28	**---**
Coefficient of Variation	**1.47**	**0.98**	**---**	**1.24**	0.99	**---**
Lower 95% Confidence Limit about Mean	**7.61**	**2.46**	**---**	**0.67**	0.22	**---**
Upper 95% Confidence Limit about Mean	**16.27**	**4.48**	**---**	**1.10**	0.34	**---**
Lower Quartile (25th percentile)	**1.60**	**1.10**	**-31.25%**	**0.24**	0.10	**-59.48%**
Median (50th percentile)	**4.30**	**2.40**	**-44.19%**	**0.56**	0.19	**-66.32%**
Upper Quartile (75th percentile)	**11**	**4.65**	**-57.73%**	**1.30**	0.36	**-72.08%**
Inter Quartile Range	**9.4**	**3.55**	**---**	**1.06**	0.26	**---**
Minimum Detected Value	**0.6**	**0.5**	**---**	**0.015626**	**0.025377**	**---**
Maximum Detected Value	**66**	**15**	**---**	**8.3**	**1.4**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**0.011498**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**0.019875**	**---**
Regression Equation	ln(y) = 1.577 + 1.371*z	ln(y) = 0.849 + 0.965*z	**---**	ln(y) = -0.699 + 1.219*z	ln(y) = -1.668 + 0.970*z	**---**
Note:	1	1	2	1	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-56 Non-Caltrans Bioswales – Metals (cont.)						
Run ID	**Total Chromium, Inflow (ug/L)**	**Total Chromium, Outflow (ug/L)**	**Change, Total Chromium, Inflow to Outflow**	**Total Copper, Inflow (ug/L)**	**Total Copper, Outflow (ug/L)**	**Change, Total Copper, Inflow to Outflow**
n	**64**	**44**	**---**	**131**	**99**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**7.18**	**5.21**	**-27.37%**	**41.20**	**12.20**	**-70.39%**
Standard Deviation	**6.34**	**18.06**	**---**	**40.59**	**10.35**	**---**
Coefficient of Variation	**0.88**	**3.47**	**---**	**0.99**	**0.85**	**---**
Lower 95% Confidence Limit about Mean	**5.62**	**-0.12**	**---**	**34.25**	**10.16**	**---**
Upper 95% Confidence Limit about Mean	**8.73**	**10.55**	**---**	**48.15**	**14.24**	**---**
Lower Quartile (25th percentile)	**2.83**	**1.40**	**-50.44%**	**11.00**	**5.40**	**-50.91%**
Median (50th percentile)	**5.65**	**2.20**	**-61.06%**	**25.20**	**10.00**	**-60.32%**
Upper Quartile (75th percentile)	**9.95**	**4.55**	**-54.27%**	**64.0**	**16.0**	**-75.00%**
Inter Quartile Range	**7.125**	**3.15**	**---**	**53**	**10.6**	**---**
Minimum Detected Value	**1**	**1**	**---**	**1.1**	**1**	**---**
Maximum Detected Value	**39**	**92**	**---**	**232**	**73**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 1.651 + 0.858*z	ln(y) = 0.975 + 0.887*z	**---**	ln(y) = 3.205 + 1.128*z	ln(y) = 2.207 + 0.828*z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-56 Non-Caltrans Bioswales – Metals (cont.)							
Run ID	**Total Iron, Inflow (ug/L)**	**Total Lead, Inflow (ug/L)**	**Total Lead, Outflow (ug/L)**	**Change, Total Lead, Inflow to Outflow**	**Total Nickel, Inflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Change, Total Nickel, Inflow to Outflow**
n	**1**	**131**	**99**	**---**	**64**	**44**	**---**
Percent detected	**100.0%**	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**---**	**66.47**	**15.88**	**-76.11%**	**12.32**	**3.76**	**-69.50%**
Standard Deviation	**---**	**229**	**26.28**	**---**	**11.44**	**4.07**	**---**
Coefficient of Variation	**---**	**3.45**	**1.65**	**---**	**0.93**	**1.08**	**---**
Lower 95% Confidence Limit about Mean	**---**	**27.20**	**10.70**	**---**	**9.52**	**2.56**	**---**
Upper 95% Confidence Limit about Mean	**---**	**106**	**21.06**	**---**	**15.13**	**4.96**	**---**
Lower Quartile (25th percentile)	**---**	**9.67**	**3.60**	**-62.78%**	**4.43**	**2.00**	**-54.80%**
Median (50th percentile)	**---**	**21.85**	**7.06**	**-67.68%**	**9.25**	**2.50**	**-72.97%**
Upper Quartile (75th percentile)	**---**	**73.0**	**18.26**	**-74.99%**	**15.75**	**4.15**	**-73.65%**
Inter Quartile Range	**---**	**63.3**	**14.66**	**---**	**11.325**	**2.15**	**---**
Minimum Detected Value	**5700**	**0.55585**	**0.755025**	**---**	**2**	**1.8**	**---**
Maximum Detected Value	**5700**	**2086**	**189**	**---**	**69**	**23**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	**---**	ln(y) = 3.222 + 1.374*z	ln(y) = 2.085 + 1.168*z	**---**	ln(y) = 2.190 + 0.842*z	ln(y) = 1.108 + 0.518*z	**---**
Note:	1	1	1	2	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-56 Non-Caltrans Bioswales – Metals (cont.)			
Run ID	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**131**	**99**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**228**	**65.07**	**-71.42%**
Standard Deviation	**223**	**66.77**	**---**
Coefficient of Variation	**0.98**	**1.03**	**---**
Lower 95% Confidence Limit about Mean	**190**	**51.92**	**---**
Upper 95% Confidence Limit about Mean	**266**	**78.23**	**---**
Lower Quartile (25th percentile)	**90.00**	**29.00**	**-67.78%**
Median (50th percentile)	**160**	**50.16**	**-68.65%**
Upper Quartile (75th percentile)	**313**	**76**	**-75.72%**
Inter Quartile Range	**223**	**47**	**---**
Minimum Detected Value	**13**	**4.2**	**---**
Maximum Detected Value	**1542**	**501**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 5.007 + 0.995*z	ln(y) = 3.866 + 0.811*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-57 Caltrans Only Bioswales – Solids						
Run ID	**Total dissolved solids, Inflow (mg/L)**	**Total dissolved solids, Outflow (mg/L)**	**Change, Total dissolved solids, Inflow to Outflow**	**Total suspended solids, Inflow (mg/L)**	**Total suspended solids, Outflow (mg/L)**	**Change, Total suspended solids, Inflow to Outflow**
n	**55**	**32**	**---**	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**91.9**	**108.0**	**17.58%**	**92.2**	**69.9**	**-24.21%**
Standard Deviation	**51.0**	**54.9**	**---**	**70.8**	**81.0**	**---**
Coefficient of Variation	**0.55**	**0.51**	**---**	**0.77**	**1.16**	**---**
Lower 95% Confidence Limit about Mean	**78.4**	**89.0**	**---**	**73.5**	**41.8**	**---**
Upper 95% Confidence Limit about Mean	**105.3**	**127.0**	**---**	**110.9**	**97.9**	**---**
Lower Quartile (25th percentile)	**56**	**77.5**	**38.39%**	**39**	**20.5**	**-47.44%**
Median (50th percentile)	**89**	**100**	**12.36%**	**78**	**38**	**-51.28%**
Upper Quartile (75th percentile)	**112**	**128.5**	**14.73%**	**124**	**81.75**	**-34.07%**
Inter Quartile Range	**56**	**51**	**---**	**85**	**61.25**	**---**
Minimum Detected Value	**16**	**14**	**---**	**12**	**7**	**---**
Maximum Detected Value	**260**	**264**	**---**	**380**	**330**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 4.355 + 0.639*z	ln(y) = 4.548 + 0.587*z	**---**	ln(y) = 4.234 + 0.852*z	ln(y) = 3.758 + 1.056*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-57 Caltrans Only Bioswales – Solids (cont.)			
Run ID	**Turbidity, Inflow (NTU)**	**Turbidity, Outflow (NTU)**	**Change, Turbidity, Inflow to Outflow**
n	**16**	**11**	**---**
Percent detected	**100.0%**	**100.0%**	**---**
Mean	**93.1**	**34.8**	**-62.65%**
Standard Deviation	**77.2**	**22.0**	**---**
Coefficient of Variation	**0.83**	**0.63**	**---**
Lower 95% Confidence Limit about Mean	**55.3**	**21.8**	**---**
Upper 95% Confidence Limit about Mean	**131.0**	**47.8**	**---**
Lower Quartile (25th percentile)	**29**	**18**	**-37.93%**
Median (50th percentile)	**75**	**37**	**-50.67%**
Upper Quartile (75th percentile)	**140**	**42**	**-70.00%**
Inter Quartile Range	**111**	**24**	**---**
Minimum Detected Value	**3.3**	**8.4**	**---**
Maximum Detected Value	**249**	**74**	**---**
Minimum Reporting Limit	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**
Regression Equation	ln(y) = 4.008 + 1.397*z	ln(y) = 3.341 + 0.835*z	**---**
Note:	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-58 Caltrans Only Bioswales – Nutrients						
Run ID	**Kjeldahl nitrogen (TKN), Inflow (mg/L)**	**Kjeldahl nitrogen (TKN), Outflow (mg/L)**	**Change, Kjeldahl nitrogen (TKN), Inflow to Outflow**	**Nitrogen, ammonia as N, Inflow (mg/L)**	**Nitrogen, ammonia as N, Outflow (mg/L)**	**Change, Nitrogen, ammonia as N, Inflow to Outflow**
n	**55**	**30**	**---**	**48**	**30**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**83.3%**	**76.7%**	**---**
Mean	**1.55**	**2.00**	**29.02%**	0.47	0.66	**40.91%**
Standard Deviation	**1.23**	**2.67**	**---**	0.46	1.44	**---**
Coefficient of Variation	**0.79**	**1.34**	**---**	0.98	2.18	**---**
Lower 95% Confidence Limit about Mean	**1.22**	**1.04**	**---**	0.34	0.15	**---**
Upper 95% Confidence Limit about Mean	**1.87**	**2.95**	**---**	0.60	1.18	**---**
Lower Quartile (25th percentile)	**0.79**	**0.80**	**0.63%**	0.16	0.12	**-28.92%**
Median (50th percentile)	**1.20**	**1.40**	**16.67%**	0.31	0.29	**-9.04%**
Upper Quartile (75th percentile)	**2.00**	**2.22**	**11.13%**	0.61	0.71	**16.41%**
Inter Quartile Range	**1.21**	**1.43**	**---**	0.44	0.59	**---**
Minimum Detected Value	**0.25**	**0.19**	**---**	**0.11**	**0.12**	**---**
Maximum Detected Value	**5.9**	**13**	**---**	**2.1**	**6.6**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**0.04**	**0.05**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**0.07**	**0.055**	**---**
Regression Equation	ln(y) = 0.166 + 0.794*z	ln(y) = 0.332 + 0.861*z	**---**	ln(y) = -1.157 + 0.973*z	ln(y) = -1.252 + 1.339*z	**---**
Note:	1	1	**---**	3	3	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-58 Caltrans Only Bioswales – Nutrients (cont.)						
Run ID	**Nitrogen, Nitrate (NO3) as N, Inflow (mg/L)**	**Nitrogen, Nitrate (NO3) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrate (NO3) as N, Inflow to Outflow**	**Nitrogen, Nitrite (NO2) as N, Inflow (mg/L)**	**Nitrogen, Nitrite (NO2) as N, Outflow (mg/L)**	**Change, Nitrogen, Nitrite (NO2) as N, Inflow to Outflow**
n	**55**	**32**	**---**	**16**	**11**	**---**
Percent detected	**96.4%**	**96.9%**	**---**	**25.0%**	**54.5%**	**---**
Mean	1.02	1.17	**13.77%**	0.09	0.16	**89.01%**
Standard Deviation	0.71	1.19	**---**	0.13	0.32	**---**
Coefficient of Variation	0.69	1.02	**---**	1.50	1.93	**---**
Lower 95% Confidence Limit about Mean	0.84	0.75	**---**	0.02	-0.02	**---**
Upper 95% Confidence Limit about Mean	1.21	1.58	**---**	0.15	0.35	**---**
Lower Quartile (25th percentile)	0.46	**0.24**	**-47.10%**	0.03	0.03	**-0.69%**
Median (50th percentile)	0.79	**0.78**	**-1.31%**	0.06	0.07	**31.91%**
Upper Quartile (75th percentile)	1.36	**1.75**	**28.42%**	0.12	0.20	**75.21%**
Inter Quartile Range	0.90	**1.51**	**---**	0.09	0.18	**---**
Minimum Detected Value	**0.17**	**0.13**	**---**	**0.1**	**0.1**	**---**
Maximum Detected Value	**3.2**	**4.4**	**---**	**0.28**	**0.89**	**---**
Minimum Reporting Limit	**0.05**	**0.025**	**---**	**0.005**	**0.005**	**---**
Maximum Reporting Limit	**0.09**	**0.025**	**---**	**0.09**	**0.08**	**---**
Regression Equation	ln(y) = -0.235 + 0.808*z	ln(y) = -0.392 + 1.221*z	**---**	ln(y) = -2.888 + 1.090*z	ln(y) = -2.611 + 1.511*z	**---**
Note:	3	3	**---**	3	3	**---**

Note 3. Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-58 Caltrans Only Bioswales – Nutrients (cont.)						
Run ID	**Organic carbon, Dissolved, Inflow (mg/L)**	**Organic carbon, Dissolved, Outflow (mg/L)**	**Change, Organic carbon, Dissolved, Inflow to Outflow**	**Organic carbon, Total, Inflow (mg/L)**	**Organic carbon, Total, Outflow (mg/L)**	**Change, Organic carbon, Total, Inflow to Outflow**
n	**55**	**32**	**---**	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**14.40**	**16.95**	**17.74%**	**16.32**	**18.82**	**15.30%**
Standard Deviation	**11.74**	**12.05**	**---**	**14.16**	**13.03**	**---**
Coefficient of Variation	**0.82**	**0.71**	**---**	**0.87**	**0.69**	**---**
Lower 95% Confidence Limit about Mean	**11.29**	**12.77**	**---**	**12.58**	**14.30**	**---**
Upper 95% Confidence Limit about Mean	**17.50**	**21.13**	**---**	**20.06**	**23.33**	**---**
Lower Quartile (25th percentile)	**6.20**	**8.68**	**39.92%**	**7.40**	**10.25**	**38.51%**
Median (50th percentile)	**9.70**	**13.00**	**34.02%**	**11.00**	**13.00**	**18.18%**
Upper Quartile (75th percentile)	**19.00**	**21.75**	**14.47%**	**21.00**	**23.00**	**9.52%**
Inter Quartile Range	**12.80**	**13.08**	**---**	**13.6**	**12.75**	**---**
Minimum Detected Value	**2.7**	**5.6**	**---**	**3.8**	**5.8**	**---**
Maximum Detected Value	**54**	**49**	**---**	**72**	**53**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 2.394 + 0.752*z	ln(y) = 2.633 + 0.657*z	**---**	ln(y) = 2.522 + 0.739*z	ln(y) = 2.753 + 0.622*z	**---**
Note:	1	1	**---**	1	1	**---**

Note 1: All data reported as detected. Bolded values are exact calculations.

Table N-58 Caltrans Only Bioswales – Nutrients (cont.)						
Run ID	**Phosphorus as P, Total, Inflow (mg/L)**	**Phosphorus as P, Total, Outflow (mg/L)**	**Change, Phosphorus as P, Total, Inflow to Outflow**	**Phosphorus, orthophosphate as P, Inflow (mg/L)**	**Phosphorus, orthophosphate as P, Outflow (mg/L)**	**Change, Phosphorus, orthophosphate as P, Inflow to Outflow**
n	**55**	**30**	**---**	**55**	**30**	**---**
Percent detected	**90.9%**	**96.7%**	**---**	**72.7%**	**96.7%**	**---**
Mean	0.21	0.68	**219%**	0.08	0.53	**531%**
Standard Deviation	0.16	0.68	**---**	0.11	0.57	**---**
Coefficient of Variation	0.77	1.00	**---**	1.31	1.08	**---**
Lower 95% Confidence Limit about Mean	0.17	0.44	**---**	0.06	0.33	**---**
Upper 95% Confidence Limit about Mean	0.26	0.93	**---**	0.11	0.74	**---**
Lower Quartile (25th percentile)	0.08	**0.18**	**112%**	0.02	**0.09**	**334%**
Median (50th percentile)	0.15	**0.57**	**269%**	0.05	**0.42**	**795%**
Upper Quartile (75th percentile)	0.29	**0.92**	**221%**	0.10	**0.67**	**551%**
Inter Quartile Range	0.202	**0.738**	**---**	0.082	**0.58**	**---**
Minimum Detected Value	**0.02**	**0.07**	**---**	**0.02**	**0.03**	**---**
Maximum Detected Value	**0.81**	**2.8**	**---**	**0.52**	**2.3**	**---**
Minimum Reporting Limit	**0.004**	**0.004**	**---**	**0.0015**	**0.0015**	**---**
Maximum Reporting Limit	**0.015**	**0.004**	**---**	**0.02**	**0.0015**	**---**
Regression Equation	ln(y) = -1.868 + 0.910*z	ln(y) = -0.870 + 1.168*z	**---**	ln(y) = -3.059 + 1.170*z	ln(y) = -1.267 + 1.392*z	**---**
Note:	3	3	**---**	3	3	**---**

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-59 Caltrans Only Bioswales – Metals						
Run ID	**Total Arsenic, Inflow (ug/L)**	**Total Arsenic, Outflow (ug/L)**	**Change, Total Arsenic, Inflow to Outflow**	**Total Cadmium, Inflow (ug/L)**	**Total Cadmium, Outflow (ug/L)**	**Change, Total Cadmium, Inflow to Outflow**
n	**55**	**32**	**---**	**55**	**32**	**---**
Percent detected	**81.8%**	**84.4%**	**---**	**90.9%**	**78.1%**	**---**
Mean	3.92	4.75	**21.19%**	0.82	0.69	**-15.99%**
Standard Deviation	11.90	19.07	**---**	0.54	0.96	**---**
Coefficient of Variation	3.03	4.01	**---**	0.66	1.40	**---**
Lower 95% Confidence Limit about Mean	0.78	-1.85	**---**	0.68	0.35	**---**
Upper 95% Confidence Limit about Mean	7.07	11.36	**---**	0.96	1.02	**---**
Lower Quartile (25th percentile)	0.92	1.21	**32.01%**	0.41	0.14	**-66.63%**
Median (50th percentile)	1.71	2.22	**29.33%**	0.66	0.33	**-49.52%**
Upper Quartile (75th percentile)	3.19	4.04	**26.71%**	1.07	0.82	**-23.66%**
Inter Quartile Range	2.27	2.83	**---**	0.66	0.68	**---**
Minimum Detected Value	**1**	**1.2**	**---**	**0.2**	**0.2**	**---**
Maximum Detected Value	**61**	**79**	**---**	**3**	**3.9**	**---**
Minimum Reporting Limit	**0.03**	**0.03**	**---**	**0.005**	**0.005**	**---**
Maximum Reporting Limit	**0.61**	**0.98**	**---**	**0.14**	**0.11**	**---**
Regression Equation	ln(y) = 0.538 + 0.921*z	ln(y) = 0.795 + 0.891*z	**---**	ln(y) = -0.410 + 0.710*z	ln(y) = -1.094 + 1.324*z	**---**
Note:	3	3	**---**	3	3	**---**

Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-59 Caltrans Only Bioswales – Metals (cont.)

Run ID	Total Chromium, Inflow (ug/L)	Total Chromium, Outflow (ug/L)	Change, Total Chromium, Inflow to Outflow	Total Copper, Inflow (ug/L)	Total Copper, Outflow (ug/L)	Change, Total Copper, Inflow to Outflow
n	**55**	**32**	**---**	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**100.0%**	**100.0%**	**---**
Mean	**7.73**	**6.10**	**-21.11%**	**44.99**	**18.34**	**-59.24%**
Standard Deviation	**3.55**	**3.31**	**---**	**26.58**	**9.99**	**---**
Coefficient of Variation	**0.46**	**0.54**	**---**	**0.59**	**0.55**	**---**
Lower 95% Confidence Limit about Mean	**6.79**	**4.95**	**---**	**37.97**	**14.87**	**---**
Upper 95% Confidence Limit about Mean	**8.67**	**7.25**	**---**	**52.01**	**21.80**	**---**
Lower Quartile (25th percentile)	**5.70**	**3.78**	**-33.77%**	**24.00**	**9.95**	**-58.54%**
Median (50th percentile)	**7.40**	**5.30**	**-28.38%**	**41.00**	**16.00**	**-60.98%**
Upper Quartile (75th percentile)	**9.20**	**7.13**	**-22.55%**	**60.00**	**26.00**	**-56.67%**
Inter Quartile Range	**3.50**	**3.35**	**---**	**36.00**	**16.05**	**---**
Minimum Detected Value	**1.1**	**1.8**	**---**	**10**	**5**	**---**
Maximum Detected Value	**19**	**16**	**---**	**130**	**43**	**---**
Minimum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**---**	**---**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 1.937 + 0.508*z	ln(y) = 1.689 + 0.527*z	**---**	ln(y) = 3.617 + 0.683*z	ln(y) = 2.762 + 0.606*z	**---**
Note:	1	1	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.

Table N-59 Caltrans Only Bioswales – Metals (cont.)

Run ID	Total Iron, Inflow (ug/L)	Total Iron, Outflow (ug/L)	Change, Total Iron, Inflow to Outflow	Total Lead, Inflow (ug/L)	Total Lead, Outflow (ug/L)	Change, Total Lead, Inflow to Outflow
n	**8**	**7**	**---**	**55**	**32**	**---**
Percent detected	**100.0%**	**100.0%**	**---**	**96.4%**	**96.9%**	**---**
Mean	**2005**	**1031**	**-48.56%**	48.42	14.57	**-69.92%**
Standard Deviation	**1082**	**491**	**---**	56.49	19.68	**---**
Coefficient of Variation	**0.54**	**0.48**	**---**	1.17	1.35	**---**
Lower 95% Confidence Limit about Mean	**1255**	**667**	**---**	33.49	7.75	**---**
Upper 95% Confidence Limit about Mean	**2755**	**1395**	**---**	63.35	21.39	**---**
Lower Quartile (25th percentile)	**990**	**690**	**-30.30%**	11.16	**2.95**	**-73.56%**
Median (50th percentile)	**1850**	**970**	**-47.57%**	26.02	**6.50**	**-75.02%**
Upper Quartile (75th percentile)	**3175**	**1500**	**-52.76%**	60.68	**15.00**	**-75.28%**
Inter Quartile Range	**2185**	**810**	**---**	49.52	**12.05**	**---**
Minimum Detected Value	**920**	**420**	**---**	**2.9**	**1.8**	**---**
Maximum Detected Value	**3400**	**1800**	**---**	**240**	**75**	**---**
Minimum Reporting Limit	**---**		**---**	**0.7**	**0.03**	**---**
Maximum Reporting Limit	**---**		**---**	**0.8**	**0.03**	**---**
Regression Equation	ln(y) = 7.467 + 0.660*z	ln(y) = 6.843 + 0.599*z	**---**	ln(y) = 3.258 + 1.255*z	ln(y) = 1.986 + 1.252*z	**---**
Note:	1	1	**---**	3	3	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

Table N-59 Caltrans Only Bioswales – Metals (cont.)						
Run ID	**Total Nickel, Inflow (ug/L)**	**Total Nickel, Outflow (ug/L)**	**Change, Total Nickel, Inflow to Outflow**	**Total Zinc, Inflow (ug/L)**	**Total Zinc, Outflow (ug/L)**	**Change, Total Zinc, Inflow to Outflow**
n	**55**	**32**	**---**	**55**	**32**	**---**
Percent detected	**98.2%**	**96.9%**	**---**	**100.0%**	**100.0%**	**---**
Mean	9.33	5.48	**-41.24%**	**260**	**74**	**-71.53%**
Standard Deviation	14.06	8.16	**---**	**207**	**94**	**---**
Coefficient of Variation	1.51	1.49	**---**	**0.80**	**1.27**	**---**
Lower 95% Confidence Limit about Mean	5.61	2.65	**---**	**205**	**41.6**	**---**
Upper 95% Confidence Limit about Mean	13.04	8.31	**---**	**315**	**107**	**---**
Lower Quartile (25th percentile)	**4.50**	**2.53**	**-43.89%**	**110**	**24.75**	**-77.50%**
Median (50th percentile)	**7.30**	**3.90**	**-46.58%**	**220**	**52.50**	**-76.14%**
Upper Quartile (75th percentile)	**10.00**	**6.40**	**-36.00%**	**350**	**84.50**	**-75.86%**
Inter Quartile Range	**5.50**	**3.88**	**---**	**240**	**59.75**	**---**
Minimum Detected Value	**2.1**	**2**	**---**	**32**	**19**	**---**
Maximum Detected Value	**89**	**40**	**---**	**980**	**440**	**---**
Minimum Reporting Limit	**1.5**	**1.59**	**---**	**---**	**---**	**---**
Maximum Reporting Limit	**1.5**	**1.59**	**---**	**---**	**---**	**---**
Regression Equation	ln(y) = 1.940 + 0.713*z	ln(y) = 1.425 + 0.667*z	**---**	ln(y) = 5.247 + 0.890*z	ln(y) = 3.947 + 0.805*z	**---**
Note:	3	3	**---**	1	1	2

Note 1: All data reported as detected. Bolded values are exact calculations.
Note 2: Statistically different inflow and outflow concentrations based on 95% confidence intervals.
Note 3: Bolded values are exact calculations. Unbolded values are estimated using regression on ordered statistics (ROS).

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Attachment O

Current MCM Implementation based on Unified Annual Stormwater Reports

This attachment includes tables summarizing the existing Minimum Control Measures (MCMs) implemented by the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG), corresponding with **Section 3.3.2** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP).

Attachment O List of Tables

Table O-1 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2010-2011									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
General Permit Requirements									
Prohibit non-stormwater discharges into the MS4 and watercourses	1	Feb-02	NA	NA	NA	I	NA	NA	NA
Comply with Receiving Water Limitations (RWL) requirements	2	Feb-02	NA	NA	NA	I	NA	NA	I
Implement the Stormwater Quality Management Plan (SQMP)	3.A.1	Feb-02	NA	NA	NA	I	NA	NA	NA
Revise the SQMP	3.A.4	Aug-02	NA	NA	NA	NA	NA	NA	NA
Implement the most effective combination of BMPs for storm water/ urban runoff pollution	3.B	Feb-02	NA	NA	NA	D	NA	NA	I
Prepare and submit Annual Budget Summary as part of the annual report to the RWQCB	3.E.5	Oct-02	NA	NA	NA	NA	NA	NA	NA
Conduct quarterly watershed management committee meetings	3.F.3.g	Mar-02	NA	NA	NA	NA	NA	NA	I
Amend and adopt county ordinance to enforce all requirements of the permit, if needed	3.G.3	Nov-02	NA	NA	NA	**	NA	NA	NA
Submit to RWQCB a legal statement demonstrating the necessary legal authority	3.G.4	Dec-02	NA	NA	NA	NA	NA	NA	NA
Prepare and submit to the RQWCB individual annual reports	1.B	Aug-02	NA	NA	NA	NA	NA	NA	NA
Special Provisions									
Public Information and Participation - Permit Requirements									
Implement public information and participation program	4.B	Feb-02	I	NA	NA	I	NA	NA	I
Convene an Advisory Committee	4.B	ASAP	NA	NA	NA	I	NA	NA	NA
Mark all storm drain inlets with a "no dumping" message	4.B.1.a	Feb-04	NA	NA	NA	NA	NA	NA	NA
Maintain the (888) CLEAN-LA hotline	4.B.1.b	Feb-02	NA	NA	NA	I	NA	NA	I
Provide a list of reporting contacts to public through www.888CleanLA.com	4.B.1.b	Mar-02	NA	NA	NA	NA	NA	NA	NA
Media campaign for Storm Water Pollution Prevention (SPP)	4.B.1.c.1	Feb-02	NA	NA	NA	NA	NA	NA	I
Strategy to educate ethnic communities about SPP	4.B.1.c.2	Feb-03	NA	NA	NA	NA	NA	NA	I
Enhance outreach for proper disposal of cigarette butts	4.B.1.c.3	Feb-02	NA	NA	NA	NA	NA	I	I

Table O-1 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2010-2011

Program Tasks and Milestones	2001 MS4 Permit Part	Due Date	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	Los Angeles County[1]
Conduct educational activities within jurisdiction and participate in county-wide events	4.B.1.c.4	Feb-02	NA	NA	NA	NA	NA	NA	I
Organize Public Outreach Strategy meetings quarterly	4.B.1.c.5	May-02	NA	NA	NA	NA	NA	NA	I
Conduct Media Outreach to 35 million impressions per year	4.B.1.c.6	Annually	NA	NA	NA	NA	NA	NA	I
Distribute SPP information to K-12 schools	4.B.1.c.7	-	NA	NA	NA	NA	NA	NA	I
Coordinate and provide contact information for public education activities	4.B.1.c.8	Apr-02	NA	NA	NA	NA	NA	NA	NA
Strategy to measure effectiveness of in-school programs	4.B.c.9	May-02	NA	NA	NA	NA	NA	NA	NA
Behavioral change assessment strategy towards SPP	4.B.c.10	May-02	NA	NA	NA	**	NA	NA	NA
Coordinate watershed-specific pollution prevention outreach programs	4.B.1.d	Feb-03	NA	NA	NA	**	NA	NA	I
Corporate Outreach Program to target retail gas outlets and restaurant chains	4.B.2.a	Feb-03	NA	NA	NA	NA	**	NA	NA
Coordinate an SPP program for a Business Assistance Program	4.B.2.b	Optional	I	NA	NA	NA	NA	NA	I
Industrial/Commercial Facilities Control - Permit Requirements									
Maintain a list of industrial/commercial facilities to be inspected	4.C.1	Aug-02	NA	NA		NA	NA	NA	I
Inspect/visit industrial/commercial facilities appropriately	4.C.2	Aug-04	NA	NA		NA	NA	NA	I
Initiate progressive enforcement for facilities failing to implement BMP's	4.C.3	-	NA	NA		NA	I	NA	I
Inspect restaurants twice during Permit cycle	4.C.2	Aug-04	NA	NA		NA	NA	NA	NA
Development Planning - Permit Requirements									
Implement development planning program that requires SUSMP	4.D	Feb-02	NA	NA	NA	I	NA	NA	I
Develop peak flow control criteria	4.D.1	Feb-05	NA	NA	NA	**	NA	NA	NA
Amend codes and ordinances to give legal effect to SUSMP changes in permit	4.D.2.a	Aug-02	NA	NA	NA	NA	NA	NA	NA
Implement revised SUSMP	4.D.2.b	Sep-02	NA	NA	NA	I	NA	NA	I
Submit an Environmentally Sensitive Areas (ESAs) Delineation map to RWQCB	4.D.2.d	Jun-02	NA	NA	NA	I	NA	NA	NA

Table O-1 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2010-2011

Program Tasks and Milestones	2001 MS4 Permit Part	Due Date	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	Los Angeles County[1]
Implement SUSMP requirements for industrial/commercial projects >1 acre	4.D.5	Mar-03	NA	NA	NA	I	NA	NA	I
Update CEQA guidelines to include specific storm water related issues	4.D.11	Feb-02	NA	NA	NA	NA	NA	NA	NA
Update General Plan to include specific storm water related issues	4.D.12	-	NA	NA	NA	NA	NA	D	I
Train targeted employees in permit requirements for Development Planning	4.D.13	Varies	NA	NA	NA	NA	NA	NA	I
Develop and make SUSMP guidelines available to the developer	4.D.14.a	Feb-02	NA	NA	NA	NA	NA	NA	NA
Develop a technical manual for the siting and design of BMPs	4.D.14.b	Feb-04	NA	NA	NA	NA	NA	NA	NA
Development Construction - Permit Requirements									
Implement a development construction program	4.E.1 &2	Feb-02	NA	NA	NA	NA	NA	NA	I
Require proof of a Waste Discharger ID (WDID) number prior to filing Notice of Intent (NOI)	4.E.2.c	Mar-03	NA	NA	NA	NA	NA	NA	I
Require proof of an NOI and a copy of SWPPP for a transfer of ownership	4.E.3	Feb-02	NA	NA	NA	NA	NA	NA	I
Track the number of issued building and grading permits	4.E.3.c	Feb-02	NA	NA	NA	NA	NA	NA	I
Refer General Construction Activities Stormwater Permit (GCASP) violations to RWQCB	4.E.4	Feb-02	NA	NA	NA	D	NA	NA	I
Train targeted employees in permit requirements for Development Construction	4.E.5	Varies	NA	NA	NA	NA	NA	NA	I
Public Agency Activities - Permit Requirements									
Implement a sewer overflow prevention and response program	4.F.1	Aug-02	NA	NA	NA	NA	I	NA	I
Implement Development Planning Program at Permittee-owned construction projects	4.F.2.a	Aug-02	NA	NA	NA	I	I	NA	I
Implement Development Construction Program at Permittee-owned construction projects	4.F.2.b	Feb-02	NA	NA	NA	I	I	NA	I
Develop, if needed, and implement SWPPPs for field facilities	4.F.3	Feb-02	NA	NA	NA	I	I	NA	I
Equip wash areas with a clarifier, pre-treatment device, or be connected to sewer	4.F.3.c	Feb-02	NA	NA	NA	NA	NA	NA	NA
Store pesticides/herbicides/fertilizers indoors and apply only in accordance	4.F.4.c&g	Feb-02	NA	NA	NA	NA	NA	NA	I
Designate Catch Basins as priority A, B, or C	4.F.5.a	Feb-02	NA	NA	NA	NA	NA	NA	NA

Table O-1 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2010-2011									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
Ensure that Catch Basins (CBs) are cleaned appropriately	4.F.5.c.1	Feb-02	NA	NA	NA	NA	NA	NA	I
Place temporary screens on CBs prior to special events or cleanout immediately afterwards	4.F.5.c.2	Feb-02	I	NA	NA	NA	I	NA	I
Place and maintain trash receptacles at all transit stops with shelters	4.F.5.c.3	Feb-02	NA	NA	NA	NA	NA	NA	I
Inspect the legibility of CB stencils and re-label within 180 days if necessary	4.F.5.d	-	I	NA	NA	NA	NA	NA	I
Visually monitor and clean all open channels annually for debris	4.F.5.e.1	Feb-02	I	NA	NA	NA	I	NA	I
Designate curbed streets as priority A, B, or C based on liter accumulation	4.F.6.a.b	Feb-02	NA	NA	NA	NA	I	NA	NA
Recover saw cutting waste and dispose it offsite	4.F.6.c	Feb-02	I	NA	NA	NA	I	NA	I
Train targeted employees in permit requirements for Public Agency Activities	4.F.6.d	Varies	NA	NA	NA	NA	NA	NA	I
Inspect and, if needed, clean Permittee owned parking lots twice per month, but at least once	4.F.7	Feb-02	I	NA	NA	NA	I	NA	I
Conduct a dry weather diversion study and create a priority list of drains for diversion	4.F.10	Jul-03	NA	NA	NA	NA	NA	NA	NA
Illicit Connections / Illicit Discharges - Permit Requirements									
Develop an Implementation Program which specifies how revisions of the IC/ID SQMP are implemented	4.G.1.a	-	I	NA	NA	I	I	NA	C
Create a database for permitted storm drain connections and map IC/ID	4.G.1.b	Feb-03	D	NA	NA	NA	NA	NA	C
Perform IC/ID Trend Analysis	4.G.1.b	Feb-03	NA	NA	NA	**	NA	NA	I
Train targeted employees in the permit requirements for IC/ID	4.G.1.c	Varies	NA	NA	NA	NA	NA	NA	I
Field screen the storm drain system for illicit connections in open channels	4.G.2.a	Feb-03	NA	NA	NA	NA	NA	NA	I
Field screen the storm drain system for illicit connections in underground storm drains in priority areas	4.G.2.a	Feb-05	NA	NA	NA	NA	NA	NA	I
Field screen the storm drain system for illicit connections in underground s/d larger than 36 inch diameter	4.G.2.a	Dec-06	NA	NA	NA	NA	NA	NA	I
Review all permitted connections to the storm drain system for compliance	4.G.2.a	Dec-06	NA	NA	NA	NA	NA	NA	I
Investigate illicit connections 21 days after discovery	4.G.2.b	-	I	NA	NA	I	NA	NA	I

Table O-1 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2010-2011									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
Terminate illicit connections 180 days after confirmation	4.G.2.b	-	I	NA	NA	I	NA	NA	I
Respond to illicit discharges within one business day of discovery	4.G.3.a	-	I	NA	NA	I	I	NA	I
Investigate illicit discharges as soon as practicable	4.G.3.a	-	I	NA	NA	I	I	NA	I

[1] Data is a combination of Los Angeles County and Los Angeles County Flood Control District
** - Not Scheduled
NA - Not Applicable or Completed
D - Developed
I - Program Implemented/Completed

Table O-2 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2011-2012									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
General Permit Requirements									
Prohibit non-stormwater discharges into the MS4 and watercourses	1	Feb-02	NA	NA	NA	NA	NA	NA	NA
Comply with Receiving Water Limitations (RWL) requirements	2	Feb-02	NA	NA	NA	NA	NA	NA	I
Implement the Stormwater Quality Management Plan (SQMP)	3.A.1	Feb-02	I	NA	NA	NA	NA	NA	NA
Revise the SQMP	3.A.4	Aug-02	NA	NA	NA	NA	NA	NA	NA
Implement the most effective combination of BMPs for storm water/ urban runoff pollution	3.B	Feb-02	I	NA	NA	NA	NA	NA	I
Prepare and submit Annual Budget Summary as part of the annual report to the RWQCB	3.E.5	Oct-02	NA	NA	NA	NA	NA	NA	NA
Conduct quarterly watershed management committee meetings	3.F.3.g	Mar-02	NA	NA	NA	NA	NA	NA	I
Amend and adopt county ordinance to enforce all requirements of the permit, if needed	3.G.3	Nov-02	NA	NA	NA	NA	NA	NA	NA
Submit to RWQCB a legal statement demonstrating the necessary legal authority	3.G.4	Dec-02	NA	NA	NA	NA	NA	NA	NA
Prepare and submit to the RQWCB individual annual reports	1.B	Aug-02	NA	NA	NA	NA	NA	NA	NA
Special Provisions									
Public Information and Participation - Permit Requirements									
Implement public information and participation program	4.B	Feb-02	I	NA	NA	I	NA	NA	I
Convene an Advisory Committee	4.B	ASAP	NA	NA	NA	I	NA	NA	NA
Mark all storm drain inlets with a "no dumping" message	4.B.1.a	Feb-04	NA	NA	NA	NA	NA	NA	NA
Maintain the (888) CLEAN-LA hotline	4.B.1.b	Feb-02	NA	NA	NA	NA	NA	NA	I
Provide a list of reporting contacts to public through www.888CleanLA.com	4.B.1.b	Mar-02	NA	NA	NA	NA	NA	NA	NA
Media campaign for Storm Water Pollution Prevention (SPP)	4.B.1.c.1	Feb-02	I	NA	NA	NA	NA	I	NA
Strategy to educate ethnic communities about SPP	4.B.1.c.2	Feb-03	NA	NA	NA	NA	NA	I	NA
Enhance outreach for proper disposal of cigarette butts	4.B.1.c.3	Feb-02	NA	NA	NA	NA	NA	NA	I

Table O-2 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2011-2012									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
Conduct educational activities within jurisdiction and participate in county-wide events	4.B.1.c.4	Feb-02	NA	NA	NA	NA	NA	I	I
Organize Public Outreach Strategy meetings quarterly	4.B.1.c.5	May-02	NA	NA	NA	NA	NA	I	NA
Conduct Media Outreach to 35 million impressions per year	4.B.1.c.6	Annually	NA	NA	NA	NA	NA	D	NA
Distribute SPP information to K-12 schools	4.B.1.c.7	-	NA	NA	NA	NA	NA	I	NA
Coordinate and provide contact information for public education activities	4.B.1.c.8	Apr-02	NA	NA	NA	NA	NA	NA	NA
Strategy to measure effectiveness of in-school programs	4.B.c.9	May-02	NA	NA	NA	NA	NA	I	NA
Behavioral change assessment strategy towards SPP	4.B.c.10	May-02	NA	NA	NA	NA	NA	I	NA
Coordinate watershed-specific pollution prevention outreach programs	4.B.1.d	Feb-03	NA	NA	NA	NA	NA	I	I
Corporate Outreach Program to target retail gas outlets and restaurant chains	4.B.2.a	Feb-03	NA	NA	NA	NA	**	I	NA
Coordinate an SPP program for a Business Assistance Program	4.B.2.b	Optional	I	NA	NA	**	NA	I	NA
Industrial/Commercial Facilities Control - Permit Requirements									
Maintain a list of industrial/commercial facilities to be inspected	4.C.1	Aug-02	NA	NA	NA	NA	NA	I	I
Inspect/visit industrial/commercial facilities appropriately	4.C.2	Aug-04	NA	NA	NA	NA	NA	I	I
Initiate progressive enforcement for facilities failing to implement BMP's	4.C.3	-	NA	NA	NA	NA	I	I	I
Inspect restaurants twice during Permit cycle	4.C.2	Aug-04	NA	NA	NA	NA	NA	NA	NA
Development Planning - Permit Requirements									
Implement development planning program that requires SUSMP	4.D	Feb-02	I	NA	NA	I	NA	I	I
Develop peak flow control criteria	4.D.1	Feb-05	NA	NA	NA	NA	NA	I	NA
Amend codes and ordinances to give legal effect to SUSMP changes in permit	4.D.2.a	Aug-02	NA	NA	NA	NA	NA	I	NA
Implement revised SUSMP	4.D.2.b	Sep-02	I	NA	NA	NA	NA	I	I
Submit an Environmentally Sensitive Areas (ESAs) Delineation map to RWQCB	4.D.2.d	Jun-02	NA	NA	NA	NA	NA	NA	NA

Table O-2 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2011-2012

Program Tasks and Milestones	2001 MS4 Permit Part	Due Date	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	Los Angeles County[1]
Implement SUSMP requirements for industrial/commercial projects >1 acre	4.D.5	Mar-03	I	NA	NA	NA	NA	I	I
Update CEQA guidelines to include specific storm water related issues	4.D.11	Feb-02	NA	NA	NA	NA	NA	NA	NA
Update General Plan to include specific storm water related issues	4.D.12	-	NA	NA	NA	NA	NA	NA	I
Train targeted employees in permit requirements for Development Planning	4.D.13	Varies	NA	NA	NA	NA	NA	I	I
Develop and make SUSMP guidelines available to the developer	4.D.14.a	Feb-02	NA	NA	NA	NA	NA	I	NA
Develop a technical manual for the siting and design of BMPs	4.D.14.b	Feb-04	NA	NA	NA	NA	NA	NA	NA
Development Construction - Permit Requirements									
Implement a development construction program	4.E.1 &2	Feb-02	I	NA	NA	I	NA	I	I
Require proof of a Waste Discharger ID (WDID) number prior to filing Notice of Intent (NOI)	4.E.2.c	Mar-03	I	NA	NA	NA	NA	I	I
Require proof of an NOI and a copy of SWPPP for a transfer of ownership	4.E.3	Feb-02	I	NA	NA	NA	NA	I	I
Track the number of issued building and grading permits	4.E.3.c	Feb-02	I	NA	NA	NA	NA	I	I
Refer General Construction Activities Stormwater Permit (GCASP) violations to RWQCB	4.E.4	Feb-02	NA	NA	NA	NA	NA	I	I
Train targeted employees in permit requirements for Development Construction	4.E.5	Varies	NA	NA	NA	NA	NA	I	I
Public Agency Activities - Permit Requirements									
Implement a sewer overflow prevention and response program	4.F.1	Aug-02	I	NA	NA	I	I	I	I
Implement Development Planning Program at Permittee-owned construction projects	4.F.2.a	Aug-02	I	NA	NA	I	I	I	I
Implement Development Construction Program at Permittee-owned construction projects	4.F.2.b	Feb-02	I	NA	NA	I	I	I	I
Develop, if needed, and implement SWPPPs for field facilities	4.F.3	Feb-02	I	NA	NA	I	I	I	I
Equip wash areas with a clarifier, pre-treatment device, or be connected to sewer	4.F.3.c	Feb-02	NA	NA	NA	NA	NA	NA	NA
Store pesticides/herbicides/fertilizers indoors and apply only in accordance	4.F.4.c&g	Feb-02	I	NA	NA	NA	NA	I	I
Designate Catch Basins as priority A, B, or C	4.F.5.a	Feb-02	NA	NA	NA	NA	NA	NA	NA

Table O-2 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2011-2012									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
Ensure that Catch Basins (CBs) are cleaned appropriately	4.F.5.c.1	Feb-02	NA	NA	NA	NA	NA	I	I
Place temporary screens on CBs prior to special events or cleanout immediately afterwards	4.F.5.c.2	Feb-02	I	NA	NA	NA	I	I	I
Place and maintain trash receptacles at all transit stops with shelters	4.F.5.c.3	Feb-02	I	NA	NA	NA	NA	I	I
Inspect the legibility of CB stencils and re-label within 180 days if necessary	4.F.5.d	-	I	NA	NA	NA	NA	I	I
Visually monitor and clean all open channels annually for debris	4.F.5.e.1	Feb-02	NA	NA	NA	NA	I	I	I
Designate curbed streets as priority A, B, or C based on liter accumulation	4.F.6.a.b	Feb-02	NA	NA	NA	NA	I	NA	NA
Recover saw cutting waste and dispose it offsite	4.F.6.c	Feb-02	I	NA	NA	NA	I	I	I
Train targeted employees in permit requirements for Public Agency Activities	4.F.6.d	Varies	NA	NA	NA	NA	NA	I	I
Inspect and, if needed, clean Permittee owned parking lots twice per month, but at least once	4.F.7	Feb-02	NA	NA	NA	NA	I	I	I
Conduct a dry weather diversion study and create a priority list of drains for diversion	4.F.10	Jul-03	**	NA	NA	NA	NA	NA	NA
Illicit Connections / Illicit Discharges - Permit Requirements									
Develop an Implementation Program which specifies how revisions of the IC/ID SQMP are implemented	4.G.1.a	-	I	NA	NA	I	I	NA	NA
Create a database for permitted storm drain connections and map IC/ID	4.G.1.b	Feb-03	D	NA	NA	NA	NA	I	NA
Perform IC/ID Trend Analysis	4.G.1.b	Feb-03	NA	NA	NA	NA	NA	I	I
Train targeted employees in the permit requirements for IC/ID	4.G.1.c	Varies	NA	NA	NA	I	NA	I	I
Field screen the storm drain system for illicit connections in open channels	4.G.2.a	Feb-03	NA	NA	NA	NA	NA	NA	I
Field screen the storm drain system for illicit connections in underground storm drains in priority areas	4.G.2.a	Feb-05	NA	NA	NA	NA	NA	NA	I
Field screen the storm drain system for illicit connections in underground s/d larger than 36 inch diameter	4.G.2.a	Dec-06	NA	NA	NA	NA	NA	NA	I
Review all permitted connections to the storm drain system for compliance	4.G.2.a	Dec-06	NA	NA	NA	NA	NA	NA	I
Investigate illicit connections 21 days after discovery	4.G.2.b	-	I	NA	NA	NA	NA	I	I

Table O-2 RH/SGRWQG Existing Minimum Control Measures Reported during Permit Year 2011-2012									
Program Tasks and Milestones	**2001 MS4 Permit Part**	**Due Date**	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**Los Angeles County[1]**
Terminate illicit connections 180 days after confirmation	4.G.2.b	-	I	NA	NA	NA	NA	I	I
Respond to illicit discharges within one business day of discovery	4.G.3.a	-	I	NA	NA	NA	I	I	I
Investigate illicit discharges as soon as practicable	4.G.3.a	-	I	NA	NA	NA	I	I	I

[1] Data is a combination of Los Angeles County and Los Angeles County Flood Control District
** - Not Scheduled
NA - Not Applicable or Completed
D - Developed
I - Program Implemented/Completed

Attachment P

MCM Implementation and Requirements

The tables presented in this attachment identify the existing and planned Minimum Control Measure (MCM) implementation following the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP) approval. Additionally, this attachment includes a comparison of the requirements per the 2001 Municipal Separate Storm Sewer System (MS4) Permit (Order No. 01-182) and the current 2012 MS4 Permit (Order No. R4-2012-0175). This attachment corresponds with **Section 3.1** of the RH/SGRWQG EWMP.

Attachment P List of Tables

The following table summarizes the current MS4 Permit requirements related to MCMs/non-structural Best Management Practices (BMPs) along with the existing and planned implementation by RH/SGRWQG members. The columns populated with "2001 MS4" represent the control measures that were required in the 2001 MS4 Permit and have been implemented based on those requirements. The new MCMs/institutional BMPs that were not required as part of the 2001 MS4 Permit, but are required as part of the current (2012) MS4 Permit, do not need to be implemented until this EWMP has been approved based on Part VI.D.a.b.ii of the MS4 Permit. The columns populated with "EWMP" represent the control measures that will be implemented following the EWMP approval. Columns populated with "X" represent MCMs/institutional BMPs that were implemented prior to the effective date of the 2012 MS4 Permit. In some instances "(County)" is mentioned in response, as the responsibility has been passed to the County.

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs

2012 MS4 Permit Requirement	Arcadia	Azusa	Bradbury	Duarte	Monrovia	Sierra Madre	LA County
D.2 Progressive Enforcement (Applies D.6, D.7, D.8, and D.10)							
Develop and maintain a Progressive Enforcement Policy	EWMP	X	EWMP	EWMP	X	X	EWMP
Conduct follow-up inspection within 4 weeks of date of initial inspection	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
Take progressive enforcement	EWMP	X	EWMP	EWMP	X	X	EWMP
Retain records	EWMP	X	EWMP	EWMP	X	X	EWMP
Refer violations to Regional Board (RB)	EWMP	X	EWMP	EWMP	X	X	EWMP
Investigate complaints from RB	EWMP	X	EWMP	EWMP	X	X	EWMP
Assist RB with Enforcement Actions	EWMP	X	EWMP	EWMP	X	X	EWMP
D.5 Public Information and Participation Program (PIPP)							
Participate in a Countywide PIPP, WMP PIPP, or individual PIPP that measurably increases knowledge and changes behavior, and involves a diversity of socio economic and ethnic communities	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Use effective strategies to educate and involve ethnic communities in SPP through culturally effective methods	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Maintain reporting hotline	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Publish hotline info on web, telephone book	EWMP	X	EWMP	EWMP	X	EWMP	EWMP
ID staff/department that serve as the contact (publish this info)	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Organize events (e.g., clean ups)	EWMP	X	EWMP	EWMP	X[1,2]	X	EWMP
Residential Outreach (individually or with group):	EWMP	X	EWMP	EWMP	X	X	EWMP
➢ Public Service Announcements	X[3]	X	EWMP	EWMP	X[3]	X[3]	EWMP
➢ (Develop) Public education materials on: vehicle fluids; household waste; construction waste; pesticides, fertilizers, and integrated pest management (IPM); green wastes; and animal wastes	EWMP	X	EWMP	EWMP	X[2]	X[2]	EWMP
➢ Distribute public education materials at points of purchase	EWMP	X	EWMP	EWMP	EWMP	EWMP	EWMP
➢ Maintain stormwater website	EWMP	X	EWMP	EWMP	X[2]	X[2]	EWMP
➢ Provide schools with materials to educate children (K-12); can use state produced materials	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
D.6 Industrial/Commercial							
Track Critical Sources - maintain inventory (watershed based or latitude/longitude recorded)	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Educate - notify critical sources of BMP requirements	EWMP	X	EWMP	EWMP	1st round complete[4]	EWMP[2]	EWMP
Implement a Business Assistance Program for select sectors or small businesses - technical assistance, and distribute materials to specific sectors	EWMP	X	EWMP	EWMP	EWMP	N/A	EWMP
Inspect Commercial Sources	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Inspect Industrial Sources - initial mandatory inspection	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
➢ Secondary mandatory inspection	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
➢ No Exposure - evaluate and conduct 2nd inspection at 25% of facilities	EWMP	X	EWMP	EWMP	EWMP	EWMP	EWMP
As needed conduct Progressive Enforcement follow-up inspections (see D.2)	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
D.7 Planning and Land Development							
Update ordinance/design standards to conform with new requirements (LID and Hydromod)	X	X	EWMP	X	X	X	EWMP
Optional: Establish alternative compliance for technical infeasibility, e.g., allow onsite biofiltration or offsite infiltration or GW replenishment or retrofit		EWMP		EWMP	X	X	
Optional if allowing offsite mitigation: Develop a prioritized list of offsite mitigation projects		EWMP		EWMP		EWMP	
Optional if allowing offsite mitigation: Develop a schedule for completion of offsite projects (must be with 4 years of the Certificate of Occupancy of the first project that contributed funds)		EWMP		EWMP		EWMP	
Optional if allowing offsite mitigation: Notice offsite projects to RB website		EWMP		EWMP		EWMP	
Optional if allowing offsite mitigation: List of mitigation projects descriptions and estimated pollutant and flow reductions		EWMP		EWMP	X	EWMP	
Optional if allowing offsite mitigation: Provide aggregated comparison of alternative compliance to results that would have been expected with onsite retention of the stormwater quality design volume (SWQDv)		EWMP		EWMP		EWMP	
Optional: Submit documentation that a previously adopted LID ordinance provides equivalent pollutant loading and flow reduction		EWMP		EWMP		X	
Plan Review process - check LID and BMP sizing, etc.,	EWMP	X	EWMP	X	X	X	EWMP
Establish internal agreements with structure for communication and authority for departments overseeing plan approval and project construction	EWMP	X	EWMP	EWMP	X	X	EWMP
Require O&M plan for LID, treatment, and hydromod BMPs	EWMP	X	EWMP	EWMP	EWMP	X[2]	EWMP

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Implement tracking and enforcement program for LID, treatment and hydromod BMPs	EWMP	X	EWMP	EWMP	EWMP	EWMP	EWMP
Inspect all development sites upon completion and prior to occupancy certificates	EWMP	X	EWMP	X	X	X	EWMP
Verify O&M of BMPs operated by Permittee through inspection	EWMP	X	EWMP	EWMP	X	EWMP	EWMP
Develop maintenance inspection checklist	EWMP	X	EWMP	EWMP	EWMP	EWMP	EWMP
Require private parties that operate BMPs to submit verification of O&M; enforce as needed	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
As needed conduct Progressive Enforcement follow-up inspections (see D.2)	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
D.8 Construction							
Update erosion and sediment control ordinance/procedures to conform with new requirements	EWMP	X	EWMP	X	X[5]	X	EWMP
Sites < 1 acre; inspect based upon water quality threat	EWMP	X	EWMP	X	X	X	EWMP
➢ Establish priority inspection process	EWMP	X	EWMP	EWMP	X	X	EWMP
Site < 1 acre; require sites with soil disturbing activities to implement minimum BMPs	EWMP	X	EWMP	X	X	X	EWMP
Require construction sites to prepare erosion sediment control plan (ESCP); review and approve (≥ 1 acre)	EWMP	X	EWMP	X	X	X	EWMP
Verify construction sites coverage under the CGP and 401 cert	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Develop/implement ESCP review checklist	X	X	EWMP	EWMP	X	X	EWMP
Require construction sites to adhere to standards and make standards readily available	EWMP	X	EWMP	X	X	X	EWMP

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Conduct inspections at public and private sites (at least 1x/2 weeks for high threat sites (more frequently when rain is predicted or occurs; at least monthly for lower threat; also must inspect during all phases of construction - at least 3 times)	EWMP	X	EWMP	X	X	X	EWMP
Develop/implement Standard Operating Procedures (SOPs)/inspection checklist	EWMP	X	EWMP	EWMP	X	X[3]	EWMP
Track number of inspections for inventoried sites and verify minimum inspections are completed	EWMP	X	EWMP	EWMP	X	X	EWMP
As needed conduct Progressive Enforcement follow-up inspections (see D.2)	EWMP	X	EWMP	X	X	X	EWMP
Train plan review staff and inspectors	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
➢ Staff must be knowledgeable in QSD/P key objectives, local BMPs standards	EWMP	X	EWMP	EWMP	X	EWMP	EWMP
D.9 Public Agency Activities							
Require public construction sites to implement Planning and Land Development requirements, implement Erosion and Sediment Control BMPs, and obtain Construction General Permit coverage	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Maintain inventory of Permittee owned facilities (including parks and recreation facilities)	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
Update inventory	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
Develop retrofit opportunity inventory; evaluate and rank	EWMP	EWMP	EWMP	EWMP	EWMP	X	EWMP
"Cooperate with private land owners to encourage site specific retrofitting"; includes pilot projects and outreach	EWMP	EWMP	EWMP	EWMP	EWMP	EWMP	EWMP
Obtain IGP coverage for public facilities where appropriate	EWMP	EWMP	EWMP	EWMP	EWMP	X	EWMP

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Develop procedures to assess impact of flood management projects on water quality of receiving waters; evaluate to determine if retrofitting is feasible	EWMP	EWMP	EWMP	EWMP	EWMP	Evaluating	EWMP
Evaluate existing structural flood control facilities to determine if retrofitting facility to provide additional pollutant removal is feasible	EWMP	EWMP	EWMP	EWMP	EWMP	Evaluating	EWMP
Implement source control BMPs at Permittee owned facilities/activities	EWMP	X	EWMP	EWMP	EWMP	X	EWMP
Require city-hired contractors to implement source control BMPs	EWMP	X	EWMP	X	EWMP	X	EWMP
Prevent vehicle/equipment washing discharges to the MS4, including firefighting and emergency response vehicles	EWMP	X	EWMP	X	X	X	EWMP
Ensure new/redeveloped/replaced wash facilities are plumbed to the sanitary sewer or self-contained.	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Implement IPM program	EWMP	EWMP	EWMP	EWMP	EWMP	X	EWMP
Ordinances, policies, and procedures reflect IPM techniques and include commitments and schedules to reduce the use of pesticides that cause impairments	EWMP	EWMP	EWMP	EWMP	EWMP	X	EWMP
Annually update in inventory of pesticides used by agency; quantify pesticides used by staff and contractors; demonstrate IPM alternatives to reduce pesticide use	EWMP	EWMP	EWMP	EWMP	EWMP	EWMP	EWMP
Use SOPs for pesticide application	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Ensure no application of pesticides or fertilizers when two or more days with a 50% chance of rain is predicted by NOAA; within 48 hours of 1/2-inch of rain; or when water is flowing off the site	EWMP	EWMP	EWMP	X	EWMP	X	EWMP

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Ensure staff applying pesticides are certified or working under supervision of a certified applicator in the appropriate category	EWMP	EWMP	EWMP	X	EWMP	X	EWMP
Update catch basin map add GPS locations and update priority	EWMP	X	EWMP	X	EWMP	X[2]	EWMP
Inspect/Clean catch basin in areas not subject to Trash TMDL- Priority A: 3x during wet season, 1x during dry 1x; Priority B: 1x during wet 1x and 1x during dry; Priority C: 1x per year. Maintain records.	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Required trash management at public events	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Place and maintain trash receptacles/capture devices at newly identified high trash generating areas	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Label storm drains	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Inspect labels prior to each wet season	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Record and re-label illegible labels within 180 days of inspection	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Post signs at access points to water bodies (open channels, creeks; lakes)	EWMP	EWMP	EWMP	X	X	X	EWMP
In areas not subject to the Trash TMDL, install trash excluders on catch basins or outfalls in areas defined as Priority A, or implement substantially equivalent BMPs	EWMP	EWMP	EWMP	X	X	N/A	EWMP
Inspect and remove trash and debris from open channels and other drainage structures 1x/year before rainy season	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4 (County)	2001 MS4	2001 MS4
Eliminate discharge of contaminants during MS4 maintenance	EWMP	EWMP	EWMP	X	X	X	EWMP
Implement controls to limit infiltration of seepage from sanitary sewers to the storm drains	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Implement routine preventative maintenance for both systems (survey sanitary sewer and MS4). Sanitary sewer overflow (SSO) General WDR may be used to fulfill this requirement.	EWMP	X	EWMP	EWMP	X	X	EWMP
Implement inspection and maintenance program for Permittee owned BMPs	EWMP	X	EWMP	EWMP	EWMP	EWMP	EWMP
Manage residual water in treatment control BMPs removed during maintenance	EWMP	X	EWMP	EWMP	EWMP	EWMP	EWMP
Street sweeping - Priority A: 2x/month; B: 1x/month; C: as needed, not less than 1x/year	X	X	EWMP	X	X[6]	X	EWMP
Implement road construction maintenance BMPs (e.g., restrict paving activity to exclude periods of rain)	EWMP	X	EWMP	X	X	X	EWMP
Inspect and/or clean Permittee owned parking lots 2x/month	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Train employees and contractors on stormwater requirements	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Train employees and contractors on pesticide use	EWMP	EWMP	EWMP	EWMP	EWMP	X[2]	EWMP
D.10 Illicit Connections (IC) and Illicit Discharges (ID) Elimination							
Continue IC/ID program	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Written procedures for conducting investigations and eliminations	EWMP	X	EWMP	EWMP	X	X[2]	EWMP
Initiate investigation within 72 hours from becoming aware of the discharge	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Implement solutions to eliminate discharge; conduct follow-up investigation to verify elimination; follow Progressive Enforcement Plan (see D.2)	EWMP	X	EWMP	EWMP	X	X	EWMP
When discharge originates upstream of jurisdiction, notify the upstream jurisdiction and RB within 30 days	EWMP	X	EWMP	EWMP	EWMP	N/A	EWMP
Initiate investigation within 21 days for illicit connection	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4

Table P-1 Summary of Existing and Planned Implementation of the 2012 MS4 Permit Required MCMs							
2012 MS4 Permit Requirement	**Arcadia**	**Azusa**	**Bradbury**	**Duarte**	**Monrovia**	**Sierra Madre**	**LA County**
Permit or document illicit connection that only discharge stormwater or allowed non-stormwater	EWMP	X	EWMP	EWMP	X	EWMP	EWMP
Eliminate illicit connection within 180 days of investigation	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Facilitate public reporting via hotline	EWMP	X	EWMP	EWMP	X	X	EWMP
Signage adjacent to open channels provide info re: public reporting	EWMP (County)	X	EWMP	EWMP	X	X[2]	EWMP
Document calls and actions associated with hotline	EWMP	X	EWMP	EWMP	X	X	EWMP
Implement procedures on responding to complaints; evaluate and update procedures	EWMP	X	EWMP	EWMP	X	X	EWMP
Implement a spill response plan	EWMP	EWMP	EWMP	EWMP	EWMP	X	EWMP
Train staff and contractors on ID/IC	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4	2001 MS4
Create a list of positions and contractors that require ID/IC training	EWMP	EWMP	EWMP	X	X EWMP[7]	X	EWMP

[1] Have organized community clean ups and disseminated stormwater prevention information at community events and car shows. Will continue to satisfy requirement following EWMP approval.
[2] Additional updates to materials are planned and/or being evaluated.
[3] Monthly newspaper ads are included in Arcadia Weekly, Monrovia Today, and Sierra Madre Weekly.
[4] Notified critical sources of BMP requirements (1st round) and a second round is planned for by June 2017.
[5] Included in new Low Impact Development (LID) ordinance.
[6] Street sweep once a week and sweep alleys and public parking lots once per month.
[7] Annual staff training has been conducted and following EWMP approval the contractors will be identified.

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
D.2 Progressive Enforcement (Applies D.6, D.7, D.8, and D.10)	
Develop and maintain a Progressive Enforcement Policy	
Conduct follow-up inspection within 4 weeks of date of initial inspection	
Take progressive enforcement	
Retain records	
Refer violations to RB	
Investigate complaints from RB	
Assist RB with Enforcement Actions	
D.5 Public Information and Participation Program (PIPP)	
Participate in a Countywide PIPP, WMP PIPP, or individual PIPP that measurably increases knowledge and changes behavior, and involves a diversity of socio economic and ethnic communities	Implement public information and participation program
	Media campaign for Storm Water Pollution Prevention (SPP)
Use effective strategies to educate and involve ethnic communities in SPP through culturally effective methods	Strategy to educate ethnic communities about SPP
	Enhance outreach for proper disposal of cigarette butts
	Conduct educational activities within jurisdiction and participate in county-wide events
	Organize Public Outreach Strategy meetings quarterly
	Conduct Media Outreach to 35 million impressions per year
	Coordinate watershed-specific pollution prevention outreach programs
	Corporate Outreach Program to target retail gas outlets and restaurant chains
Moved to Industrial/Commercial Facilities Program	Coordinate an SPP program for a Business Assistance Program
	Behavioral change assessment strategy towards SPP
Maintain reporting hotline	Maintain the (888) CLEAN-LA hotline
Publish hotline info on web, telephone book	
ID staff/department that serve as the contact (publish this info)	Provide a list of reporting contacts to public through www.888CleanLA.com
	Coordinate and provide contact information for public education activities
Organize events (e.g., clean ups)	
Residential Outreach (Individually or with group):	
➢ Public Service Announcements	

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
➢ (Develop) Public education materials on: vehicle fluids; household waste; construction waste; pesticides, fertilizers, and IPM; green wastes; and animal wastes	
➢ Distribute public education materials at points of purchase	
➢ Maintain stormwater website	
➢ Provide schools with materials to educate children (K-12); can use state produced materials	Distribute SPP information to K-12 schools
	Strategy to measure effectiveness of in-school programs
	Convene an Advisory Committee
Moved to IC/ID Program	Mark all storm drain inlets with a "no dumping" message
D.6 Industrial/Commercial	
Track Critical Sources - maintain inventory (watershed based or lat/long recorded)	Maintain a list of industrial/commercial facilities to be inspected
Educate - notify critical sources of BMP requirements	
Implement a Business Assistance Program for select sectors or small businesses - technical assistance, and distribute materials to specific sectors	
Inspect Commercial Sources	Inspect restaurants twice during Permit cycle
Inspect Industrial Sources - initial mandatory inspection	Inspect/visit industrial/commercial facilities appropriately
➢ Secondary mandatory inspection	
➢ No Exposure - evaluate and conduct 2nd inspection at 25% of facilities	
As needed conduct Progressive Enforcement follow-up inspections (see D.2)	Initiate progressive enforcement for facilities failing to implement BMP's
D.7 Planning and Land Development	
	Implement development planning program that requires SUSMP
	Develop peak flow control criteria
	Amend codes and ordinances to give legal effect to SUSMP changes in permit
	Implement revised SUSMP
	Submit an Environmentally Sensitive Areas (ESAs) Delineation map to RWQCB
	Implement SUSMP requirements for industrial/commercial projects >1 acre
	Update CEQA guidelines to include specific storm water related issues
	Update General Plan to include specific stormwater related issues

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
	Train targeted employees in permit requirements for Development Planning
	Develop and make SUSMP guidelines available to the developer
	Develop a technical manual for the siting and design of BMPs
Update ordinance/design standards to conform with new requirements (LID and Hydromod)	
Optional: Establish alternative compliance for technical infeasibility, e.g., allow onsite biofiltration or offsite infiltration or GW replenishment or retrofit	
Optional if allowing offsite mitigation: Develop a prioritized list of offsite mitigation projects	
Optional if allowing offsite mitigation: Develop a schedule for completion of offsite projects (must be with 4 yrs of the Certificate of Occupancy of the first project that contributed funds)	
Optional if allowing offsite mitigation: Notice offsite projects to RB website	
Optional if allowing offsite mitigation: List of mitigation projects descriptions and estimated pollutant and flow reductions	
Optional if allowing offsite mitigation: Provide aggregated comparison of alternative compliance to results that would have been expected with on site retention of the SWQDv	
Optional: Submit documentation that a previously adopted LID ordinance provides equivalent pollutant loading and flow reduction	
Plan Review process - check LID and BMP sizing, etc.,	
Establish internal agreements with structure for communication and authority for departments overseeing plan approval and project construction	
Require O&M plan for LID, treatment and hydromod BMPs	
Implement tracking and enforcement program for LID, treatment and hydromod BMPs	
Inspect all development sites upon completion and prior to occupancy certificates	
Verify O&M of BMPs operated by Permittee through inspection	
Develop maintenance inspection checklist	
Require private parties that operate BMPs to submit verification of O&M; enforce as needed	
As needed conduct Progressive Enforcement follow-up inspections (see D.2)	

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
D.8 Construction	
	Implement a development construction program
	Require proof of a Waste Discharger ID (WDID) number prior to filing Notice of Intent (NOI)
	Require proof of an NOI and a copy of SWPPP for a transfer of ownership
	Track the number of issued building and grading permits
Update erosion and sediment control ordinance/procedures to conform with new requirements	
Sites < 1 acre; inspect based upon water quality threat	
➢ Establish priority inspection process	
Site < 1 acre; Require sites with soil disturbing activities to implement minimum BMPs	
Require construction sites to prepare ESCP; review and approve (≥ 1 acre)	
Verify construction sites coverage under the CGP and 401 cert	Refer General Construction Activities Stormwater Permit (GCASP) violations to RWQCB
Develop/implement ESCP review checklist	
Require construction sites to adhere to standards and make standards readily available	
Conduct inspections at public and private sites (at least 1x/2 weeks for high threat sites (more frequently when rain is predicted or occurs; at least monthly for lower threat; also must inspect during all phases of construction - at least 3 times)	
Develop/implement SOPs/inspection checklist	
Track number of inspections for inventoried sites and verify minimum inspections are completed	
As needed conduct Progressive Enforcement follow-up inspections (see D.2)	
Train plan review staff and inspectors	Train targeted employees in permit requirements for Development Construction
➢ Staff must be knowledgeable in QSD/P key objectives, local BMPs standards	
D.9 Public Agency Activities	
Require public construction sites to implement Planning and Land Development requirements, implement Erosion and Sediment Control BMPs, and obtain Construction General Permit coverage	Implement Development Planning Program at Permittee-owned construction projects
	Implement Development Construction Program at Permittee-owned construction projects
	Develop, if needed, and implement SWPPPs for field facilities

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
Maintain inventory of Permittee owned facilities (including parks and recreation facilities)	
Update inventory	
Develop retrofit opportunity inventory; evaluate and rank	
"Cooperate with private land owners to encourage site specific retrofitting"; includes pilot projects and outreach	
Obtain IGP coverage for public facilities where appropriate	
Develop procedures to assess impact of flood mgt projects on water quality of receiving waters; evaluate to determine if retrofitting is feasible	
Evaluate existing structural flood control facilities to determine if retrofitting facility to provide additional pollutant removal is feasible	
Implement source control BMPs at Permittee owned facilities/activities	
Require city-hired contractors to implement source control BMPs	
Prevent vehicle/equipment washing discharges to the MS4, including fire fighting and emergency response vehicles	
Ensure new/redeveloped/replaced wash facilities are plumbed to the sanitary sewer or self contained.	Equip wash areas with a clarifier, pre-treatment device, or be connected to sewer
Implement IPM program	
Ordinances, policies, and procedures reflect IPM techniques and include commitments and schedules to reduce the use of pesticides that cause impairments	
Annually update in inventory of pesticides used by agency; quantify pesticides used by staff and contractors; demonstrate IPM alternatives to reduce pesticide use	
Use SOPs for pesticide application	Store pesticides/herbicides/fertilizers indoors and apply only in accordance with label directions
Ensure no application of pesticides or fertilizers when two or more days with a 50% chance of rain is predicted by NOAA; within 48 hrs of 1/2-inch of rain; or when water is flowing off the site	
Ensure staff applying pesticides are certified or working under supervision of a certified applicator in the appropriate category	
Update catch basin map add GPS locations and update priority	

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
Inspect/Clean catch basin in areas not subject to Trash TMDL- Priority A: 3x during wet season, 1x during dry 1x; PriorityB:1x during wet 1x and 1x during dry; Priority C: 1x per yr. Maintain records.	Designate Catch Basins as priority A, B, or C
Required trash management at public events	Ensure that Catch Basins (CBs) are cleaned appropriately
Place and maintain trash receptacles/capture devices at newly identified high trash generating areas	Place temporary screens on CBs prior to special events or cleanout immediately afterwards
	Place and maintain trash receptacles at all transit stops with shelters
	Designate curbed streets as priority A, B, or C based on liter accumulation
Label storm drains	(Required under PIPP in 2001)
Inspect labels prior to each wet season	Inspect the legibility of CB stencils and re-label within 180 days if necessary
Record and re-label illegible labels within 180 days of inspection	
Post signs at access points to water bodies (open channels, creeks; lakes)	
In areas not subject to the Trash TMDL, install trash excluders on catch basins or outfalls in areas defined as Priority A, or implement substantially equivalent BMPs	
Inspect and Remove trash and debris from open channels and other drainage structures 1x/yr before rainy season.	Visually monitor and clean all open channels annually for debris
Eliminate discharge of contaminants during MS4 maintenance	
Implement controls to limit infiltration of seepage from sanitary sewers to the storm drains	Implement a sewer overflow prevention and response program
Implement routine preventative maintenance for both systems, survey sanitary sewer and MS4. May use sanitary sewer overflow (SSO) General WDR to fulfill this requirement	
Implement inspection and maintenance program for Permittee owned BMPs	
Manage residual water in treatment control BMPs removed during maintenance	
Street sweeping - Priority A: 2x/mo; B: 1x/mo; C: as needed, not less than 1x/yr	
Implement road construction maintenance BMPs (e.g., restrict paving activity to exclude periods of rain)	
Inspect and/or clean Permittee owned parking lots 2x/mo	Inspect and, if needed, clean Permittee owned parking lots twice per month, but at least once
Train employees and contractors on stormwater requirements	Train targeted employees in permit requirements for Public Agency Activities

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
Train employees and contractors on pesticide use	
	Recover saw cutting waste and dispose it offsite
	Conduct a dry weather diversion study and create a priority list of drains for diversion
D.10 Illicit Connections (IC) and Illicit Discharges (ID) Elimination	
Continue IC/ID program	Develop an Implementation Program which specifies how revisions of the IC/ID SQMP are implemented
	Create a database for permitted storm drain connections and map IC/ID
	Field screen the storm drain system for illicit connections in open channels
	Field screen the storm drain system for illicit connections in underground storm drains in priority areas
	Field screen the storm drain system for illicit connections in underground s/d larger than 36 inch diameter
	Review all permitted connections to the storm drain system for compliance
Written procedures for conducting investigations and eliminations	
Initiate investigation within 72 hours from becoming aware of the discharge	Respond to illicit discharges within one business day of discovery
	Investigate illicit discharges as soon as practicable
Implement solutions to eliminate discharge; conduct follow-up investigation to verify elimination; follow Progressive Enforcement Plan (see D.2)	
When discharge originates upstream of jurisdiction, notify the upstream jurisdiction and Regional Board within 30 days	
Initiate investigation within 21 days for illicit connection	Investigate illicit connections 21 days after discovery
Permit or document illicit connection that only discharge stormwater or allowed non-stormwater	
Eliminate illicit connection within 180 days of investigation	Terminate illicit connections 180 days after confirmation
Facilitate public reporting via hotline	
Signage adjacent to open channels provide info re: public reporting	
Document calls and actions associated with hotline	
Implement procedures on responding to complaints; evaluate and update procedures	
Implement a spill response plan	
Train staff and contractors on ID/IC	Train targeted employees in the permit requirements for IC/ID

Table P-2 Comparison of 2001 MS4 Permit MCMs to 2012 MS4 Permit MCMs	
2012 MS4 Permit Requirement	**2001 MS4 Permit Requirement**
Create a list of positions and contractors that require ID/IC training	
	Perform IC/ID Trend Analysis

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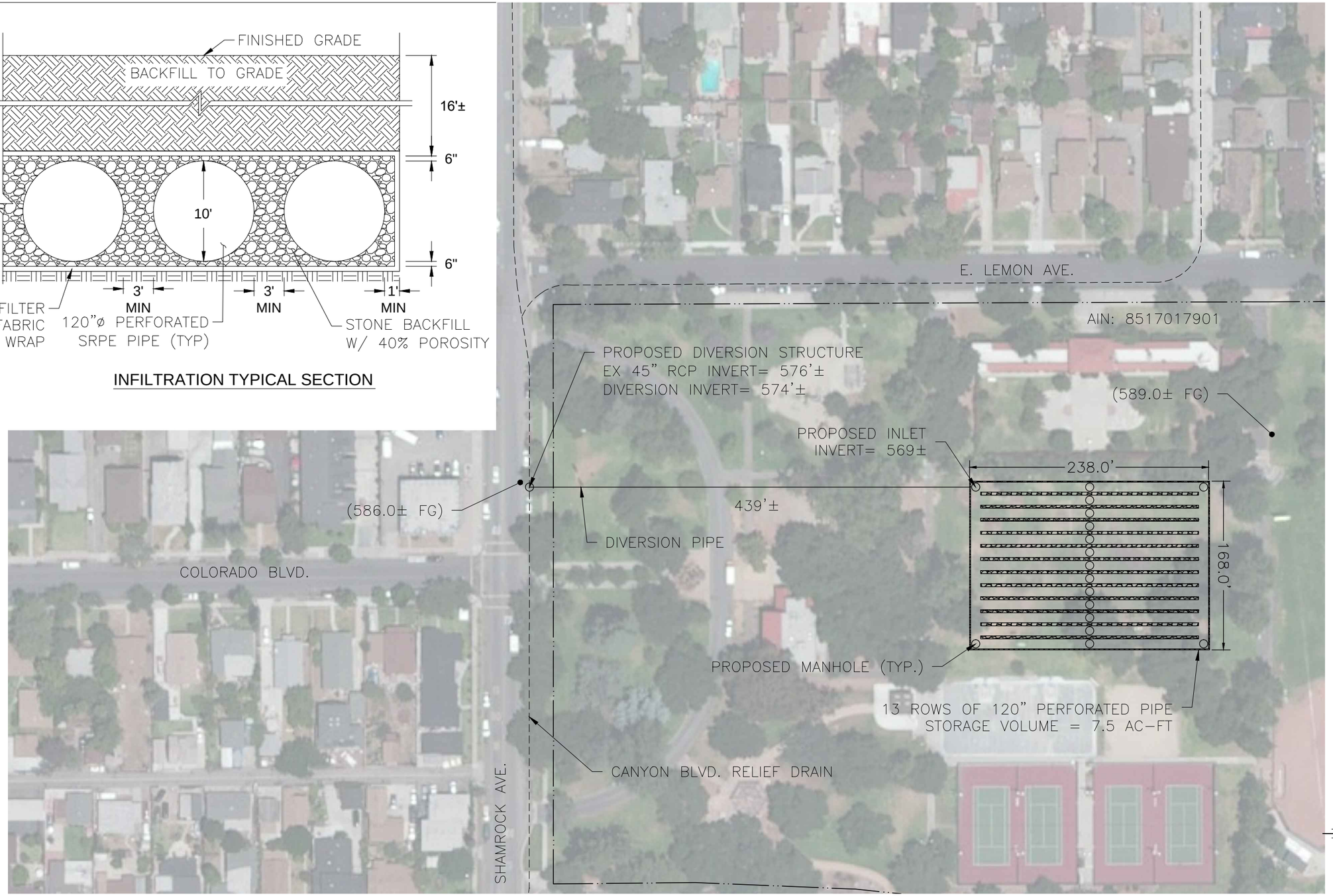
Attachment Q

Regional Project Concepts

This attachment includes concept drawings for the regional Best Management Practices (BMPs) proposed in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP), as discussed in **Section 3.4.2**. Concept drawings are included for the following:

- Los Angeles River (LAR) Watershed
  - Recreation Park
  - Arboretum of Los Angeles County (LAC)
  - Sierra Vista Park
  - Royal Oaks Trail (LAR)
  - L. Garcia Park
  - Eisenhower Park
- San Gabriel River (SGR) Watershed
  - Los Angeles Department of Water and Power (LADWP) Easement
  - Encanto Park
  - Memorial Park (Azusa)
  - Royal Oaks Trail (SGR)

INFILTRATION TYPICAL SECTION



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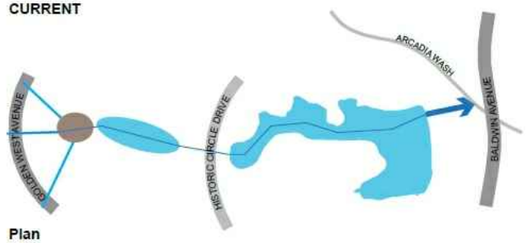
PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
RECREATION PARK

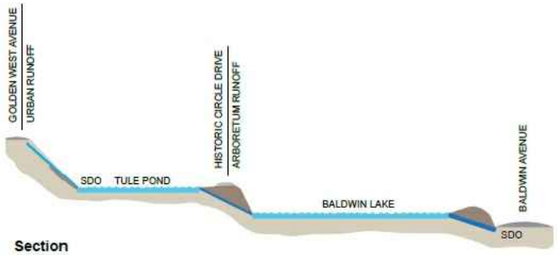
PROJECT NO.
13035

SHEET 1 OF 1

CURRENT

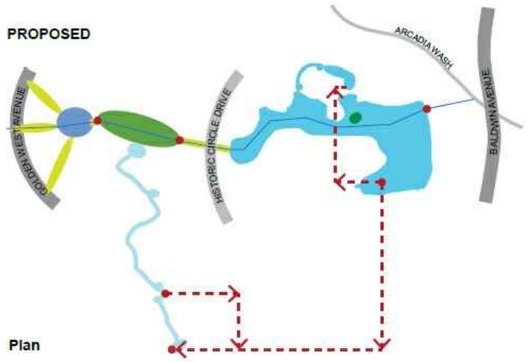


Plan



Section

PROPOSED



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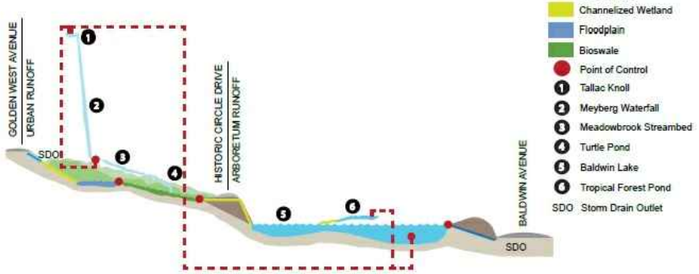

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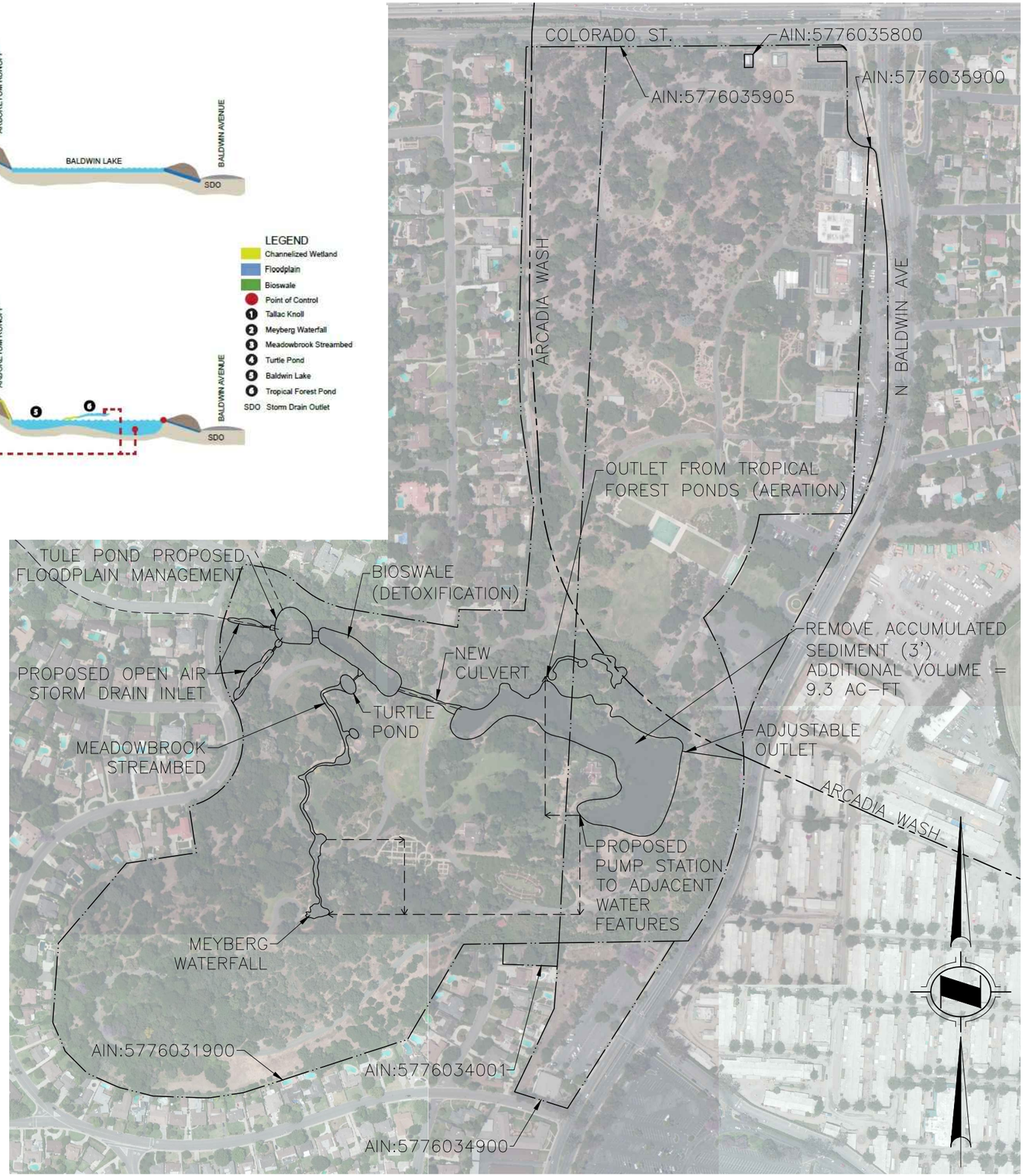

NOTE:
Concept from Baldwin Lake Planning Study for the Los Angeles County Arboretum and Botanic Garden (2012)

400' 200' 0' 400' 800'

SCALE: 1" = 400'

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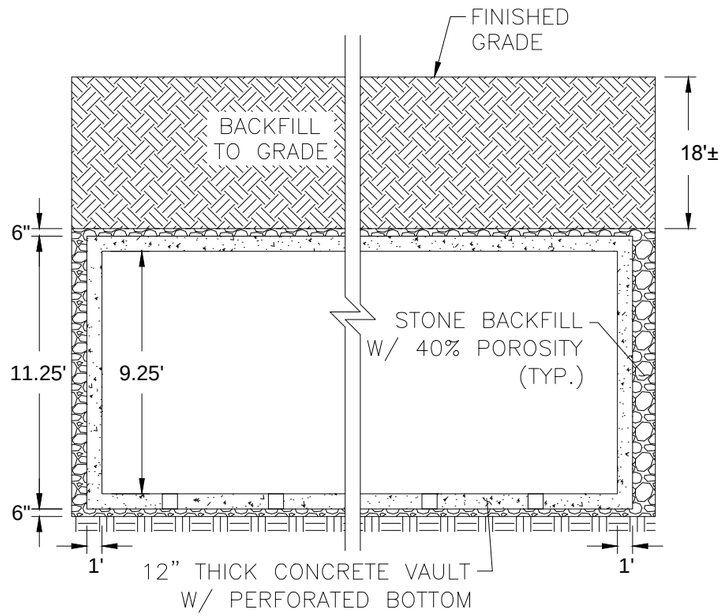
PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
ARBORETUM OF LAC

PROJECT NO.
13035

SHEET 1 OF 1

PROJECT NO. 13035	PROJECT TITLE RIO HONDO/SAN GABRIEL RIVER WATERSHED MANAGEMENT GROUP EWMP PRELIMINARY DESIGN CONCEPTS	PREPARED BY: CWE 1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com
SHEET 1 OF 1	SHEET TITLE SIERRA VISTA PARK	



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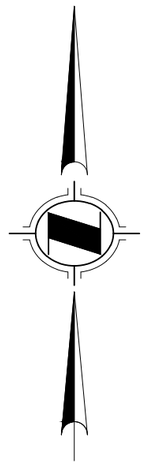

200' 100' 0' 200' 400'

SCALE: 1" = 200'

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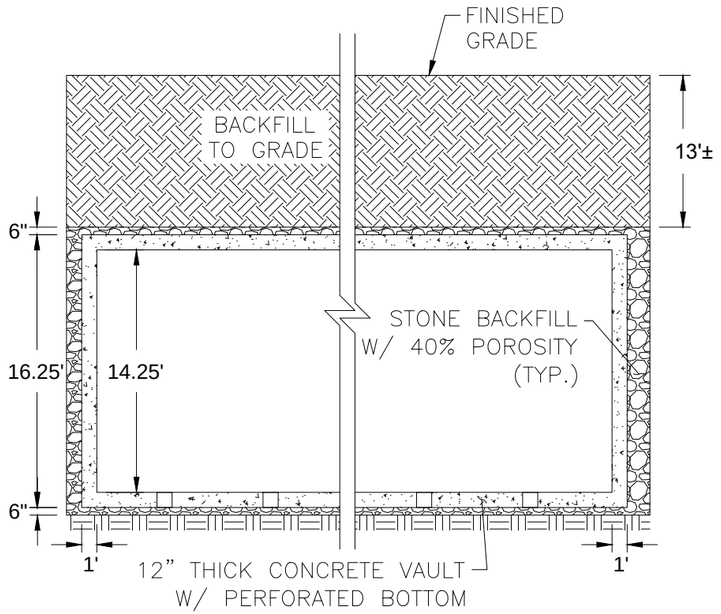
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
ROYAL OAKS TRAIL (LAR)

PROJECT NO.
13035

SHEET 1 OF 1



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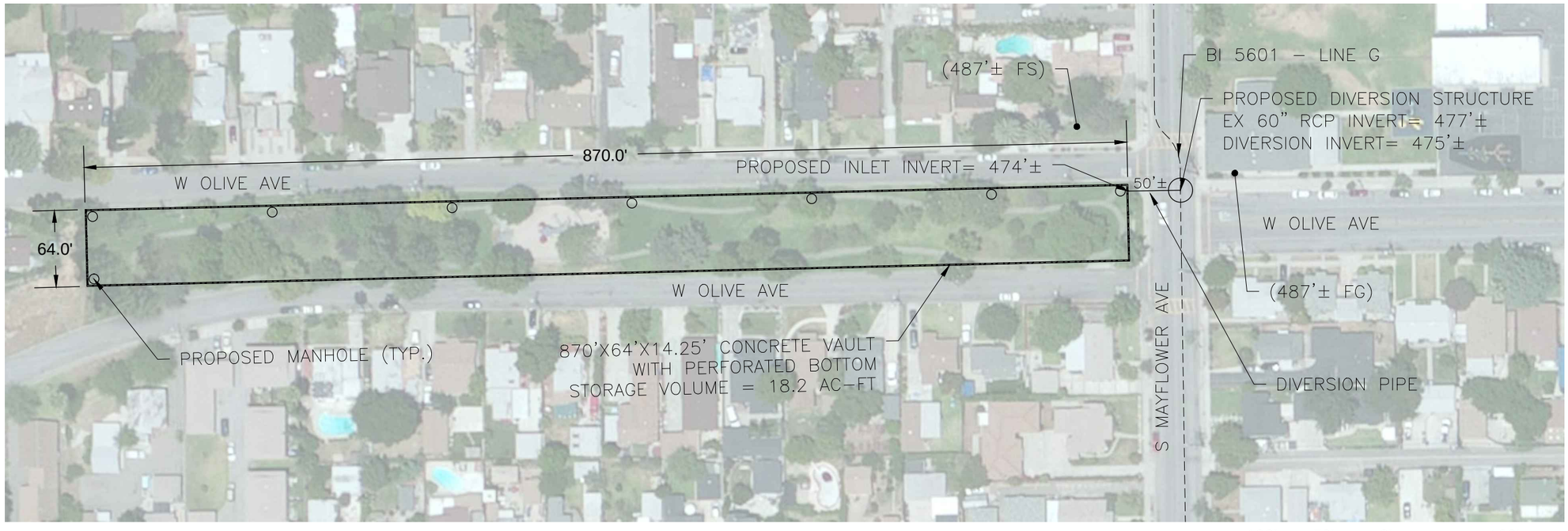

SCALE: 1" = 100'

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PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
L. GARCIA PARK

PROJECT NO.
13035

SHEET 1 OF 1

INFILTRATION TYPICAL SECTION

SCALE: 1" = 100'

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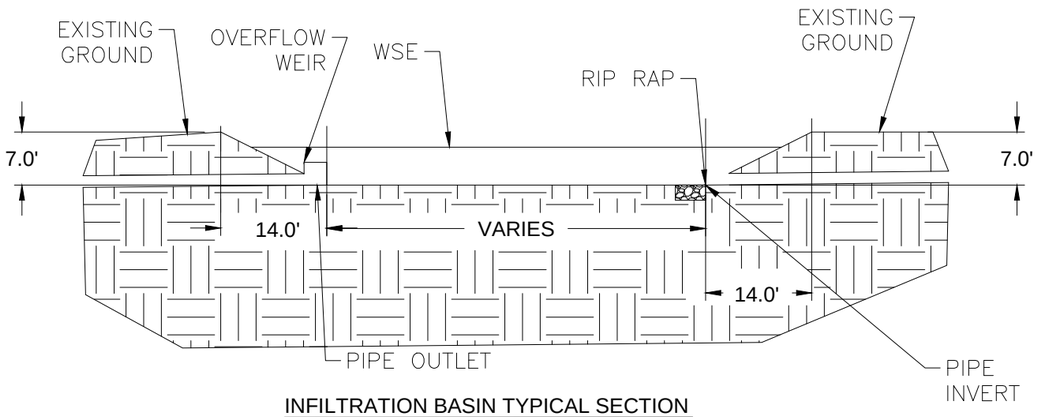
PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

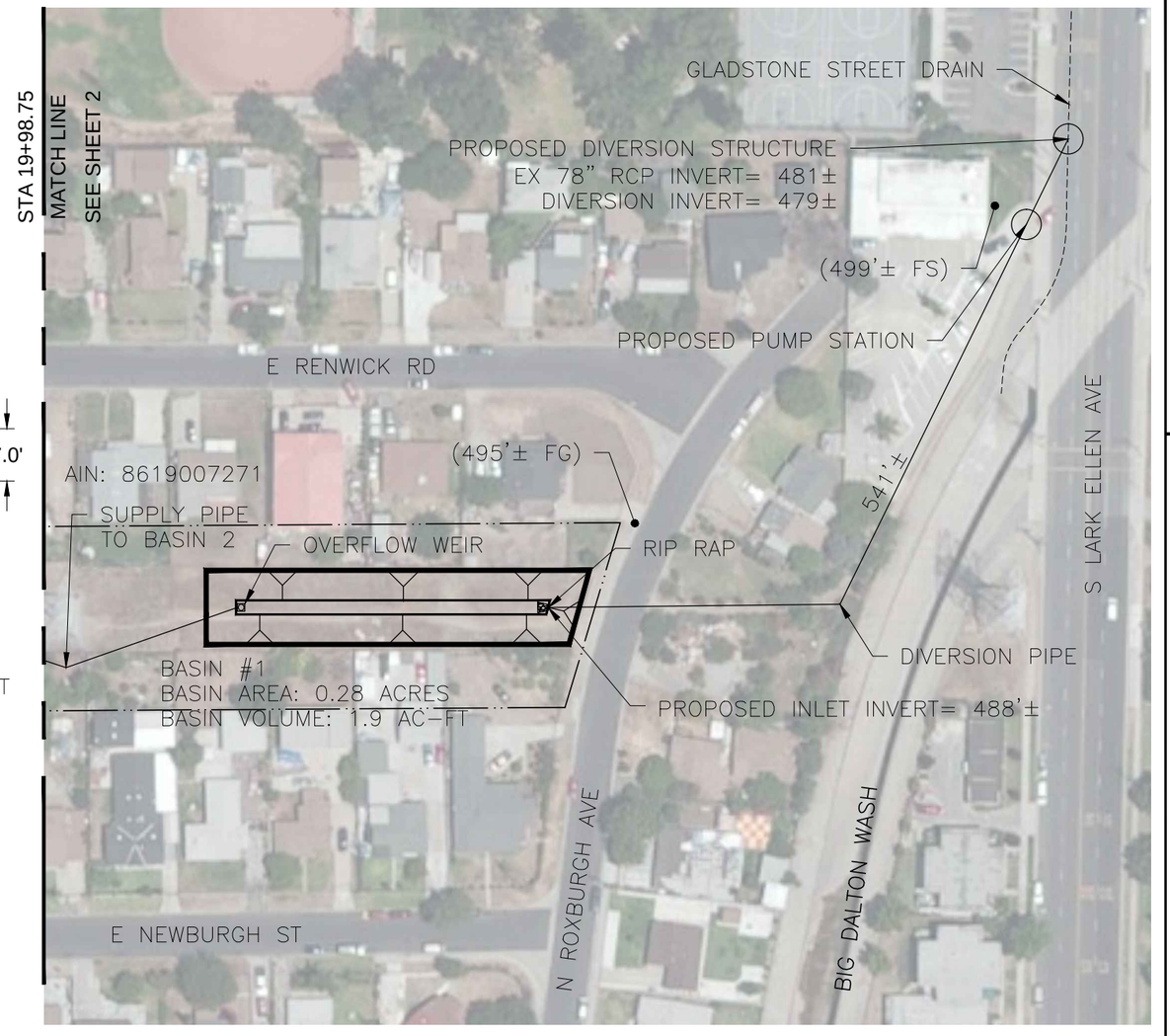
SHEET TITLE
EISENHOWER PARK

PROJECT NO.
13035

SHEET 1 OF 1



INFILTRATION BASIN TYPICAL SECTION
SCALE: 1"=20'



100' 50' 0' 100' 200'

SCALE: 1" = 100'

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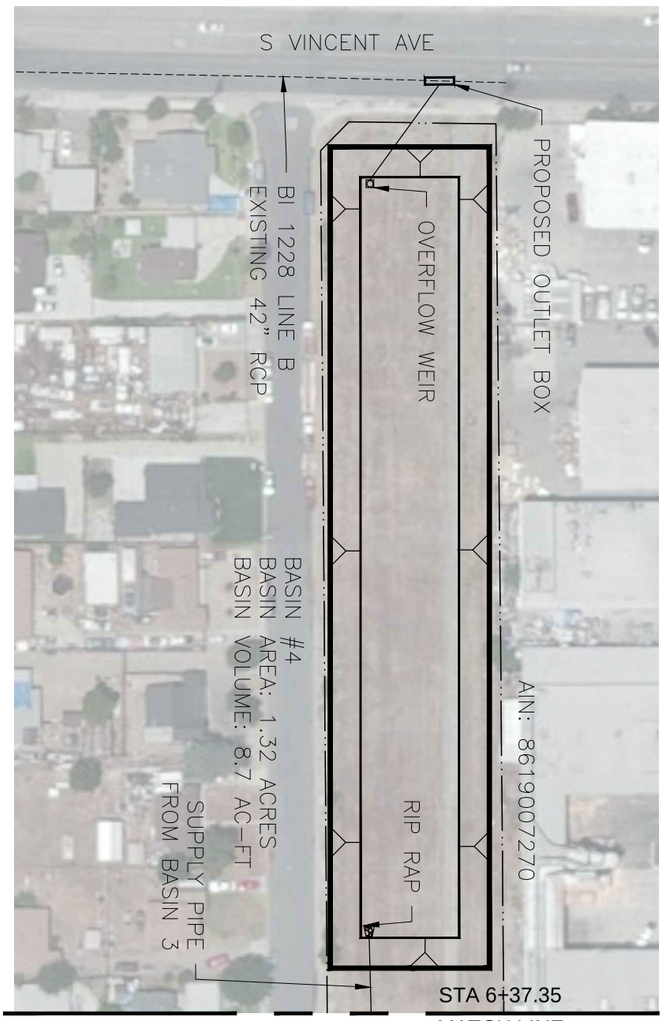
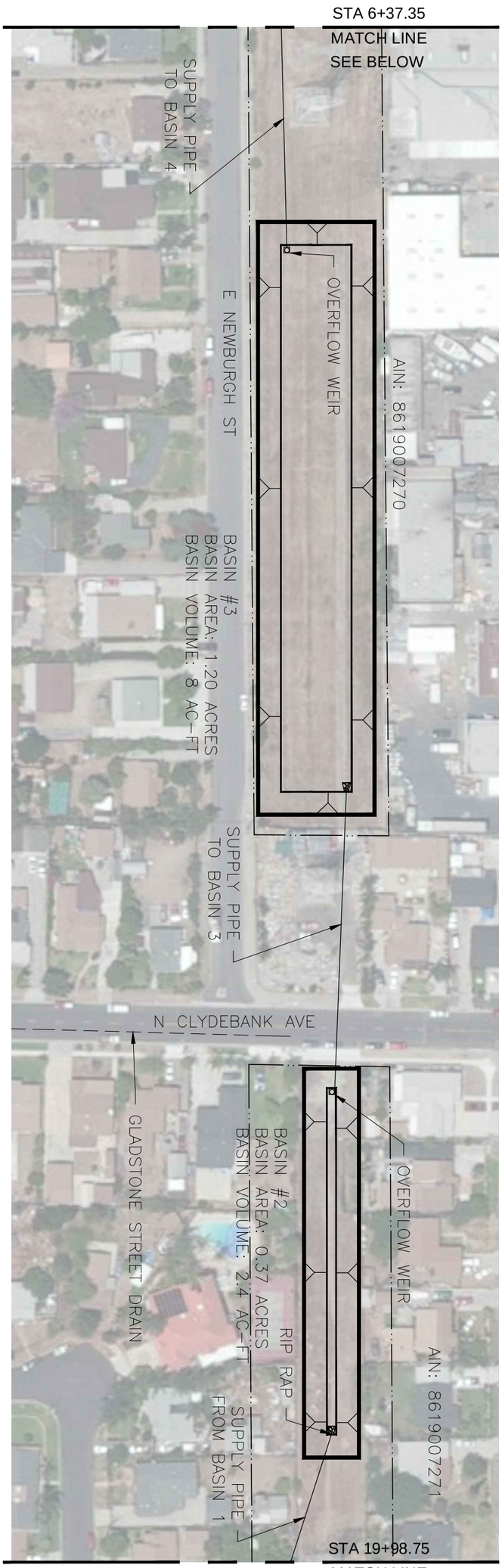
PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

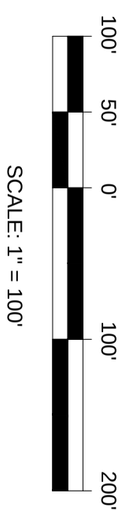
SHEET TITLE
LADWP EASEMENT

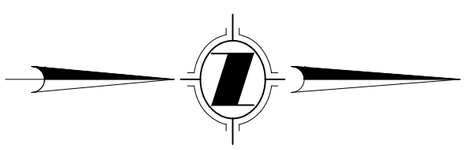
PROJECT NO.
13035

SHEET 1 OF 2

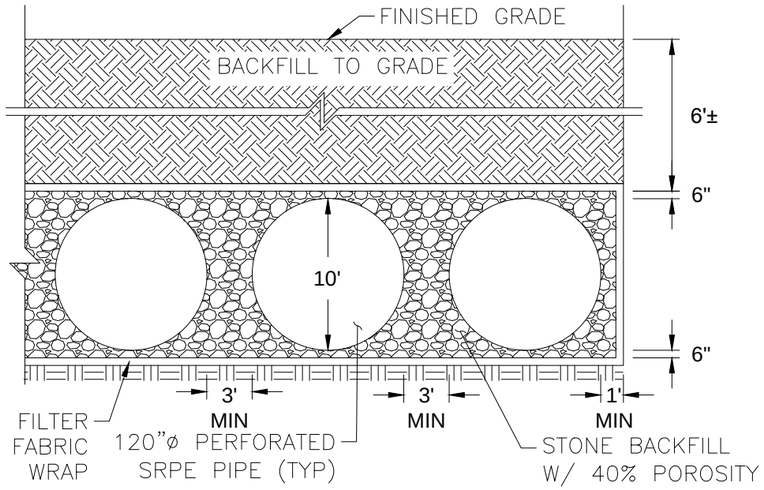








PROJECT NO. 13035	PROJECT TITLE RIO HONDO/SAN GABRIEL RIVER WATERSHED MANAGEMENT GROUP EWMP PRELIMINARY DESIGN CONCEPTS	PREPARED BY:
SHEET 2 OF 2	SHEET TITLE LADWP EASEMENT	1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com



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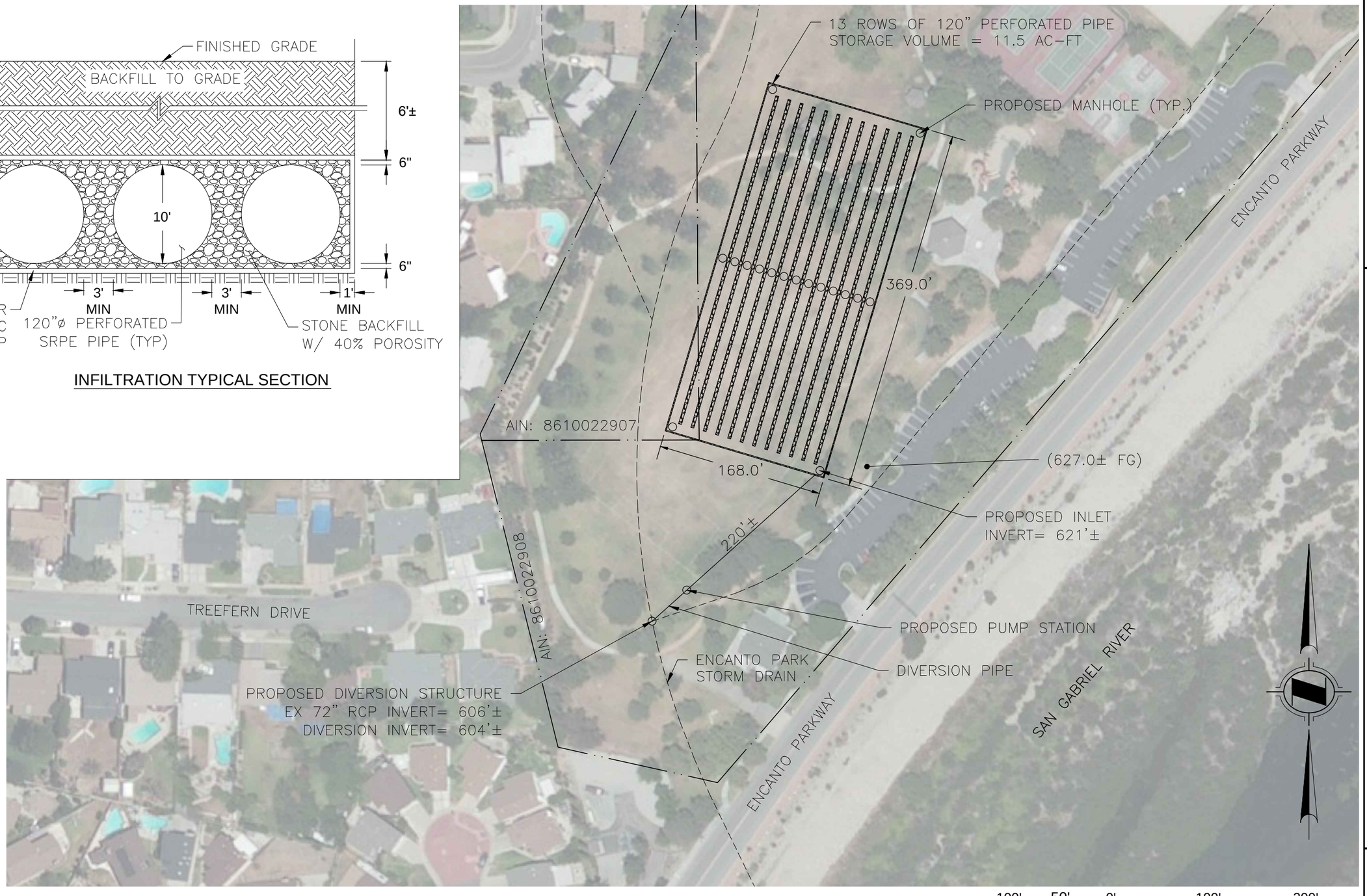

100' 50' 0' 100' 200'

SCALE: 1" = 100'

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PROJECT TITLE
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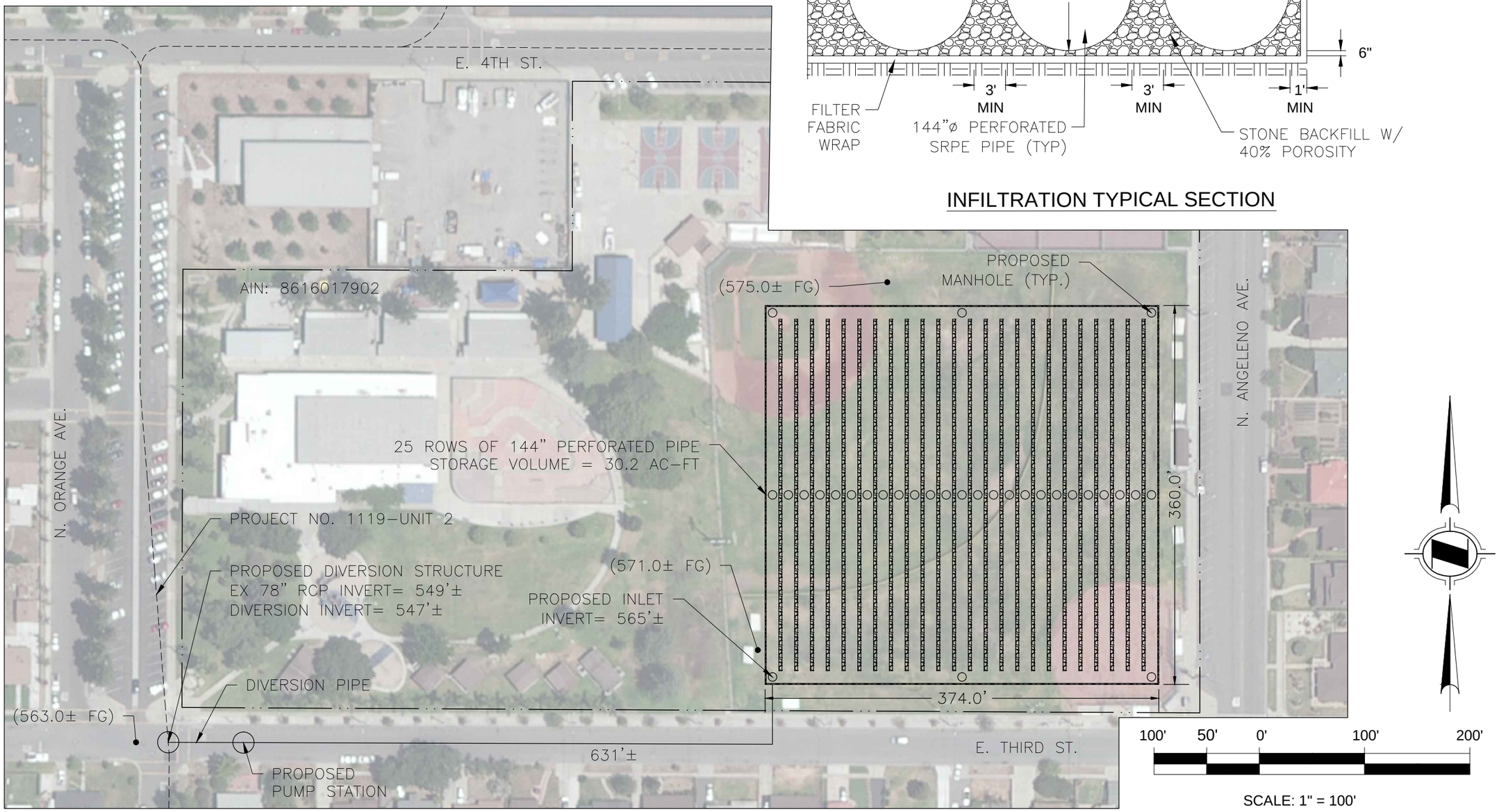
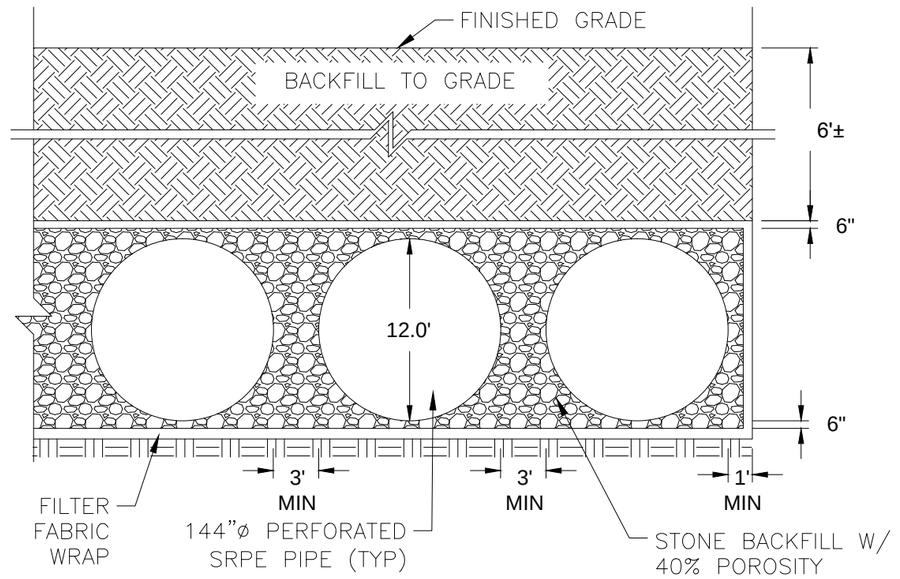
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
ENCANTO PARK

PROJECT NO.
13035

SHEET 1 OF 1





INFILTRATION TYPICAL SECTION

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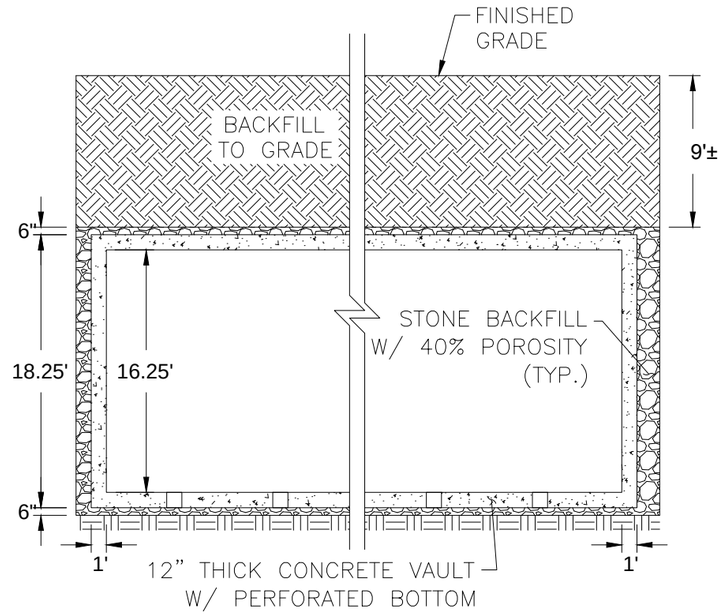
PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
MEMORIAL PARK (AZUSA)

PROJECT NO.
13035

SHEET 1 OF 1



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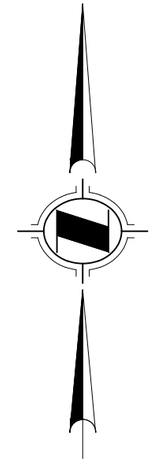

200' 100' 0' 200' 400'

SCALE: 1" = 200'

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PROJECT TITLE
RIO HONDO/SAN GABRIEL RIVER
WATERSHED MANAGEMENT GROUP EWMP
PRELIMINARY DESIGN CONCEPTS

SHEET TITLE
ROYAL OAKS TRAIL (SGR)

PROJECT NO.
13035

SHEET 1 OF 1

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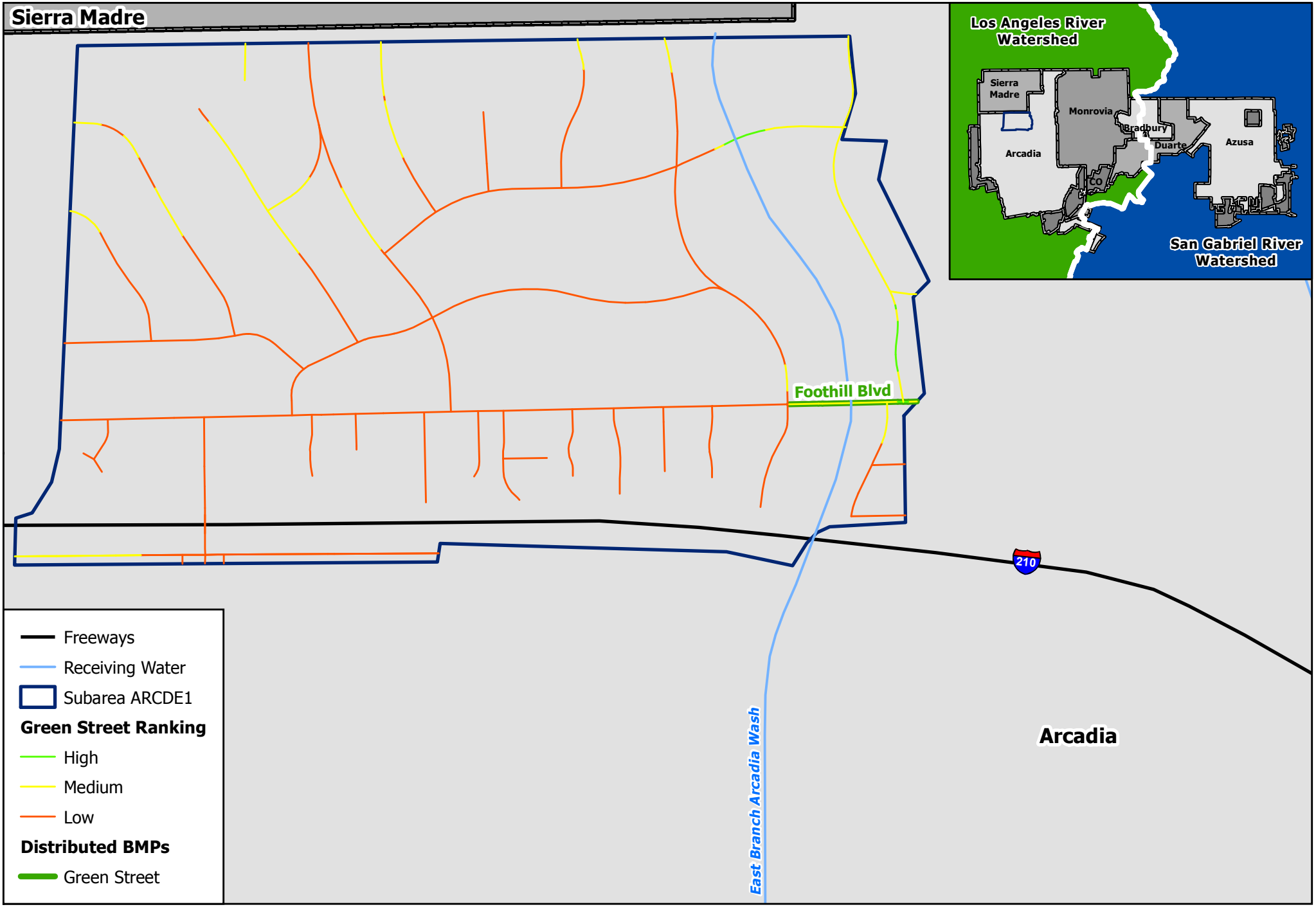
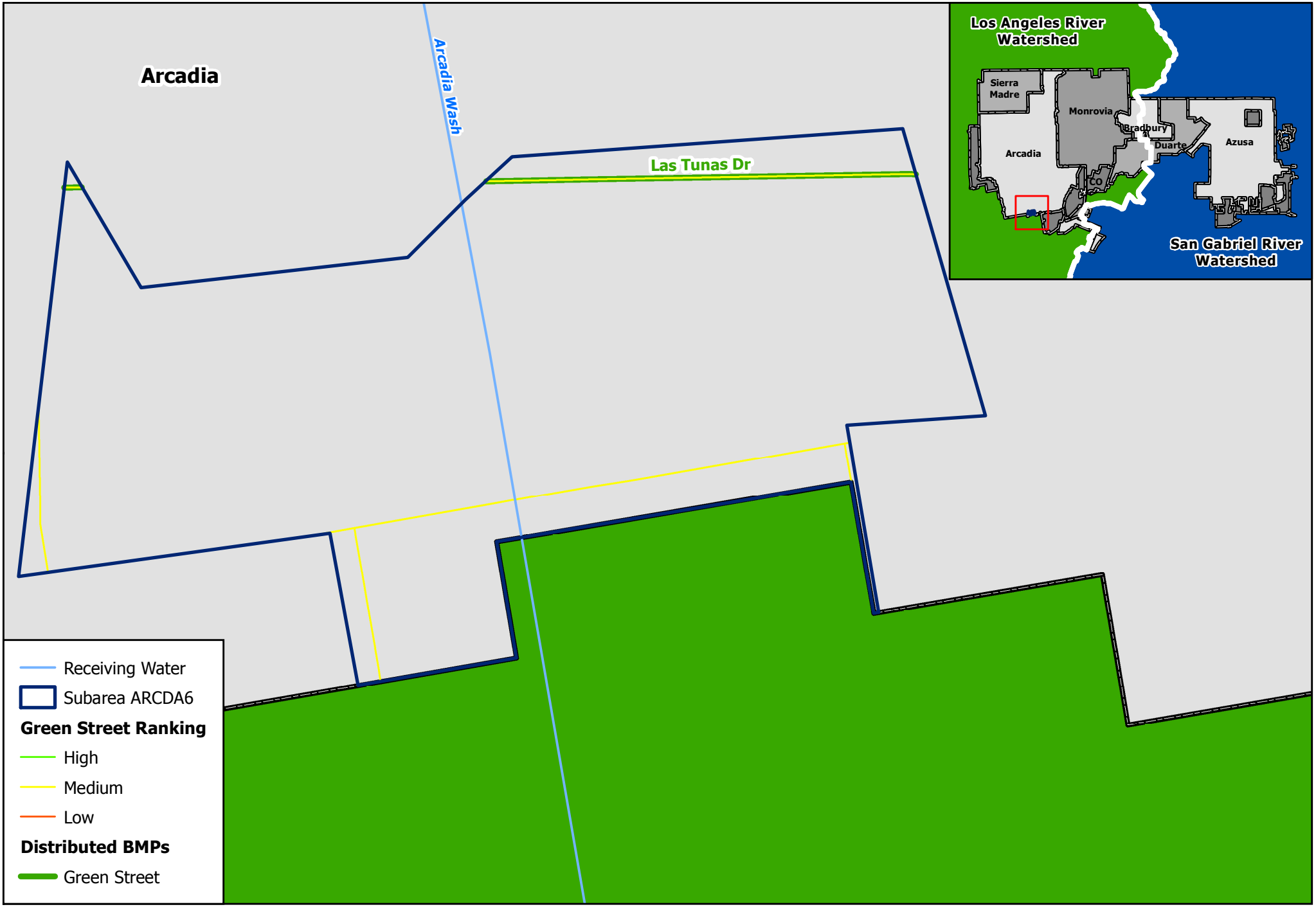
Attachment R

Green Street Subarea Analysis Figures

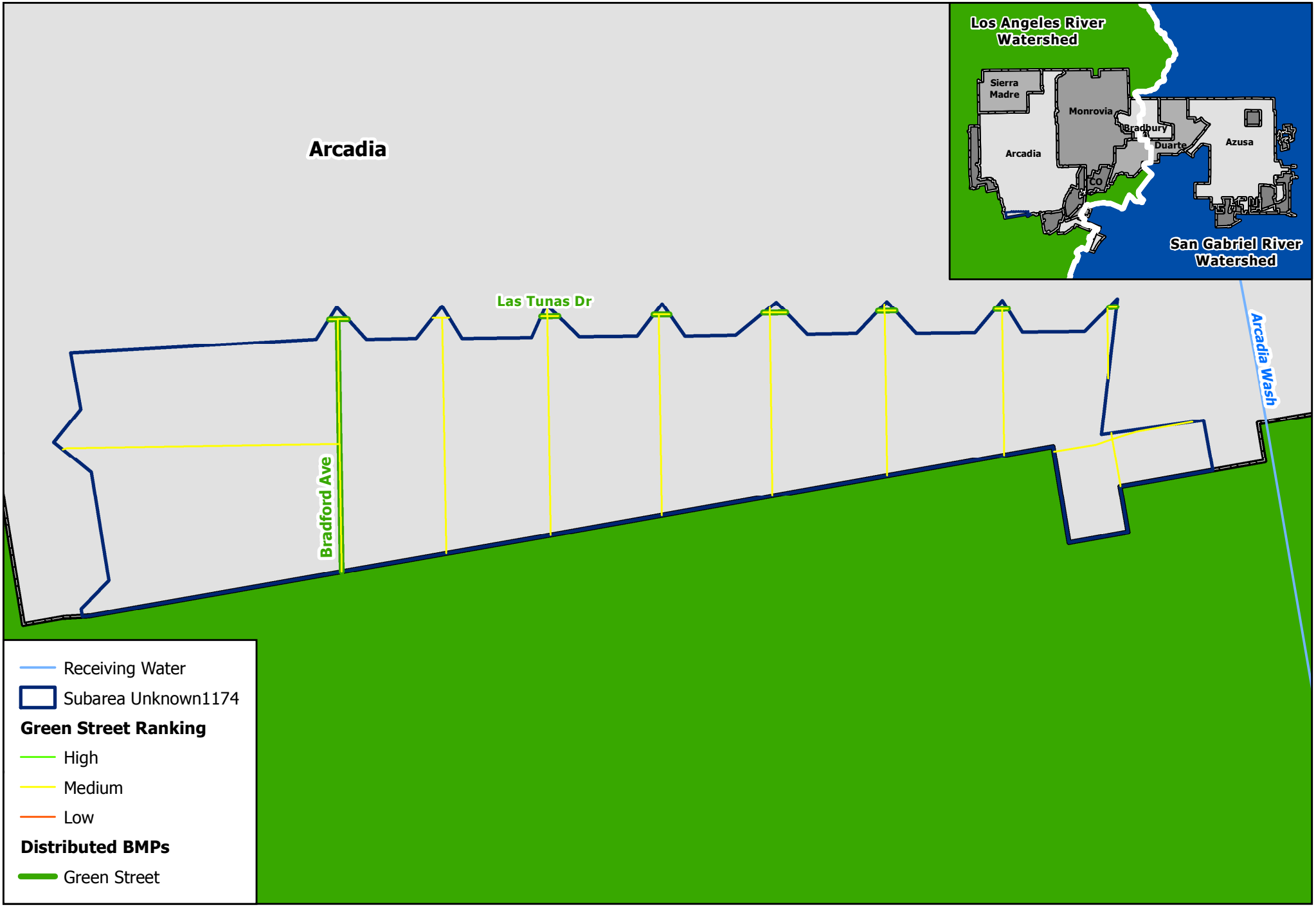
This attachment includes subarea maps for each of the subareas that distributed Best Management Practices (BMPs), or green streets, are proposed in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP). The streets were evaluated for their potential as green streets and selected based on load and volume reduction requirements as discussed in **Section 3.4.3**.



Subarea ARCDE1
Green Street Analysis
RH/SGRWQG EWMP



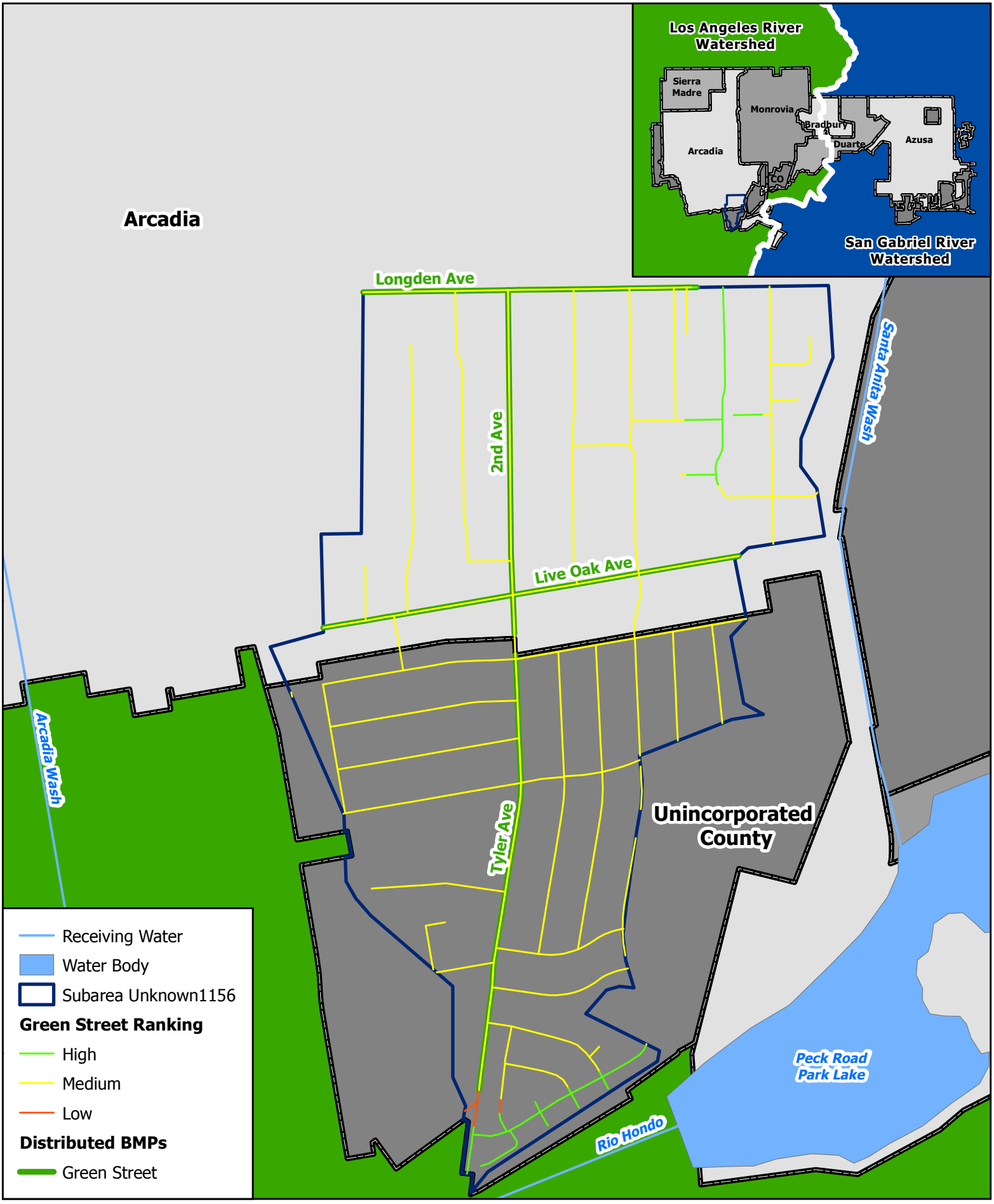
Subarea ARCDA6
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

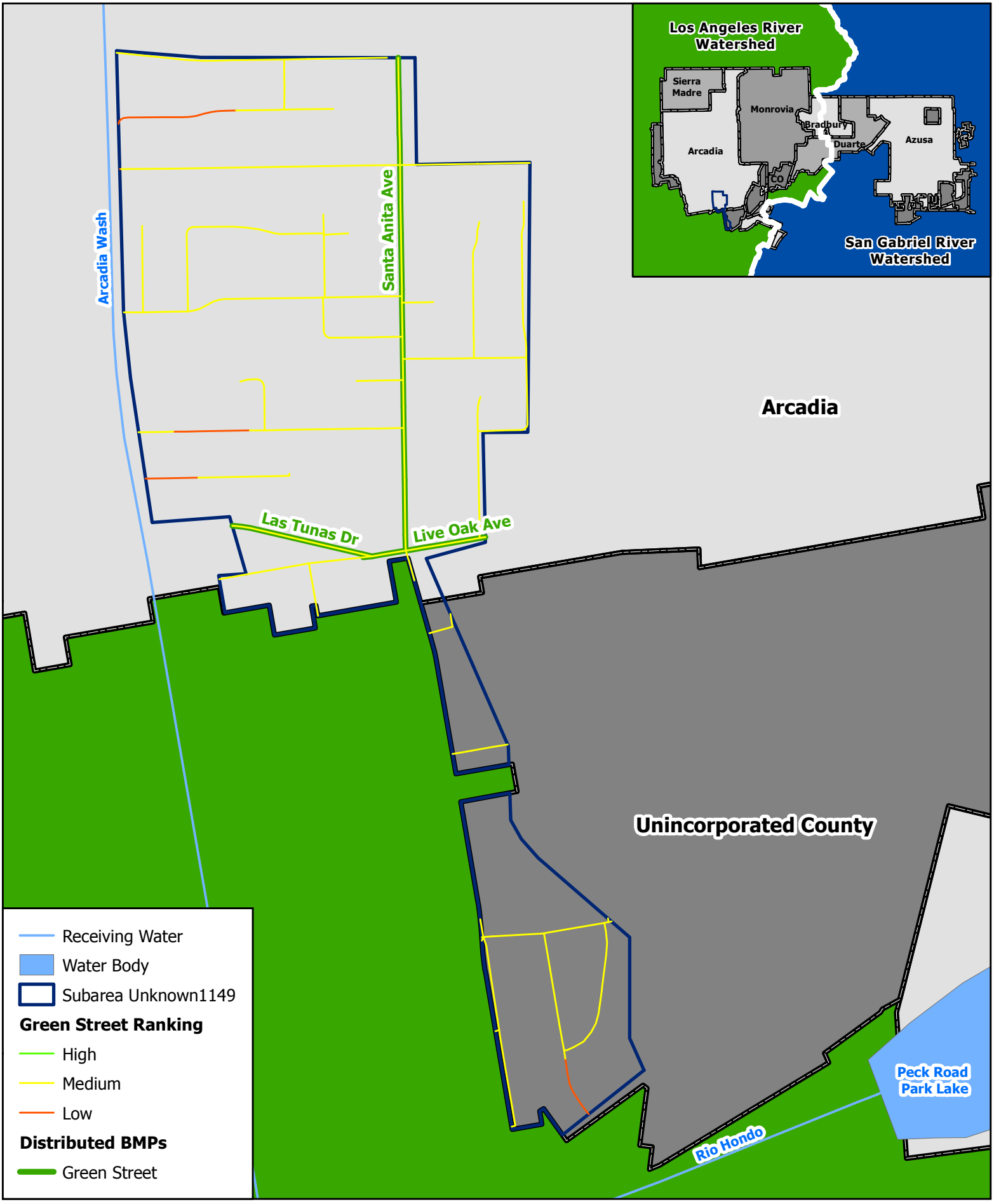
Subarea Unknown1174
Green Street Analysis
RH/SGRWQG EWMP



N

0 500 1,000 2,000 Feet

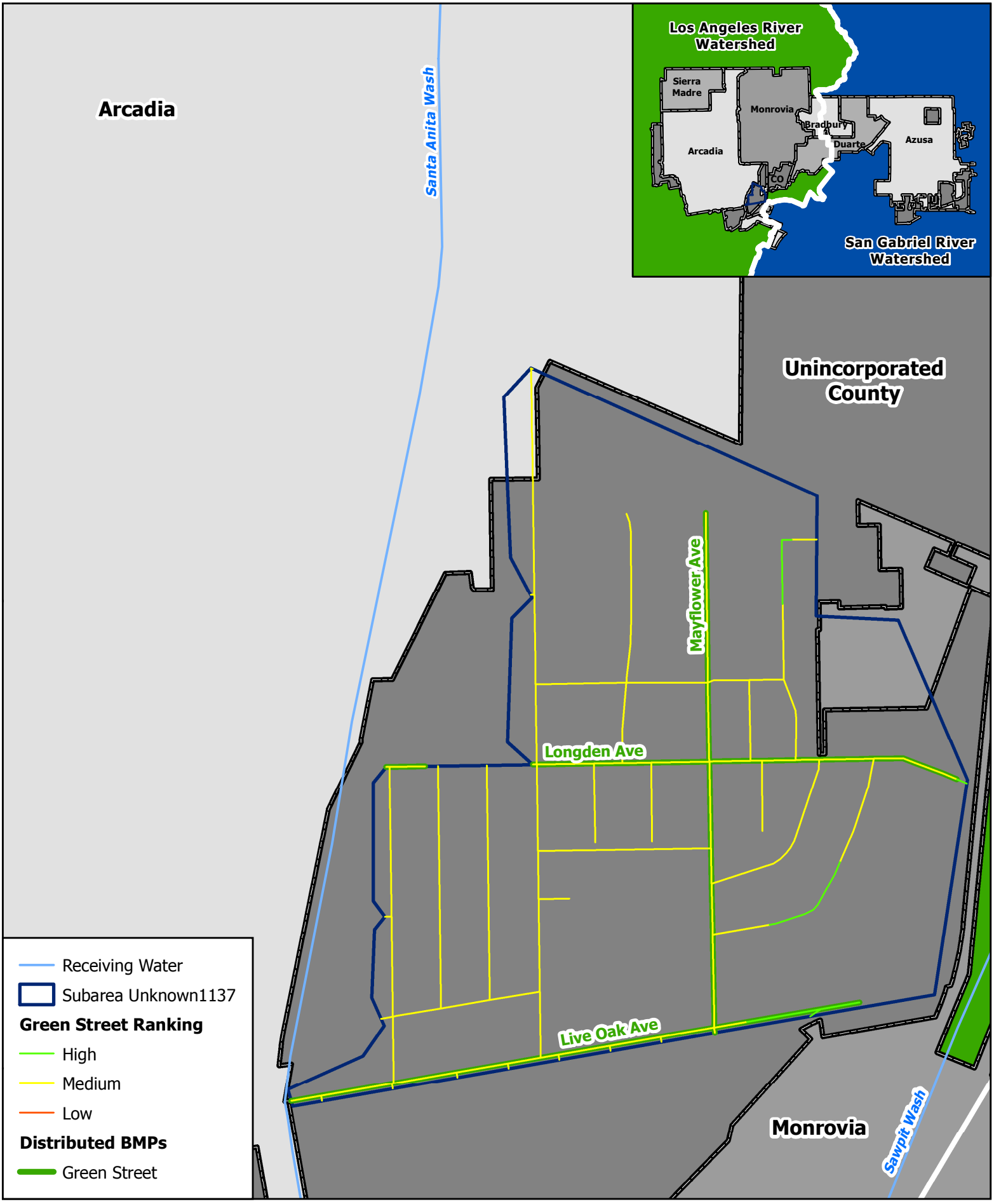
Subarea Unknown1156
Green Street Analysis
RH/SGRWQG EWMP



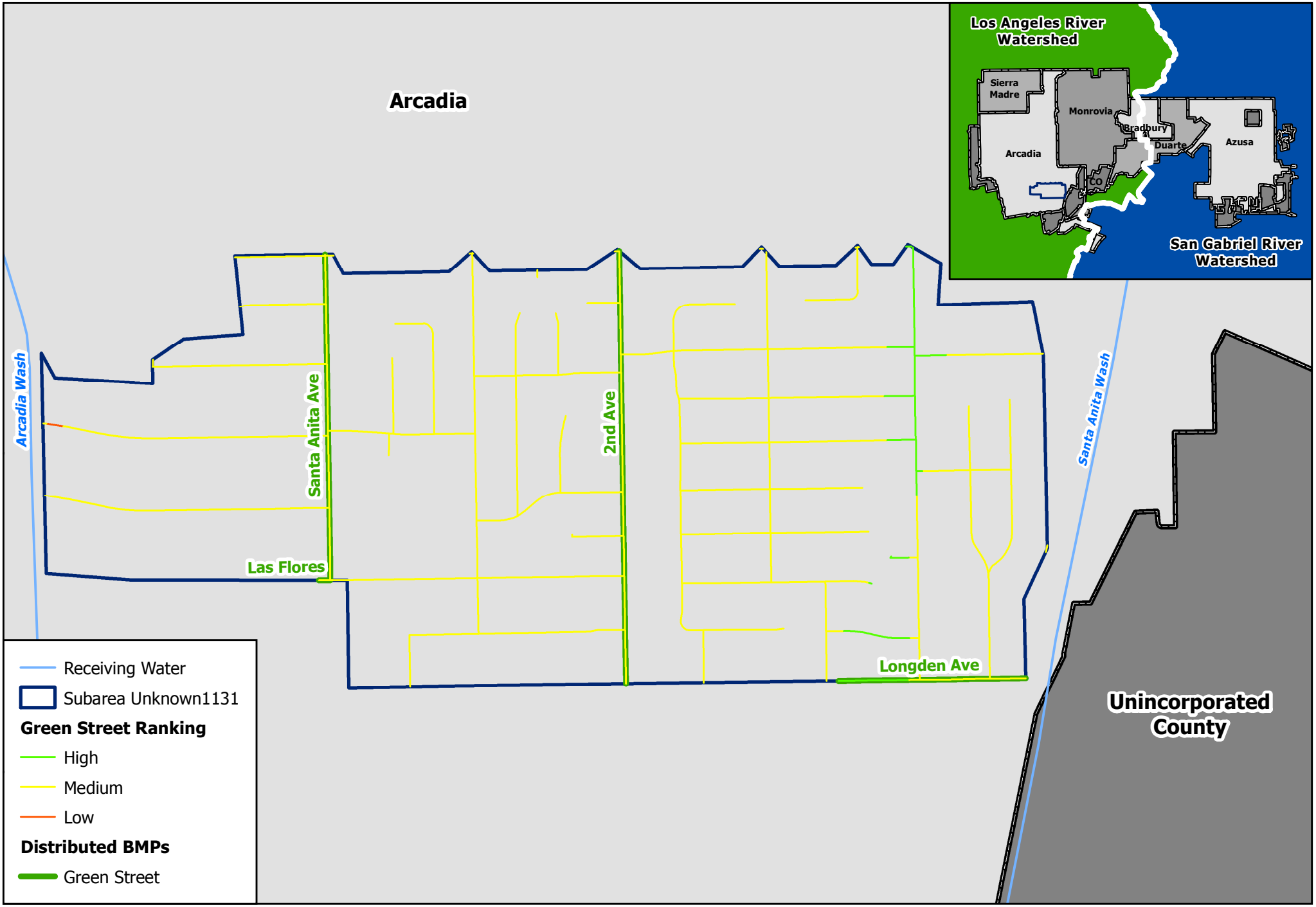
N

0 500 1,000 2,000 Feet

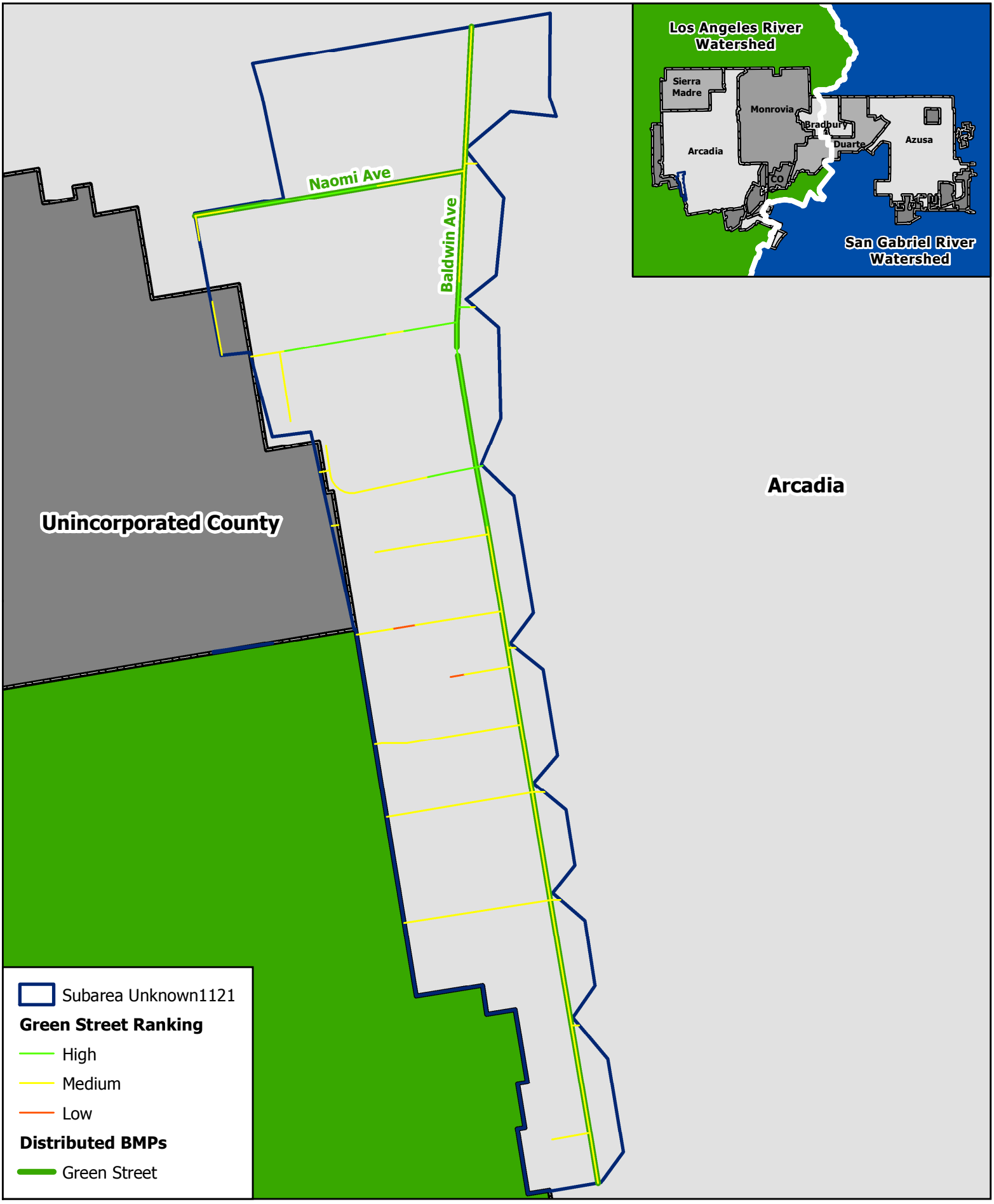
Subarea Unknown1149
Green Street Analysis
RH/SGRWQG EWMP



Subarea Unknown1137
Green Street Analysis
RH/SGRWQG EWMP



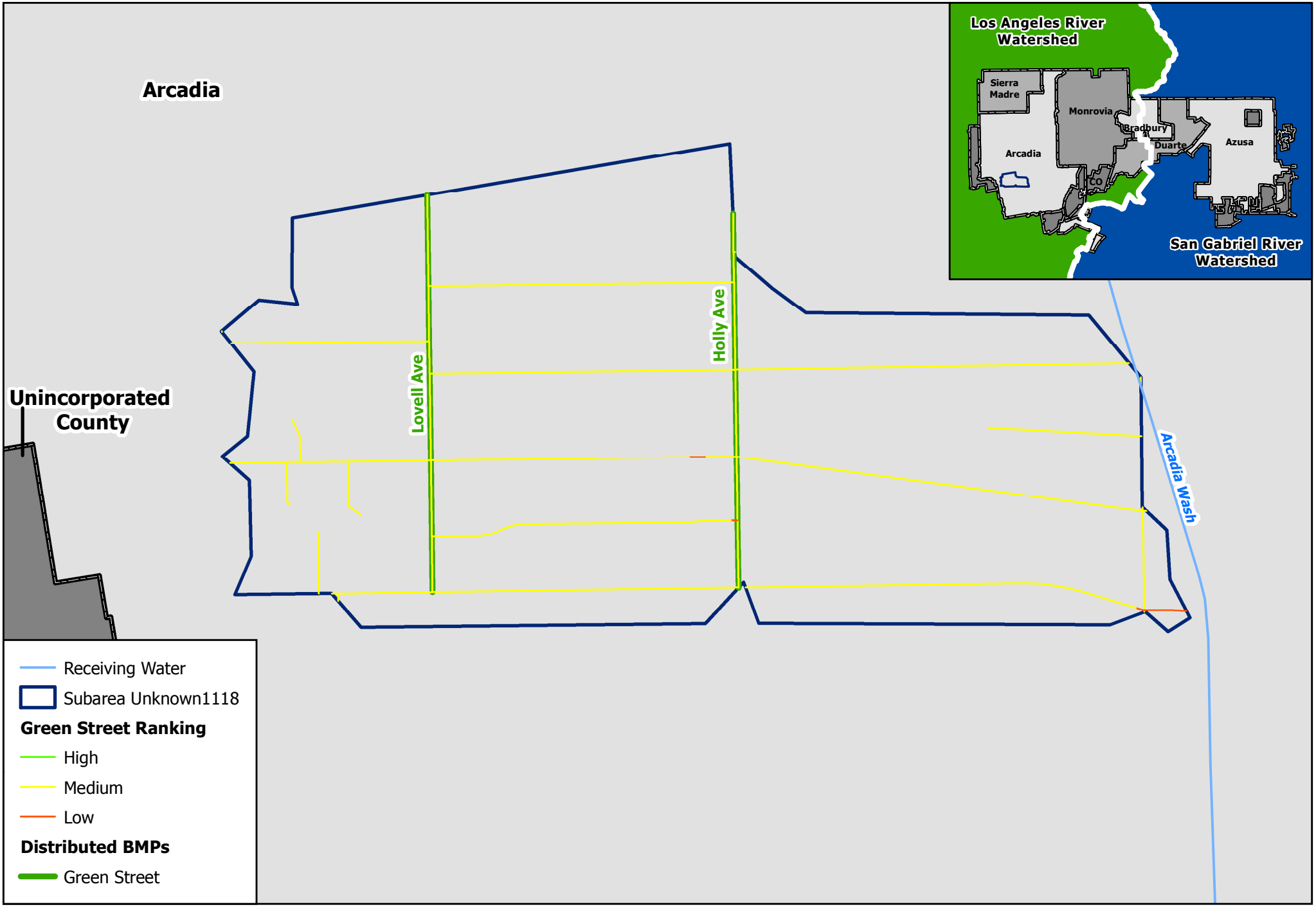
Subarea Unknown1131
Green Street Analysis
RH/SGRWQG EWMP



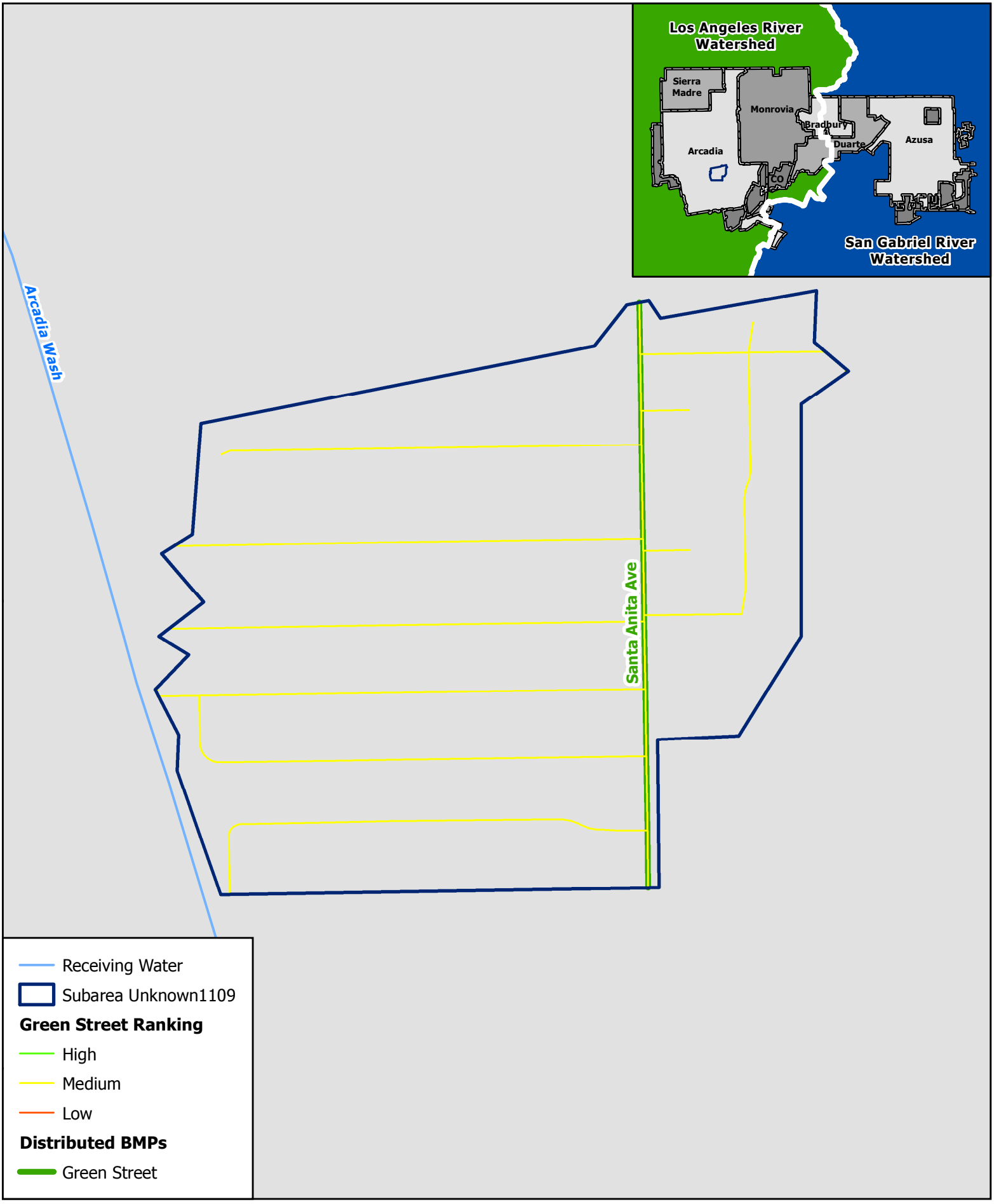
N

0 250 500 1,000 Feet

Subarea Unknown1121
Green Street Analysis
RH/SGRWQG EWMP



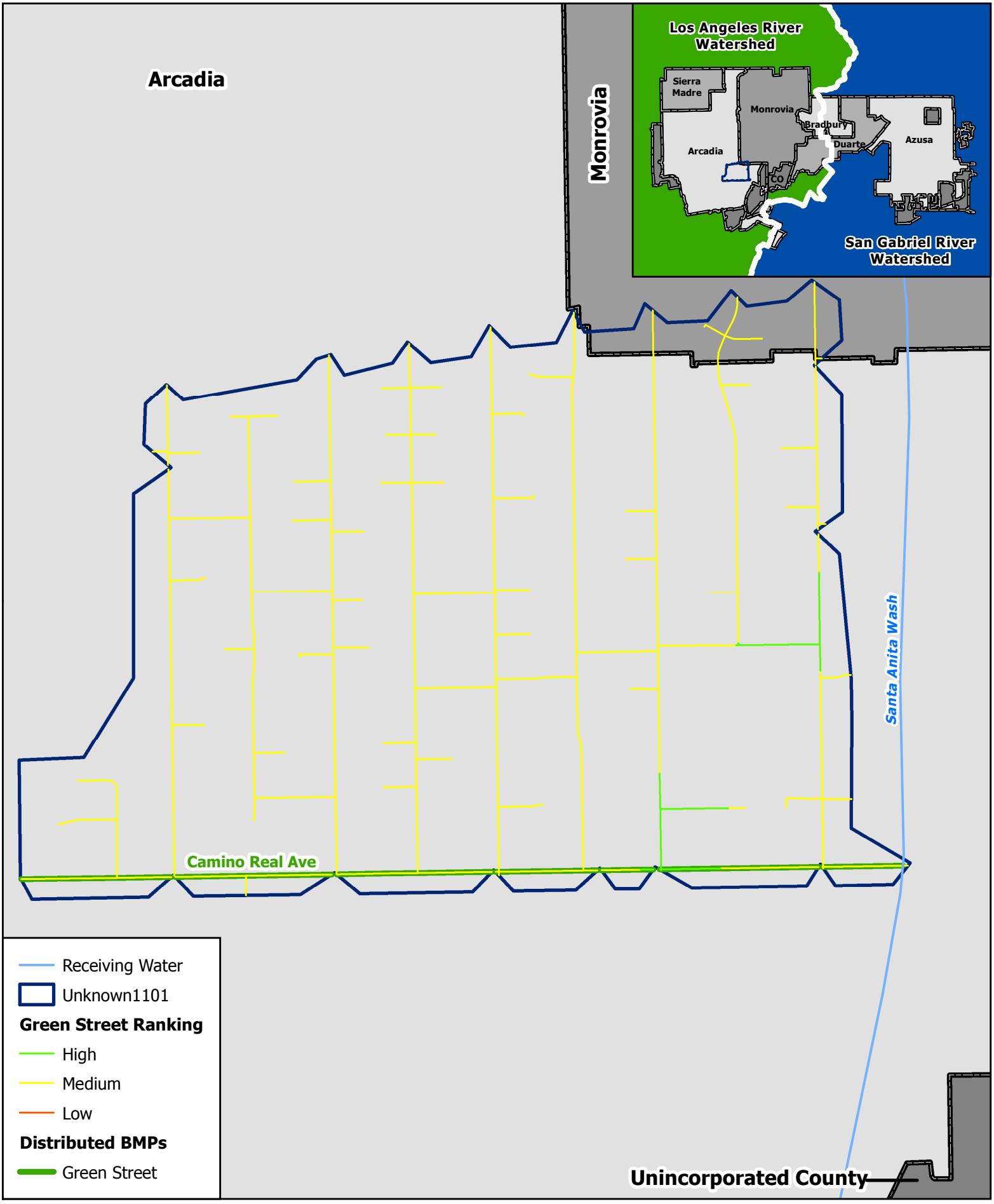
Subarea Unknown1118
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

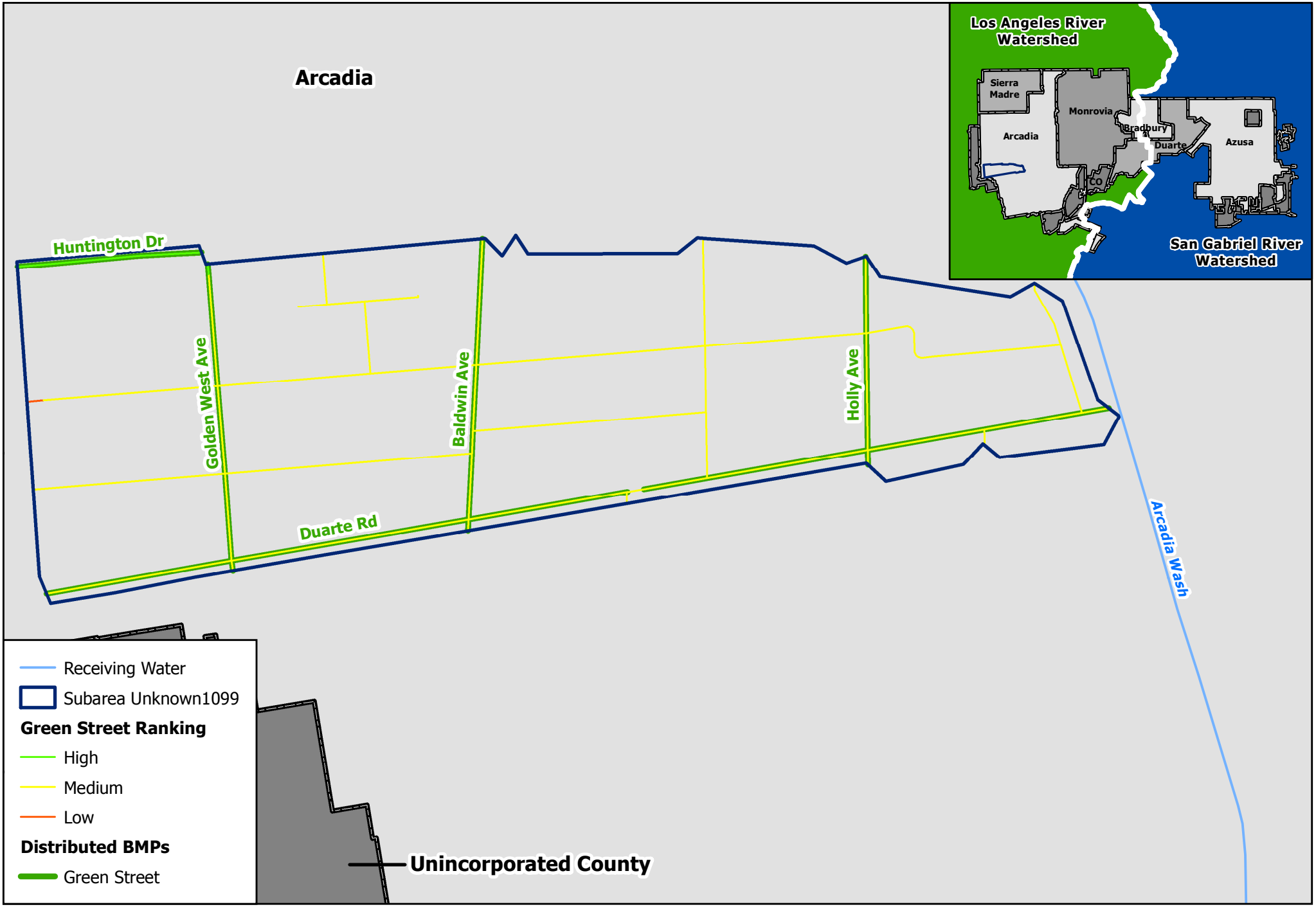
Subarea Unknown1109
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

Subarea Unknown1101
Green Street Analysis
RH/SGRWQG EWMP



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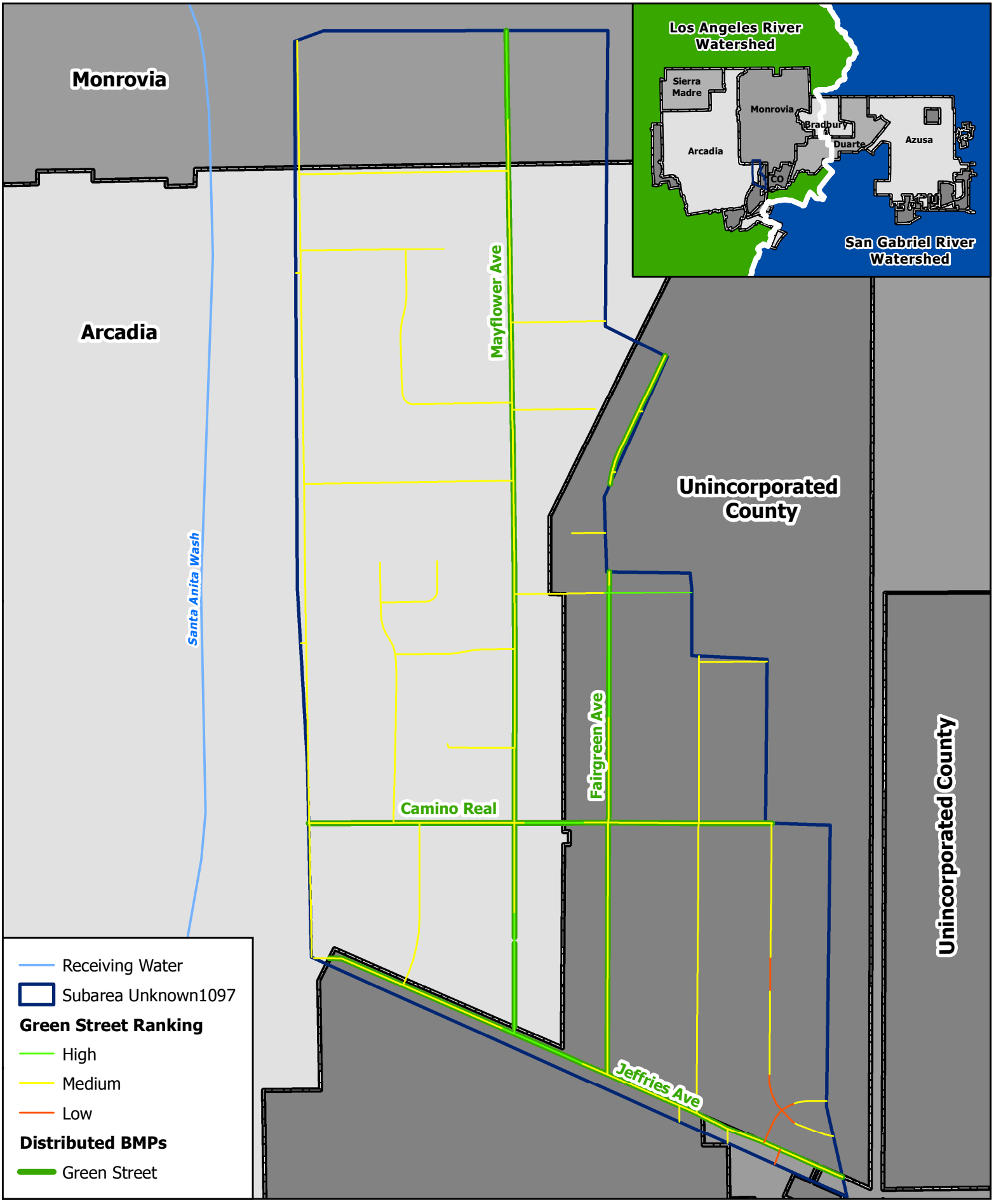
Green Street Analysis
RH/SGRWQG EWMP



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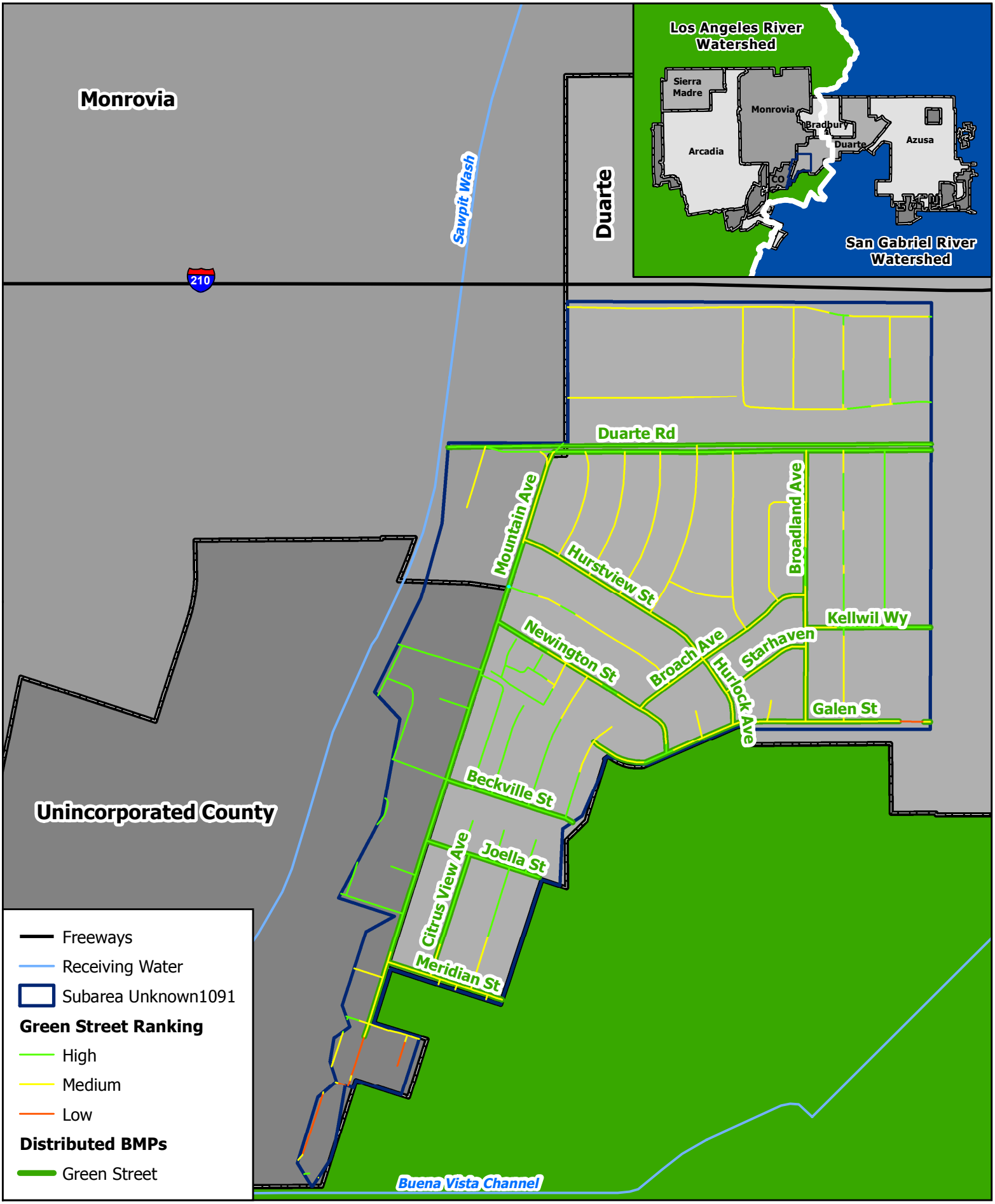
Green Street Analysis
RH/SGRWQG EWMP



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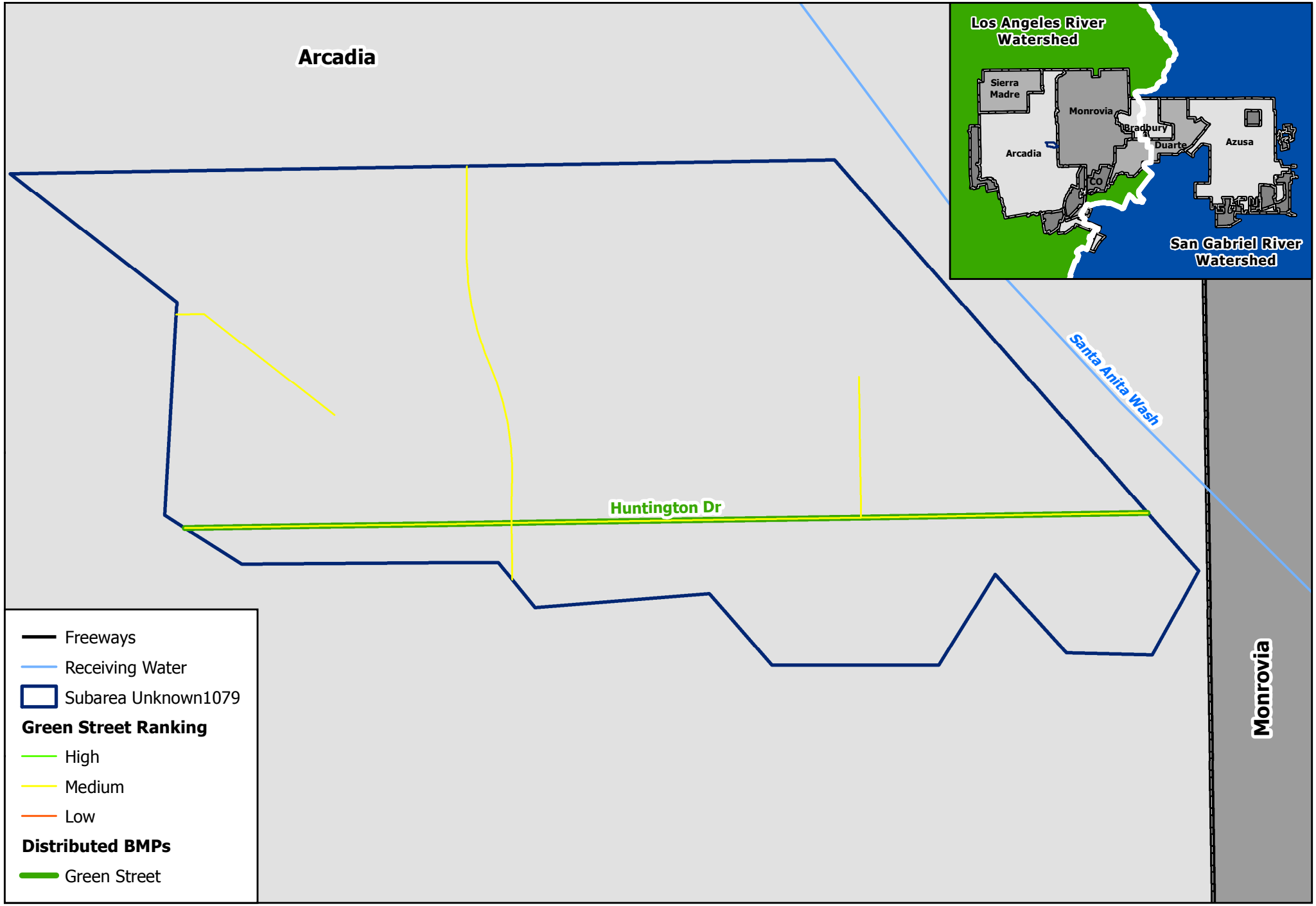
Green Street Analysis
RH/SGRWQG EWMP

Subarea Unknown1088
Green Street Analysis
RH/SGRWQG EWMP



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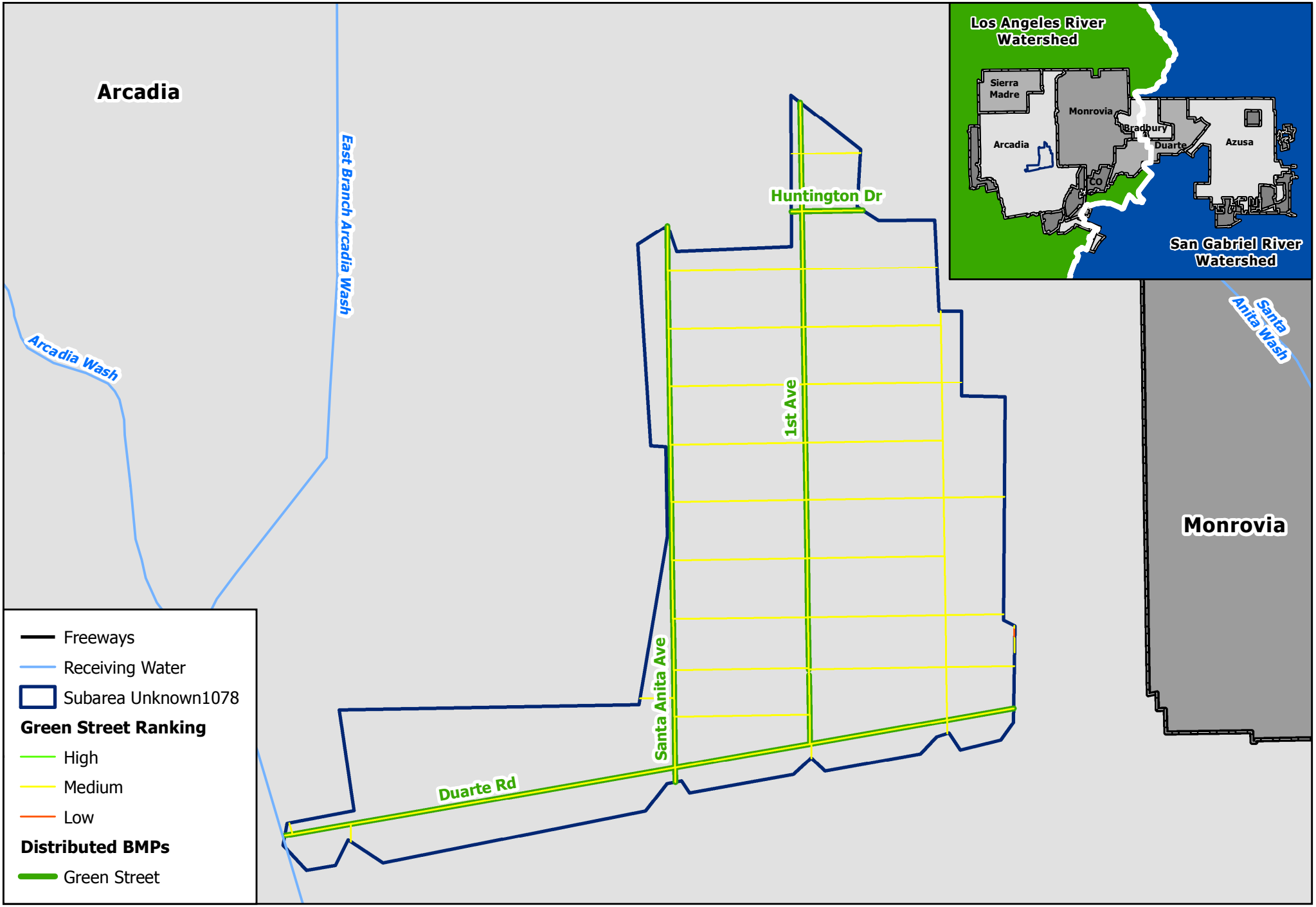
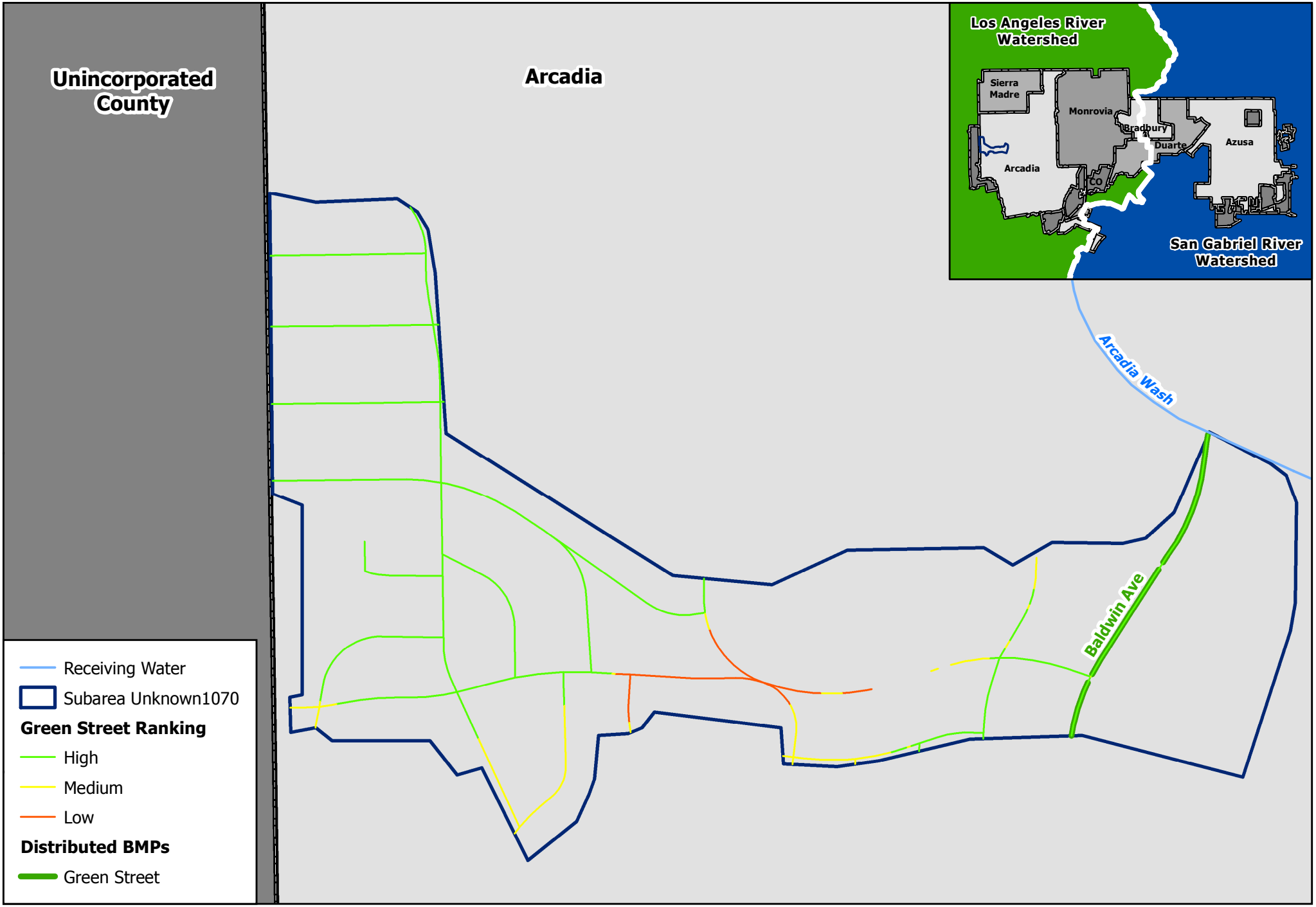
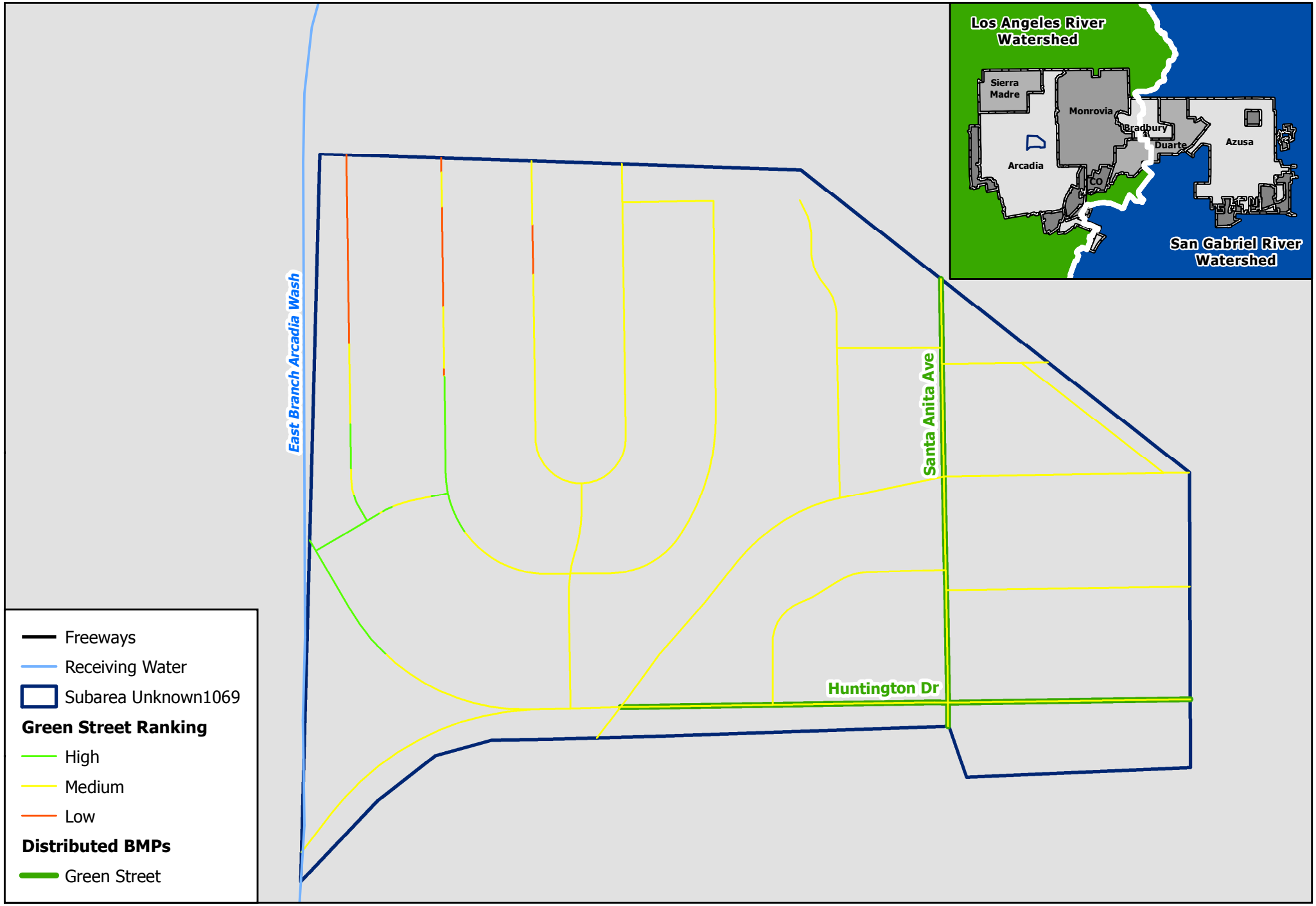
Green Street Analysis
RH/SGRWQG EWMP



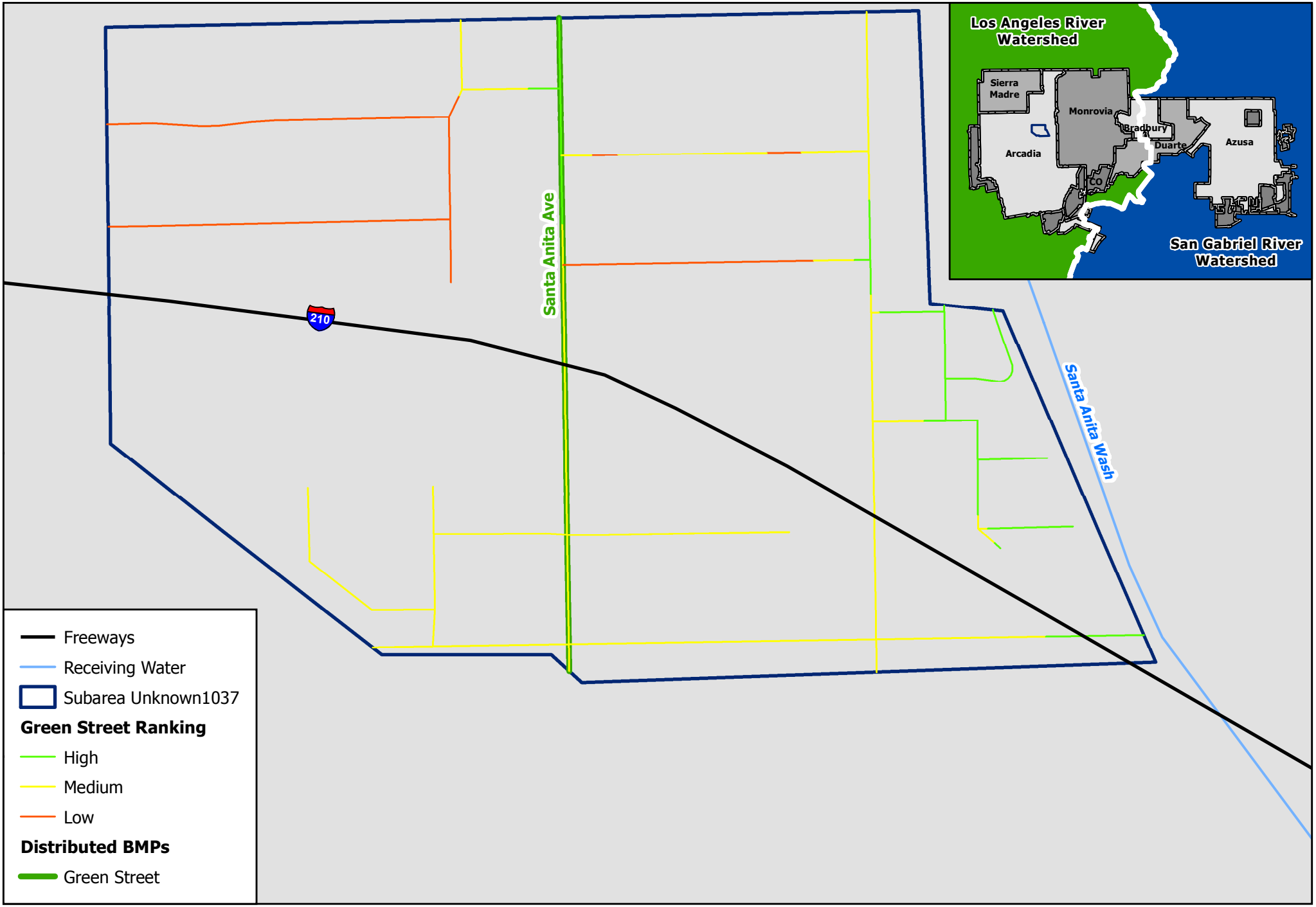
Subarea Unknown1078
Green Street Analysis
RH/SGRWQG EWMP



Subarea Unknown1070
Green Street Analysis
RH/SGRWQG EWMP



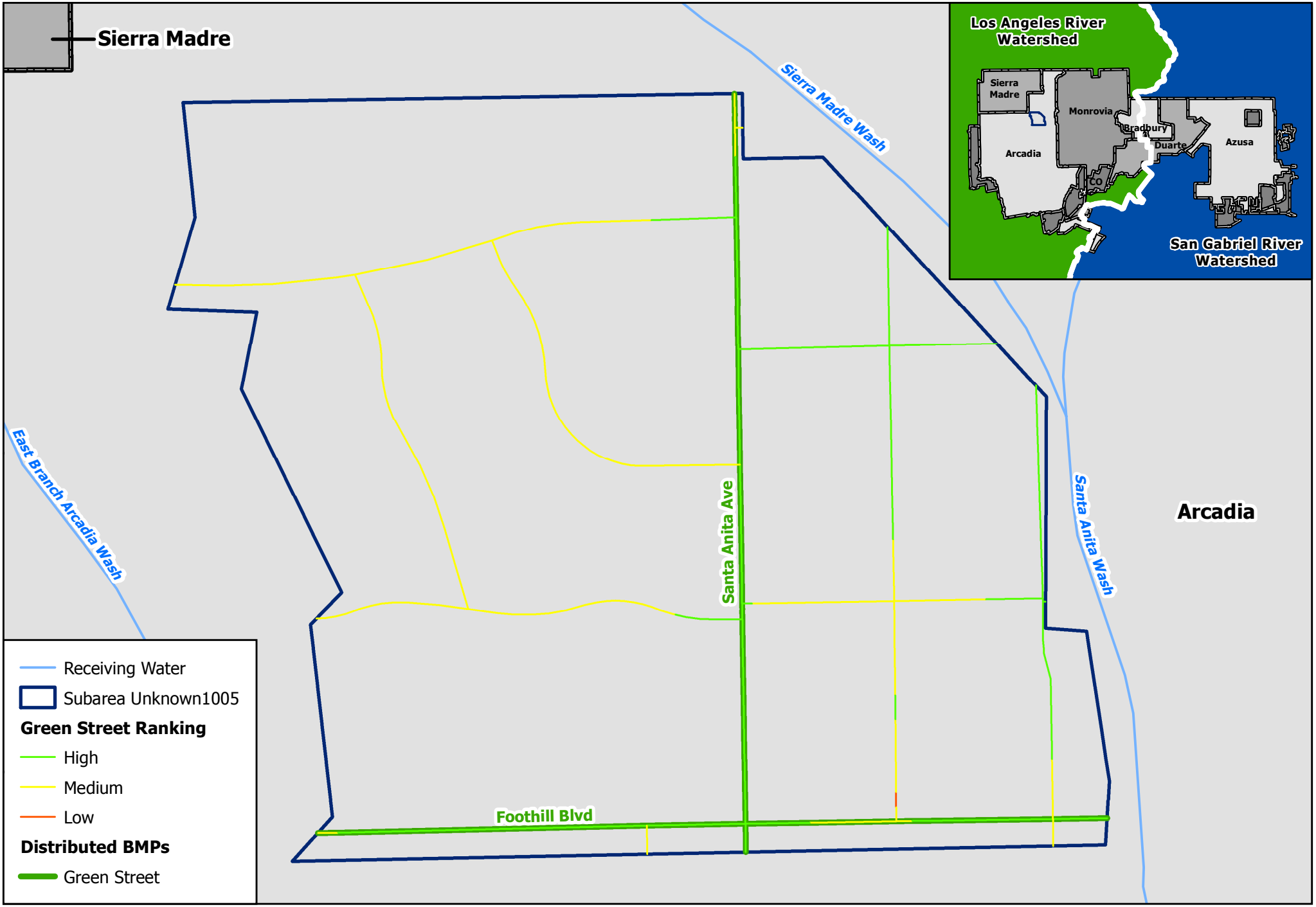
Subarea Unknown1069
Green Street Analysis
RH/SGRWQG EWMP



N

0 125 250 500 Feet

Subarea Unknown1037
Green Street Analysis
RH/SGRWQG EWMP



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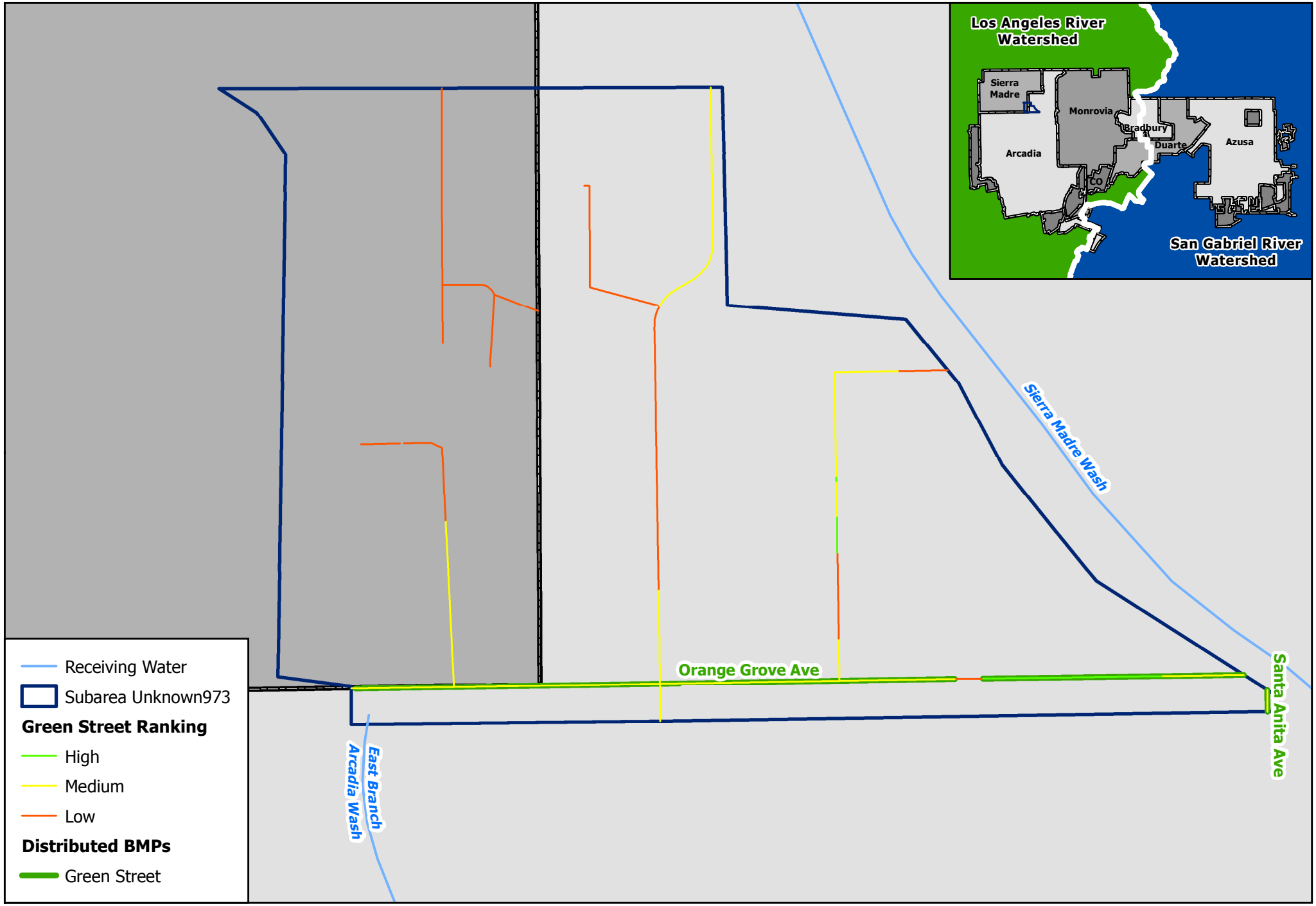
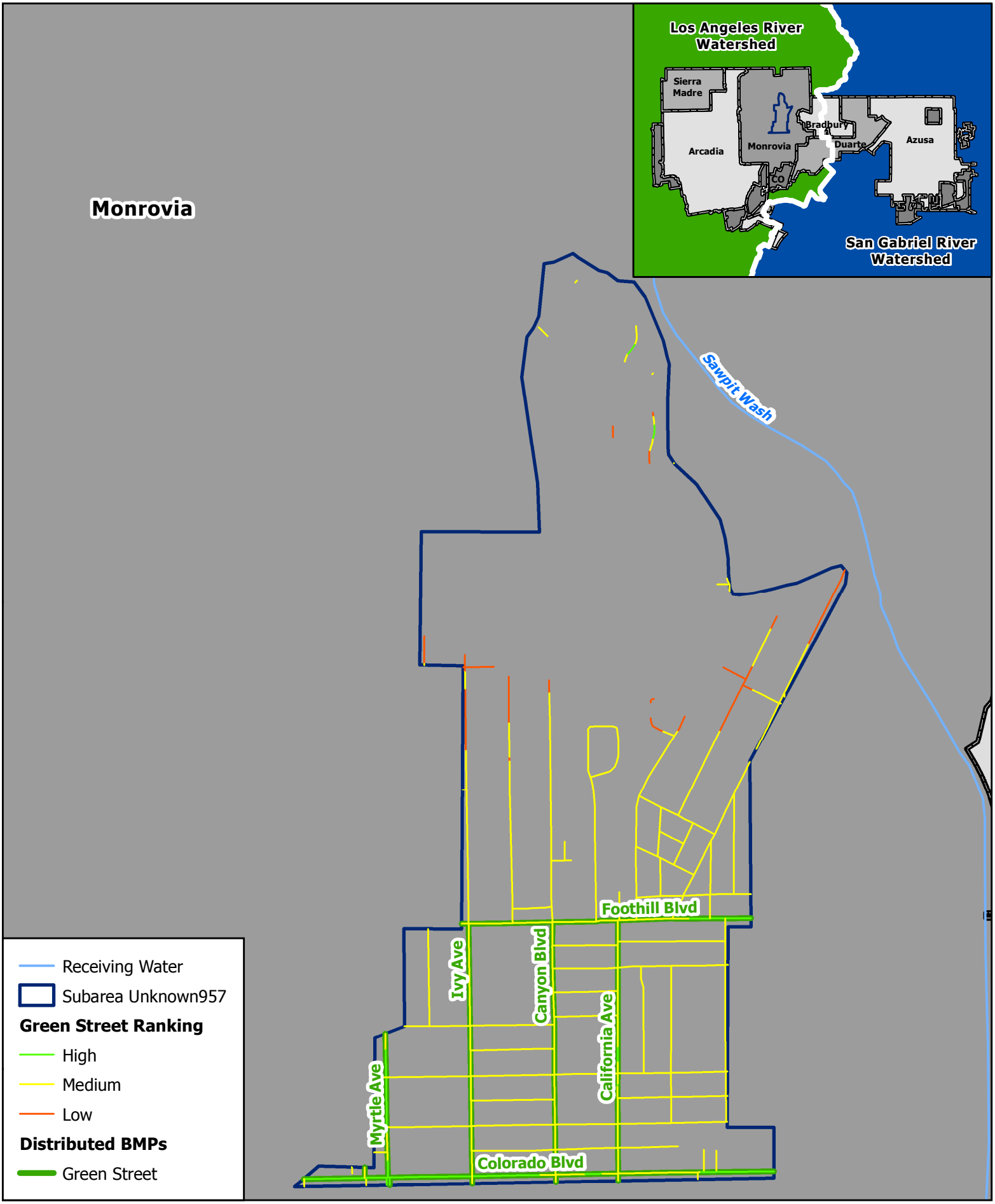
Green Street Analysis
RH/SGRWQG EWMP



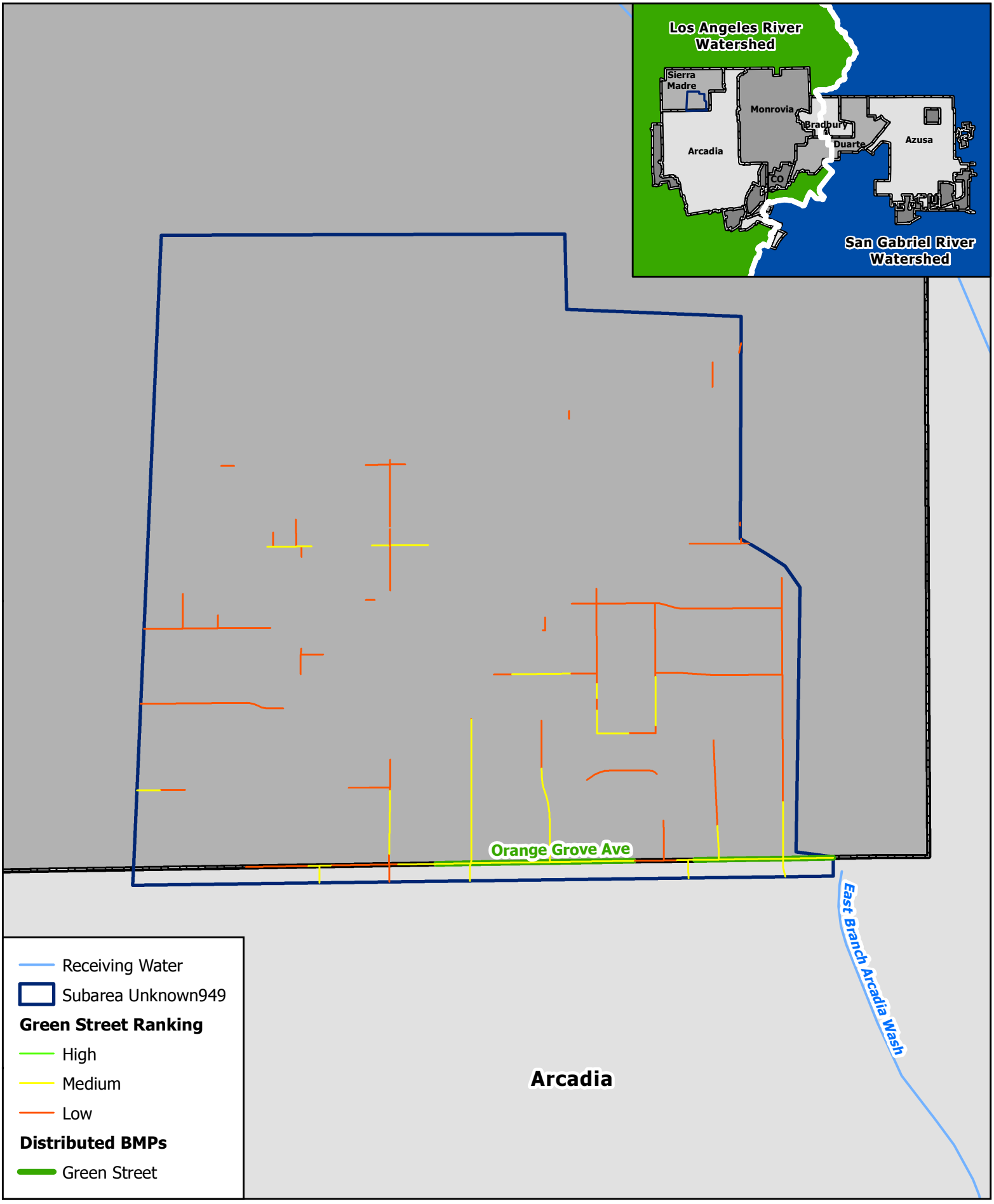
Subarea Unknown973
Green Street Analysis
RH/SGRWQG EWMP



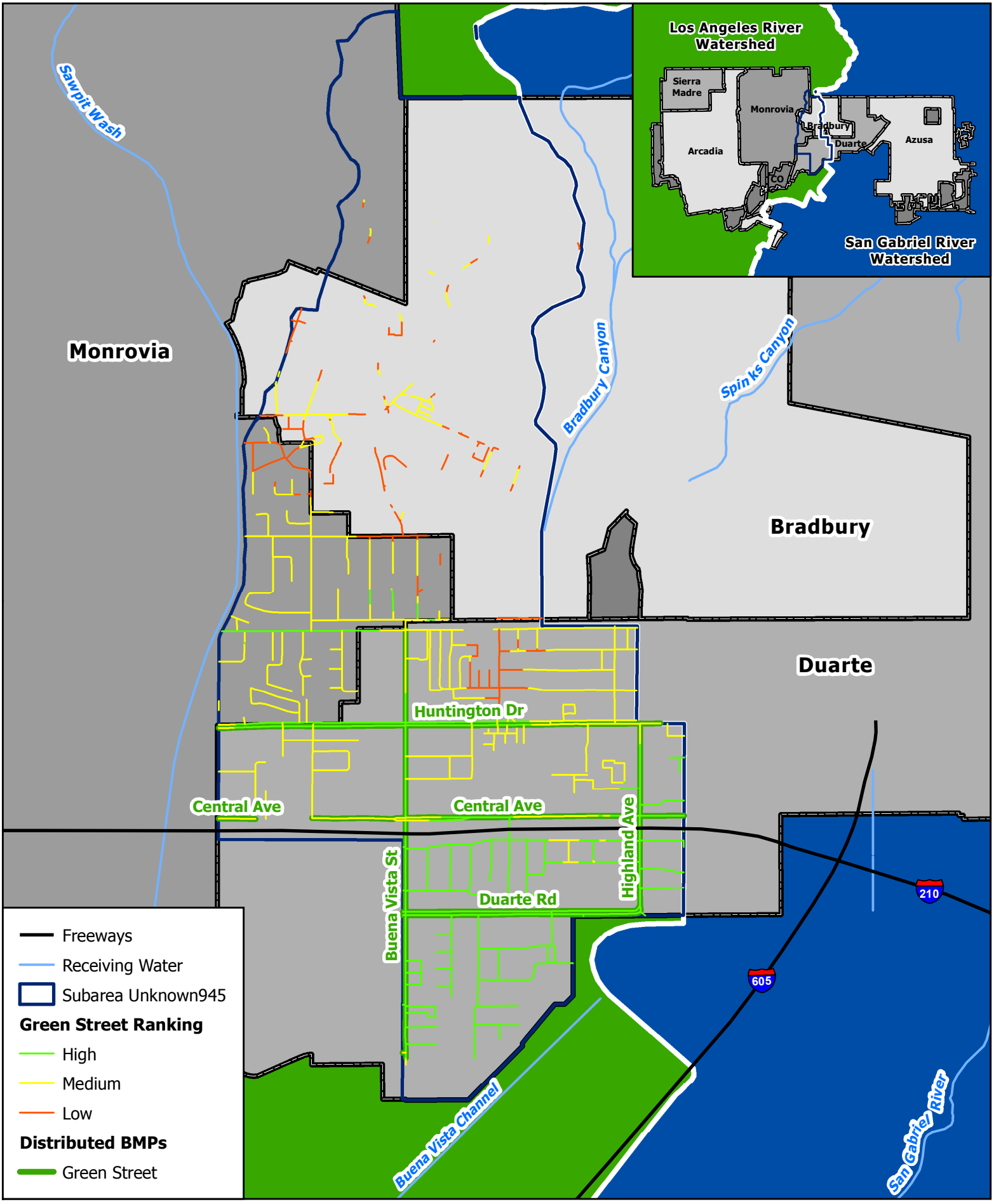
N

0 500 1,000 2,000 Feet

Subarea Unknown957
Green Street Analysis
RH/SGRWQG EWMP



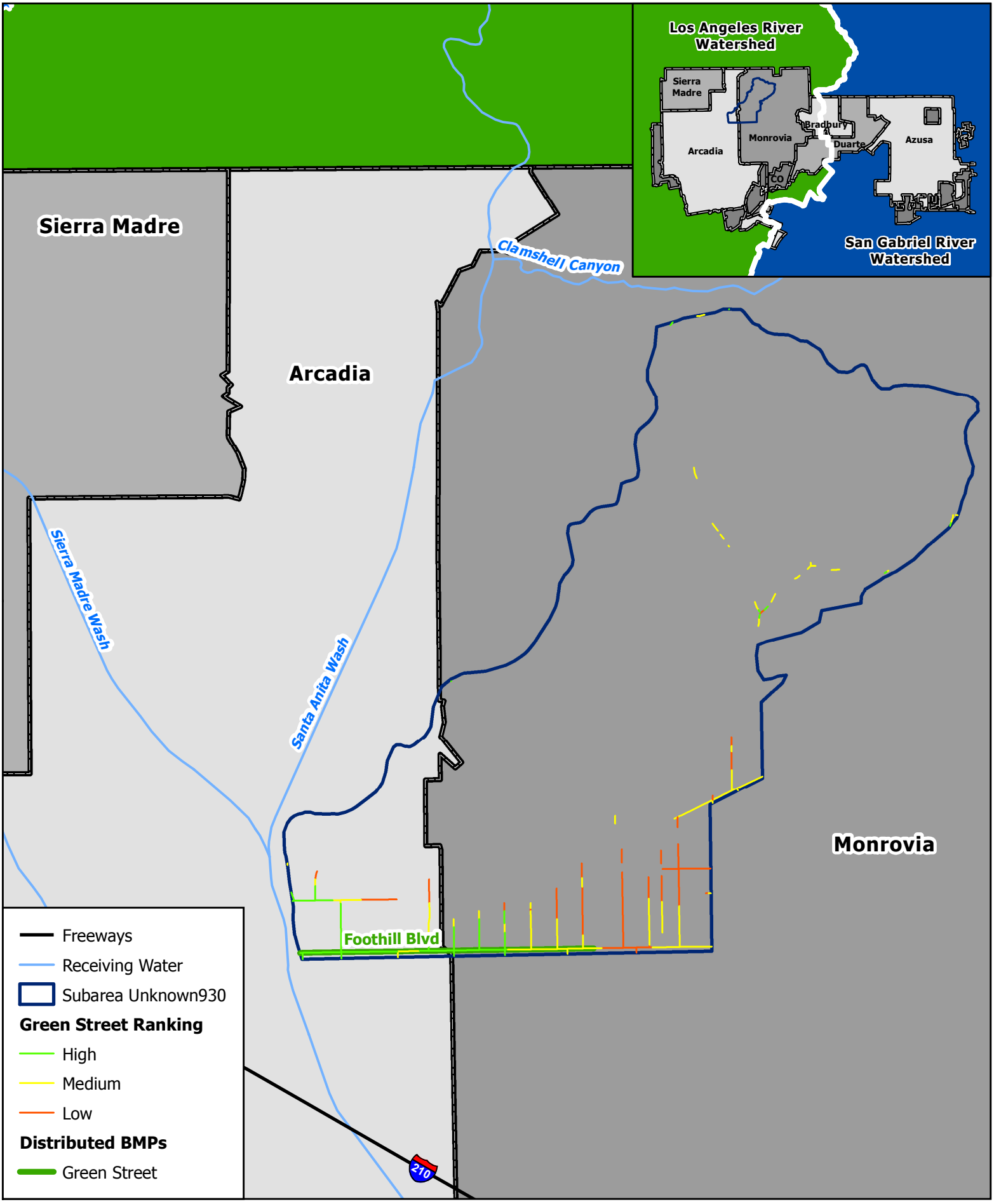
Subarea Unknown949
Green Street Analysis
RH/SGRWQG EWMP



N

0 1,000 2,000 4,000 Feet

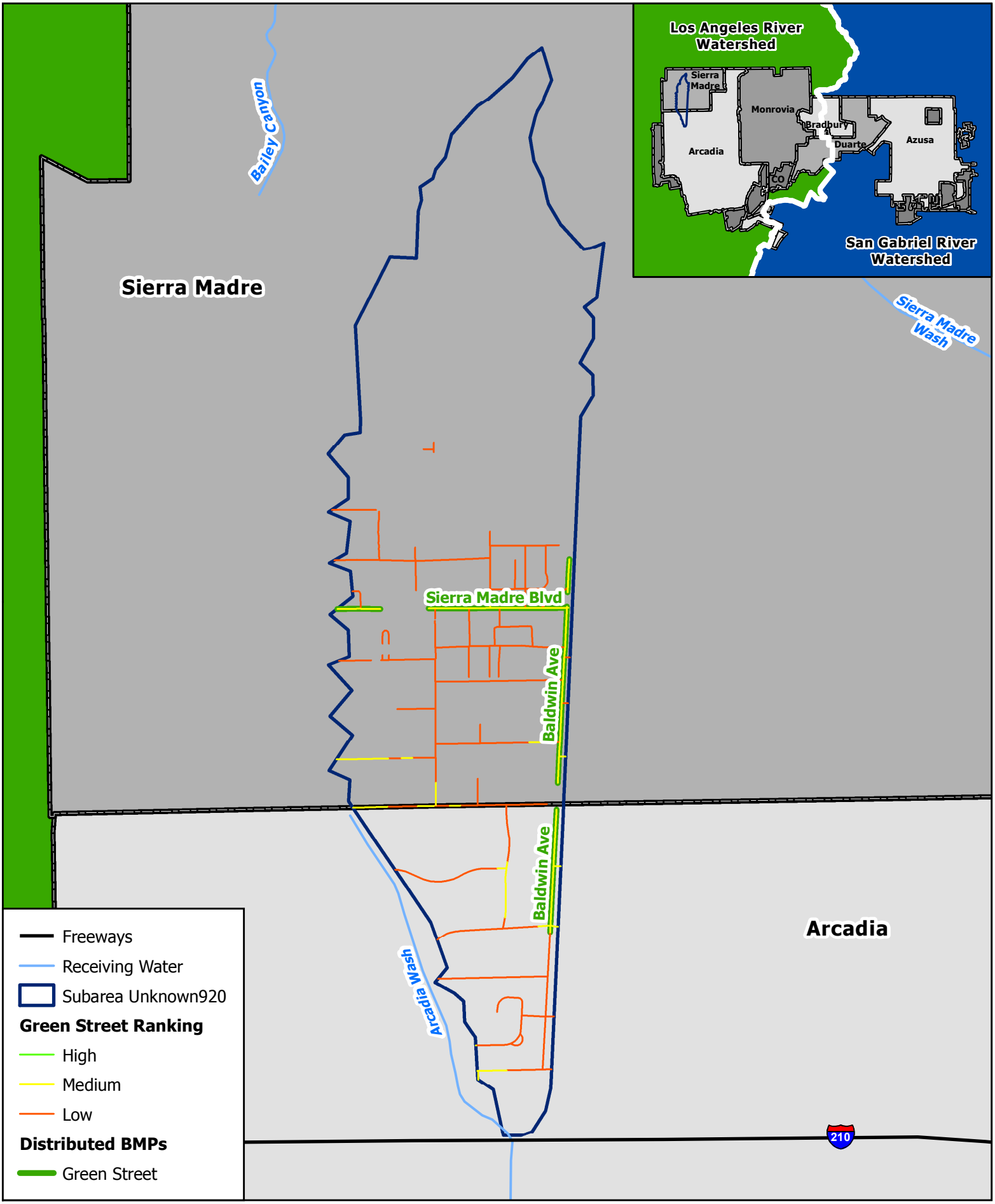
Subarea Unknown945
Green Street Analysis
RH/SGRWQG EWMP



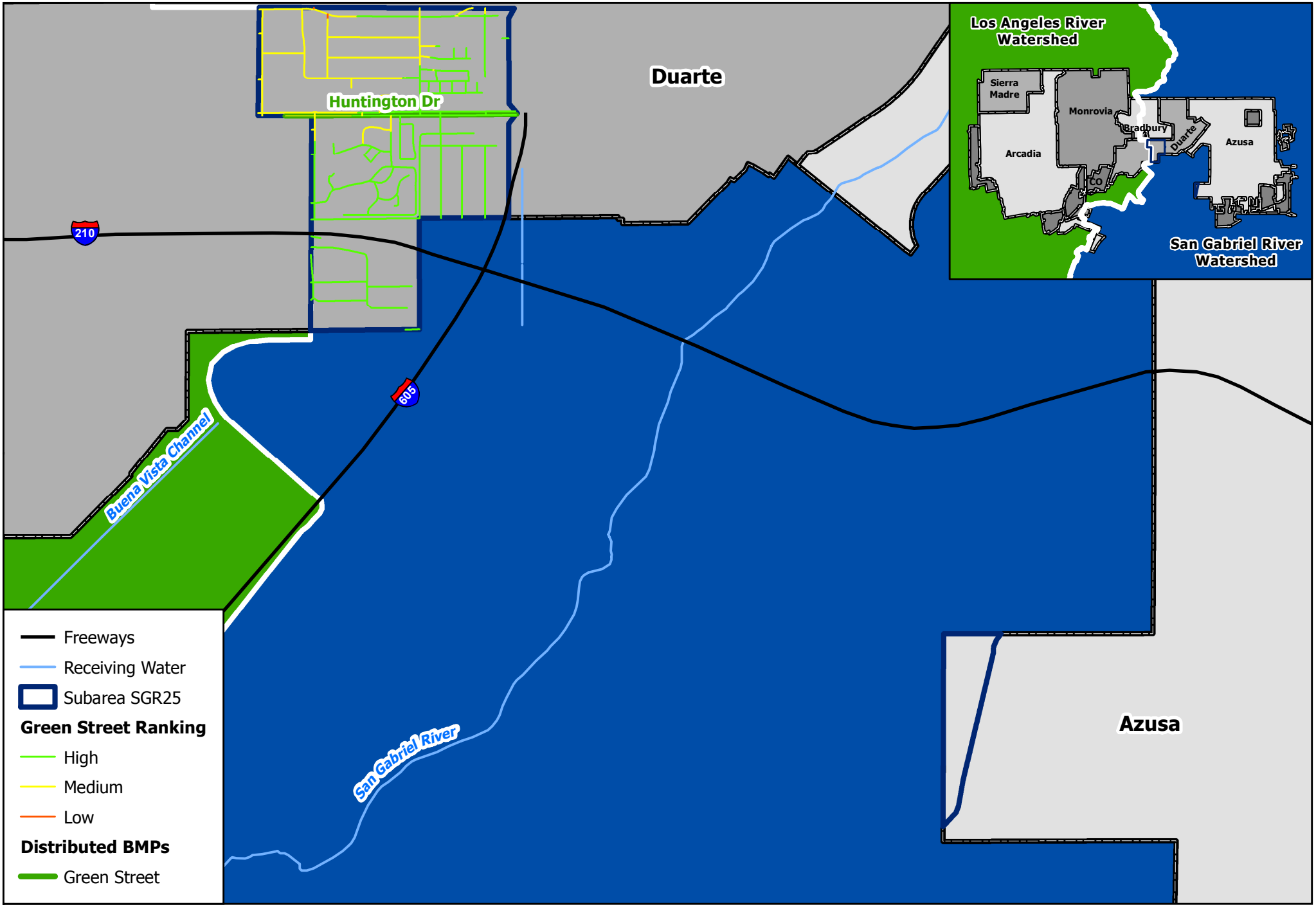
N

0 1,000 2,000 4,000 Feet

Subarea Unknown930
Green Street Analysis
RH/SGRWQG EWMP



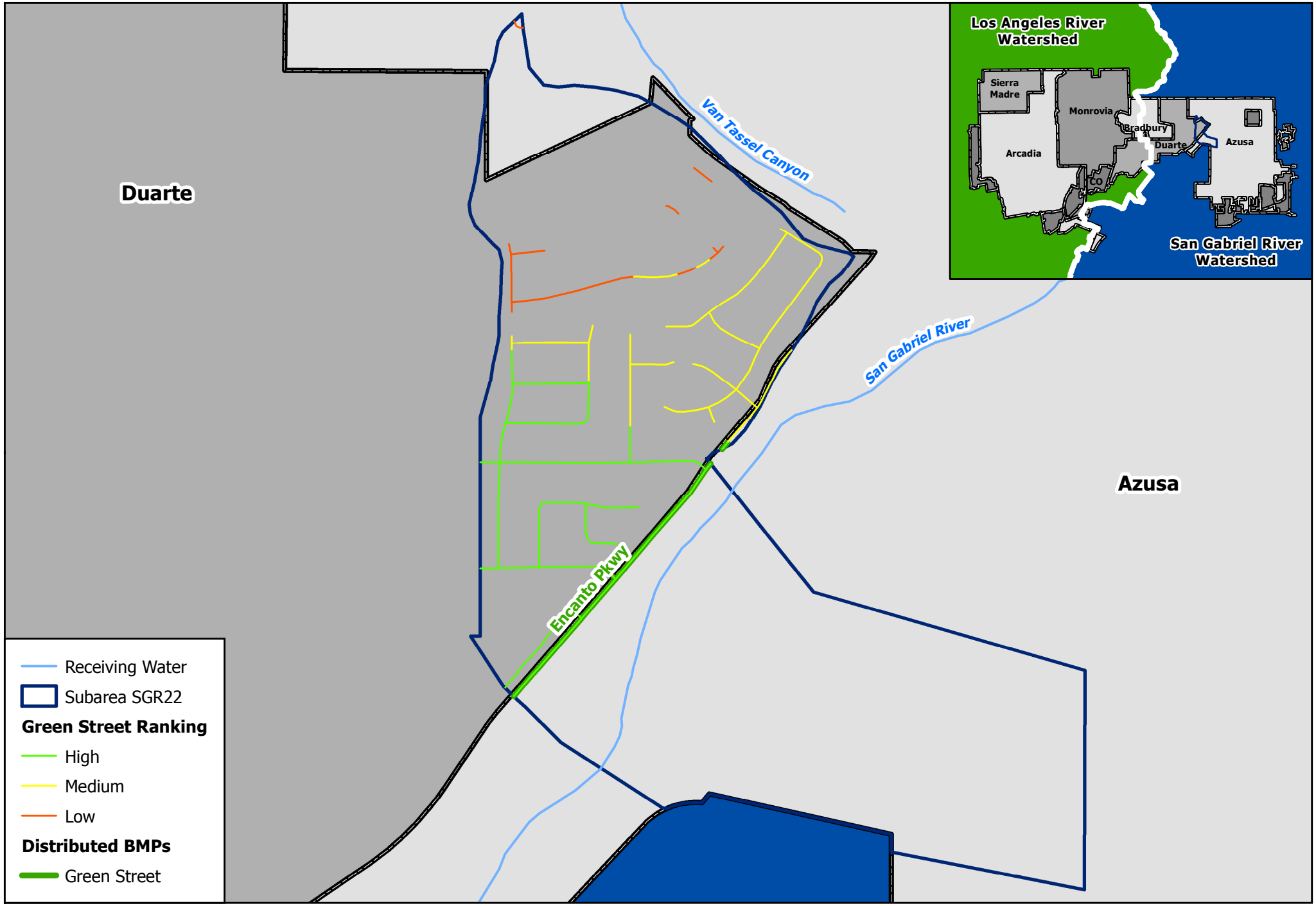
Subarea Unknown920
Green Street Analysis
RH/SGRWQG EWMP



N

0 750 1,500 3,000 Feet

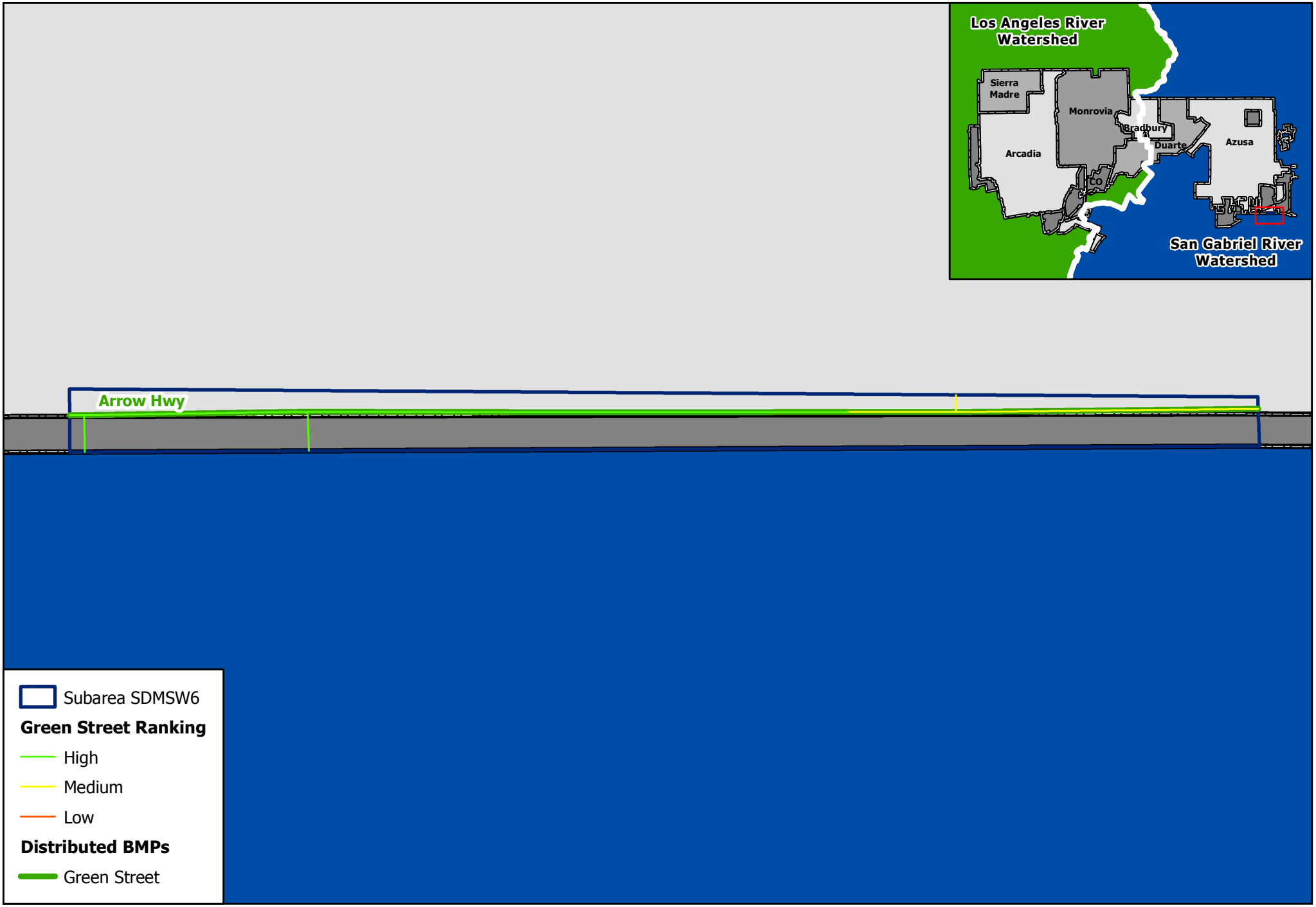
Subarea SGR25
Green Street Analysis
RH/SGRWQG EWMP



N

0 500 1,000 2,000 Feet

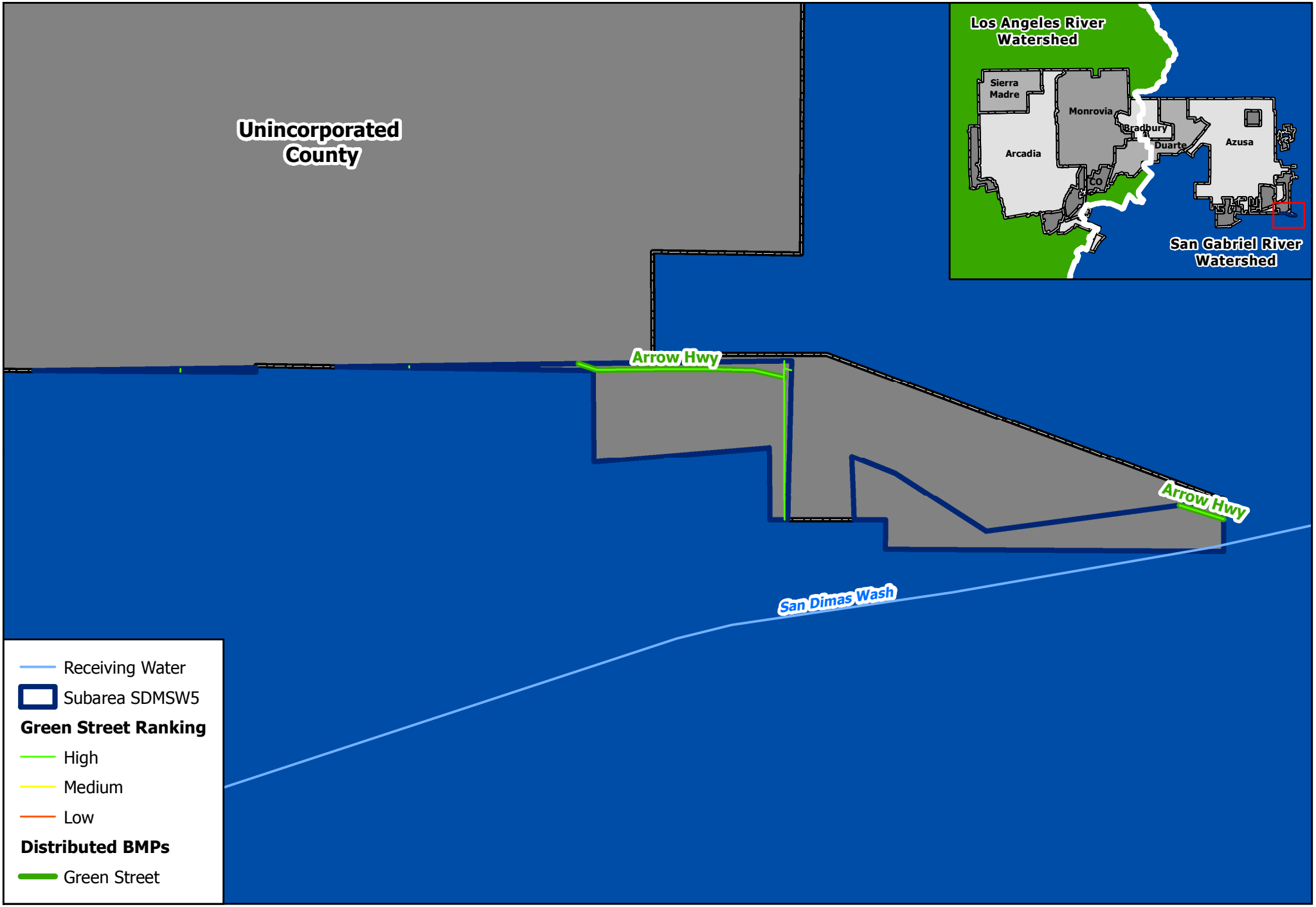
Subarea SGR22
Green Street Analysis
RH/SGRWQG EWMP



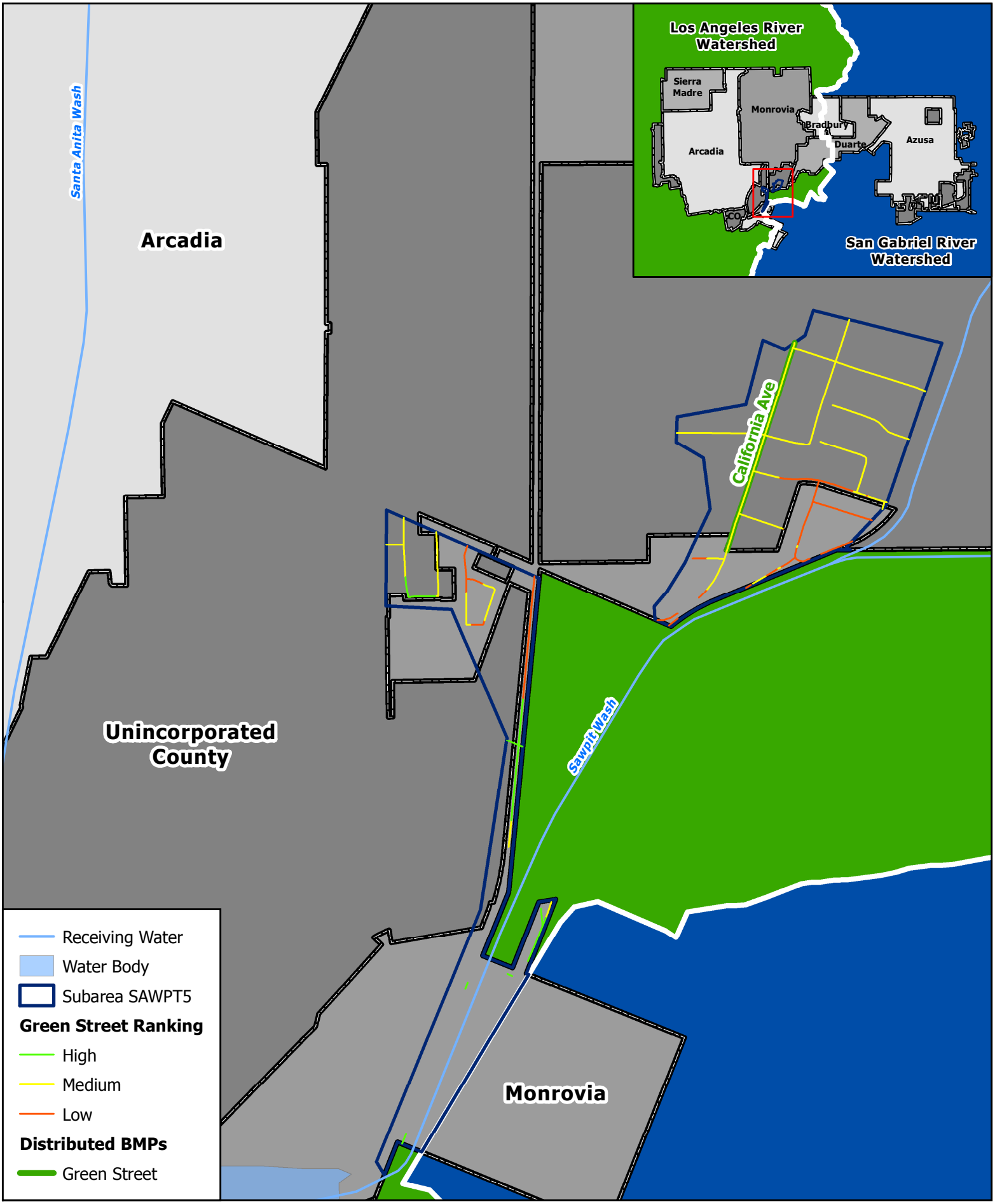
N

0 75 150 300 Feet

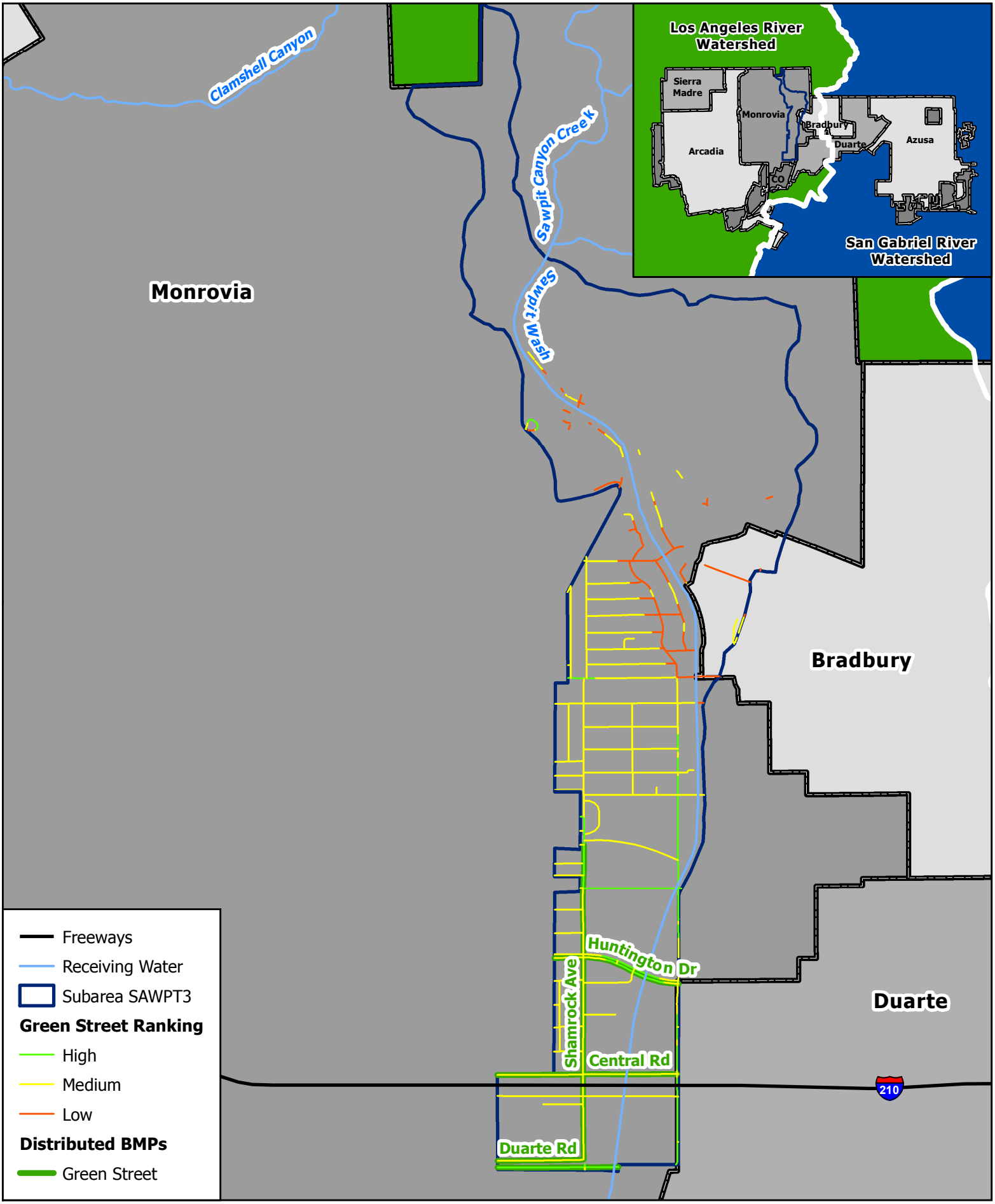
Subarea SDMSW6
Green Street Analysis
RH/SGRWQG EWMP



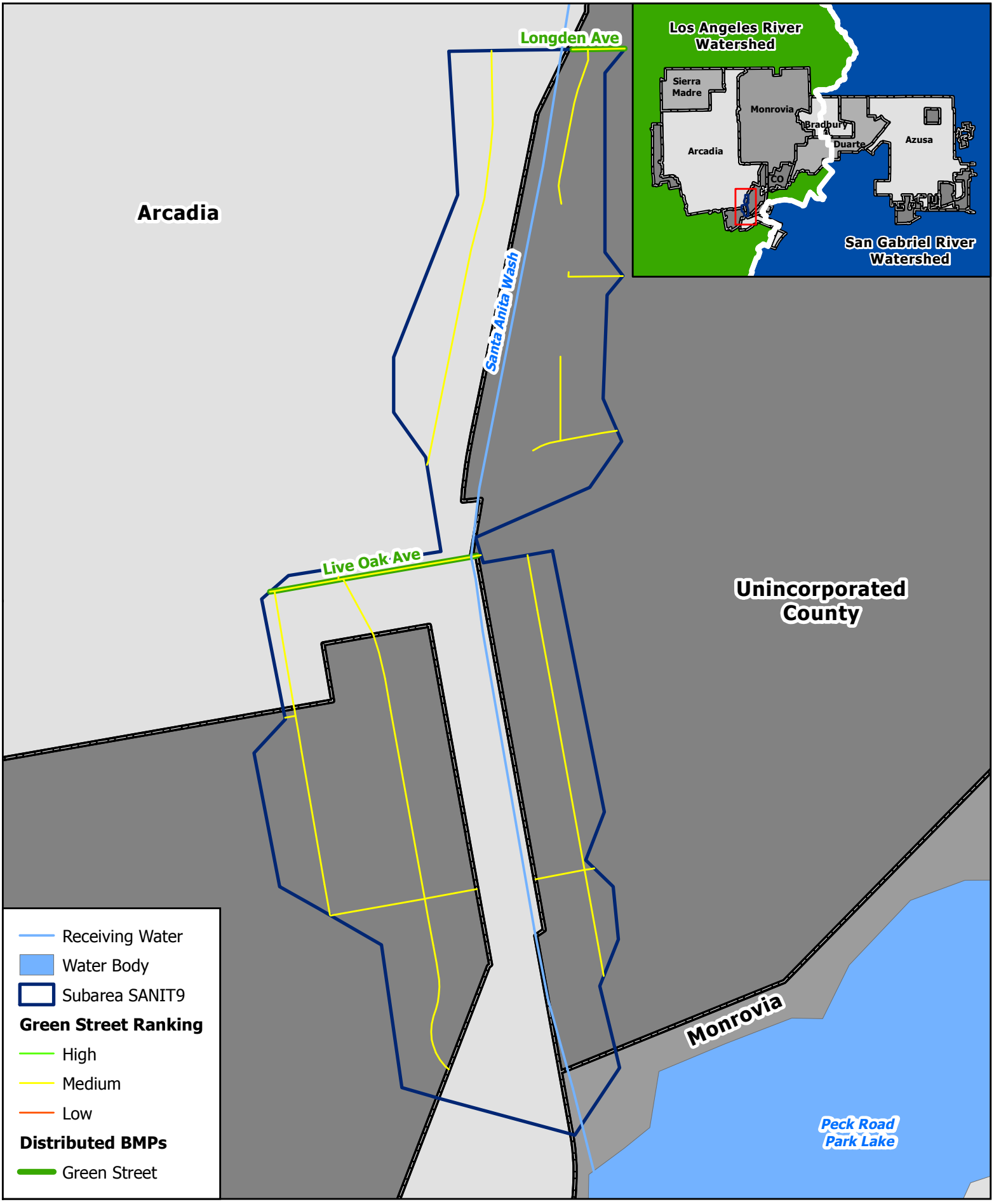
Subarea SDMSW5
Green Street Analysis
RH/SGRWQG EWMP



Subarea SAWPT5
Green Street Analysis
RH/SGRWQG EWMP



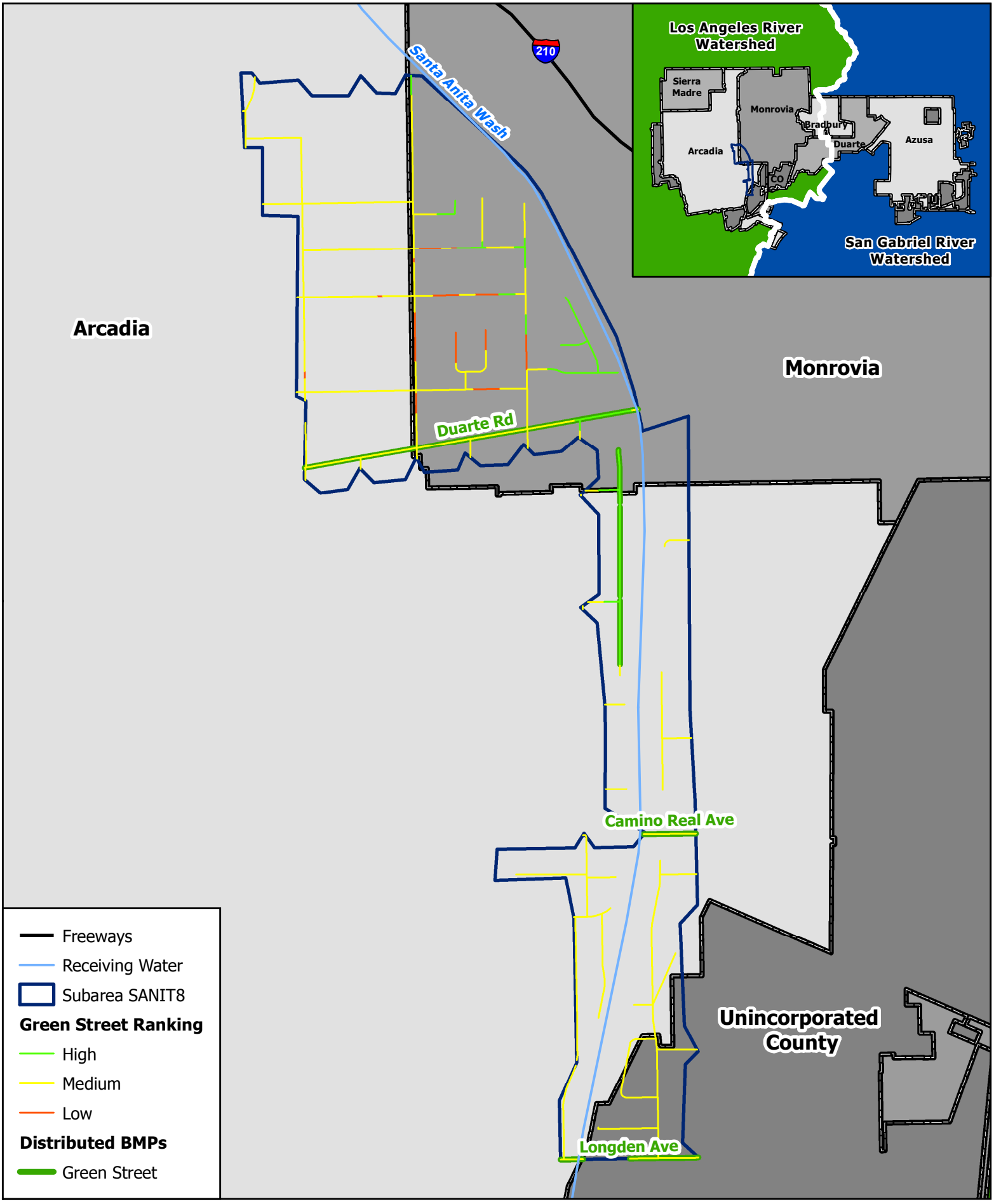
Subarea SAWPT3
Green Street Analysis
RH/SGRWQG EWMP



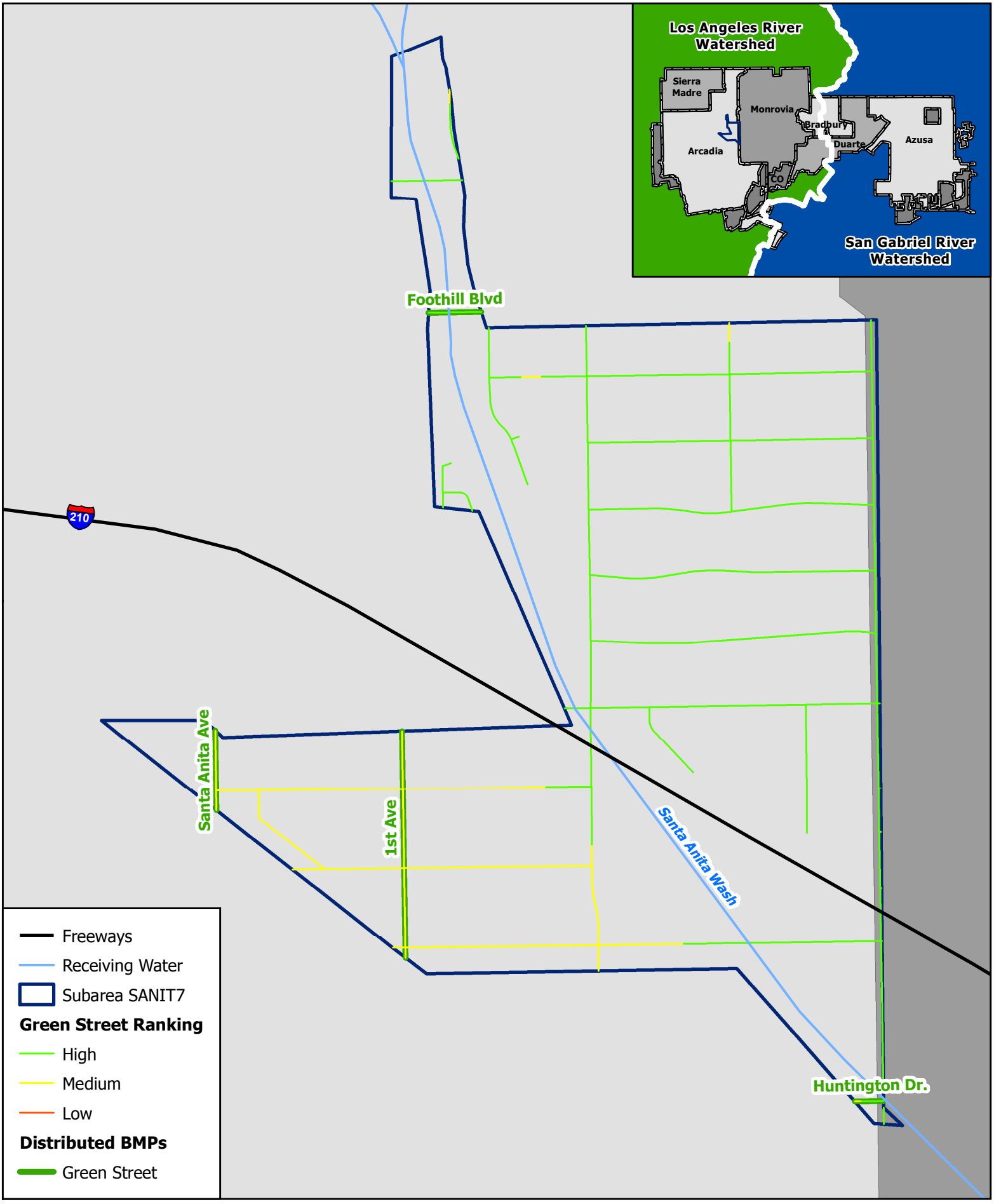
N

0 250 500 1,000 Feet

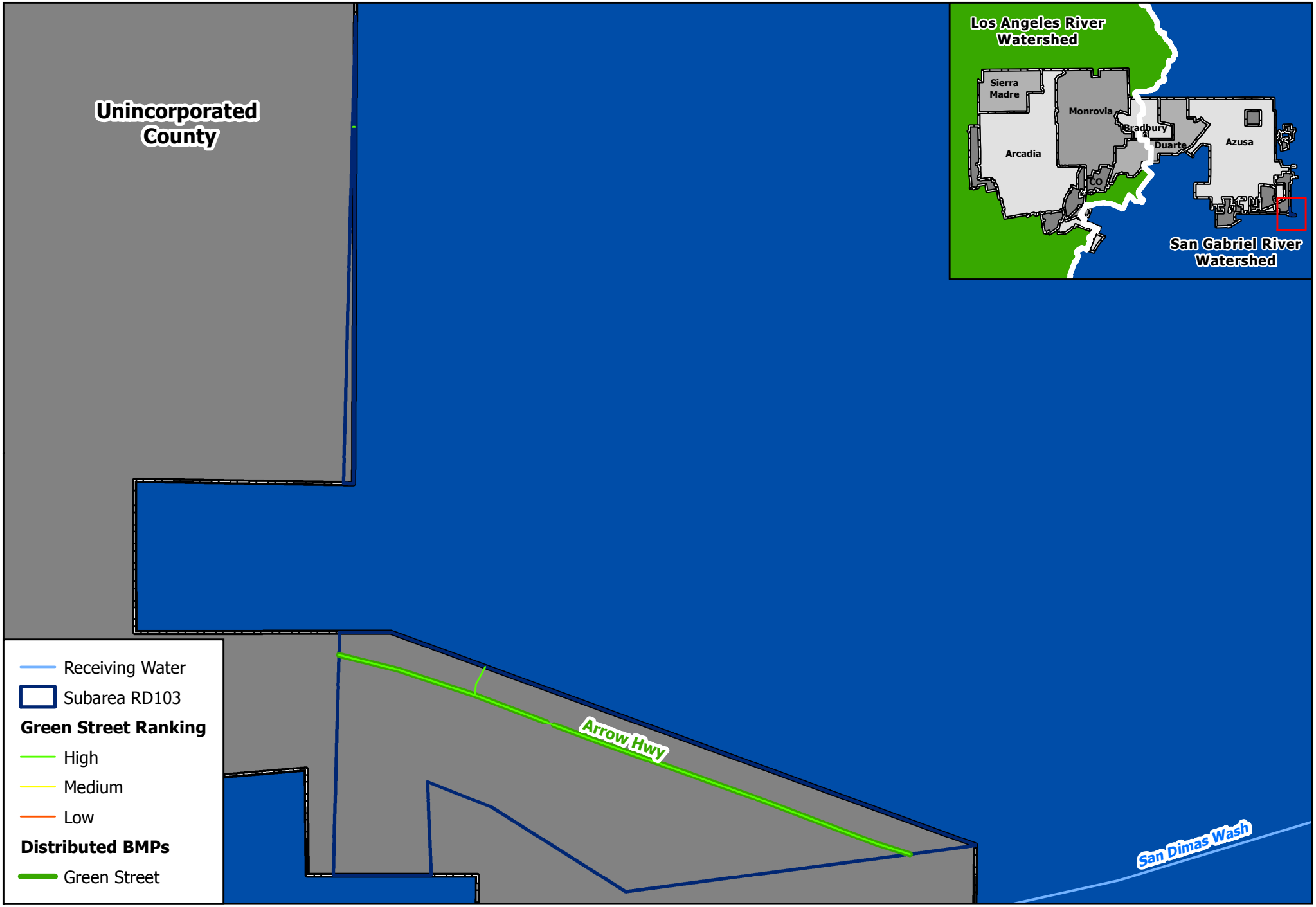
Subarea SANIT9
Green Street Analysis
RH/SGRWQG EWMP



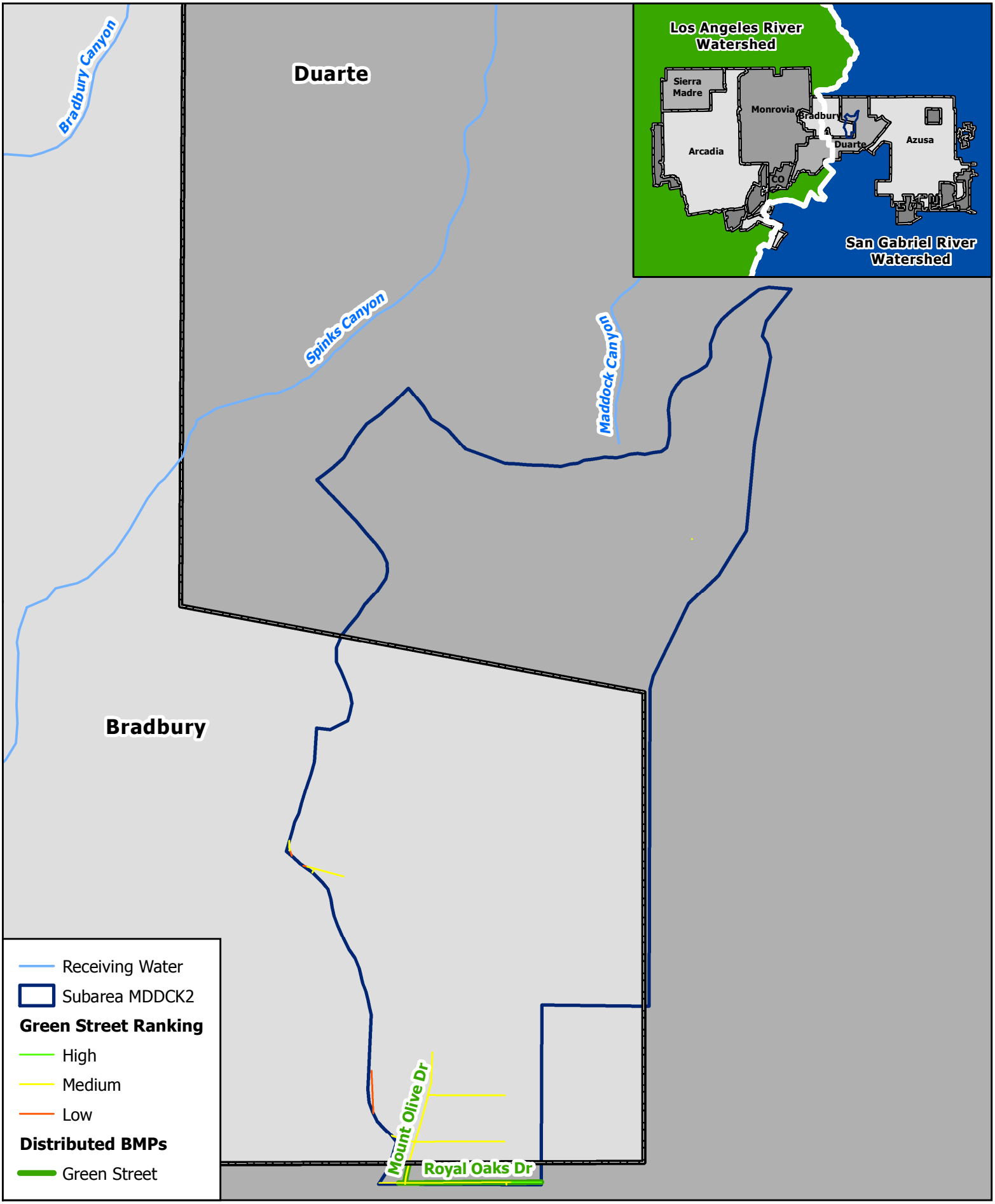
Subarea SANIT8
Green Street Analysis
RH/SGRWQG EWMP



Subarea SANIT7
Green Street Analysis
RH/SGRWQG EWMP



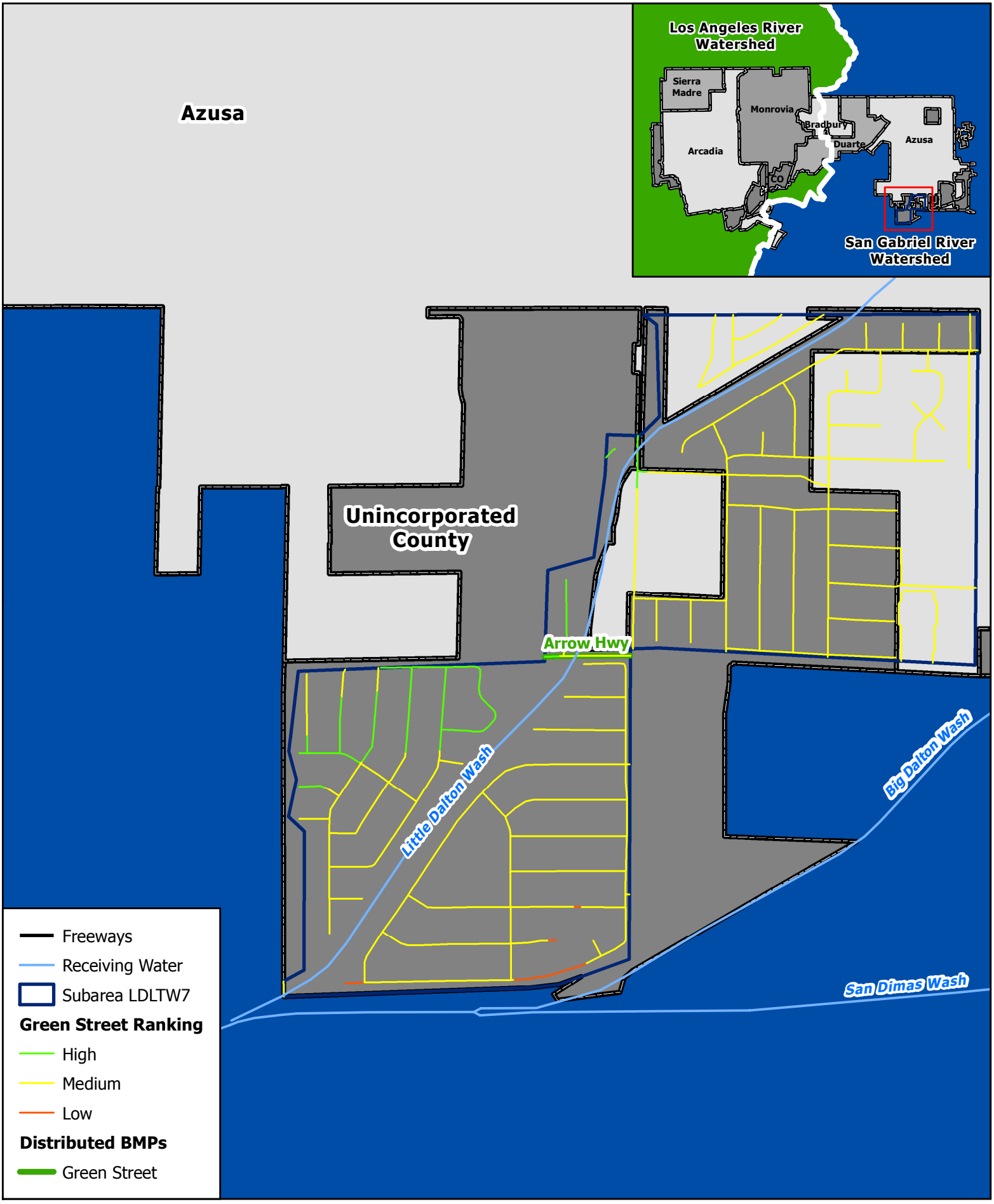
Subarea RD103
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

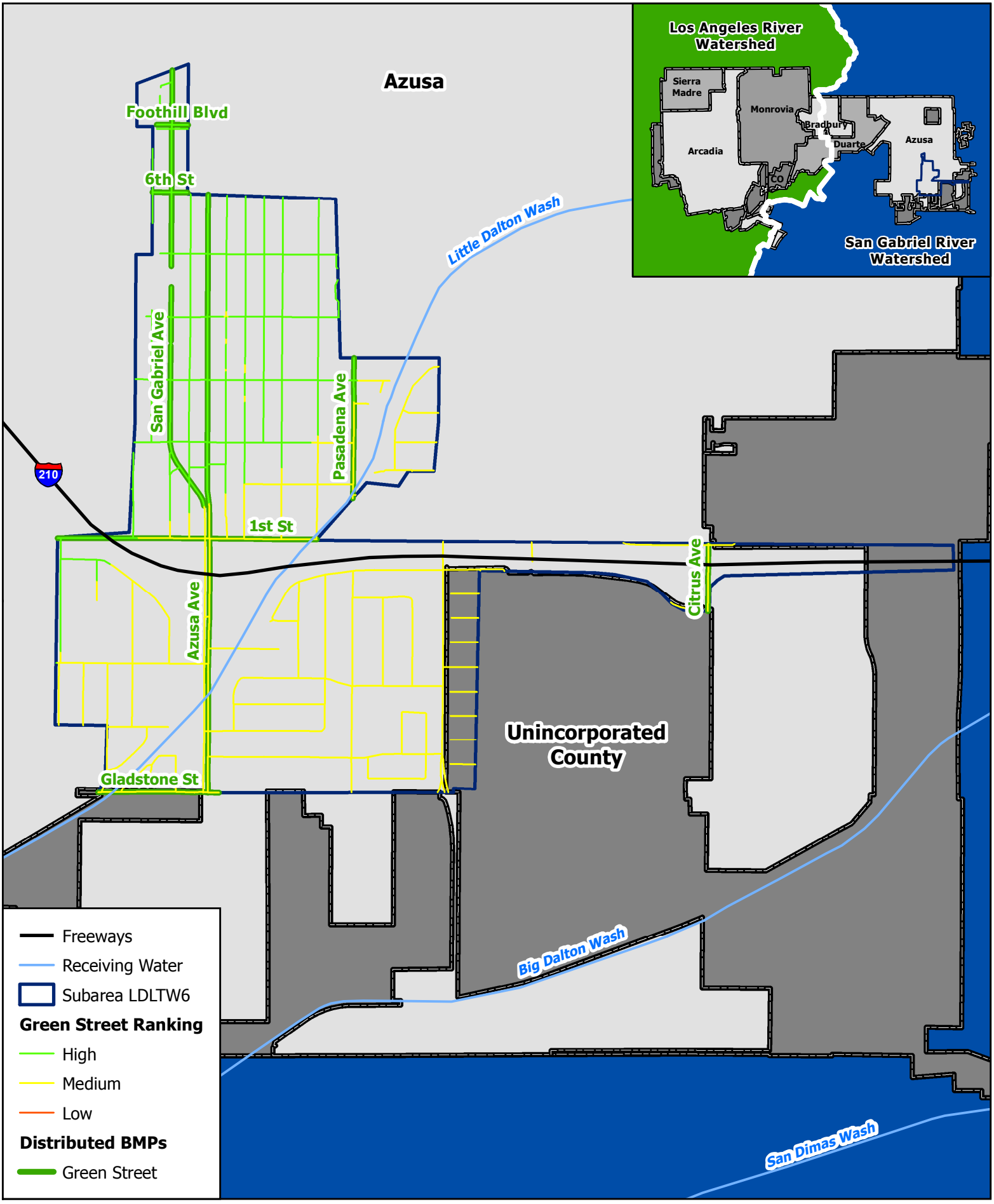
Subarea MDDCK2
Green Street Analysis
RH/SGRWQG EWMP



N

0 500 1,000 2,000 Feet

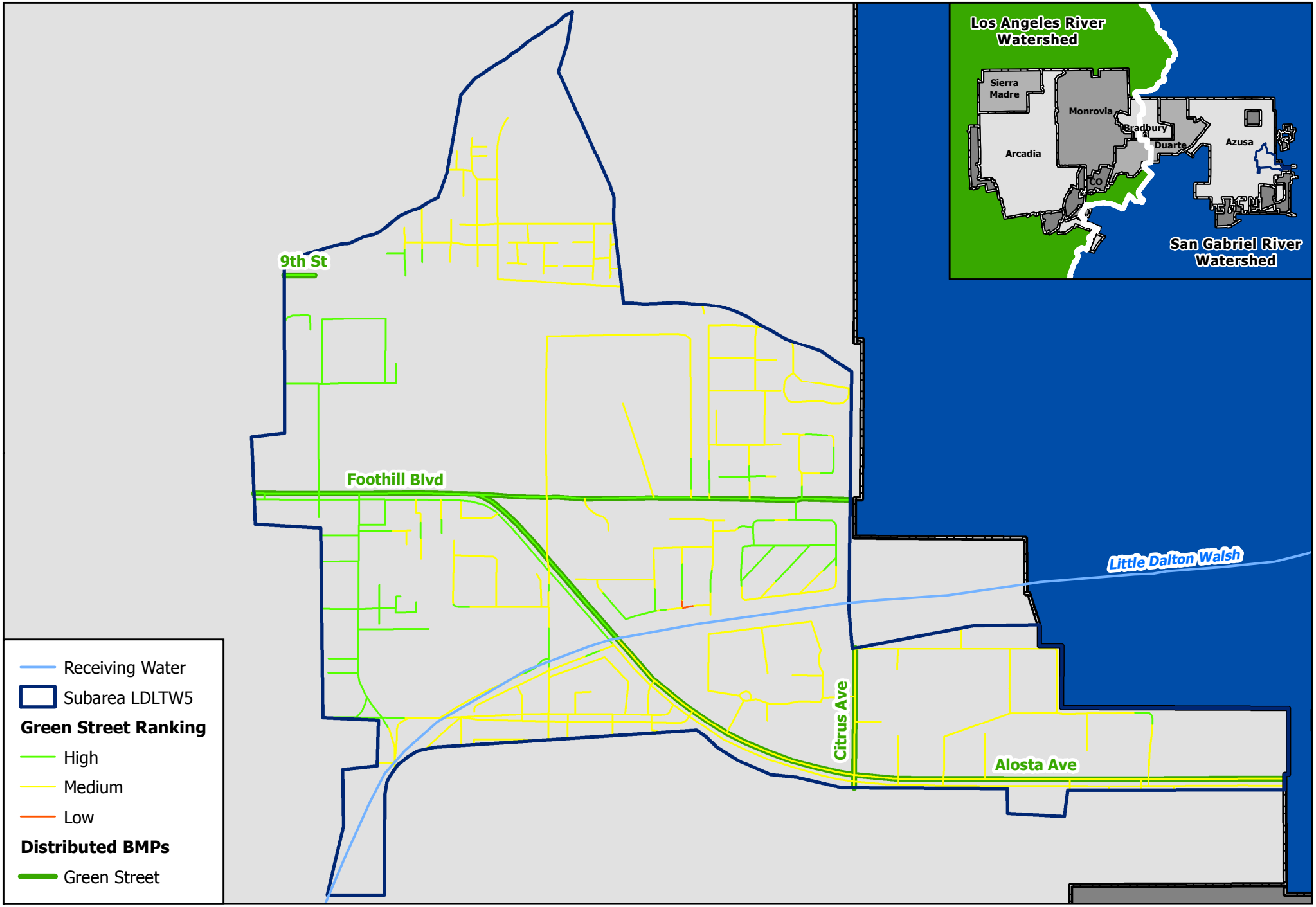
Subarea LDLTW7
Green Street Analysis
RH/SGRWQG EWMP



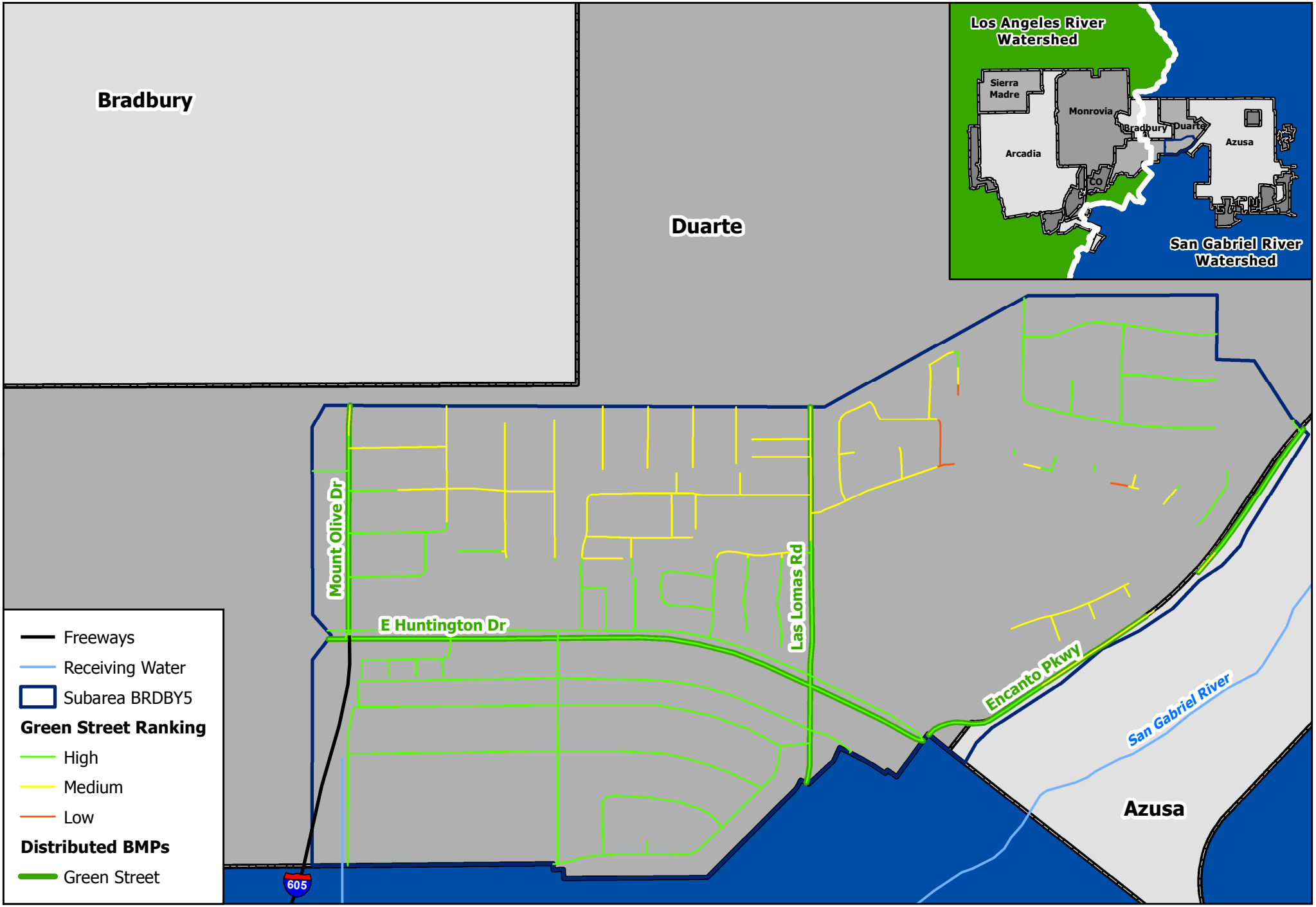
N

0 500 1,000 2,000 Feet

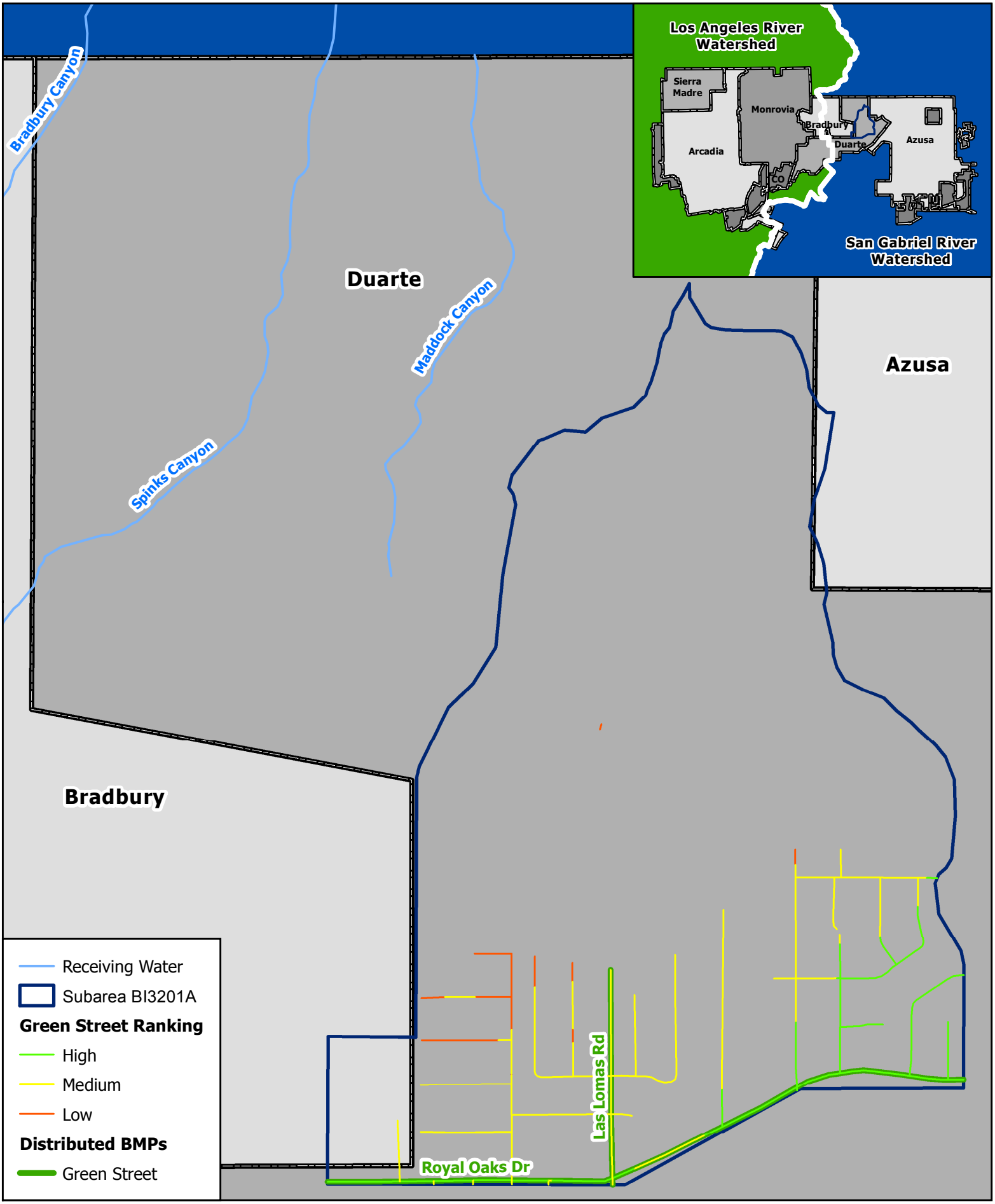
Subarea LDLTW6
Green Street Analysis
RH/SGRWQG EWMP



Subarea LDLTW5
Green Street Analysis
RH/SGRWQG EWMP



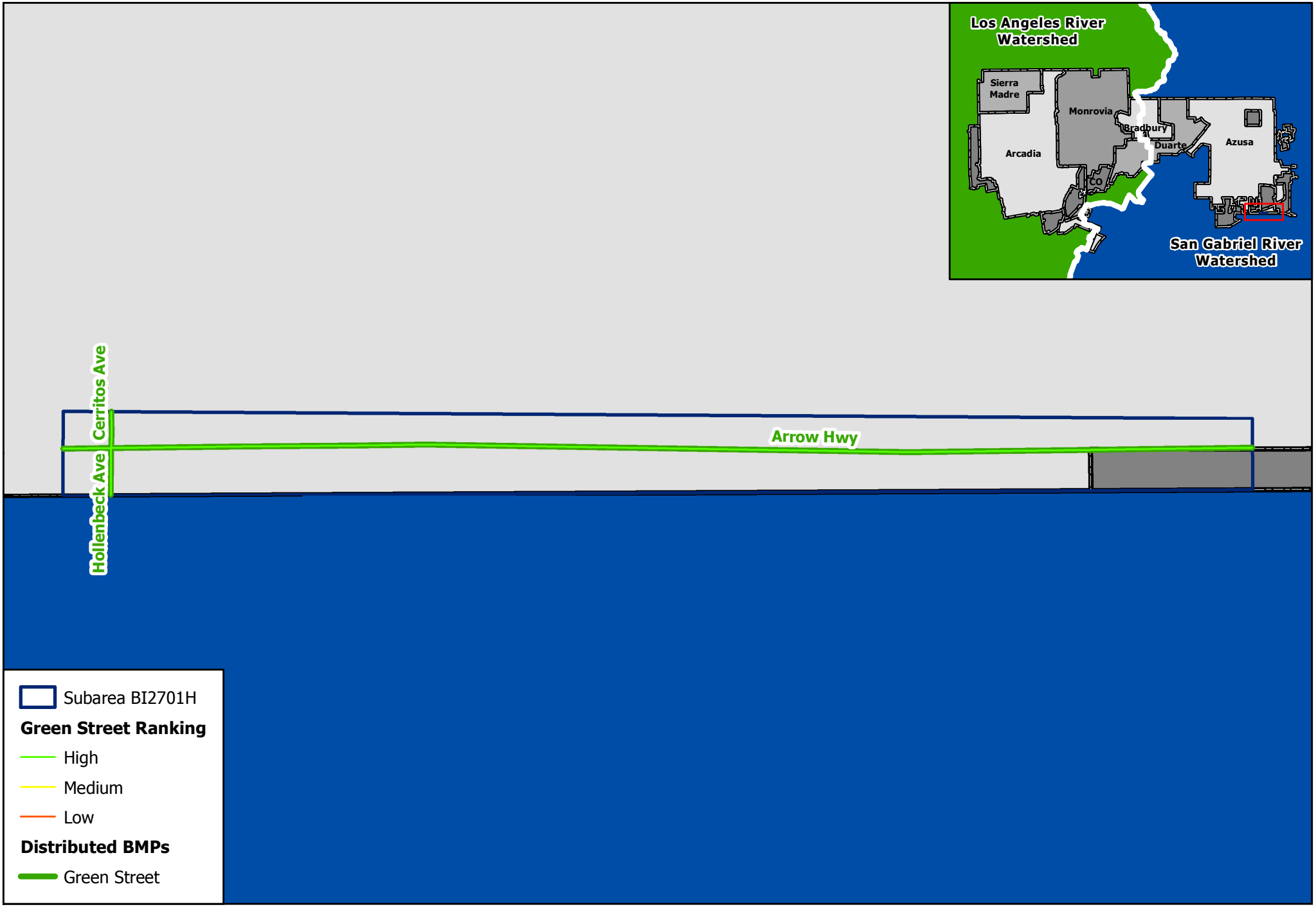
Subarea BRDBY5
Green Street Analysis
RH/SGRWQG EWMP



N

0 500 1,000 2,000 Feet

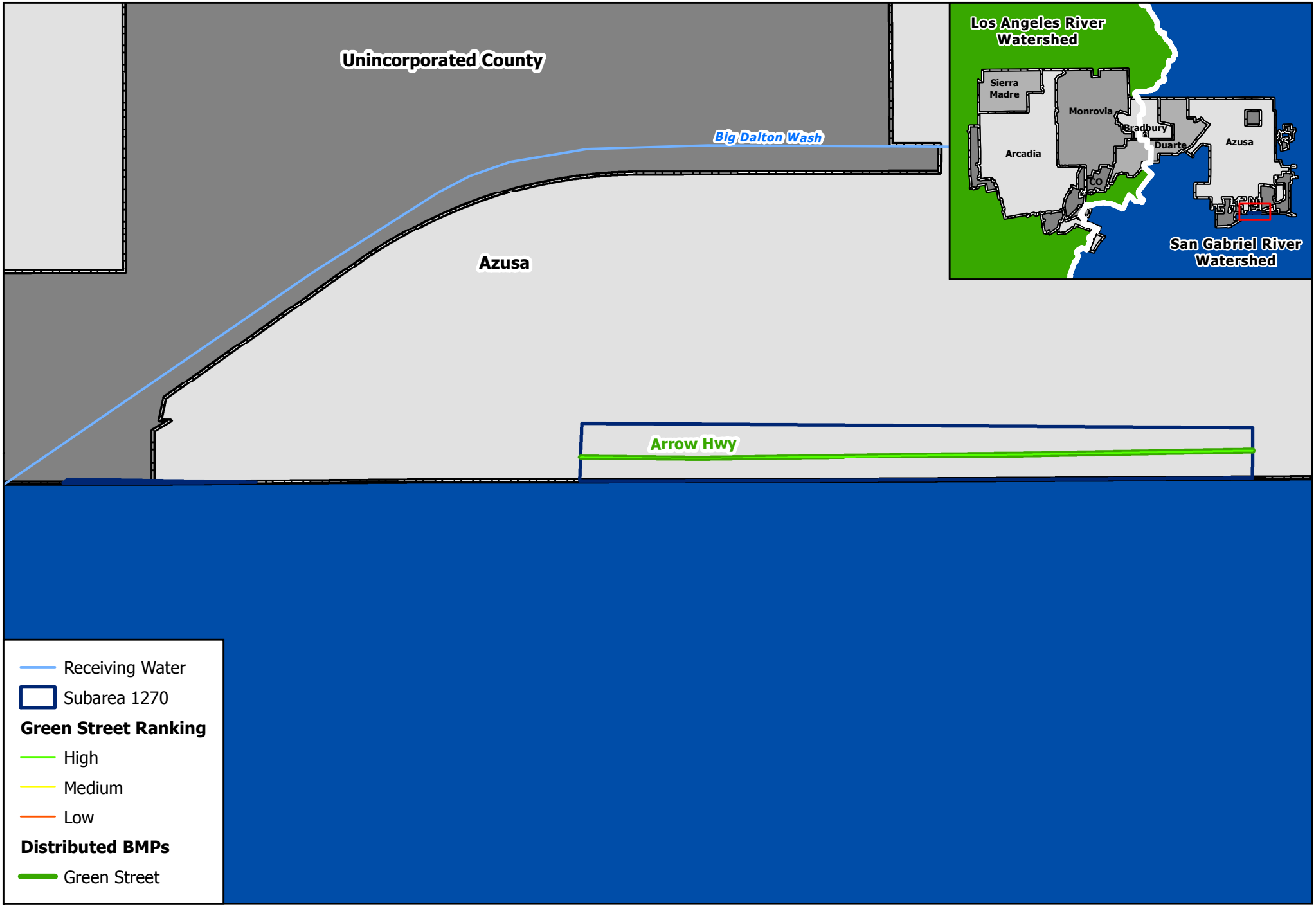
Subarea BI3201A
Green Street Analysis
RH/SGRWQG EWMP



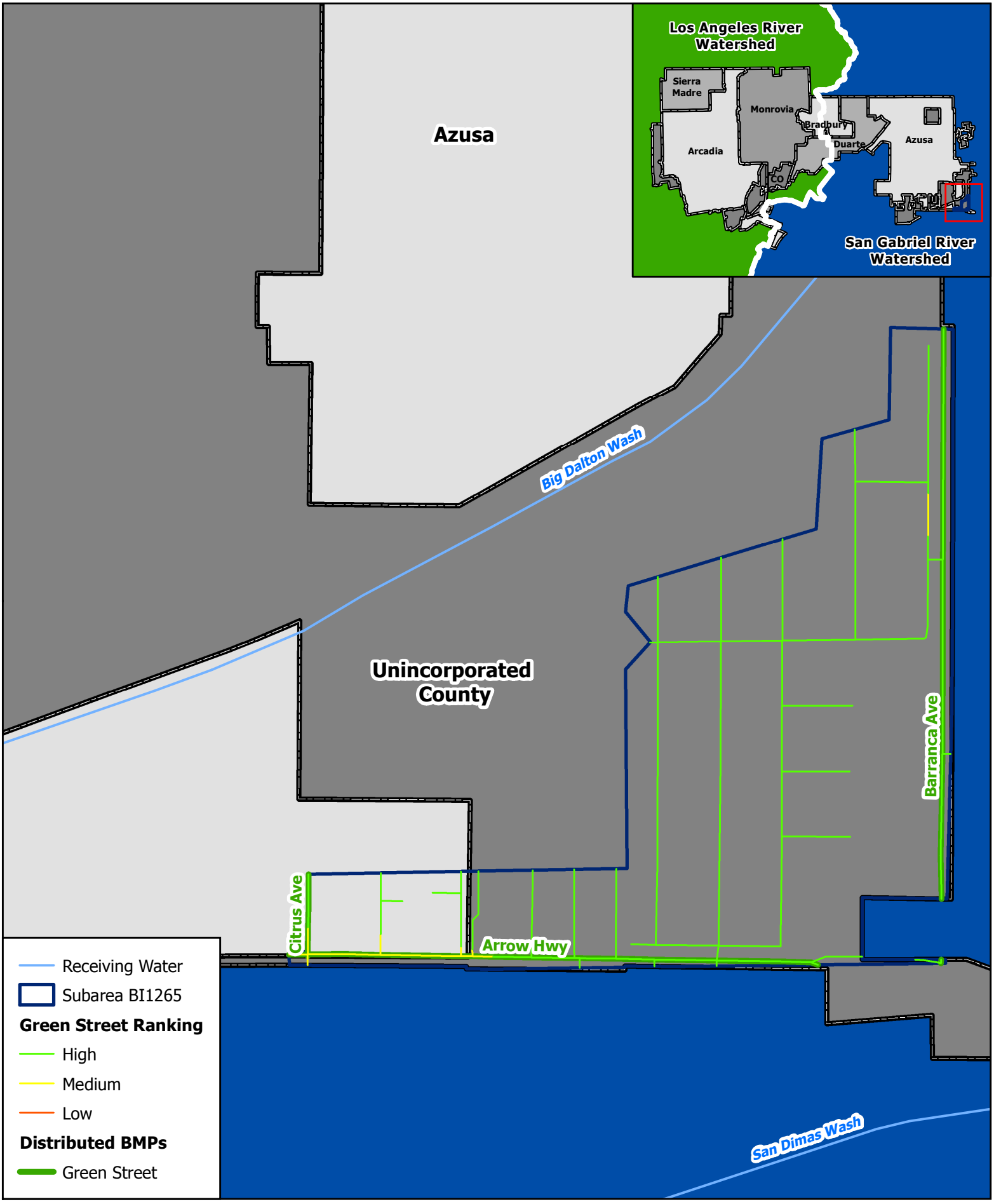
N

0 50 100 200 Feet

Subarea BI2701H
Green Street Analysis
RH/SGRWQG EWMP



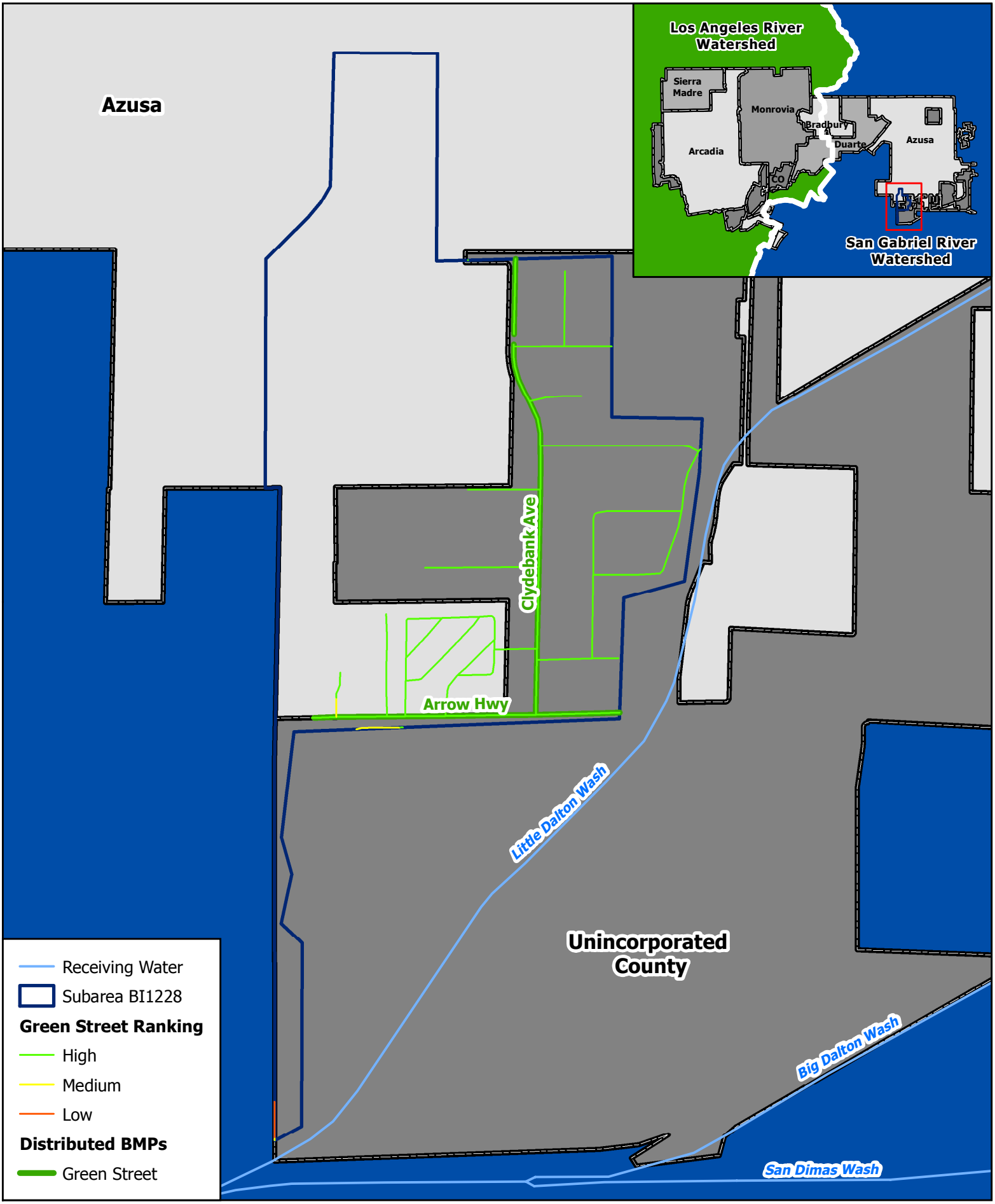
Subarea BI1270
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

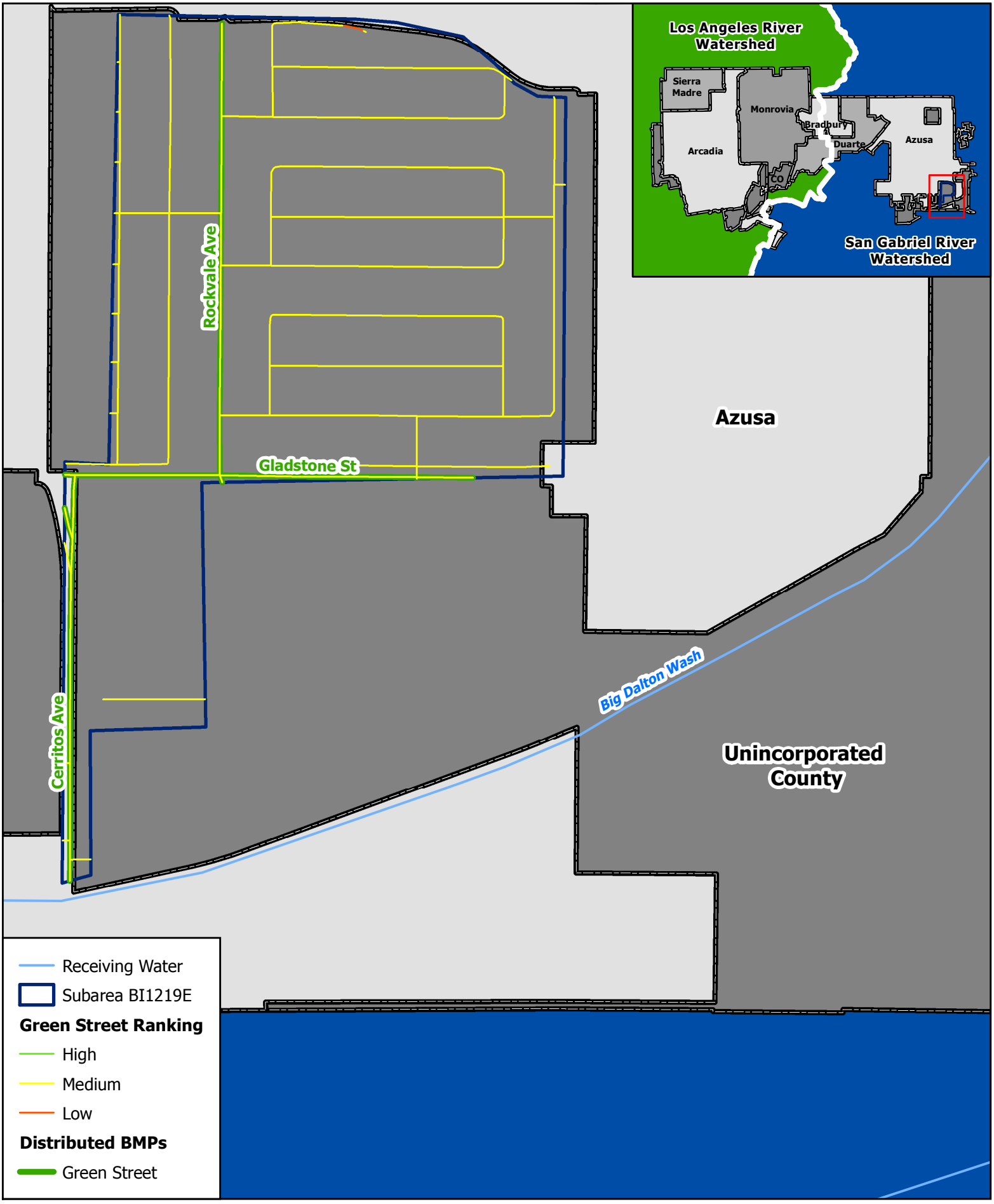
Subarea BI1265
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

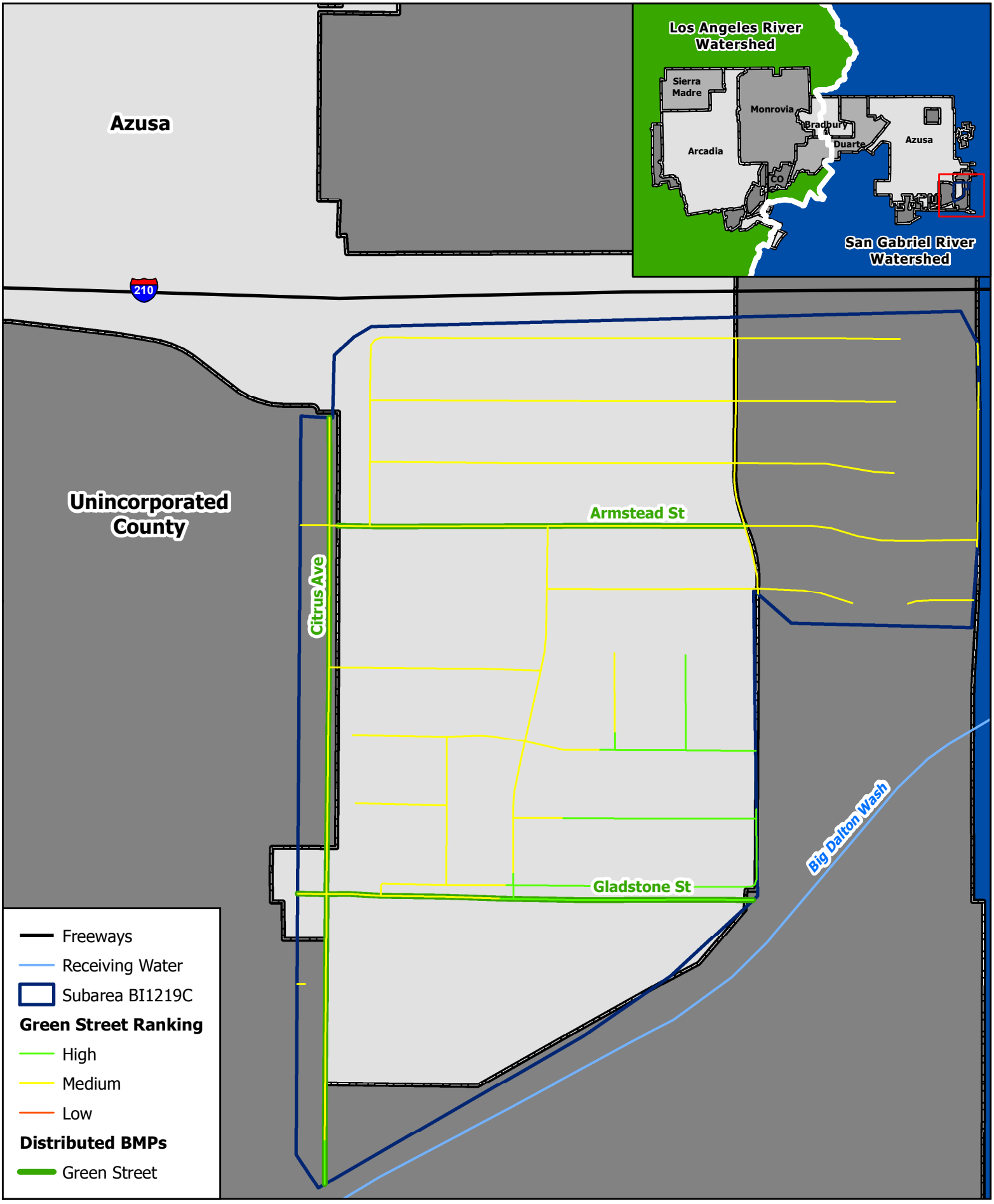
Subarea BI1228
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

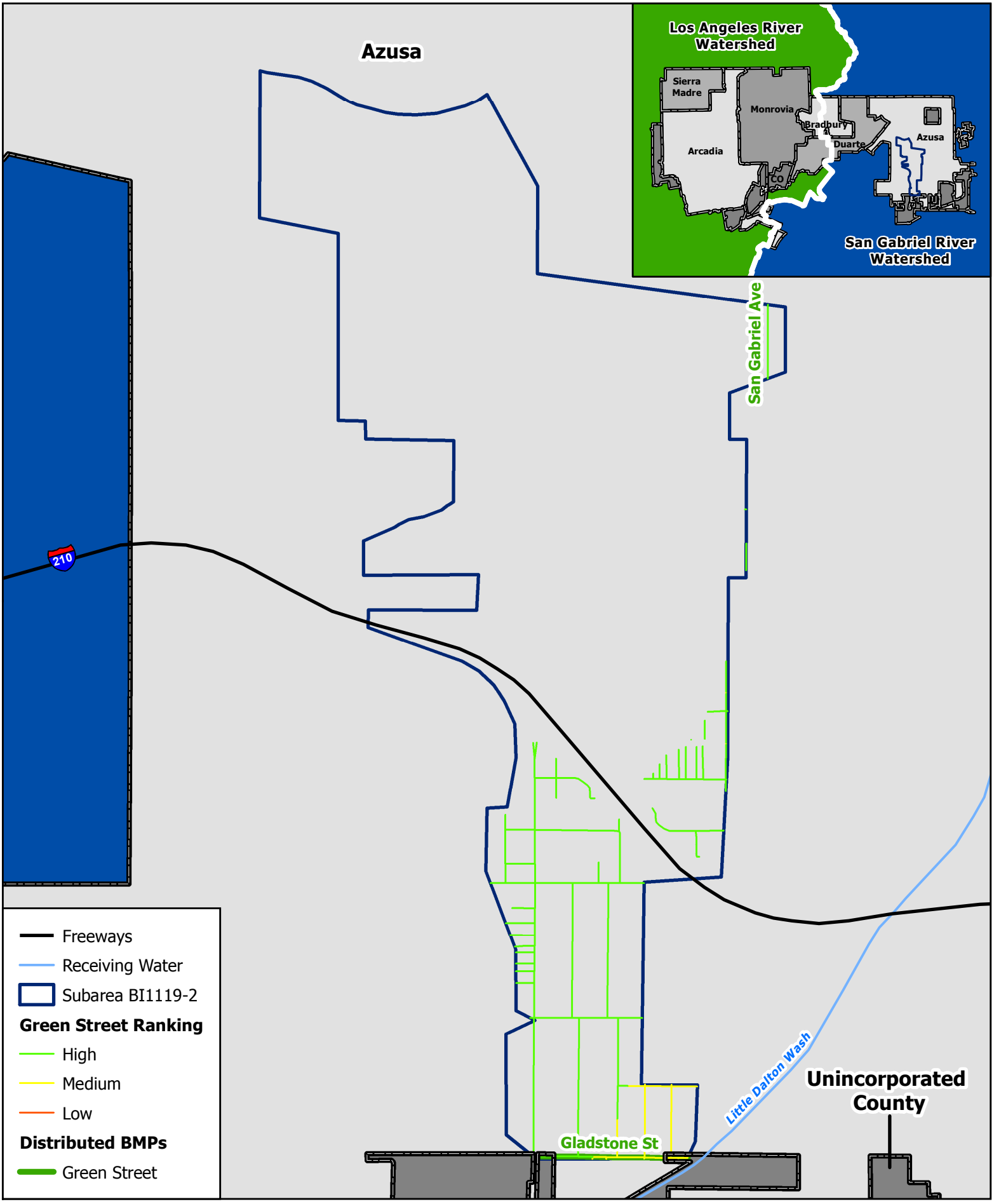
Subarea BI1219E
Green Street Analysis
RH/SGRWQG EWMP



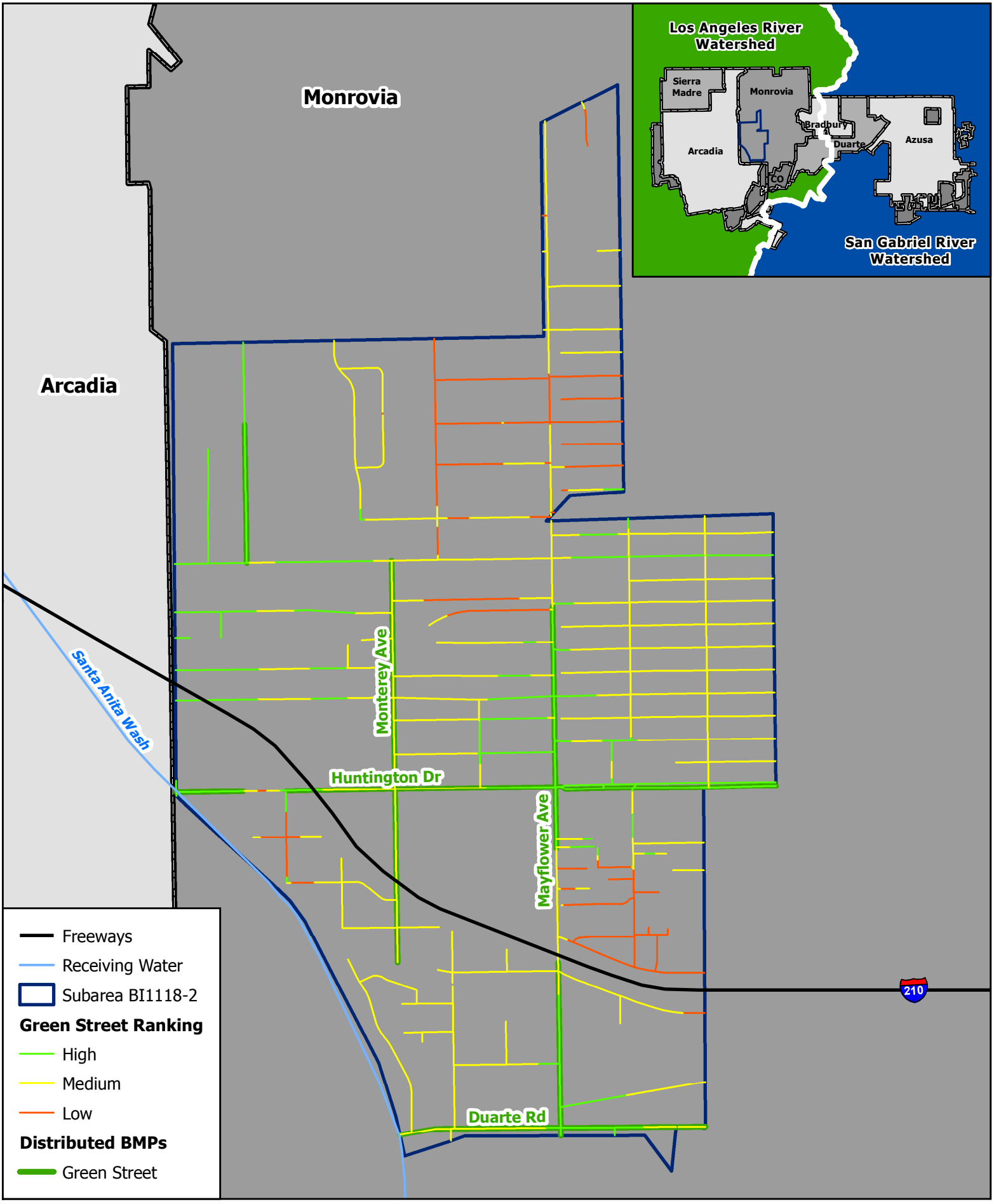
N

0 250 500 1,000 Feet

Subarea BI1219C
Green Street Analysis
RH/SGRWQG EWMP

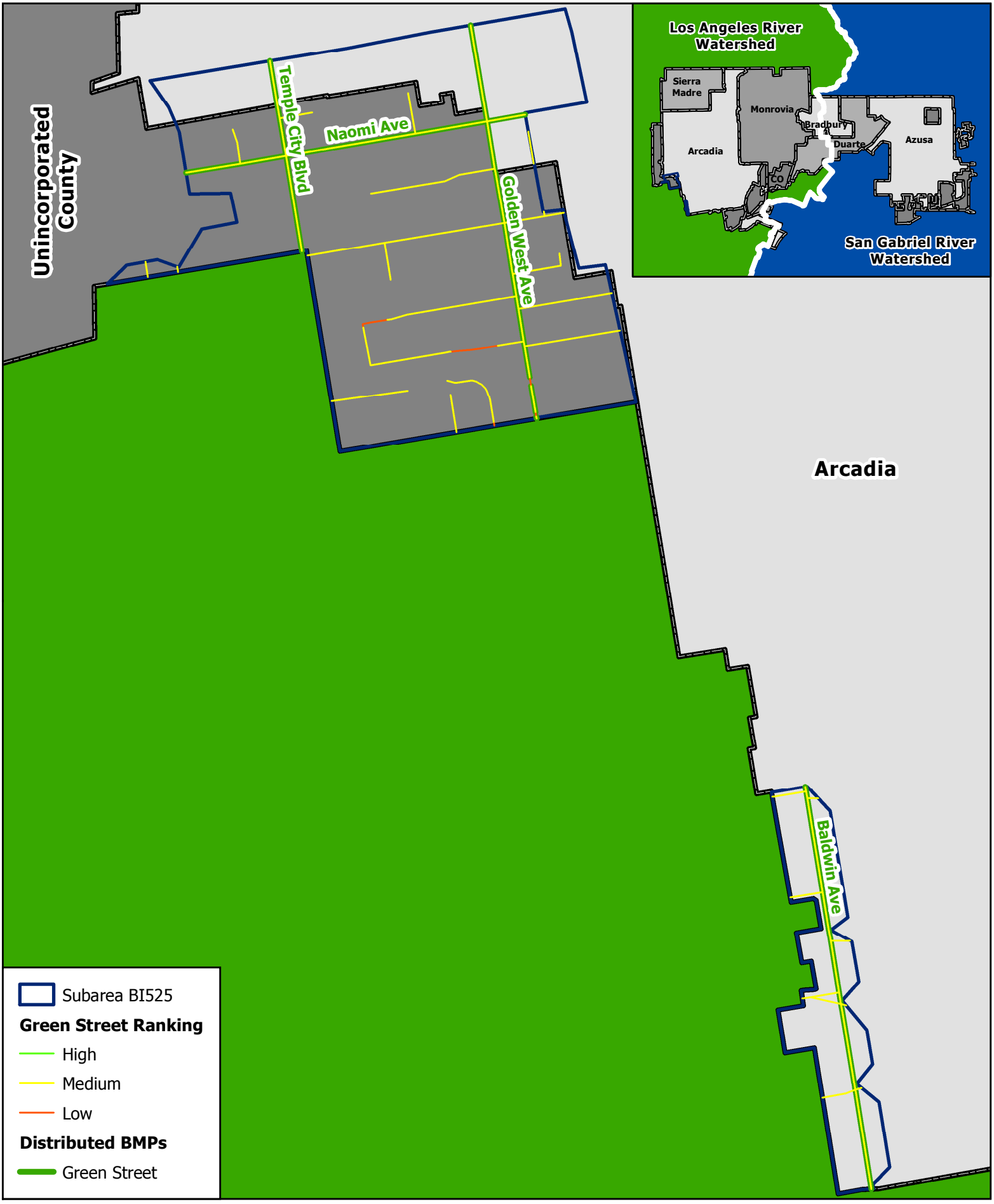


Subarea BI1119-2
Green Street Analysis
RH/SGRWQG EWMP



Subarea BI1118-2
Green Street Analysis
RH/SGRWQG EWMP

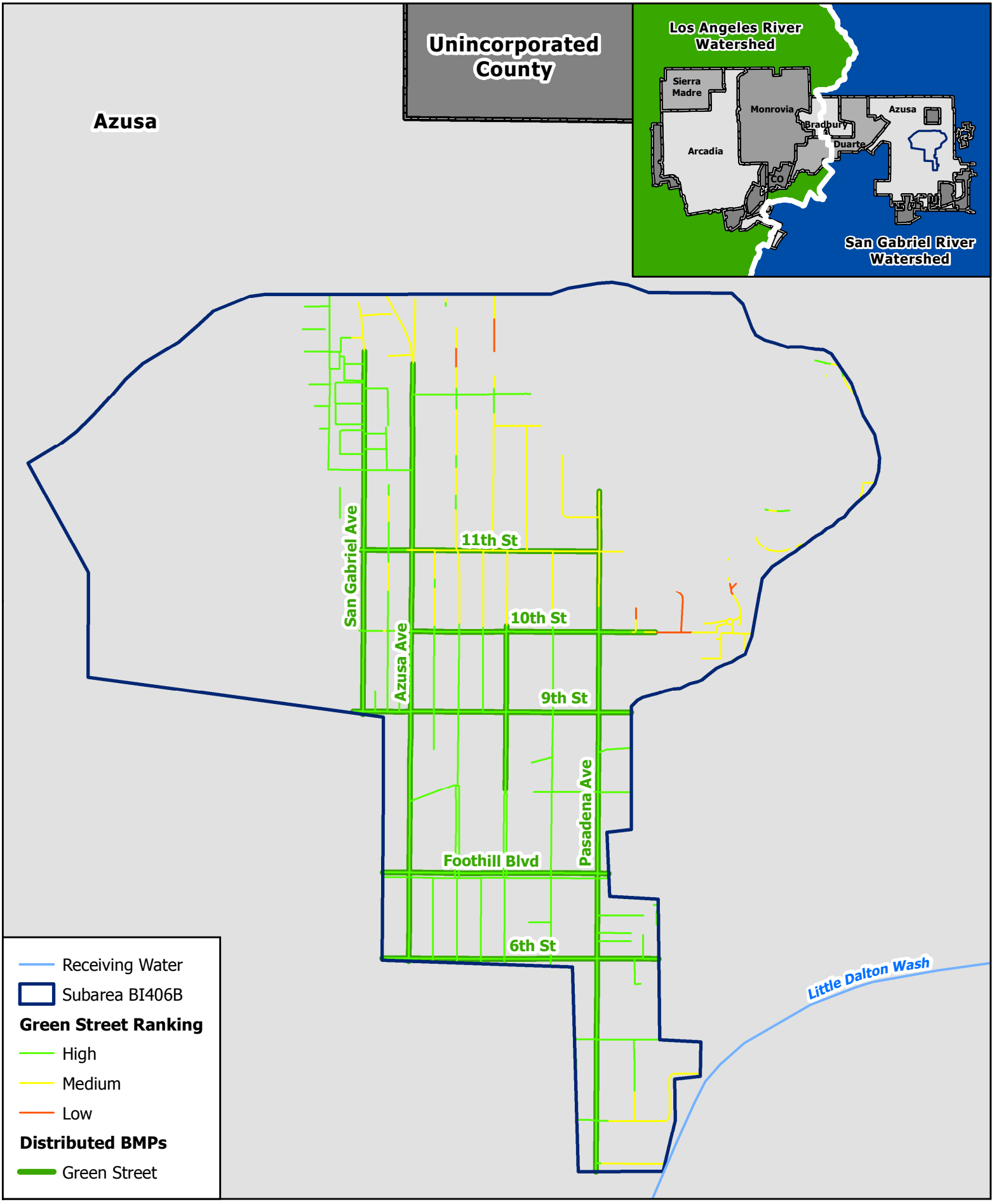
Subarea BI602B
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

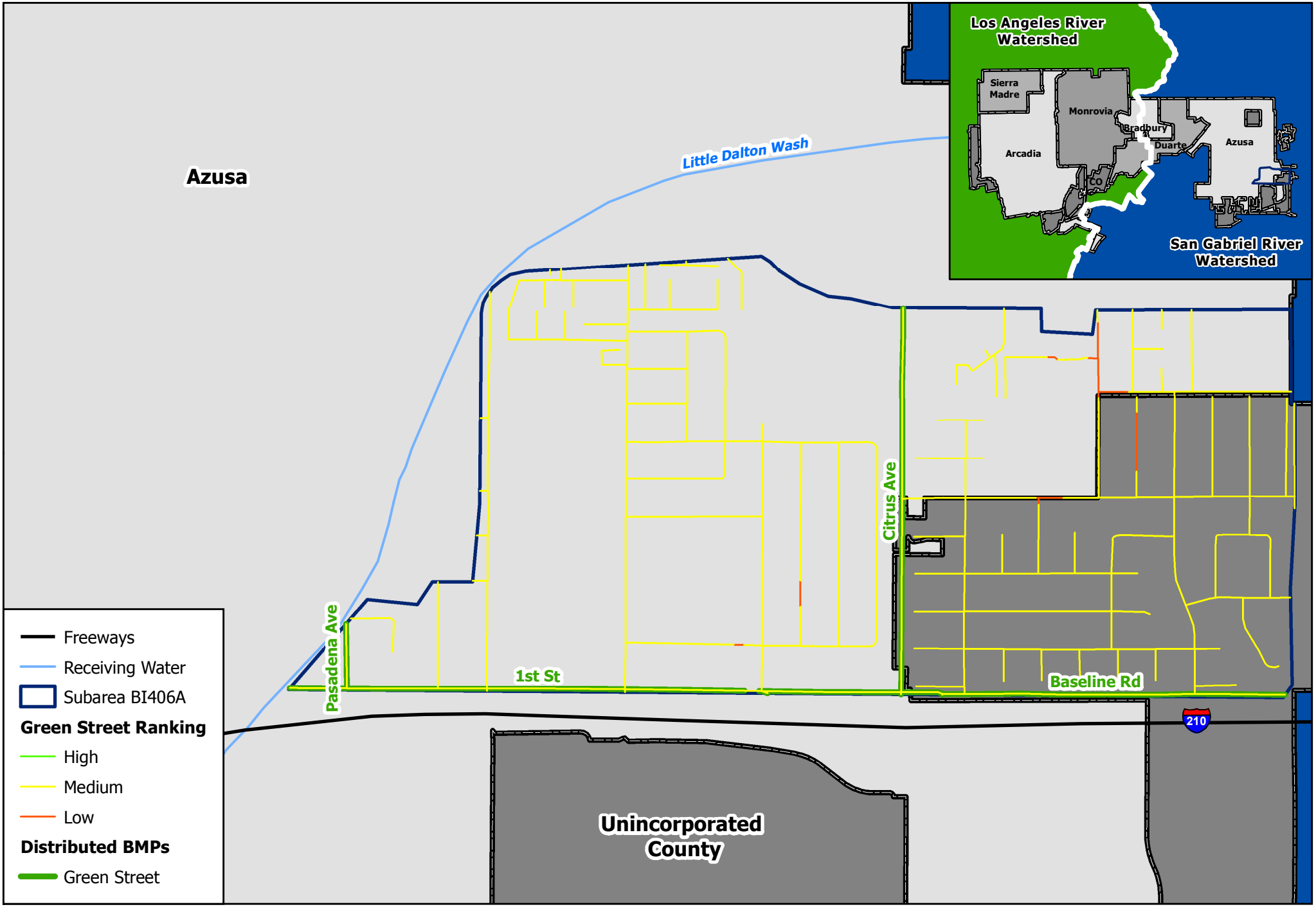
Subarea BI525
Green Street Analysis
RH/SGRWQG EWMP



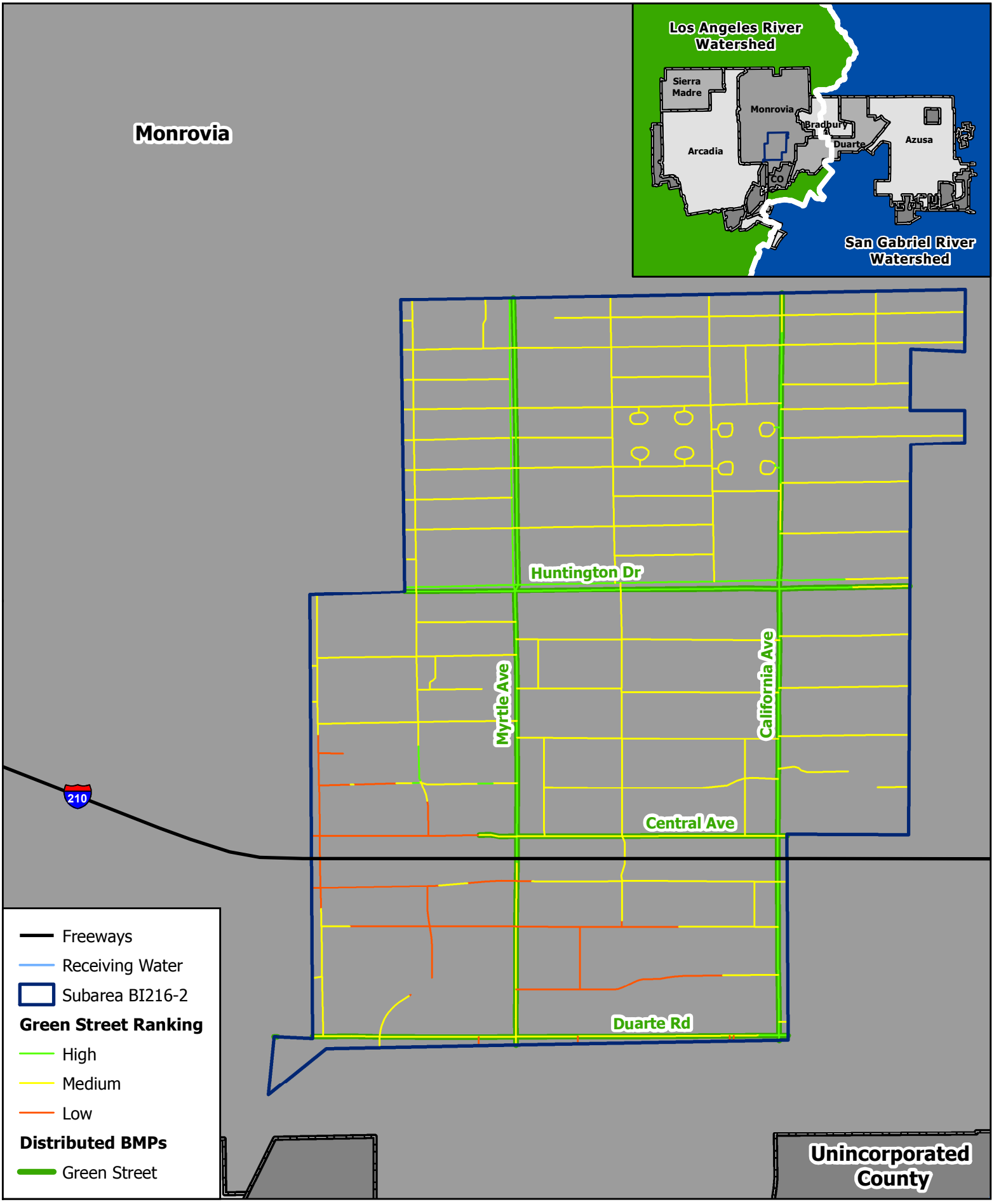
N

0 500 1,000 2,000 Feet

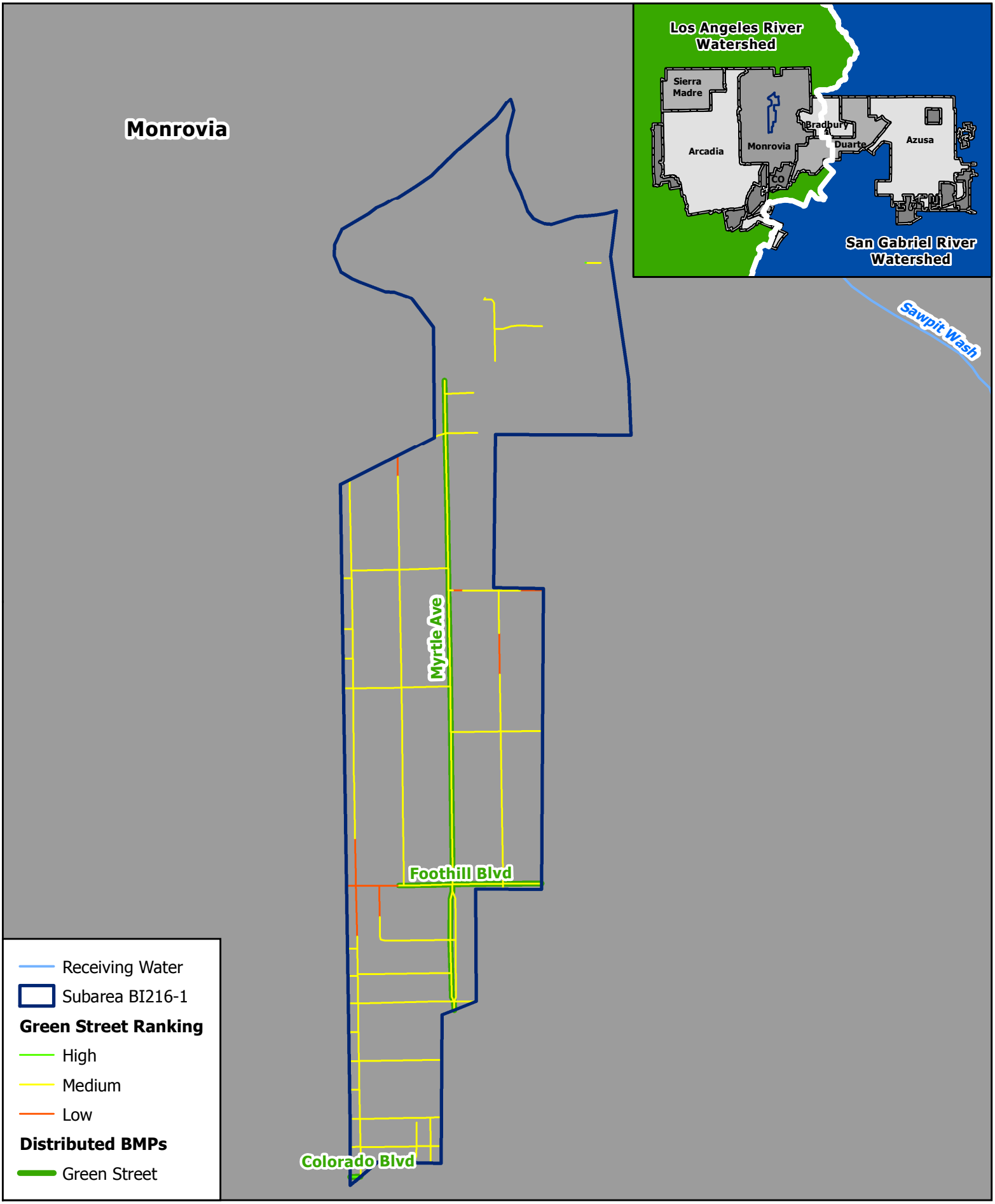
Subarea BI406B
Green Street Analysis
RH/SGRWQG EWMP



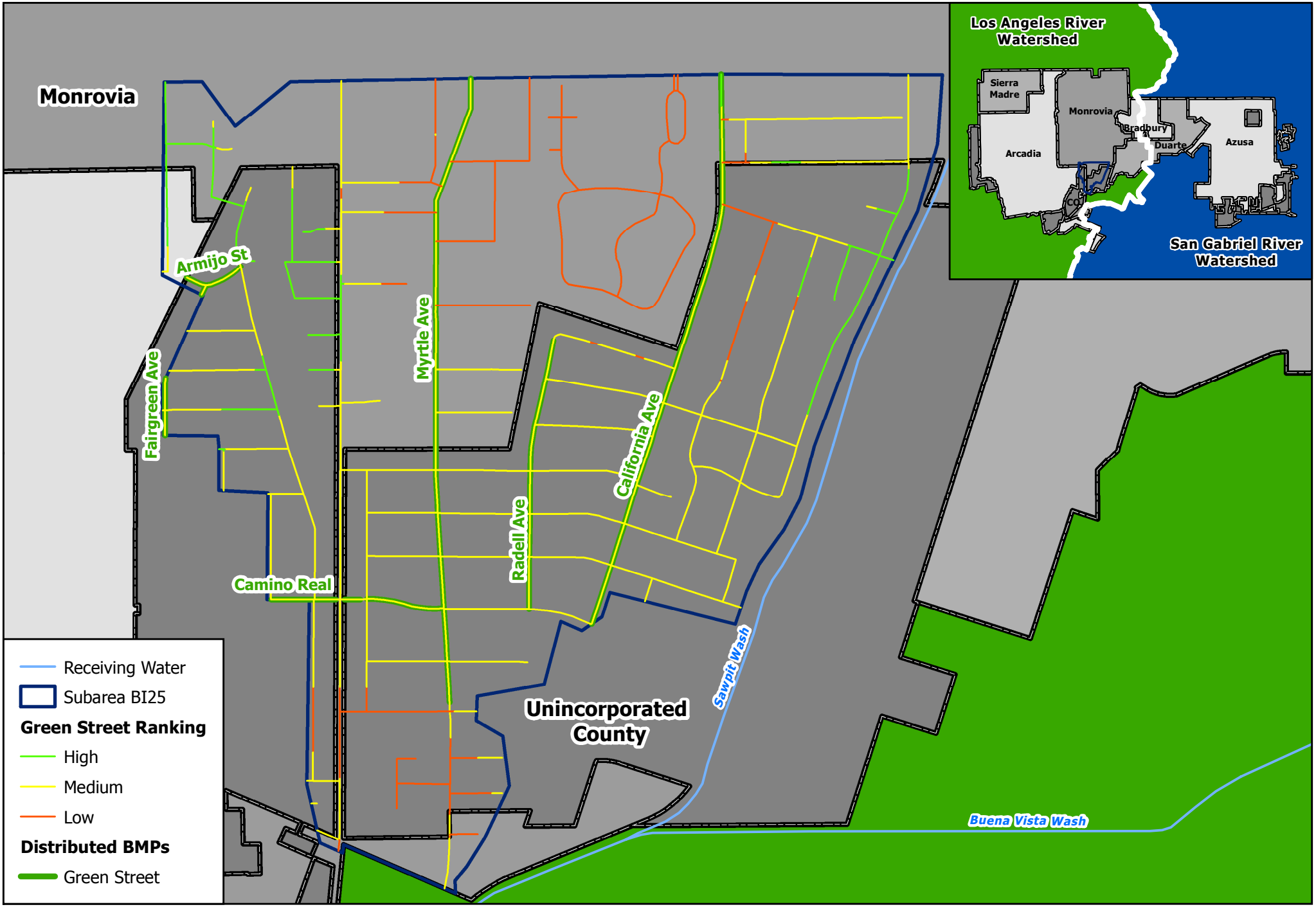
Subarea BI406A
Green Street Analysis
RH/SGRWQG EWMP



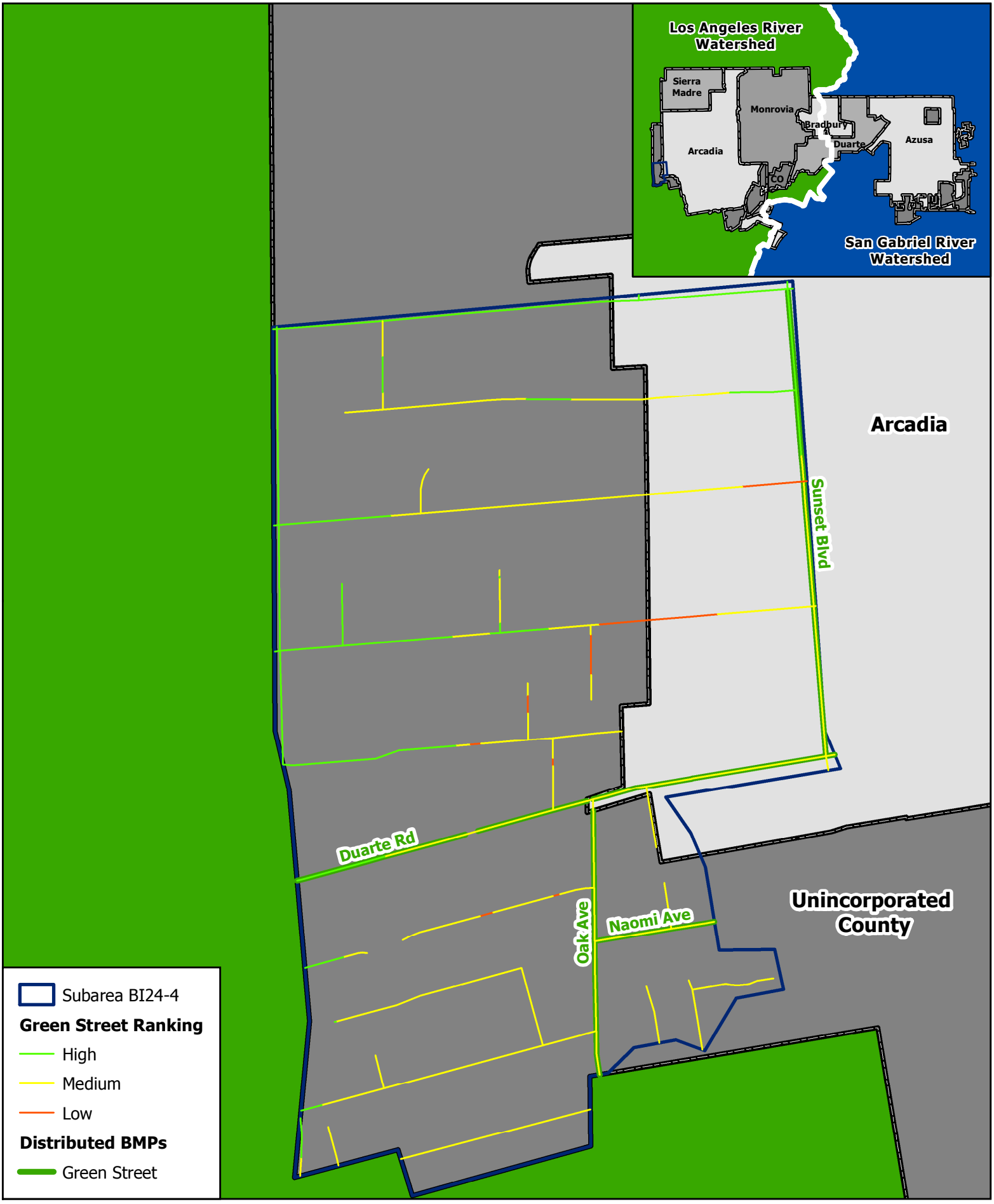
Subarea BI216-2
Green Street Analysis
RH/SGRWQG EWMP



Subarea BI216-1
Green Street Analysis
RH/SGRWQG EWMP



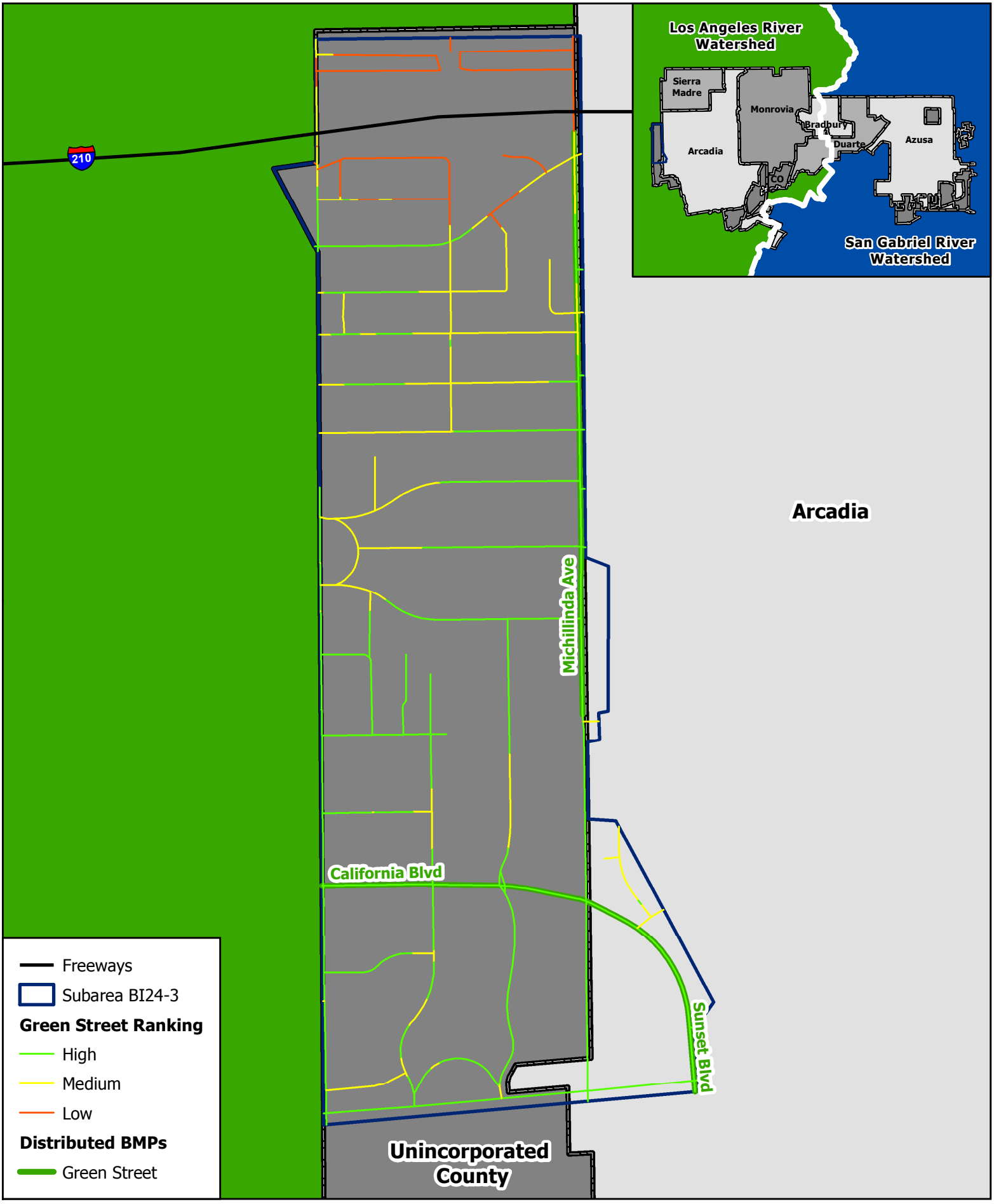
Subarea BI25
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

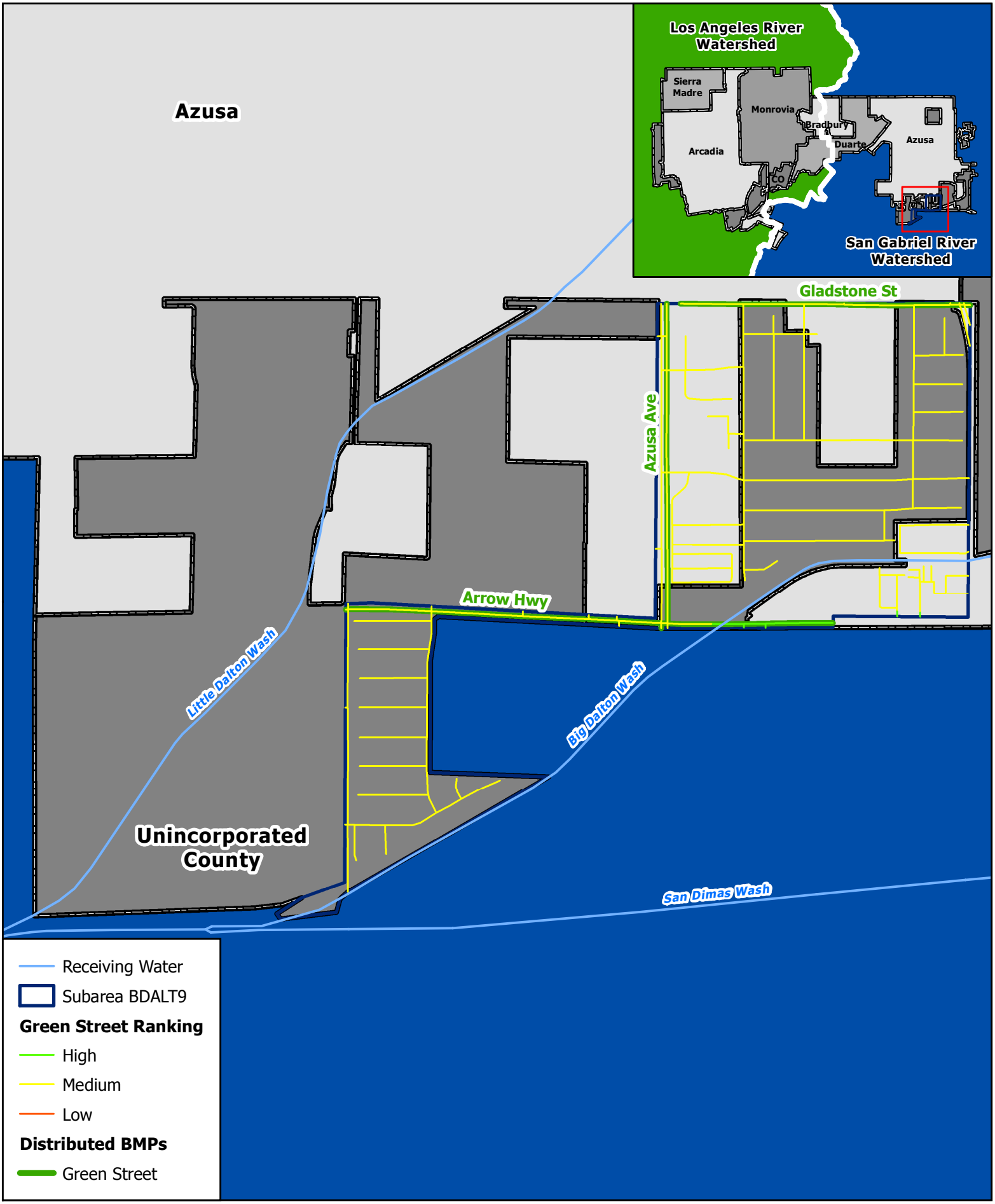
Subarea BI24-4
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

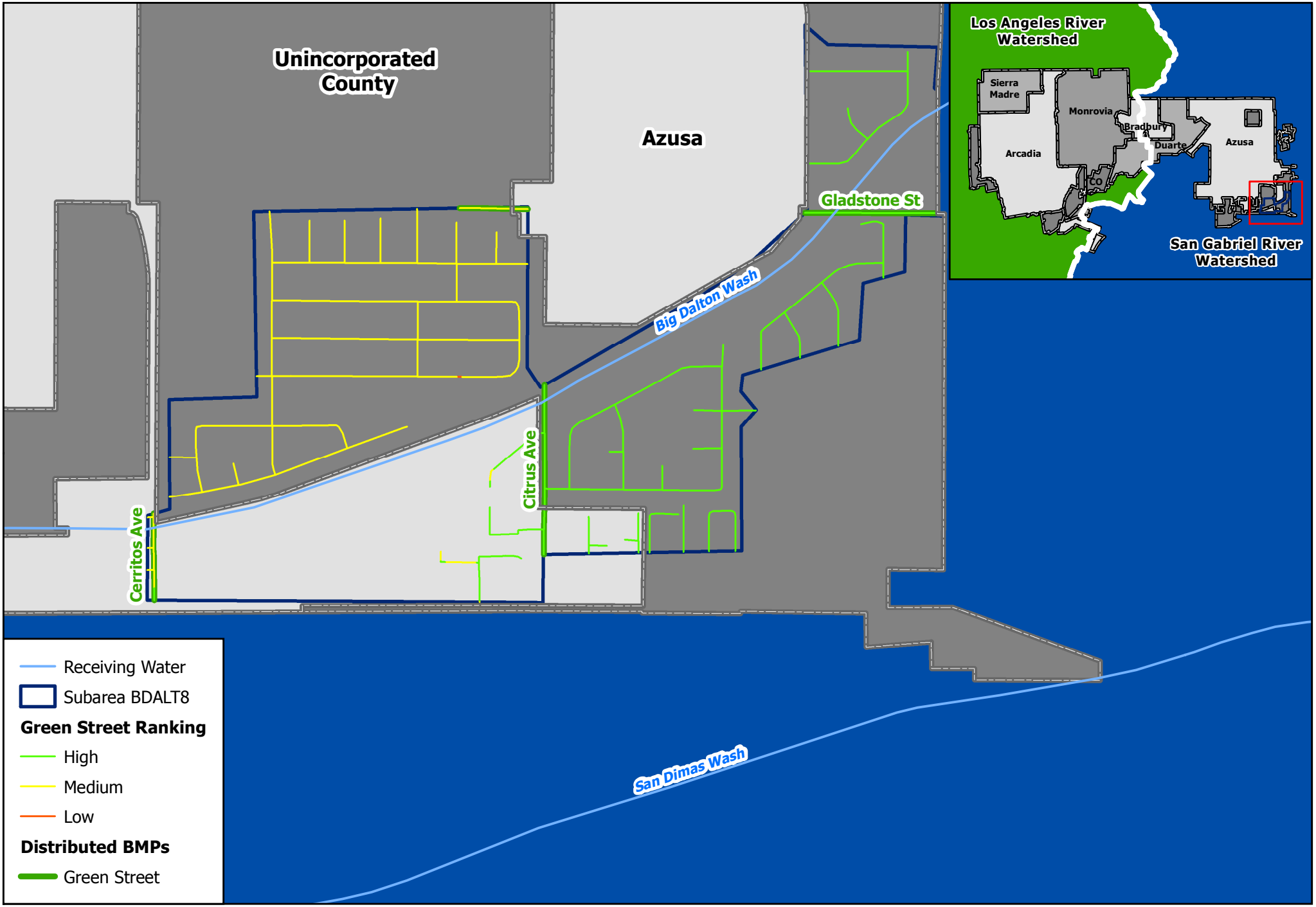
Subarea BI24-3
Green Street Analysis
RH/SGRWQG EWMP



N

0 500 1,000 2,000 Feet

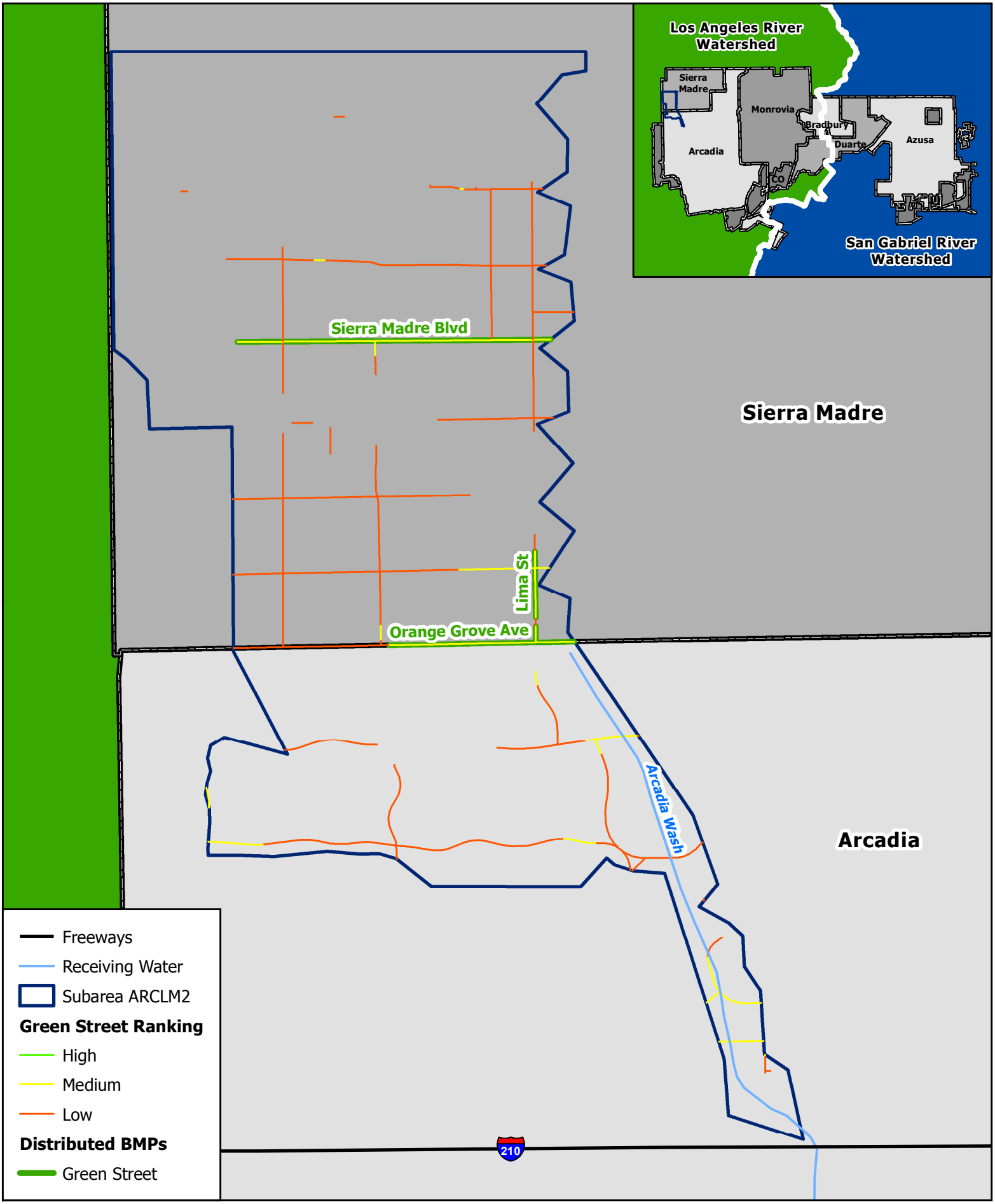
Subarea BDALT9
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

Subarea BDALT8
Green Street Analysis
RH/SGRWQG EWMP



N

0 250 500 1,000 Feet

Subarea ARCLM2
Green Street Analysis
RH/SGRWQG EWMP

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Attachment S

Green Street Summary Tables

This attachment includes tables summarizing the green streets evaluated and selected in both the Los Angeles River (LAR) and San Gabriel River (SGR) Watersheds. The selected green streets represent the distributed Best Management Practices (BMPs) proposed in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP). The streets were evaluated for their potential as green streets and selected based on load and volume reduction requirements as discussed in **Section 3.4.3**. The selected streets are marked "X" in the "Selected?" column and illustrated in **Figure 3-35** and in the maps provided in **Attachment R**.

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
136	ARCDA6	1	Las Tunas Dr	64	Arcadia	6	0.07	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
139	ARCDA6	4	Las Tunas Dr	509	Arcadia	6	0.58	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
177	ARCDE1	30	W Foothill Blvd	25	Arcadia	4	0.02	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	G
217	ARCDE1	70		65	Arcadia	4	0.05	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
218	ARCDE1	71	W Foothill Blvd	570	Arcadia	4	0.43	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
226	ARCDE1	79	W Foothill Blvd	52	Arcadia	4	0.04	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
231	ARCDE1	84		34	Arcadia	4	0.03	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
232	ARCDE1	85	W Foothill Blvd	30	Arcadia	4	0.02	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
345	ARCLM2	27	W Sierra Madre Blvd	1407	Sierra Madre	6	1.60	Primary-Arterial	100	10	5	2	7	0.66	7	35	MED	G
360	ARCLM2	42	S Lima St	480	Sierra Madre	4	0.36	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
372	ARCLM2	54	W Orange Grove Ave	1087	Arcadia	4	0.82	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
374	ARCLM2	56	W Sierra Madre Blvd	435	Sierra Madre	6	0.49	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	G
706	BI1118-2	68	W Huntington Dr	22	Monrovia	6	0.03	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
707	BI1118-2	69	W Huntington Dr	1387	Monrovia	6	1.58	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
709	BI1118-2	71	S Mayflower Ave	1228	Monrovia	4	0.93	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
752	BI1118-2	114	W Duarte Rd	1803	Monrovia	6	2.05	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
753	BI1118-2	115	W Huntington Dr	1439	Monrovia	6	1.63	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
776	BI1118-2	138	Monterey Ave	2459	Monrovia	4	1.86	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
782	BI1118-2	144	S Monterey Ave	453	Monrovia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
801	BI1118-2	163	W Duarte Rd	837	Monrovia	6	0.95	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
802	BI1118-2	164	W Huntington Dr	621	Monrovia	6	0.71	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
803	BI1118-2	165	W Huntington Dr	488	Monrovia	6	0.56	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
805	BI1118-2	167	S Mayflower Ave	1782	Monrovia	4	1.35	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
813	BI1118-2	175	W Huntington Dr	298	Monrovia	6	0.34	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	G
818	BI1118-2	180	S Madison Ave	1073	Monrovia	4	0.81	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	G
825	BI1118-2	187	S Mayflower Ave	280	Monrovia	4	0.21	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
836	BI1118-2	198	Monterey Ave	580	Monrovia	4	0.44	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
845	BI1118-2	207	S Mayflower Ave	314	Monrovia	4	0.24	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	G
846	BI1118-2	208	E Huntington Dr	1	Monrovia	6	0.00	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	G
847	BI1118-2	209	W Huntington Dr	578	Monrovia	6	0.66	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	G
853	BI1118-2	215	S Madison Ave	129	Monrovia	4	0.10	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	G
1412	BI216-1	1	N Myrtle Ave	184	Monrovia	6	0.21	Primary-Arterial	100	10	5	2	14	0.81	10	44	MED	G
1418	BI216-1	7	N Myrtle Ave	362	Monrovia	4	0.27	Minor-Local	60	6	5	2	14	0.81	10	40	MED	G
1419	BI216-1	8	N Myrtle Ave	645	Monrovia	6	0.73	Primary-Arterial	100	10	5	2	7	0.66	7	35	MED	G
1428	BI216-1	17	N Myrtle Ave	1607	Monrovia	6	1.83	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	G
1445	BI216-1	34	N Myrtle Ave	653	Monrovia	6	0.74	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
1446	BI216-1	35	S Myrtle Ave	58	Monrovia	6	0.07	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
1447	BI216-1	36	S Myrtle Ave	756	Monrovia	6	0.86	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
1449	BI216-1	38	S Myrtle Ave	50	Monrovia	6	0.06	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
1450	BI216-1	39	E Foothill Blvd	610	Monrovia	4	0.46	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
1451	BI216-1	40	W Foothill Blvd	366	Monrovia	4	0.28	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
1471	BI216-1	60	W Colorado Blvd	71	Monrovia	4	0.05	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1481	BI216-2	1	E Huntington Dr	387	Monrovia	6	0.44	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
1483	BI216-2	3	S California Ave	318	Monrovia	4	0.24	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
1484	BI216-2	4	S California Ave	265	Monrovia	4	0.20	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
1526	BI216-2	46	S Myrtle Ave	1215	Monrovia	6	1.38	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
1527	BI216-2	47	W Duarte Rd	436	Monrovia	6	0.50	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
1528	BI216-2	48	E Duarte Rd	1388	Monrovia	4	1.05	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1547	BI216-2	67	E Huntington Dr	2243	Monrovia	6	2.55	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1550	BI216-2	70	S Myrtle Ave	1586	Monrovia	6	1.80	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1551	BI216-2	71	S Myrtle Ave	1956	Monrovia	6	2.22	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1553	BI216-2	73	W Huntington Dr	736	Monrovia	6	0.84	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1559	BI216-2	79		40	Monrovia	4	0.03	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1561	BI216-2	81	E Duarte Rd	192	Monrovia	4	0.15	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1562	BI216-2	82	S California Ave	2011	Monrovia	4	1.52	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1563	BI216-2	83	S California Ave	638	Monrovia	4	0.48	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1564	BI216-2	84	S California Ave	1191	Monrovia	4	0.90	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1565	BI216-2	85	S California Ave	472	Monrovia	4	0.36	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1588	BI216-2	108	E Central Ave	1798	Monrovia	4	1.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
1620	BI216-2	140	W Central Ave	251	Monrovia	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
1631	BI216-2	151	W Duarte Rd	938	Monrovia	6	1.07	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1632	BI216-2	152	E Duarte Rd	232	Monrovia	4	0.18	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1639	BI216-2	159	S Myrtle Ave	225	Monrovia	6	0.26	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1672	BI24-3	12	E California Blvd	777	County	6	0.88	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1693	BI24-3	33	S Michillinda Ave	520	County	4	0.39	Secondary-Collector	64	8	3	6	3	0.77	9	47	HIGH	G
1711	BI24-3	51	S Michillinda Ave	469	County	4	0.36	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
1719	BI24-3	59	N Michillinda Ave	157	County	4	0.12	Secondary-Collector	64	8	3	6	13	0.45	4	32	MED	G
1720	BI24-3	60	S Michillinda Ave	378	County	4	0.29	Secondary-Collector	64	8	3	6	13	0.45	4	32	MED	G
1729	BI24-3	69	S Michillinda Ave	2326	County	4	1.76	Secondary-Collector	64	8	2	8	3	0.77	9	51	HIGH	G
1774	BI24-3	114	N Sunset Blvd	286	Arcadia	6	0.32	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1799	BI24-3	139	E California Blvd	982	County	6	1.12	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1816	BI24-3	156	N Sunset Blvd	1277	Arcadia	6	1.45	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1824	BI24-4	3	Duarte Rd	84	County	6	0.10	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1842	BI24-4	21	S Sunset Blvd	337	Arcadia	6	0.38	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
1855	BI24-4	34	Duarte Rd	941	County	6	1.07	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1865	BI24-4	44	E Naomi Ave	581	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
1873	BI24-4	52	N Oak Ave	1261	County	4	0.96	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
1881	BI24-4	60	Duarte Rd	350	County	6	0.40	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1885	BI24-4	64	E Duarte Rd	262	Arcadia	6	0.30	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1886	BI24-4	65	S Sunset Blvd	1107	Arcadia	6	1.26	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1888	BI24-4	67	W Duarte Rd	915	Arcadia	6	1.04	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1901	BI24-4	80	S Sunset Blvd	788	Arcadia	6	0.90	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1918	BI25	15	S California Ave	1391	County	4	1.05	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
1926	BI25	23	Radell Ave	384	County	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
1933	BI25	30	S Myrtle Ave	1689	Monrovia	6	1.92	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
1935	BI25	32	S California Ave	407	Monrovia	4	0.31	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
1967	BI25	64	S California Ave	221	Monrovia	4	0.17	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1972	BI25	69	S Myrtle Ave	162	County	6	0.18	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1973	BI25	70	S Myrtle Ave	137	County	6	0.16	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1974	BI25	71	S California Ave	1155	County	4	0.87	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1982	BI25	79	E Camino Real St	111	County	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
1993	BI25	90	S Fairgreen Ave	476	County	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2005	BI25	102	W Armijo St	427	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2018	BI25	115	S Myrtle Ave	493	County	6	0.56	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
2019	BI25	116	S Myrtle Ave	979	County	6	1.11	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
2020	BI25	117	S California Ave	819	County	4	0.62	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2024	BI25	121	W Camino Real	452	County	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2047	BI25	144	S Myrtle Ave	458	Monrovia	6	0.52	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2072	BI25	169	E Camino Real	544	County	4	0.41	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
2081	BI25	178	Radell Ave	582	County	4	0.44	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
2086	BI25	183	S Redell Ave	933	County	4	0.71	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
2095	BI25	192	S Myrtle Ave	492	Monrovia	6	0.56	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
2488	BI525	6	Temple City Blvd	965	County	6	1.10	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2499	BI525	17	E Naomi Ave	1980	County	4	1.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2507	BI525	25	N Golden West Ave	1535	County	4	1.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2510	BI525	28	W Naomi Ave	252	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2516	BI525	34	S Baldwin Ave	2645	Arcadia	6	3.01	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2517	BI525	35	Temple City Blvd	287	Arcadia	6	0.33	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2518	BI525	36	S Golden West Ave	554	Arcadia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2524	BI525	42	Golden West Ave	390	Arcadia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
2552	BI602B	24	Las Tunas Dr	4084	Arcadia	6	4.64	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2561	BI602B	33	Holly Ave	2702	Arcadia	4	2.05	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
2562	BI602B	34	Holly Ave	1548	Arcadia	4	1.17	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
2563	BI602B	35	Holly Ave	382	Arcadia	4	0.29	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
2592	BI602B	64	Las Tunas Dr	105	Arcadia	6	0.12	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
3639	SANIT7	4	E Foothill Blvd	263	Arcadia	4	0.20	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	G
3647	SANIT7	12	E Huntington Dr	84	Arcadia	6	0.10	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	G
3654	SANIT7	19	N Santa Anita Ave	400	Arcadia	4	0.30	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3661	SANIT7	26	N 1st Ave	1133	Arcadia	4	0.86	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
3688	SANIT7	53	E Huntington Dr	28	Arcadia	6	0.03	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
3696	SANIT7	61	E Huntington Dr	29	Monrovia	6	0.03	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	G
3724	SANIT8	21	E Longden Ave	207	County	4	0.16	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3736	SANIT8	33	E Longden Ave	395	County	4	0.30	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
3737	SANIT8	34	E Duarte Rd	944	Arcadia	6	1.07	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3758	SANIT8	55	E Camino Real Ave	448	Arcadia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
3770	SANIT8	67	S 9th Ave	1389	Arcadia	4	1.05	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	G
3772	SANIT8	69	W Duarte Rd	1441	Monrovia	6	1.64	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3786	SANIT8	83	W Duarte Rd	483	Monrovia	6	0.55	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	G
3790	SANIT8	87	S 9th Ave	361	Monrovia	4	0.27	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	G
3797	SANIT8	94	E Longden Ave	177	Arcadia	4	0.13	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
3820	SANIT9	13	E Longden Ave	190	County	4	0.14	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
3822	SANIT9	15	E Live Oak Ave	757	Arcadia	6	0.86	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3884	SAWPT3	51	E Huntington Dr	18	Duarte	6	0.02	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
3889	SAWPT3	56	E Huntington Dr	954	Monrovia	6	1.08	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
3907	SAWPT3	74	E Central Ave	234	Monrovia	4	0.18	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
3922	SAWPT3	89	Shamrock Ave	1115	Monrovia	4	0.84	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
3946	SAWPT3	113	E Huntington Dr	873	Monrovia	6	0.99	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
3952	SAWPT3	119	E Duarte Rd	1729	Monrovia	4	1.31	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
3959	SAWPT3	126	Shamrock Ave	623	Monrovia	4	0.47	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
3971	SAWPT3	138	E Central Ave	2342	Monrovia	4	1.77	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
3996	SAWPT3	163	Shamrock Ave	3998	Monrovia	4	3.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4088	SAWPT5	26	S California Ave	1492	County	4	1.13	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
4538	Unknown1005	2	E Foothill Blvd	219	Arcadia	4	0.17	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
4539	Unknown1005	3	W Foothill Blvd	62	Arcadia	4	0.05	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3						
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4541	Unknown1005	5	E Foothill Blvd	649	Arcadia	4	0.49	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4542	Unknown1005	6	N Santa Anita Ave	1119	Arcadia	4	0.85	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4543	Unknown1005	7	W Foothill Blvd	1237	Arcadia	4	0.94	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4553	Unknown1005	17	N Santa Anita Ave	192	Arcadia	4	0.15	Secondary-Collector	64	8	2	8	13	0.45	4	36	MED	G
4555	Unknown1005	19	E Foothill Blvd	113	Arcadia	4	0.09	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	G
4556	Unknown1005	20	N Santa Anita Ave	705	Arcadia	4	0.53	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	G
4566	Unknown1005	30	E Foothill Blvd	93	Arcadia	4	0.07	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
4567	Unknown1005	31	E Foothill Blvd	24	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
4568	Unknown1005	32	N Santa Anita Ave	290	Arcadia	4	0.22	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
4600	Unknown1037	1		31	Arcadia	4	0.02	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
4601	Unknown1037	2	N Santa Anita Ave	424	Arcadia	4	0.32	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
4607	Unknown1037	8	N Santa Anita Ave	379	Arcadia	4	0.29	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4620	Unknown1037	21		61	Arcadia	4	0.05	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
4623	Unknown1037	24	N Santa Anita Ave	713	Arcadia	4	0.54	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
4633	Unknown1037	34	N Santa Anita Ave	245	Arcadia	4	0.19	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
4643	Unknown1037	44	N Santa Anita Ave	224	Arcadia	4	0.17	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
4729	Unknown1069	12	E Huntington Dr	860	Arcadia	6	0.98	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4730	Unknown1069	13	S Santa Anita Ave	83	Arcadia	6	0.09	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4741	Unknown1069	24	W Huntington Dr	1161	Arcadia	6	1.32	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4743	Unknown1069	26	N Santa Anita Ave	1504	Arcadia	4	1.14	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
4759	Unknown1070	6	S Baldwin Ave	359	Arcadia	6	0.41	Primary-Arterial	100	10	3	6	3	0.77	9	49	HIGH	G
4774	Unknown1070	21	S Baldwin Ave	334	Arcadia	6	0.38	Primary-Arterial	100	10	2	8	3	0.77	9	53	HIGH	G
4802	Unknown1070	49	S Baldwin Ave	911	Arcadia	6	1.04	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4817	Unknown1078	4	S 1st Ave	478	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
4818	Unknown1078	5	S 1st Ave	3016	Arcadia	4	2.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
4821	Unknown1078	8	E Duarte Rd	946	Arcadia	6	1.07	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4822	Unknown1078	9	E Duarte Rd	1422	Arcadia	6	1.62	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4823	Unknown1078	10	E Huntington Dr	494	Arcadia	6	0.56	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4824	Unknown1078	11	S Santa Anita Ave	3346	Arcadia	6	3.80	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4825	Unknown1078	12	W Duarte Rd	2251	Arcadia	6	2.56	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4839	Unknown1078	26	N 1st Ave	753	Arcadia	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
4841	Unknown1078	28	S Santa Anita Ave	506	Arcadia	6	0.57	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
4842	Unknown1078	29	W Duarte Rd	489	Arcadia	6	0.56	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
4845	Unknown1078	32		10	Arcadia	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
4849	Unknown1078	36	S 1st Ave	145	Arcadia	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
4850	Unknown1079	1	E Huntington Dr	253	Arcadia	6	0.29	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4854	Unknown1079	5	E Huntington Dr	1560	Arcadia	6	1.77	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
4862	Unknown1088	5	W Huntington Dr	152	Arcadia	6	0.17	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
4865	Unknown1088	8	W Huntington Dr	63	Arcadia	6	0.07	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
4882	Unknown1088	25	S Baldwin Ave	1602	Arcadia	6	1.82	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4885	Unknown1088	28	W Huntington Dr	4673	Arcadia	6	5.31	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4896	Unknown1088	39	S Baldwin Ave	557	Arcadia	6	0.63	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4898	Unknown1088	41	W Huntington Dr	493	Arcadia	6	0.56	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4913	Unknown1088	56	S Golden West Ave	881	Arcadia	4	0.67	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
4924	Unknown1091	10	Mountain Ave	643	County	4	0.49	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4927	Unknown1091	13	Galen St	422	Duarte	4	0.32	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
4928	Unknown1091	14	Newington St	97	Duarte	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
4934	Unknown1091	20	Broadland Ave	57	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4937	Unknown1091	23	Galen St	448	Duarte	4	0.34	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
4938	Unknown1091	24	Meridian St	211	Duarte	4	0.16	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
4939	Unknown1091	25	Newington St	157	Duarte	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
4947	Unknown1091	33	Duarte Rd	4075	Duarte	4	3.09	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4956	Unknown1091	42	Broach Ave	1458	Duarte	4	1.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4957	Unknown1091	43	Broadland Ave	1613	Duarte	4	1.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4963	Unknown1091	49	Citrus View Ave	242	Duarte	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4970	Unknown1091	56	Galen St	1247	Duarte	4	0.94	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4972	Unknown1091	58	Hurlock Ave	527	Duarte	4	0.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4973	Unknown1091	59	Hurstview St	1559	Duarte	4	1.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4975	Unknown1091	61	Kellwil Wy	229	Duarte	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4978	Unknown1091	64	Meridian St	645	Duarte	4	0.49	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4979	Unknown1091	65	Mountain Ave	440	Duarte	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4980	Unknown1091	66	Newington St	820	Duarte	4	0.62	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4987	Unknown1091	73	Starhaven Ave	677	Duarte	4	0.51	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
4991	Unknown1091	77	Duarte Rd	118	Monrovia	4	0.09	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4992	Unknown1091	78	E Duarte Rd	267	Monrovia	4	0.20	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4994	Unknown1091	80	E Duarte Rd	541	Monrovia	4	0.41	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
4999	Unknown1091	85	Mountain Ave	257	Monrovia	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
5007	Unknown1091	93	Mountain Ave	258	Monrovia	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5018	Unknown1091	104	Mountain Ave	2442	County	4	1.85	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5019	Unknown1091	105	Duarte Rd	1159	Duarte	4	0.88	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
5026	Unknown1091	112	Beckville St	729	Duarte	4	0.55	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5029	Unknown1091	115	Broadland Ave	266	Duarte	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5031	Unknown1091	117	Citrus View Ave	671	Duarte	4	0.51	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5038	Unknown1091	124	Galen St	218	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5039	Unknown1091	125	Joella St	841	Duarte	4	0.64	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5040	Unknown1091	126	Kellwil Wy	668	Duarte	4	0.51	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5042	Unknown1091	128	Newington St	237	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5048	Unknown1091	134	Mountain Ave	289	County	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
5054	Unknown1091	140	Beckville St	222	Duarte	4	0.17	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
5060	Unknown1091	146	Newington St	293	Duarte	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
5062	Unknown1091	148	Lewiston St	4	Monrovia	4	0.00	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
5063	Unknown1091	149	Mountain Ave	78	Monrovia	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
5067	Unknown1097	4	Jeffries Ave	173	Monrovia	4	0.13	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
5070	Unknown1097	7	Jeffries Ave	881	County	4	0.67	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5073	Unknown1097	10	S Fairgreen Ave	1728	County	4	1.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5078	Unknown1097	15	S Fairgreen Ave	598	County	4	0.45	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5080	Unknown1097	17	Jeffries Ave	605	County	4	0.46	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5082	Unknown1097	19	E Camino Real	179	Arcadia	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
5085	Unknown1097	22	W Camino Real	863	County	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5088	Unknown1097	25	Jeffries Ave	141	County	4	0.11	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
5089	Unknown1097	26	W Camino Real	91	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5099	Unknown1097	36	S Mayflower Ave	2927	Arcadia	4	2.22	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5104	Unknown1097	41	E Camino Real	357	Arcadia	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5105	Unknown1097	42	E Camino Real Ave	506	Arcadia	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5113	Unknown1097	50	S Mayflower Ave	492	Arcadia	4	0.37	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
5118	Unknown1097	55	Jeffries Ave	428	Monrovia	4	0.32	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5119	Unknown1097	56	S Mayflower Ave	206	Monrovia	4	0.16	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5121	Unknown1097	58	S Mayflower Ave	405	Monrovia	4	0.31	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
5122	Unknown1097	59	S Fairgreen Ave	608	County	4	0.46	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5126	Unknown1097	63	Jeffries Ave	252	County	4	0.19	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	G
5128	Unknown1097	65	S Mayflower Ave	495	Arcadia	4	0.38	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5129	Unknown1097	66	E Camino Real	121	Arcadia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5133	Unknown1097	70	Jeffries Ave	70	Monrovia	4	0.05	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5136	Unknown1099	3	W Huntington Dr	220	Arcadia	6	0.25	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
5138	Unknown1099	5	S Baldwin Ave	1992	Arcadia	6	2.26	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5139	Unknown1099	6	W Duarte Rd	7235	Arcadia	6	8.22	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5140	Unknown1099	7	S Golden West Ave	2027	Arcadia	4	1.54	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5142	Unknown1099	9	Holly Ave	1421	Arcadia	4	1.08	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5151	Unknown1099	18	W Huntington Dr	1038	Arcadia	6	1.18	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
5152	Unknown1099	19	S Golden West Ave	71	Arcadia	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5182	Unknown1101	28	E Camino Real	2698	Arcadia	4	2.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5183	Unknown1101	29	E Camino Real	1347	Arcadia	4	1.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5184	Unknown1101	30	E Camino Real Ave	491	Arcadia	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5222	Unknown1101	68	E Camino Real	428	Arcadia	4	0.32	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	G
5239	Unknown1109	8	S Santa Anita Ave	2700	Arcadia	6	3.07	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5250	Unknown1118	3	Holly Ave	468	Arcadia	4	0.35	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	G
5264	Unknown1118	17	Holly Ave	1552	Arcadia	4	1.18	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5266	Unknown1118	19	Lovell Ave	2145	Arcadia	4	1.62	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5285	Unknown1121	12	W Naomi Ave	581	Arcadia	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5288	Unknown1121	15	S Baldwin Ave	4159	Arcadia	6	4.73	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5303	Unknown1121	30	S Baldwin Ave	1068	Arcadia	6	1.21	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
5307	Unknown1121	34	W Naomi Ave	651	Arcadia	4	0.49	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
5311	Unknown1131	3	S 2nd Ave	2060	Arcadia	4	1.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5323	Unknown1131	15	E Longden Ave	107	Arcadia	4	0.08	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	G
5325	Unknown1131	17	S Santa Anita Ave	1994	Arcadia	6	2.27	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5329	Unknown1131	21	E Longden Ave	517	Arcadia	4	0.39	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5363	Unknown1131	55	E Longden Ave	339	Arcadia	4	0.26	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	G
5374	Unknown1131	66	S Santa Anita Ave	98	Arcadia	6	0.11	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
5375	Unknown1131	67	E Longden Ave	239	Arcadia	4	0.18	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5389	Unknown1131	81	S 2nd Ave	715	Arcadia	4	0.54	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5397	Unknown1131	89	W Las Flores Ave	74	Arcadia	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5404	Unknown1137	3	E Live Oak Ave	2526	County	6	2.87	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5405	Unknown1137	4	E Longden Ave	1521	County	4	1.15	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5429	Unknown1137	28	S Mayflower Ave	2144	County	4	1.62	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5432	Unknown1137	31	E Longden Ave	1030	County	4	0.78	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5435	Unknown1137	34	E Live Oak Ave	625	County	6	0.71	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	G
5451	Unknown1137	50	S Mayflower Ave	699	County	4	0.53	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5486	Unknown1149	31	E Live Oak Ave	104	Arcadia	6	0.12	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5487	Unknown1149	32	Las Tunas Dr	855	Arcadia	6	0.97	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5488	Unknown1149	33	S Santa Anita Ave	1507	Arcadia	6	1.71	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5512	Unknown1149	57	E Live Oak Ave	417	Arcadia	6	0.47	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
5513	Unknown1149	58	Las Tunas Dr	70	Arcadia	6	0.08	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
5515	Unknown1149	60	S Santa Anita Ave	1678	Arcadia	6	1.91	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
5516	Unknown1149	61	W Live Oak Ave	222	Arcadia	6	0.25	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5518	Unknown1149	63	W Live Oak Ave	58	Arcadia	4	0.04	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5559	Unknown1156	22	Tyler Ave	1104	County	4	0.84	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5560	Unknown1156	23	S 2nd Ave	847	Arcadia	4	0.64	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5565	Unknown1156	28	E Longden Ave	39	Arcadia	4	0.03	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	G
5572	Unknown1156	35	E Live Oak Ave	550	Arcadia	6	0.63	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5574	Unknown1156	37	Tyler Ave	278	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5575	Unknown1156	38	E Longden Ave	830	Arcadia	4	0.63	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5611	Unknown1156	74	Tyler Ave	2052	County	4	1.55	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5616	Unknown1156	79	E Live Oak Ave	2490	Arcadia	6	2.83	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
5617	Unknown1156	80	E Longden Ave	1537	Arcadia	4	1.16	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
5627	Unknown1156	90	S 2nd Ave	1354	Arcadia	4	1.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	G
5638	Unknown1174	3	Las Tunas Dr	443	Arcadia	6	0.50	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
5642	Unknown1174	7	Bradford Ave	988	Arcadia	4	0.75	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
5698	Unknown920	17	N Baldwin Ave	398	Arcadia	4	0.30	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	G
5723	Unknown920	42	W Sierra Madre Blvd	1517	Sierra Madre	6	1.72	Primary-Arterial	100	10	5	2	7	0.66	7	35	MED	G
5725	Unknown920	44	N Baldwin Ave	313	Sierra Madre	4	0.24	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	G
5726	Unknown920	45	S Baldwin Ave	1325	Sierra Madre	4	1.00	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	G
5740	Unknown920	59	N Baldwin Ave	694	Arcadia	4	0.53	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	G
5752	Unknown920	71	W Sierra Madre Blvd	106	Sierra Madre	6	0.12	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	G
5753	Unknown920	72	S Baldwin Ave	237	Sierra Madre	4	0.18	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	G
5801	Unknown930	48	E Foothill Blvd	283	Arcadia	4	0.21	Secondary-Collector	64	8	3	6	15	0.72	8	44	MED	G
5820	Unknown930	67	E Foothill Blvd	1230	Arcadia	4	0.93	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	G
5832	Unknown930	79	E Foothill Blvd	238	Arcadia	4	0.18	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	G
5833	Unknown930	80	W Foothill Blvd	180	Monrovia	4	0.14	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
5837	Unknown930	84	E Foothill Blvd	103	Arcadia	4	0.08	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	G
5840	Unknown930	87	W Foothill Blvd	1089	Monrovia	4	0.83	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
5850	Unknown930	97	W Foothill Blvd	113	Monrovia	4	0.09	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	G
5857	Unknown930	104	W Foothill Blvd	477	Monrovia	4	0.36	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	G
5921	Unknown945	61	E Huntington Dr	63	Duarte	6	0.07	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	G
5923	Unknown945	63	Huntington Dr	106	Duarte	6	0.12	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	G
5989	Unknown945	129	E Huntington Dr	122	Duarte	6	0.14	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
5990	Unknown945	130	E Huntington Dr	644	Duarte	6	0.73	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
5991	Unknown945	131	E Huntington Dr	226	Duarte	6	0.26	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
5993	Unknown945	133	Huntington Dr	278	Duarte	6	0.32	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
5994	Unknown945	134	Huntington Dr	621	Duarte	6	0.71	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
5996	Unknown945	136	Buena Vista St	898	Duarte	4	0.68	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
5997	Unknown945	137	Highland Ave	309	Duarte	4	0.23	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
6022	Unknown945	162	Central Ave	16	Duarte	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6074	Unknown945	214	E Huntington Dr	936	Duarte	6	1.06	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
6075	Unknown945	215	E Huntington Dr	1108	Duarte	6	1.26	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
6077	Unknown945	217	Huntington Dr	1252	Duarte	6	1.42	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
6078	Unknown945	218	Huntington Dr	831	Duarte	6	0.94	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
6079	Unknown945	219	Buena Vista St	1938	Duarte	4	1.47	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6080	Unknown945	220	Highland Ave	211	Duarte	4	0.16	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6108	Unknown945	248	Central Ave	2025	Duarte	4	1.53	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
6109	Unknown945	249	Central Ave	507	Duarte	4	0.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
6110	Unknown945	250	Central Ave	1145	Duarte	4	0.87	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
6116	Unknown945	256	Galen St	48	Duarte	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6196	Unknown945	336	Huntington Dr	53	Duarte	6	0.06	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
6200	Unknown945	340	Buena Vista St	3197	Duarte	4	2.42	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
6201	Unknown945	341	Duarte Rd	6251	Duarte	4	4.74	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
6202	Unknown945	342	Highland Ave	2047	Duarte	4	1.55	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
6237	Unknown945	377	Central Ave	1475	Duarte	4	1.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
6270	Unknown945	410	Duarte Rd	587	Duarte	4	0.44	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	G
6275	Unknown945	415	Central Ave	605	Duarte	4	0.46	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
6363	Unknown949	54	E Orange Grove Ave	1618	Arcadia	4	1.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
6368	Unknown949	59	W Orange Grove Ave	1618	Arcadia	4	1.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
6382	Unknown949	73	W Orange Grove Ave	136	Sierra Madre	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6384	Unknown949	75	E Orange Grove Ave	78	Arcadia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6385	Unknown949	76	W Orange Grove Ave	78	Arcadia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6386	Unknown949	77	E Orange Grove Ave	136	Sierra Madre	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6423	Unknown957	36	S Myrtle Ave	354	Monrovia	6	0.40	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
6424	Unknown957	37	E Colorado Blvd	1144	Monrovia	4	0.87	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
6425	Unknown957	38	E Foothill Blvd	1784	Monrovia	4	1.35	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
6426	Unknown957	39	S California Ave	1935	Monrovia	4	1.47	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
6471	Unknown957	84	S Canyon Blvd	1830	Monrovia	4	1.39	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6474	Unknown957	87	S Ivy Ave	1541	Monrovia	4	1.17	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6485	Unknown957	98	S Myrtle Ave	60	Monrovia	6	0.07	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
6487	Unknown957	100	S Myrtle Ave	774	Monrovia	6	0.88	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
6488	Unknown957	101		11	Monrovia	4	0.01	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6489	Unknown957	102	Colorado Blvd	25	Monrovia	4	0.02	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6490	Unknown957	103	E Colorado Blvd	1870	Monrovia	4	1.42	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6491	Unknown957	104	E Foothill Blvd	483	Monrovia	4	0.37	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6492	Unknown957	105	S California Ave	112	Monrovia	4	0.08	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6493	Unknown957	106	W Colorado Blvd	651	Monrovia	4	0.49	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
6503	Unknown957	116	Falling Leaf Aly	83	Monrovia	1	0.02	Alley	20	4	2	8	7	0.66	7	41	MED	G
6516	Unknown957	129	S Canyon Blvd	212	Monrovia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
6518	Unknown957	131	S Ivy Ave	500	Monrovia	4	0.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
6620	Unknown973	21	E Orange Grove Ave	511	Arcadia	4	0.39	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6624	Unknown973	25	W Orange Grove Ave	1660	Arcadia	4	1.26	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
6631	Unknown973	32	N Santa Anita Ave	60	Arcadia	4	0.05	Secondary-Collector	64	8	2	8	13	0.45	4	36	MED	G
6632	Unknown973	33	W Orange Grove Ave	228	Arcadia	4	0.17	Minor-Local	60	6	2	8	13	0.45	4	34	MED	G
6634	Unknown973	35	W Orange Grove Ave	495	Arcadia	4	0.37	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	G
66	ARCDA2	3	W Huntington Dr	441	Arcadia	6	0.50	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
67	ARCDA2	4	W Huntington Dr	79	Arcadia	6	0.09	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
68	ARCDA2	5	W Huntington Dr	83	Arcadia	6	0.09	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
69	ARCDA2	6	W Huntington Dr	870	Arcadia	6	0.99	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
72	ARCDA2	9	W Huntington Dr	1588	Arcadia	6	1.80	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
73	ARCDA2	10	W Huntington Dr	148	Arcadia	6	0.17	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
263	ARCDE2	21	Colorado Pl	86	Arcadia	6	0.10	Primary-Arterial	100	10	3	6	3	0.77	9	49	HIGH	
274	ARCDE2	32	Colorado Pl	265	Arcadia	6	0.30	Primary-Arterial	100	10	2	8	3	0.77	9	53	HIGH	
275	ARCDE2	33	Colorado St	333	Arcadia	4	0.25	Secondary-Collector	64	8	2	8	3	0.77	9	51	HIGH	
276	ARCDE2	34	W Colorado Blvd	333	Arcadia	4	0.25	Secondary-Collector	64	8	2	8	3	0.77	9	51	HIGH	
278	ARCDE2	36	Colorado St	996	Arcadia	4	0.75	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
279	ARCDE2	37	W Colorado Blvd	996	Arcadia	4	0.75	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
285	ARCDE2	43	Colorado Pl	547	Arcadia	6	0.62	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
286	ARCDE2	44	Colorado Pl	457	Arcadia	6	0.52	Primary-Arterial	100	10	2	8	13	0.45	4	38	MED	
287	ARCDE2	45	Colorado St	510	Arcadia	4	0.39	Secondary-Collector	64	8	2	8	13	0.45	4	36	MED	
288	ARCDE2	46	W Colorado Blvd	510	Arcadia	4	0.39	Secondary-Collector	64	8	2	8	13	0.45	4	36	MED	
294	ARCDE2	52	W Huntington Dr	62	Arcadia	6	0.07	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
306	ARCDE2	64	W Huntington Dr	225	Arcadia	6	0.26	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
307	ARCDE2	65	W Huntington Dr	2936	Arcadia	6	3.34	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
308	ARCDE2	66	Colorado St	540	Arcadia	4	0.41	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
309	ARCDE2	67	W Colorado Blvd	540	Arcadia	4	0.41	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
317	ARCDE2	75	W Huntington Dr	389	Arcadia	6	0.44	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
644	BI1118-2	6	W Foothill Blvd	119	Monrovia	4	0.09	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
664	BI1118-2	26	W Foothill Blvd	555	Monrovia	4	0.42	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
676	BI1118-2	38	W Colorado Blvd	1144	Monrovia	4	0.87	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
710	BI1118-2	72	W Colorado Blvd	1751	Monrovia	4	1.33	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
757	BI1118-2	119	W Colorado Blvd	822	Monrovia	4	0.62	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
814	BI1118-2	176	W Colorado Blvd	1335	Monrovia	4	1.01	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
850	BI1118-2	212	W Colorado Blvd	153	Monrovia	4	0.12	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
1413	BI216-1	2	W Hillcrest Blvd	49	Monrovia	4	0.04	Secondary-Collector	64	8	5	2	14	0.81	10	42	MED	
1415	BI216-1	4	E Hillcrest Blvd	218	Monrovia	4	0.17	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1420	BI216-1	9	W Hillcrest Blvd	32	Monrovia	4	0.02	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
1504	BI216-2	24	Royal Oaks Dr	641	Monrovia	4	0.49	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1613	BI216-2	133	Royal Oaks Dr	585	Monrovia	4	0.44	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1676	BI24-3	16	S Michillinda Ave	1245	County	4	0.94	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1775	BI24-3	115	W Huntington Dr	164	Arcadia	6	0.19	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1776	BI24-3	116	S Michillinda Ave	173	Arcadia	4	0.13	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1805	BI24-3	145	S Michillinda Ave	1035	County	4	0.78	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
1818	BI24-3	158	S Michillinda Ave	111	Arcadia	4	0.08	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
1825	BI24-4	4	Huntington Dr	1344	County	6	1.53	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1845	BI24-4	24	Huntington Dr	131	Arcadia	6	0.15	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1848	BI24-4	27	W Huntington Dr	130	Arcadia	6	0.15	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1849	BI24-4	28	S Michillinda Ave	27	Arcadia	4	0.02	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1882	BI24-4	61	Huntington Dr	281	County	6	0.32	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1902	BI24-4	81	W Huntington Dr	609	Arcadia	6	0.69	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3663	SANIT7	28	E Colorado Blvd	1533	Arcadia	4	1.16	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3885	SAWPT3	52	Mountain Ave	227	Duarte	4	0.17	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
3892	SAWPT3	59	Mountain Ave	1045	Monrovia	4	0.79	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
3893	SAWPT3	60	S Mountain Ave	898	Monrovia	4	0.68	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
3934	SAWPT3	101	Mountain Ave	979	Duarte	4	0.74	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3955	SAWPT3	122	Mountain Ave	2633	Monrovia	4	1.99	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3956	SAWPT3	123	Royal Oaks Dr	1366	Monrovia	4	1.03	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3957	SAWPT3	124	S Mountain Ave	721	Monrovia	4	0.55	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
4008	SAWPT3	175	Mountain Ave	183	Monrovia	4	0.14	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4012	SAWPT3	179	Mountain Ave	100	Monrovia	4	0.08	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	
4621	Unknown1037	22	Colorado St	596	Arcadia	4	0.45	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4622	Unknown1037	23	E Colorado Blvd	1449	Arcadia	4	1.10	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4624	Unknown1037	25	W Colorado Blvd	596	Arcadia	4	0.45	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4635	Unknown1037	36	E Colorado Blvd	298	Arcadia	4	0.23	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
4726	Unknown1069	9	Colorado Pl	380	Arcadia	6	0.43	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
4728	Unknown1069	11	Colorado Pl	548	Arcadia	6	0.62	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4739	Unknown1069	22	W Huntington Dr	1316	Arcadia	6	1.50	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
4749	Unknown1069	32	Colorado Pl	106	Arcadia	6	0.12	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
4889	Unknown1088	32		307	Arcadia	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4890	Unknown1088	33		304	Arcadia	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5760	Unknown930	7	W Hillcrest Blvd	675	Monrovia	4	0.51	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
5785	Unknown930	32	W Foothill Blvd	179	Monrovia	4	0.14	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
5786	Unknown930	33	W Hillcrest Blvd	558	Monrovia	4	0.42	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
5809	Unknown930	56	W Foothill Blvd	572	Monrovia	4	0.43	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
5867	Unknown945	7	Royal Oaks Dr	551	Duarte	4	0.42	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
5925	Unknown945	65	Royal Oaks Dr	1744	Duarte	4	1.32	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
5998	Unknown945	138	Royal Oaks Dr	925	Duarte	4	0.70	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
6057	Unknown945	197	Mountain Ave	127	Monrovia	4	0.10	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
6081	Unknown945	221	Royal Oaks Dr	291	Duarte	4	0.22	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
6154	Unknown945	294	Royal Oaks Dr	1808	Monrovia	4	1.37	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
6268	Unknown945	408	Royal Oaks Dr	121	Monrovia	4	0.09	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
6527	Unknown965	1	W Hillcrest Blvd	388	Monrovia	4	0.29	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
6532	Unknown965	6	W Hillcrest Blvd	1293	Monrovia	4	0.98	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
6558	Unknown965	32	W Foothill Blvd	606	Monrovia	4	0.46	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
6559	Unknown965	33	W Hillcrest Blvd	469	Monrovia	4	0.36	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
6588	Unknown965	62	W Foothill Blvd	277	Monrovia	4	0.21	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1	ARCBN	1	Mount Wilson Trl	51	Sierra Madre	4	0.04	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
2	ARCBN	2	Mount Wilson Trl	72	Sierra Madre	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3	ARCDA1	1	Colorado St	705	Arcadia	6	0.80	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
4	ARCDA1	2	N Baldwin Ave	697	Arcadia	6	0.79	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
5	ARCDA1	3	W Colorado Blvd	705	Arcadia	6	0.80	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
6	ARCDA1	4	Harvard Dr	1	Arcadia	4	0.00	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
7	ARCDA1	5	Murietta Dr	976	Arcadia	4	0.74	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
8	ARCDA1	6	Old N Ranch Rd	776	Arcadia	4	0.59	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
9	ARCDA1	7	San Simeon Rd	194	Arcadia	4	0.15	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
10	ARCDA1	8	San Vicente Rd	926	Arcadia	4	0.70	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
11	ARCDA1	9	Stanford Dr	236	Arcadia	4	0.18	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
12	ARCDA1	10	Vaquero Rd	393	Arcadia	4	0.30	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
13	ARCDA1	11	Don Alvarado Dr	257	Arcadia	4	0.19	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
14	ARCDA1	12	Don Diablo Dr	236	Arcadia	4	0.18	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
15	ARCDA1	13	Don Robles Dr	248	Arcadia	4	0.19	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
16	ARCDA1	14	El Caballo Dr	110	Arcadia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
17	ARCDA1	15	Loma Verde Dr	18	Arcadia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
18	ARCDA1	16	Don Diablo Dr	17	Arcadia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
19	ARCDA1	17	Colorado St	654	Arcadia	6	0.74	Primary-Arterial	100	10	4	4	13	0.45	4	30	LOW	
20	ARCDA1	18	N Baldwin Ave	265	Arcadia	6	0.30	Primary-Arterial	100	10	4	4	13	0.45	4	30	LOW	
21	ARCDA1	19	W Colorado Blvd	654	Arcadia	6	0.74	Primary-Arterial	100	10	4	4	13	0.45	4	30	LOW	
22	ARCDA1	20	Cambridge Dr	360	Arcadia	4	0.27	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
23	ARCDA1	21	Harvard Dr	69	Arcadia	4	0.05	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
24	ARCDA1	22	Harvard Dr	998	Arcadia	4	0.76	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
25	ARCDA1	23	Harvard Dr	9	Arcadia	4	0.01	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
26	ARCDA1	24	Murietta Dr	290	Arcadia	4	0.22	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
27	ARCDA1	25	Old N Ranch Rd	318	Arcadia	4	0.24	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
28	ARCDA1	26	Oxford Dr	383	Arcadia	4	0.29	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
29	ARCDA1	27	San Simeon Rd	209	Arcadia	4	0.16	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
30	ARCDA1	28	San Vicente Rd	263	Arcadia	4	0.20	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
31	ARCDA1	29	Stanford Dr	843	Arcadia	4	0.64	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
32	ARCDA1	30	Vaquero Rd	7	Arcadia	4	0.01	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
33	ARCDA1	31	N Baldwin Ave	13	Arcadia	6	0.02	Primary-Arterial	100	10	3	6	3	0.77	9	49	HIGH	
34	ARCDA1	32	S Baldwin Ave	81	Arcadia	6	0.09	Primary-Arterial	100	10	3	6	3	0.77	9	49	HIGH	
35	ARCDA1	33	N Baldwin Ave	94	Arcadia	6	0.11	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
36	ARCDA1	34		174	Arcadia	4	0.13	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
37	ARCDA1	35		22	Arcadia	4	0.02	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
38	ARCDA1	36	Don Pablo Dr	22	Arcadia	4	0.02	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
39	ARCDA1	37	Don Pablo Dr	86	Arcadia	4	0.06	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
40	ARCDA1	38	Don Pablo Dr	211	Arcadia	4	0.16	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
41	ARCDA1	39	Don Ricardo Dr	257	Arcadia	4	0.19	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
42	ARCDA1	40	El Caballo Dr	130	Arcadia	4	0.10	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
43	ARCDA1	41	Heritage Oaks Dr	149	Arcadia	4	0.11	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
44	ARCDA1	42	Loma Verde Dr	224	Arcadia	4	0.17	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
45	ARCDA1	43	Rafael Dr	60	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
46	ARCDA1	44	Whispering Oaks Dr	202	Arcadia	4	0.15	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
47	ARCDA1	45	Colorado St	135	Arcadia	6	0.15	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
48	ARCDA1	46	W Colorado Blvd	135	Arcadia	6	0.15	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
49	ARCDA1	47	Colorado St	11	Arcadia	6	0.01	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
50	ARCDA1	48	N Baldwin Ave	1273	Arcadia	6	1.45	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
51	ARCDA1	49	W Colorado Blvd	11	Arcadia	6	0.01	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
52	ARCDA1	50		703	Arcadia	4	0.53	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
53	ARCDA1	51	Cambridge Dr	919	Arcadia	4	0.70	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
54	ARCDA1	52	Harvard Dr	272	Arcadia	4	0.21	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
55	ARCDA1	53	Old N Ranch Rd	754	Arcadia	4	0.57	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
56	ARCDA1	54	Oxford Dr	875	Arcadia	4	0.66	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
57	ARCDA1	55	San Simeon Rd	803	Arcadia	4	0.61	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
58	ARCDA1	56	Stanford Dr	149	Arcadia	4	0.11	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
59	ARCDA1	57	Vaquero Rd	61	Arcadia	4	0.05	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
60	ARCDA1	58	N Baldwin Ave	126	Arcadia	6	0.14	Primary-Arterial	100	10	2	8	13	0.45	4	38	MED	
61	ARCDA1	59	Oxford Dr	6	Arcadia	4	0.00	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
62	ARCDA1	60	Princeton Rd	60	Arcadia	4	0.05	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
63	ARCDA1	61	Princeton Rd	102	Arcadia	4	0.08	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
64	ARCDA2	1	Harvard Dr	3	Arcadia	4	0.00	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
65	ARCDA2	2	W Huntington Dr	69	Arcadia	6	0.08	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
70	ARCDA2	7		26	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
71	ARCDA2	8	Holly Ave	26	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
74	ARCDA2	11	Civic Center Pl	16	Arcadia	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
75	ARCDA3	1	Campus Dr	351	Arcadia	4	0.27	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
76	ARCDA3	2	Holly Ave	40	Arcadia	4	0.03	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
77	ARCDA3	3	S Santa Anita Ave	2	Arcadia	6	0.00	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
78	ARCDA3	4	W Duarte Rd	86	Arcadia	6	0.10	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
79	ARCDA3	5	Campus Dr	962	Arcadia	4	0.73	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
80	ARCDA3	6	Holly Ave	41	Arcadia	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
81	ARCDA3	7		609	Arcadia	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
82	ARCDA3	8	El Monte Ave	609	Arcadia	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
83	ARCDA3	9	Campus Dr	2870	Arcadia	4	2.17	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
84	ARCDA3	10		275	Arcadia	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
85	ARCDA3	11	El Monte Ave	275	Arcadia	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
86	ARCDA3	12	Park Ave	68	Arcadia	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
87	ARCDA4	1	Norman Ave	429	Arcadia	4	0.33	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
88	ARCDA4	2	W Norman Ave	107	Arcadia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
89	ARCDA4	3	Norman Ave	18	Arcadia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
90	ARCDA4	4	W Norman Ave	136	Arcadia	4	0.10	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
91	ARCDA4	5	W Camino Real	111	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
92	ARCDA4	6	W La Sierra Dr	88	Arcadia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
93	ARCDA4	7	W Le Roy Ave	58	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
94	ARCDA4	8	W Le Roy Ave	2181	Arcadia	4	1.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
95	ARCDA4	9	W Magna Vista Ave	1055	Arcadia	4	0.80	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
96	ARCDA4	10	W Naomi Ave	25	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
97	ARCDA4	11	W Naomi Ave	6	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
98	ARCDA4	12	W Norman Ave	206	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
99	ARCDA4	13	W Pamela Rd	2	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
100	ARCDA4	14	W Winnie Wy	142	Arcadia	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
101	ARCDA4	15	El Monte Ave	2029	Arcadia	4	1.54	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
102	ARCDA4	16	Holly Ave	365	Arcadia	4	0.28	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
103	ARCDA4	17	Andrews Rd	272	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
104	ARCDA4	18	Ewell Ln	471	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
105	ARCDA4	19	Lyndon Wy	248	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
106	ARCDA4	20	El Monte Ave	192	Arcadia	4	0.15	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
107	ARCDA4	21	Andrews Rd	50	Arcadia	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
108	ARCDA4	22	Azure Wy	8	Arcadia	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
109	ARCDA4	23	W Camino Real	1540	Arcadia	4	1.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
110	ARCDA4	24	W Winnie Wy	863	Arcadia	4	0.65	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
111	ARCDA5	1	W Longden Ave	13	Arcadia	4	0.01	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
112	ARCDA5	2	W Longden Ave	143	Arcadia	4	0.11	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
113	ARCDA5	3	Azure Wy	270	Arcadia	4	0.20	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
114	ARCDA5	4	Azure Wy	23	Arcadia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
115	ARCDA5	5	Delta Ln	73	Arcadia	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
116	ARCDA5	6	W Lemon Ave	336	Arcadia	4	0.25	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
117	ARCDA5	7	W Sandra Ave	220	Arcadia	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
118	ARCDA5	8	W Wistaria Ave	302	Arcadia	4	0.23	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
119	ARCDA5	9	Walnut Ave	74	Arcadia	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
120	ARCDA5	10	W Las Flores Ave	312	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
121	ARCDA5	11	W Palm Dr	1	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
122	ARCDA5	12	W Sandra Ave	311	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
123	ARCDA5	13	W Wistaria Ave	89	Arcadia	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
124	ARCDA5	14	Las Tunas Dr	52	Arcadia	6	0.06	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
125	ARCDA5	15	W Arthur Ave	215	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
126	ARCDA5	16	Longley Wy	222	Arcadia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
127	ARCDA5	17	Longley Wy	85	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
128	ARCDA5	18	W Wistaria Ave	14	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
129	ARCDA5	19	W Woodruff Ave	511	Arcadia	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
130	ARCDA5	20	Longley Wy	3	Arcadia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
131	ARCDA5	21	Longley Wy	97	Arcadia	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
132	ARCDA5	22	Longley Wy	3	Arcadia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
133	ARCDA5	23	W Las Flores Ave	115	Arcadia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
134	ARCDA5	24	W Lemon Ave	79	Arcadia	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
135	ARCDA5	25	W Palm Dr	73	Arcadia	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
137	ARCDA6	2	Persimmon Ave	200	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
138	ARCDA6	3	W Live Oak Ave	280	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
140	ARCDA6	5	El Monte Ave	217	Arcadia	4	0.16	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
141	ARCDA6	6	W Live Oak Ave	281	Arcadia	4	0.21	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
142	ARCDA6	7	W Live Oak Ave	7	Arcadia	4	0.01	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
143	ARCDA6	8	E Live Oak Ave	280	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
144	ARCDA6	9	McCulloch Ave	214	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
145	ARCDA6	10	W Live Oak Ave	4	Arcadia	4	0.00	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
146	ARCDA6	11	E Live Oak Ave	148	Arcadia	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
147	ARCDA6	12	W Live Oak Ave	148	Arcadia	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
148	ARCDE1	1	N Baldwin Ave	122	Arcadia	6	0.14	Primary-Arterial	100	10	5	2	6	0.33	3	23	LOW	
149	ARCDE1	2	W Foothill Blvd	689	Arcadia	4	0.52	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
150	ARCDE1	3	English Oak Dr	164	Arcadia	4	0.12	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
151	ARCDE1	4	English Oaks Dr	266	Arcadia	4	0.20	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
152	ARCDE1	5	Gloria Rd	372	Arcadia	4	0.28	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
153	ARCDE1	6	Oak Meadow Rd	37	Arcadia	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
154	ARCDE1	7	Oaklawn Pl	337	Arcadia	4	0.26	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
155	ARCDE1	8	Oaklawn Rd	100	Arcadia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
156	ARCDE1	9	San Carlos Rd	914	Arcadia	4	0.69	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
157	ARCDE1	10	Colorado St	39	Arcadia	6	0.04	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
158	ARCDE1	11	N Baldwin Ave	430	Arcadia	6	0.49	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
159	ARCDE1	12	W Colorado Blvd	39	Arcadia	6	0.04	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
160	ARCDE1	13	W Foothill Blvd	1507	Arcadia	4	1.14	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
161	ARCDE1	14	Arbolada Dr	238	Arcadia	4	0.18	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
162	ARCDE1	15	Arbolada Dr	1264	Arcadia	4	0.96	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
163	ARCDE1	16	Arbolada Dr	499	Arcadia	4	0.38	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
164	ARCDE1	17	Caballero Rd	260	Arcadia	4	0.20	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
165	ARCDE1	18	Carmelita Pl	314	Arcadia	4	0.24	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
166	ARCDE1	19	Cyrus Ln	157	Arcadia	4	0.12	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
167	ARCDE1	20	Gloria Rd	630	Arcadia	4	0.48	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
168	ARCDE1	21	Hampton Rd	749	Arcadia	4	0.57	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
169	ARCDE1	22	Loma Lisa Ln	373	Arcadia	4	0.28	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
170	ARCDE1	23	Oak Meadow Rd	348	Arcadia	4	0.26	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
171	ARCDE1	24	Oakdale Ln	89	Arcadia	4	0.07	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
172	ARCDE1	25	Oaklawn Rd	584	Arcadia	4	0.44	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
173	ARCDE1	26	Rancho Rd	825	Arcadia	4	0.63	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
174	ARCDE1	27	Woodacre Ln	196	Arcadia	4	0.15	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
175	ARCDE1	28	Colorado St	359	Arcadia	6	0.41	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
176	ARCDE1	29	W Colorado Blvd	359	Arcadia	6	0.41	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
178	ARCDE1	31	Caballero Rd	27	Arcadia	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
179	ARCDE1	32	Gloria Rd	652	Arcadia	4	0.49	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
180	ARCDE1	33	Hampton Rd	226	Arcadia	4	0.17	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
181	ARCDE1	34	Oak Meadow Rd	683	Arcadia	4	0.52	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
182	ARCDE1	35	Oaklawn Pl	326	Arcadia	4	0.25	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
183	ARCDE1	36	Oaklawn Rd	963	Arcadia	4	0.73	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
184	ARCDE1	37	Orlando Dr	222	Arcadia	4	0.17	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
185	ARCDE1	38	Rancho Rd	175	Arcadia	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
186	ARCDE1	39	San Carlos Rd	390	Arcadia	4	0.30	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
187	ARCDE1	40		115	Arcadia	6	0.13	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
188	ARCDE1	41	Colorado St	1770	Arcadia	6	2.01	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
189	ARCDE1	42	N Baldwin Ave	338	Arcadia	6	0.38	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
190	ARCDE1	43	W Colorado Blvd	1770	Arcadia	6	2.01	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
191	ARCDE1	44	W Foothill Blvd	2230	Arcadia	4	1.69	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
192	ARCDE1	45		108	Arcadia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
193	ARCDE1	46	Arbolada Dr	65	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
194	ARCDE1	47	Arbolada Dr	265	Arcadia	4	0.20	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
195	ARCDE1	48	Arbolada Dr	2185	Arcadia	4	1.66	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
196	ARCDE1	49	Asder Ln	404	Arcadia	4	0.31	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
197	ARCDE1	50	Burnell Oaks Ln	575	Arcadia	4	0.44	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
198	ARCDE1	51	Caballero Rd	486	Arcadia	4	0.37	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
199	ARCDE1	52	Carmelita Pl	169	Arcadia	4	0.13	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
200	ARCDE1	53	Cyrus Ln	279	Arcadia	4	0.21	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
201	ARCDE1	54	Gloria Rd	66	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
202	ARCDE1	55	Hacienda Dr	1956	Arcadia	4	1.48	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
203	ARCDE1	56	Leandra Ln	413	Arcadia	4	0.31	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
204	ARCDE1	57	Merry Oak Ln	523	Arcadia	4	0.40	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
205	ARCDE1	58	Oak Meadow Rd	42	Arcadia	4	0.03	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
206	ARCDE1	59	Oakdale Ln	301	Arcadia	4	0.23	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
207	ARCDE1	60	Oaklawn Rd	70	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
208	ARCDE1	61	Rancho Rd	1950	Arcadia	4	1.48	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
209	ARCDE1	62	Rodeo Rd	214	Arcadia	4	0.16	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
210	ARCDE1	63	San Carlos Rd	547	Arcadia	4	0.41	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
211	ARCDE1	64	San Carlos Rd	1113	Arcadia	4	0.84	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
212	ARCDE1	65	Sierra Oaks Dr	265	Arcadia	4	0.20	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
213	ARCDE1	66	W Floral Ave	17	Arcadia	4	0.01	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
214	ARCDE1	67	Woodacre Ln	21	Arcadia	4	0.02	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
215	ARCDE1	68	Colorado St	407	Arcadia	6	0.46	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
216	ARCDE1	69	W Colorado Blvd	407	Arcadia	6	0.46	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
219	ARCDE1	72	Caballero Rd	159	Arcadia	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
220	ARCDE1	73	Hacienda Dr	432	Arcadia	4	0.33	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
221	ARCDE1	74	Rancho Rd	169	Arcadia	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
222	ARCDE1	75	Rodeo Rd	93	Arcadia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
223	ARCDE1	76	Rodeo Rd	1300	Arcadia	4	0.98	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
224	ARCDE1	77	San Carlos Rd	49	Arcadia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
225	ARCDE1	78	W Sycamore Ave	83	Arcadia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
227	ARCDE1	80	Hacienda Dr	209	Arcadia	4	0.16	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
228	ARCDE1	81	Rodeo Rd	272	Arcadia	4	0.21	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
229	ARCDE1	82	W Floral Ave	184	Arcadia	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
230	ARCDE1	83	W Forest Ave	330	Arcadia	4	0.25	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
233	ARCDE1	86	Hacienda Dr	63	Arcadia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
234	ARCDE1	87	Rancho Rd	20	Arcadia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
235	ARCDE1	88	Rodeo Rd	158	Arcadia	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
236	ARCDE1	89	Rodeo Rd	714	Arcadia	4	0.54	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
237	ARCDE1	90	W Sycamore Ave	76	Arcadia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
238	ARCDE1	91	Hacienda Dr	54	Arcadia	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
239	ARCDE1	92	Rodeo Rd	201	Arcadia	4	0.15	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
240	ARCDE1	93	Hacienda Dr	211	Arcadia	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
241	ARCDE1	94	Rodeo Rd	121	Arcadia	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
242	ARCDE1	95	Hacienda Dr	58	Arcadia	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
243	ARCDE2	1	Colorado Pl	125	Arcadia	6	0.14	Primary-Arterial	100	10	5	2	3	0.77	9	41	MED	
244	ARCDE2	2	Colorado St	36	Arcadia	4	0.03	Secondary-Collector	64	8	5	2	3	0.77	9	39	MED	
245	ARCDE2	3	W Colorado Blvd	36	Arcadia	4	0.03	Secondary-Collector	64	8	5	2	3	0.77	9	39	MED	
246	ARCDE2	4	Colorado Pl	40	Arcadia	6	0.05	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
247	ARCDE2	5	Colorado St	383	Arcadia	6	0.43	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
248	ARCDE2	6	W Colorado Blvd	383	Arcadia	6	0.43	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
249	ARCDE2	7	Colorado St	30	Arcadia	4	0.02	Secondary-Collector	64	8	5	2	13	0.45	4	24	LOW	
250	ARCDE2	8	W Colorado Blvd	30	Arcadia	4	0.02	Secondary-Collector	64	8	5	2	13	0.45	4	24	LOW	
251	ARCDE2	9	Harvard Dr	109	Arcadia	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
252	ARCDE2	10	Colorado Pl	33	Arcadia	6	0.04	Primary-Arterial	100	10	4	4	13	0.45	4	30	LOW	
253	ARCDE2	11	Colorado St	143	Arcadia	6	0.16	Primary-Arterial	100	10	4	4	13	0.45	4	30	LOW	
254	ARCDE2	12	W Colorado Blvd	143	Arcadia	6	0.16	Primary-Arterial	100	10	4	4	13	0.45	4	30	LOW	
255	ARCDE2	13	Colorado St	65	Arcadia	4	0.05	Secondary-Collector	64	8	4	4	13	0.45	4	28	LOW	
256	ARCDE2	14	W Colorado Blvd	65	Arcadia	4	0.05	Secondary-Collector	64	8	4	4	13	0.45	4	28	LOW	
257	ARCDE2	15	Cambridge Dr	180	Arcadia	4	0.14	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
258	ARCDE2	16	Chelsea Rd	76	Arcadia	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
259	ARCDE2	17	Harvard Dr	94	Arcadia	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
260	ARCDE2	18	Oakhurst Ln	656	Arcadia	4	0.50	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
261	ARCDE2	19	Princeton Rd	41	Arcadia	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
262	ARCDE2	20	Renoak Wy	658	Arcadia	4	0.50	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
264	ARCDE2	22	Colorado St	82	Arcadia	6	0.09	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
265	ARCDE2	23	W Colorado Blvd	82	Arcadia	6	0.09	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
266	ARCDE2	24	Princeton Rd	12	Arcadia	4	0.01	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
267	ARCDE2	25	Colorado St	657	Arcadia	6	0.75	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
268	ARCDE2	26	W Colorado Blvd	657	Arcadia	6	0.75	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
269	ARCDE2	27	Cambridge Dr	74	Arcadia	4	0.06	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
270	ARCDE2	28	Chelsea Rd	214	Arcadia	4	0.16	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
271	ARCDE2	29	Harvard Dr	32	Arcadia	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
272	ARCDE2	30	Princeton Rd	286	Arcadia	4	0.22	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
273	ARCDE2	31	Santa Maria Rd	12	Arcadia	4	0.01	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
277	ARCDE2	35	Santa Maria Rd	208	Arcadia	4	0.16	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
280	ARCDE2	38	San Luis Rey Rd	36	Arcadia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
281	ARCDE2	39	San Luis Rey Rd	376	Arcadia	4	0.28	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
282	ARCDE2	40	Santa Cruz Rd	24	Arcadia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
283	ARCDE2	41	Santa Cruz Rd	487	Arcadia	4	0.37	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
284	ARCDE2	42	Santa Rosa Rd	66	Arcadia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
289	ARCDE2	47	Oxford Dr	23	Arcadia	4	0.02	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
290	ARCDE2	48	Princeton Rd	145	Arcadia	4	0.11	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
291	ARCDE2	49	Santa Maria Rd	343	Arcadia	4	0.26	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
292	ARCDE2	50	Santa Rosa Rd	429	Arcadia	4	0.32	Minor-Local	60	6	2	8	13	0.45	4	34	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
293	ARCDE2	51	Colorado Pl	126	Arcadia	6	0.14	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
295	ARCDE2	53	Harvard Dr	255	Arcadia	4	0.19	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
296	ARCDE2	54	Oxford Dr	583	Arcadia	4	0.44	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
297	ARCDE2	55	San Luis Rey Rd	22	Arcadia	4	0.02	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
298	ARCDE2	56	Santa Rosa Rd	239	Arcadia	4	0.18	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
299	ARCDE2	57	Colorado St	114	Arcadia	4	0.09	Secondary-Collector	64	8	1	9	3	0.77	9	53	HIGH	
300	ARCDE2	58	W Colorado Blvd	114	Arcadia	4	0.09	Secondary-Collector	64	8	1	9	3	0.77	9	53	HIGH	
301	ARCDE2	59	Santa Maria Rd	8	Arcadia	4	0.01	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
302	ARCDE2	60	San Antonio Rd	54	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
303	ARCDE2	61	San Luis Rey Rd	3	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
304	ARCDE2	62	San Luis Rey Rd	381	Arcadia	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
305	ARCDE2	63	Santa Cruz Rd	113	Arcadia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
310	ARCDE2	68	Civic Center Pl	524	Arcadia	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
311	ARCDE2	69	Colorado Pl	155	Arcadia	6	0.18	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
312	ARCDE2	70	Civic Center Pl	42	Arcadia	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
313	ARCDE2	71	Harvard Dr	136	Arcadia	4	0.10	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
314	ARCDE2	72	Oxford Dr	217	Arcadia	4	0.16	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
315	ARCDE2	73	Santa Maria Rd	293	Arcadia	4	0.22	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
316	ARCDE2	74	Santa Rosa Rd	73	Arcadia	4	0.06	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
318	ARCDE2	76	San Luis Rey Rd	208	Arcadia	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
319	ARCLM2	1	Dexter Ave	582	Arcadia	4	0.44	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
320	ARCLM2	2	Glencoe Dr	88	Arcadia	4	0.07	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
321	ARCLM2	3	Glencoe Dr	365	Arcadia	4	0.28	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
322	ARCLM2	4	Hampton Rd	1452	Arcadia	4	1.10	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
323	ARCLM2	5	Singingwood Dr	512	Arcadia	4	0.39	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
324	ARCLM2	6	Park Ave	1205	Sierra Madre	4	0.91	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
325	ARCLM2	7	Ramona Ave	1399	Sierra Madre	4	1.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
326	ARCLM2	8	Ross Pl	157	Sierra Madre	4	0.12	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
327	ARCLM2	9	S Lima St	689	Sierra Madre	4	0.52	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
328	ARCLM2	10	S Sunnyside Ave	1557	Sierra Madre	4	1.18	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
329	ARCLM2	11	W Highland Ave	677	Sierra Madre	4	0.51	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
330	ARCLM2	12	W Laurel Ave	60	Sierra Madre	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
331	ARCLM2	13	W Montecito Ave	1823	Sierra Madre	4	1.38	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
332	ARCLM2	14	W Orange Grove Ave	634	Sierra Madre	4	0.48	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
333	ARCLM2	15	Glencoe Dr	19	Arcadia	4	0.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
334	ARCLM2	16	Hampton Rd	285	Arcadia	4	0.22	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
335	ARCLM2	17	Katherine Ln	29	Arcadia	4	0.02	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
336	ARCLM2	18	Old N Ranch Rd	100	Arcadia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
337	ARCLM2	19	Park Ave	1	Arcadia	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
338	ARCLM2	20	Singingwood Dr	560	Arcadia	4	0.42	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
339	ARCLM2	21	W Orange Grove Ave	284	Arcadia	4	0.22	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
340	ARCLM2	22		239	Sierra Madre	4	0.18	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
341	ARCLM2	23	Grove Ln	888	Sierra Madre	4	0.67	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
342	ARCLM2	24	Jameson Ct	11	Sierra Madre	4	0.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
343	ARCLM2	25	Manzanita Ave	1330	Sierra Madre	4	1.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
344	ARCLM2	26	Mariposa Ave	798	Sierra Madre	4	0.60	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
346	ARCLM2	28	N Grove St	12	Sierra Madre	4	0.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
347	ARCLM2	29	N Lima St	930	Sierra Madre	4	0.70	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
348	ARCLM2	30	N Sunnyside Ave	556	Sierra Madre	4	0.42	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
349	ARCLM2	31		107	Arcadia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
350	ARCLM2	32		16	Arcadia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
351	ARCLM2	33	Anoakia Ln	14	Arcadia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
352	ARCLM2	34	Carriage House Dr	34	Arcadia	4	0.03	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
353	ARCLM2	35	Dexter Ave	5	Arcadia	4	0.00	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
354	ARCLM2	36	Fallen Leaf Rd	132	Arcadia	4	0.10	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
355	ARCLM2	37	Glencoe Dr	499	Arcadia	4	0.38	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
356	ARCLM2	38	Hampton Rd	519	Arcadia	4	0.39	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
357	ARCLM2	39	Hampton Rd	205	Arcadia	4	0.16	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
358	ARCLM2	40	Singingwood Dr	14	Arcadia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
359	ARCLM2	41	Park Ave	166	Sierra Madre	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
361	ARCLM2	43	W Highland Ave	22	Sierra Madre	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
362	ARCLM2	44	W Montecito Ave	61	Sierra Madre	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
363	ARCLM2	45	W Foothill Blvd	263	Arcadia	4	0.20	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
364	ARCLM2	46	Carriage House Dr	482	Arcadia	4	0.36	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
365	ARCLM2	47	Englemann Ct	102	Arcadia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
366	ARCLM2	48	Glencoe Dr	94	Arcadia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
367	ARCLM2	49	Glencoe Dr	75	Arcadia	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
368	ARCLM2	50	Hampton Rd	509	Arcadia	4	0.39	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
369	ARCLM2	51	Old N Ranch Rd	5	Arcadia	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
370	ARCLM2	52	S Lima St	0	Arcadia	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
371	ARCLM2	53	Singingwood Dr	425	Arcadia	4	0.32	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
373	ARCLM2	55	Manzanita Ave	532	Sierra Madre	4	0.40	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
375	ARCLM2	57	Carriage House Dr	121	Arcadia	4	0.09	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
639	BI1118-2	1	N Mayflower Ave	477	Monrovia	4	0.36	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
640	BI1118-2	2	Court St	37	Monrovia	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
641	BI1118-2	3	Heather Heights Ct	322	Monrovia	4	0.24	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
642	BI1118-2	4	Violet Ave	123	Monrovia	4	0.09	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
643	BI1118-2	5	N Mayflower Ave	1178	Monrovia	4	0.89	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
645	BI1118-2	7		195	Monrovia	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
646	BI1118-2	8	Concord Ave	634	Monrovia	4	0.48	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
647	BI1118-2	9	Heather Heights Ct	59	Monrovia	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
648	BI1118-2	10	Mayflower Ct	38	Monrovia	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
649	BI1118-2	11	W Huntington Dr	85	Monrovia	6	0.10	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
650	BI1118-2	12		14	Monrovia	4	0.01	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
651	BI1118-2	13	S Mayflower Ave	409	Monrovia	4	0.31	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
652	BI1118-2	14	S Mayflower Ave	30	Monrovia	4	0.02	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
653	BI1118-2	15		251	Monrovia	4	0.19	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
654	BI1118-2	16		531	Monrovia	4	0.40	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
655	BI1118-2	17	Alta St	221	Monrovia	4	0.17	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
656	BI1118-2	18	Bonita St	129	Monrovia	4	0.10	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
657	BI1118-2	19	Encino Ave	124	Monrovia	4	0.09	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
658	BI1118-2	20	Linwood Ave	902	Monrovia	4	0.68	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
659	BI1118-2	21	Linwood Ave	633	Monrovia	4	0.48	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
660	BI1118-2	22	Violet Ave	170	Monrovia	4	0.13	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
661	BI1118-2	23	W Palm Ave	686	Monrovia	4	0.52	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
662	BI1118-2	24	N Mayflower Ave	158	Monrovia	4	0.12	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
663	BI1118-2	25	S Mayflower Ave	376	Monrovia	4	0.28	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
665	BI1118-2	27		527	Monrovia	4	0.40	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
666	BI1118-2	28	Alta St	59	Monrovia	4	0.04	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
667	BI1118-2	29	Bonita St	32	Monrovia	4	0.02	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
668	BI1118-2	30	Encino Ave	10	Monrovia	4	0.01	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
669	BI1118-2	31		1853	Monrovia	4	1.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
670	BI1118-2	32		1846	Monrovia	4	1.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
671	BI1118-2	33		1252	Monrovia	4	0.95	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
672	BI1118-2	34		1354	Monrovia	4	1.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
673	BI1118-2	35		3	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
674	BI1118-2	36	W Huntington Dr	215	Monrovia	6	0.24	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
675	BI1118-2	37	S Mayflower Ave	1096	Monrovia	4	0.83	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
677	BI1118-2	39		300	Monrovia	4	0.23	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
678	BI1118-2	40		125	Monrovia	4	0.09	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
679	BI1118-2	41		219	Monrovia	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
680	BI1118-2	42		66	Monrovia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
681	BI1118-2	43		634	Monrovia	4	0.48	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
682	BI1118-2	44		216	Monrovia	4	0.16	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
683	BI1118-2	45		135	Monrovia	4	0.10	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
684	BI1118-2	46		217	Monrovia	4	0.16	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
685	BI1118-2	47		258	Monrovia	4	0.20	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
686	BI1118-2	48		360	Monrovia	4	0.27	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
687	BI1118-2	49		60	Monrovia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
688	BI1118-2	50		283	Monrovia	4	0.21	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
689	BI1118-2	51	Alta St	133	Monrovia	4	0.10	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
690	BI1118-2	52	Bonita St	78	Monrovia	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
691	BI1118-2	53	Encino Ave	445	Monrovia	4	0.34	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
692	BI1118-2	54	Fowler Dr	26	Monrovia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
693	BI1118-2	55	Linwood Ave	91	Monrovia	4	0.07	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
694	BI1118-2	56	Montana St	549	Monrovia	4	0.42	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
695	BI1118-2	57	S Alta Vista Ave	854	Monrovia	4	0.65	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
696	BI1118-2	58	Violet Ave	1427	Monrovia	4	1.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
697	BI1118-2	59	W Central Ave	1247	Monrovia	4	0.94	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
698	BI1118-2	60	W Evergreen Ave	192	Monrovia	4	0.15	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
699	BI1118-2	61	W Lemon Ave	380	Monrovia	4	0.29	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
700	BI1118-2	62	W Lemon Ave	26	Monrovia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
701	BI1118-2	63	W Lime Ave	516	Monrovia	4	0.39	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
702	BI1118-2	64	W Lime Ave	643	Monrovia	4	0.49	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
703	BI1118-2	65	W Olive Ave	904	Monrovia	4	0.69	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
704	BI1118-2	66	W Olive Ave	844	Monrovia	4	0.64	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
705	BI1118-2	67	W Palm Ave	929	Monrovia	4	0.70	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
708	BI1118-2	70	W Huntington Dr	1412	Monrovia	6	1.60	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
711	BI1118-2	73		271	Monrovia	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
712	BI1118-2	74		58	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
713	BI1118-2	75		207	Monrovia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
714	BI1118-2	76		122	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
715	BI1118-2	77		235	Monrovia	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
716	BI1118-2	78		869	Monrovia	4	0.66	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
717	BI1118-2	79		158	Monrovia	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
718	BI1118-2	80		1860	Monrovia	4	1.41	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
719	BI1118-2	81	Parker Ave	208	Monrovia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
720	BI1118-2	82	S Alta Vista Ave	459	Monrovia	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
721	BI1118-2	83	S Alta Vista Ave	1819	Monrovia	4	1.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
722	BI1118-2	84	S Magnolia Ave	2365	Monrovia	4	1.79	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
723	BI1118-2	85	W Chestnut Ave	1554	Monrovia	4	1.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
724	BI1118-2	86	W Cypress Ave	616	Monrovia	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
725	BI1118-2	87	W King St	68	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
726	BI1118-2	88	W Maple Ave	4	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
727	BI1118-2	89	W Maple Ave	1481	Monrovia	4	1.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
728	BI1118-2	90	W Olive Ave	20	Monrovia	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
729	BI1118-2	91	W Olive Ave	1744	Monrovia	4	1.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
730	BI1118-2	92	W Walnut Ave	1779	Monrovia	4	1.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
731	BI1118-2	93	W Walnut Ave	151	Monrovia	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
732	BI1118-2	94	W Huntington Dr	60	Monrovia	6	0.07	Primary-Arterial	100	10	2	8	15	0.72	8	50	HIGH	
733	BI1118-2	95	Encino Ave	221	Monrovia	4	0.17	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
734	BI1118-2	96		60	Monrovia	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
735	BI1118-2	97		83	Monrovia	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
736	BI1118-2	98		203	Monrovia	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
737	BI1118-2	99		77	Monrovia	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
738	BI1118-2	100		35	Monrovia	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
739	BI1118-2	101		219	Monrovia	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
740	BI1118-2	102		335	Monrovia	4	0.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
741	BI1118-2	103		179	Monrovia	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
742	BI1118-2	104	Alta Vista Ave	76	Monrovia	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
743	BI1118-2	105	Fano St	190	Monrovia	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
744	BI1118-2	106	Genoa St	583	Monrovia	4	0.44	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
745	BI1118-2	107	Highway Esplanade	384	Monrovia	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
746	BI1118-2	108	Parker Ave	280	Monrovia	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
747	BI1118-2	109	S Alta Vista Ave	283	Monrovia	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
748	BI1118-2	110	S Alta Vista Ave	113	Monrovia	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
749	BI1118-2	111	S Madison Ave	717	Monrovia	4	0.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
750	BI1118-2	112	W Chestnut Ave	948	Monrovia	4	0.72	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
751	BI1118-2	113		35	Monrovia	6	0.04	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
754	BI1118-2	116	10th Ave	108	Monrovia	4	0.08	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
755	BI1118-2	117	S Mayflower Ave	1440	Monrovia	4	1.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
756	BI1118-2	118	W Central Ave	36	Monrovia	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
758	BI1118-2	120		11	Monrovia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
759	BI1118-2	121		145	Monrovia	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
760	BI1118-2	122		3	Monrovia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
761	BI1118-2	123		238	Monrovia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
762	BI1118-2	124		295	Monrovia	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
763	BI1118-2	125	Alamitas Ave	735	Monrovia	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
764	BI1118-2	126	Alamitas Ave	334	Monrovia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
765	BI1118-2	127	Alta St	177	Monrovia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
766	BI1118-2	128	Anita St	211	Monrovia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
767	BI1118-2	129	Bonita St	764	Monrovia	4	0.58	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
768	BI1118-2	130	Diamond St	40	Monrovia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
769	BI1118-2	131	Fano St	729	Monrovia	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
770	BI1118-2	132	Fowler Dr	1413	Monrovia	4	1.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
771	BI1118-2	133	Genoa St	696	Monrovia	4	0.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
772	BI1118-2	134	Highway Esplanade	382	Monrovia	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
773	BI1118-2	135	Loma Ave	121	Monrovia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
774	BI1118-2	136	Los Robles Ave	606	Monrovia	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
775	BI1118-2	137	Montana St	841	Monrovia	4	0.64	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
777	BI1118-2	139	Monterey Ct	147	Monrovia	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
778	BI1118-2	140	Parker Ave	571	Monrovia	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
779	BI1118-2	141	Pilgrim Wy	804	Monrovia	4	0.61	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
780	BI1118-2	142	Radford Pl	269	Monrovia	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
781	BI1118-2	143	S Alta Vista Ave	17	Monrovia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
783	BI1118-2	145	S Sunset Pl	1525	Monrovia	4	1.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
784	BI1118-2	146	Violet Ave	206	Monrovia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
785	BI1118-2	147	W Central Ave	48	Monrovia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
786	BI1118-2	148	W Chestnut Ave	1691	Monrovia	4	1.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
787	BI1118-2	149	W Evergreen Ave	392	Monrovia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
788	BI1118-2	150	W King St	753	Monrovia	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
789	BI1118-2	151	W Lemon Ave	1237	Monrovia	4	0.94	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
790	BI1118-2	152	W Lime Ave	117	Monrovia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
791	BI1118-2	153	W Lime Ave	349	Monrovia	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
792	BI1118-2	154	W Maple Ave	730	Monrovia	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
793	BI1118-2	155	W Olive Ave	175	Monrovia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
794	BI1118-2	156	W Olive Ave	661	Monrovia	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
795	BI1118-2	157	W Olive Ave	22	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
796	BI1118-2	158	W Olive Ave	550	Monrovia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
797	BI1118-2	159	W Palm Ave	10	Monrovia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
798	BI1118-2	160	W Walnut Ave	451	Monrovia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
799	BI1118-2	161	W Walnut Ave	444	Monrovia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
800	BI1118-2	162	Walnut Ct	80	Monrovia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
804	BI1118-2	166	W Huntington Dr	460	Monrovia	6	0.52	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
806	BI1118-2	168	W King St	574	Monrovia	4	0.43	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
807	BI1118-2	169	W Maple Ave	662	Monrovia	4	0.50	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
808	BI1118-2	170	W Maple Ave	438	Monrovia	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
809	BI1118-2	171	W Olive Ave	156	Monrovia	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
810	BI1118-2	172	W Walnut Ave	143	Monrovia	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
811	BI1118-2	173	W Walnut Ave	104	Monrovia	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
812	BI1118-2	174		109	Monrovia	6	0.12	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	
815	BI1118-2	177	5th Ct	131	Monrovia	4	0.10	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
816	BI1118-2	178	Olive Ct	223	Monrovia	4	0.17	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
817	BI1118-2	179	S Lincoln Pl	770	Monrovia	4	0.58	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
819	BI1118-2	181	S Sunset Pl	91	Monrovia	4	0.07	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
820	BI1118-2	182	W Chestnut Ave	491	Monrovia	4	0.37	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
821	BI1118-2	183	W Lemon Ave	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
822	BI1118-2	184	W Olive Ave	1087	Monrovia	4	0.82	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
823	BI1118-2	185	W Walnut Ave	1020	Monrovia	4	0.77	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
824	BI1118-2	186	W Huntington Dr	25	Monrovia	6	0.03	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
826	BI1118-2	188	Alamitas Ave	503	Monrovia	4	0.38	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
827	BI1118-2	189	Alamitas Ave	116	Monrovia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
828	BI1118-2	190	Anita St	128	Monrovia	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
829	BI1118-2	191	Anita St	439	Monrovia	4	0.33	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
830	BI1118-2	192	Anita St	314	Monrovia	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
831	BI1118-2	193	Dale Dr	240	Monrovia	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
832	BI1118-2	194	Diamond St	1013	Monrovia	4	0.77	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
833	BI1118-2	195	Leanne Ave	83	Monrovia	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
834	BI1118-2	196	Loma Ave	72	Monrovia	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
835	BI1118-2	197	Maryanna Ln	428	Monrovia	4	0.32	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
837	BI1118-2	199	Monterey Ct	122	Monrovia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
838	BI1118-2	200	Parker Ave	335	Monrovia	4	0.25	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
839	BI1118-2	201	Pilgrim Wy	842	Monrovia	4	0.64	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
840	BI1118-2	202	Radford Pl	103	Monrovia	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
841	BI1118-2	203	W Evergreen Ave	756	Monrovia	4	0.57	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
842	BI1118-2	204	W Walnut Ave	411	Monrovia	4	0.31	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
843	BI1118-2	205	W Walnut Ave	313	Monrovia	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
844	BI1118-2	206	Walnut Ct	122	Monrovia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
848	BI1118-2	210	N 5th Ave	106	Monrovia	4	0.08	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
849	BI1118-2	211	S 5th Ave	106	Monrovia	4	0.08	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
851	BI1118-2	213	S 5th Ave	33	Monrovia	4	0.02	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
852	BI1118-2	214	S Lincoln Pl	221	Monrovia	4	0.17	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
854	BI1118-2	216	W Chestnut Ave	527	Monrovia	4	0.40	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
855	BI1118-2	217	W Olive Ave	144	Monrovia	4	0.11	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
856	BI1118-2	218	W Walnut Ave	12	Monrovia	4	0.01	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
1414	BI216-1	3		197	Monrovia	4	0.15	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1416	BI216-1	5	E Scenic Dr	331	Monrovia	4	0.25	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1417	BI216-1	6	N Encinitas Ave	333	Monrovia	4	0.25	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1421	BI216-1	10	E Greystone Ave	225	Monrovia	4	0.17	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1422	BI216-1	11	N Encinitas Ave	283	Monrovia	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1423	BI216-1	12	N Stedman Pl	141	Monrovia	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1424	BI216-1	13		16	Monrovia	4	0.01	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1425	BI216-1	14	Canyon Crest Dr	100	Monrovia	4	0.08	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1426	BI216-1	15	E Scenic Dr	67	Monrovia	4	0.05	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1427	BI216-1	16	N Encinitas Ave	78	Monrovia	4	0.06	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1429	BI216-1	18		68	Monrovia	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1430	BI216-1	19	Cedar Ave	627	Monrovia	4	0.48	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1431	BI216-1	20	E Greystone Ave	424	Monrovia	4	0.32	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1432	BI216-1	21	Monroe Pl	68	Monrovia	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1433	BI216-1	22	N Encinitas Ave	1359	Monrovia	4	1.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1434	BI216-1	23	N Primrose Ave	1882	Monrovia	4	1.43	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1435	BI216-1	24	N Stedman Pl	636	Monrovia	4	0.48	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1436	BI216-1	25	Oaks Ave	638	Monrovia	4	0.48	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1437	BI216-1	26	Stedman Pl	1490	Monrovia	4	1.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1438	BI216-1	27	W Greystone Ave	64	Monrovia	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1439	BI216-1	28	W Greystone Ave	662	Monrovia	4	0.50	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1440	BI216-1	29	Canyon Crest Dr	6	Monrovia	4	0.00	Minor-Local	60	6	3	6	14	0.81	10	48	HIGH	
1441	BI216-1	30	W Foothill Blvd	360	Monrovia	4	0.27	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	

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Ranking Criteria				General Criteria															
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Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1442	BI216-1	31		211	Monrovia	4	0.16	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1443	BI216-1	32	N Primrose Ave	324	Monrovia	4	0.25	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1444	BI216-1	33	S Primrose Ave	342	Monrovia	4	0.26	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1448	BI216-1	37	S Myrtle Ave	758	Monrovia	6	0.86	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
1452	BI216-1	41		454	Monrovia	4	0.34	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1453	BI216-1	42		674	Monrovia	4	0.51	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1454	BI216-1	43	Date Ct	128	Monrovia	1	0.02	Alley	20	4	3	6	7	0.66	7	37	MED	
1455	BI216-1	44	Falling Leaf Aly	175	Monrovia	1	0.03	Alley	20	4	3	6	7	0.66	7	37	MED	
1456	BI216-1	45	White Oak Aly	219	Monrovia	1	0.04	Alley	20	4	3	6	7	0.66	7	37	MED	
1457	BI216-1	46	E Palm Ave	149	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1458	BI216-1	47	N Encinitas Ave	387	Monrovia	4	0.29	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1459	BI216-1	48	N Primrose Ave	573	Monrovia	4	0.43	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1460	BI216-1	49	Oaks Ave	93	Monrovia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1461	BI216-1	50	S Encinitas Ave	38	Monrovia	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1462	BI216-1	51	S Primrose Ave	76	Monrovia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1463	BI216-1	52	Stedman Pl	674	Monrovia	4	0.51	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1464	BI216-1	53	W Greystone Ave	4	Monrovia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1465	BI216-1	54	W Palm Ave	180	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1466	BI216-1	55		72	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1467	BI216-1	56		68	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1468	BI216-1	57		68	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1469	BI216-1	58		69	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1470	BI216-1	59		185	Monrovia	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1472	BI216-1	61	Date Ct	154	Monrovia	1	0.03	Alley	20	4	2	8	7	0.66	7	41	MED	
1473	BI216-1	62	Falling Leaf Aly	138	Monrovia	1	0.03	Alley	20	4	2	8	7	0.66	7	41	MED	
1474	BI216-1	63	Orange Ct	97	Monrovia	1	0.02	Alley	20	4	2	8	7	0.66	7	41	MED	
1475	BI216-1	64	White Oak Aly	333	Monrovia	1	0.06	Alley	20	4	2	8	7	0.66	7	41	MED	
1476	BI216-1	65	Linwood Ave	69	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1477	BI216-1	66	S Primrose Ave	1568	Monrovia	4	1.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1478	BI216-1	67	W Lemon Ave	626	Monrovia	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1479	BI216-1	68	W Lime Ave	635	Monrovia	4	0.48	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1480	BI216-1	69	W Palm Ave	544	Monrovia	4	0.41	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1482	BI216-2	2	E Huntington Dr	434	Monrovia	6	0.49	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
1485	BI216-2	5		55	Monrovia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1486	BI216-2	6		43	Monrovia	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1487	BI216-2	7		239	Monrovia	4	0.18	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1488	BI216-2	8		110	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1489	BI216-2	9		64	Monrovia	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1490	BI216-2	10		147	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1491	BI216-2	11		11	Monrovia	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1492	BI216-2	12		12	Monrovia	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1493	BI216-2	13		89	Monrovia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1494	BI216-2	14		90	Monrovia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1495	BI216-2	15		701	Monrovia	4	0.53	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1496	BI216-2	16		259	Monrovia	4	0.20	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1497	BI216-2	17	Almond Ave	170	Monrovia	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1498	BI216-2	18	Almond Ave	819	Monrovia	4	0.62	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1499	BI216-2	19	E Chestnut Ave	94	Monrovia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1500	BI216-2	20	E Maple Ave	548	Monrovia	4	0.42	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1501	BI216-2	21	E Olive Ave	880	Monrovia	4	0.67	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1502	BI216-2	22	E Walnut Ave	162	Monrovia	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1503	BI216-2	23	Gladys Ave	82	Monrovia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1505	BI216-2	25	S Canyon Blvd	364	Monrovia	4	0.28	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1506	BI216-2	26	S Ivy Ave	136	Monrovia	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1507	BI216-2	27	S Primrose Ave	4	Monrovia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1508	BI216-2	28	W Olive Ave	200	Monrovia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1509	BI216-2	29		219	Monrovia	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1510	BI216-2	30		1398	Monrovia	4	1.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1511	BI216-2	31		41	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1512	BI216-2	32		317	Monrovia	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1513	BI216-2	33		310	Monrovia	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1514	BI216-2	34		256	Monrovia	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1515	BI216-2	35		186	Monrovia	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1516	BI216-2	36		38	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1517	BI216-2	37		24	Monrovia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1518	BI216-2	38		848	Monrovia	4	0.64	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1519	BI216-2	39		721	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1520	BI216-2	40		566	Monrovia	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1521	BI216-2	41		30	Monrovia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1522	BI216-2	42		302	Monrovia	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1523	BI216-2	43		76	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1524	BI216-2	44		2032	Monrovia	4	1.54	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1525	BI216-2	45		82	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1529	BI216-2	49		35	Monrovia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1530	BI216-2	50		36	Monrovia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1531	BI216-2	51		163	Monrovia	4	0.12	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1532	BI216-2	52	E Evergreen Ave	101	Monrovia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1533	BI216-2	53	E Pomona Ave	1084	Monrovia	4	0.82	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1534	BI216-2	54	Montana St	492	Monrovia	4	0.37	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1535	BI216-2	55	Peck Rd	14	Monrovia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1536	BI216-2	56	Railroad Ave	1393	Monrovia	4	1.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1537	BI216-2	57	Raymond Ave	419	Monrovia	4	0.32	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1538	BI216-2	58	S Ivy Ave	42	Monrovia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1539	BI216-2	59	S Magnolia Ave	1164	Monrovia	4	0.88	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1540	BI216-2	60	S Primrose Ave	611	Monrovia	4	0.46	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1541	BI216-2	61	S Primrose Ave	229	Monrovia	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1542	BI216-2	62	Santa Fe Pl	56	Monrovia	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1543	BI216-2	63	W Central Ave	1119	Monrovia	4	0.85	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1544	BI216-2	64	W Evergreen Ave	1175	Monrovia	4	0.89	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1545	BI216-2	65	W Pomona Ave	1108	Monrovia	4	0.84	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1546	BI216-2	66	Walker Ave	48	Monrovia	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1548	BI216-2	68	E Huntington Dr	2176	Monrovia	6	2.47	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1549	BI216-2	69	Huntington Dr	33	Monrovia	6	0.04	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1552	BI216-2	72	S Myrtle Ave	1952	Monrovia	6	2.22	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1554	BI216-2	74	W Huntington Dr	725	Monrovia	6	0.82	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1555	BI216-2	75		18	Monrovia	4	0.01	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1556	BI216-2	76		59	Monrovia	4	0.04	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1557	BI216-2	77		62	Monrovia	4	0.05	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1558	BI216-2	78		40	Monrovia	4	0.03	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1560	BI216-2	80	E Cypress Ave	26	Monrovia	4	0.02	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
1566	BI216-2	86		298	Monrovia	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1567	BI216-2	87		649	Monrovia	4	0.49	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1568	BI216-2	88		658	Monrovia	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1569	BI216-2	89		46	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1570	BI216-2	90		84	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1571	BI216-2	91		347	Monrovia	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1572	BI216-2	92		238	Monrovia	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1573	BI216-2	93		328	Monrovia	4	0.25	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1574	BI216-2	94		660	Monrovia	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1575	BI216-2	95		45	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1576	BI216-2	96		78	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1577	BI216-2	97		660	Monrovia	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1578	BI216-2	98		721	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1579	BI216-2	99		607	Monrovia	4	0.46	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1580	BI216-2	100		38	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1581	BI216-2	101		310	Monrovia	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1582	BI216-2	102		43	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1583	BI216-2	103		280	Monrovia	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1584	BI216-2	104		73	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1585	BI216-2	105	Almond Ave	285	Monrovia	4	0.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1586	BI216-2	106	Almond Ave	44	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1587	BI216-2	107	Chestnut Ave	34	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1589	BI216-2	109	E Cherry Ave	1045	Monrovia	4	0.79	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1590	BI216-2	110	E Cherry Ave	698	Monrovia	4	0.53	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1591	BI216-2	111	E Cherry Ave	869	Monrovia	4	0.66	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1592	BI216-2	112	E Chestnut Ave	1210	Monrovia	4	0.92	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1593	BI216-2	113	E Cypress Ave	1754	Monrovia	4	1.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1594	BI216-2	114	E Cypress Ave	867	Monrovia	4	0.66	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1595	BI216-2	115	E Evergreen Ave	1700	Monrovia	4	1.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1596	BI216-2	116	E Fig Ave	1570	Monrovia	4	1.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1597	BI216-2	117	E Los Angeles Ave	1042	Monrovia	4	0.79	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1598	BI216-2	118	E Los Angeles Ave	870	Monrovia	4	0.66	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1599	BI216-2	119	E Maple Ave	317	Monrovia	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1600	BI216-2	120	E Maple Ave	1307	Monrovia	4	0.99	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1601	BI216-2	121	E Olive Ave	2120	Monrovia	4	1.61	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1602	BI216-2	122	E Pomona Ave	659	Monrovia	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1603	BI216-2	123	E Walnut Ave	861	Monrovia	4	0.65	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1604	BI216-2	124	E Walnut Ave	1607	Monrovia	4	1.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1605	BI216-2	125	Fig Ave	209	Monrovia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1606	BI216-2	126	Fig Ln	476	Monrovia	4	0.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1607	BI216-2	127	Gladys Ave	534	Monrovia	4	0.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1608	BI216-2	128	Los Angeles Ave	699	Monrovia	4	0.53	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1609	BI216-2	129	Maple Ave	31	Monrovia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1610	BI216-2	130	Montana St	665	Monrovia	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1611	BI216-2	131	Olive Ave	30	Monrovia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1612	BI216-2	132	Railroad Ave	368	Monrovia	4	0.28	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1614	BI216-2	134	S Canyon Blvd	1548	Monrovia	4	1.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1615	BI216-2	135	S Ivy Ave	2211	Monrovia	4	1.68	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1616	BI216-2	136	S Ivy Ave	1774	Monrovia	4	1.34	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1617	BI216-2	137	S Magnolia Ave	927	Monrovia	4	0.70	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1618	BI216-2	138	S Primrose Ave	3120	Monrovia	4	2.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1619	BI216-2	139	Shamrock Ave	60	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1621	BI216-2	141	W Cherry Ave	1326	Monrovia	4	1.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1622	BI216-2	142	W Chestnut Ave	721	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1623	BI216-2	143	W Cypress Ave	46	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1624	BI216-2	144	W Cypress Ave	1327	Monrovia	4	1.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1625	BI216-2	145	W Maple Ave	723	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1626	BI216-2	146	W Olive Ave	522	Monrovia	4	0.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1627	BI216-2	147	W Walnut Ave	720	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1628	BI216-2	148	Walnut Ave	34	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1629	BI216-2	149	Montana St	143	Monrovia	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1630	BI216-2	150	S Primrose Ave	229	Monrovia	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1633	BI216-2	153	Genoa St	67	Monrovia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1634	BI216-2	154	Montana St	22	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1635	BI216-2	155	Peck Rd	423	Monrovia	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1636	BI216-2	156	S Magnolia Ave	742	Monrovia	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1637	BI216-2	157	W Evergreen Ave	192	Monrovia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1638	BI216-2	158	W Pomona Ave	186	Monrovia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1640	BI216-2	160	S Magnolia Ave	109	Monrovia	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
1641	BI216-2	161	W Pomona Ave	2	Monrovia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
1642	BI24-2	1	Ramona Ave	264	Sierra Madre	4	0.20	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1643	BI24-2	2	W Orange Grove Ave	216	Sierra Madre	4	0.16	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1644	BI24-2	3	Hampton Rd	2	Arcadia	4	0.00	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
1645	BI24-2	4	Fallen Leaf Rd	84	Arcadia	4	0.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1646	BI24-2	5	Greenoaks Dr	309	Arcadia	4	0.23	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1647	BI24-2	6	Hampton Rd	499	Arcadia	4	0.38	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1648	BI24-2	7	Singingwood Dr	390	Arcadia	4	0.30	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1649	BI24-2	8	W Orange Grove Ave	487	Arcadia	4	0.37	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1650	BI24-2	9	Manzanita Ave	705	Sierra Madre	4	0.53	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1651	BI24-2	10	Fallen Leaf Rd	3	Arcadia	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1652	BI24-2	11	Hampton Rd	28	Arcadia	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1653	BI24-2	12	Singingwood Dr	569	Arcadia	4	0.43	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1654	BI24-2	13	E Foothill Blvd	3	County	4	0.00	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1655	BI24-2	14	N Michillinda Ave	64	County	4	0.05	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1656	BI24-2	15	W Foothill Blvd	26	County	4	0.02	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1657	BI24-2	16	W Foothill Blvd	327	Arcadia	4	0.25	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1658	BI24-2	17	Rafael Dr	59	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1659	BI24-2	18	W Foothill Blvd	251	Arcadia	4	0.19	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1660	BI24-2	19	W Foothill Blvd	26	Arcadia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1661	BI24-3	1	N Rosemead Blvd	95	County	6	0.11	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
1662	BI24-3	2	Arboleda St	423	County	4	0.32	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
1663	BI24-3	3		194	County	1	0.04	Alley	20	4	4	4	6	0.33	3	21	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1664	BI24-3	4	N Rosemead Blvd	54	County	6	0.06	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
1665	BI24-3	5		110	County	1	0.02	Alley	20	4	4	4	7	0.66	7	33	MED	
1666	BI24-3	6	Frontage Rd	24	County	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1667	BI24-3	7	N Quigley Ave	441	County	4	0.33	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1668	BI24-3	8	Walnut St	24	County	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1669	BI24-3	9	N Rosemead Blvd	104	County	6	0.12	Highway	100	10	2	8	7	0.66	7	47	HIGH	
1670	BI24-3	10	S Rosemead Blvd	1688	County	6	1.92	Highway	100	10	2	8	7	0.66	7	47	HIGH	
1671	BI24-3	11	State Route 19	1792	County	6	2.04	Highway	100	10	2	8	7	0.66	7	47	HIGH	
1673	BI24-3	13	E Colorado Blvd	948	County	6	1.08	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1674	BI24-3	14	Huntington Dr	228	County	6	0.26	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1675	BI24-3	15	W Huntington Dr	442	County	6	0.50	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1677	BI24-3	17	Anita Ave	145	County	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1678	BI24-3	18		398	County	1	0.08	Alley	20	4	2	8	7	0.66	7	41	MED	
1679	BI24-3	19	Blanche St	892	County	4	0.68	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1680	BI24-3	20	Buff Ave	26	County	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1681	BI24-3	21	Corta Cll	170	County	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1682	BI24-3	22	E Green St	627	County	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1683	BI24-3	23	Elma Rd	1040	County	4	0.79	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1684	BI24-3	24	Grayburn Rd	2	County	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1685	BI24-3	25	Hugo Reid Dr	22	County	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1686	BI24-3	26	Locksley Dr	10	County	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1687	BI24-3	27	Locksley Dr	148	County	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1688	BI24-3	28	Merlon Ave	286	County	4	0.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1689	BI24-3	29	Michigan Blvd	842	County	4	0.64	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1690	BI24-3	30	Mohawk St	821	County	4	0.62	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1691	BI24-3	31	Mountain View Ave	849	County	4	0.64	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1692	BI24-3	32	N Quigley Ave	105	County	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1694	BI24-3	34	Volante Dr	22	County	4	0.02	Secondary-Collector	64	8	3	6	3	0.77	9	47	HIGH	
1695	BI24-3	35	Carol Pine Ln	0	County	4	0.00	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
1696	BI24-3	36	Elma Rd	52	County	4	0.04	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
1697	BI24-3	37	Volante Dr	1	County	4	0.00	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
1698	BI24-3	38	E Colorado Blvd	275	County	6	0.31	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
1699	BI24-3	39	N Rosemead Blvd	100	County	6	0.11	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
1700	BI24-3	40		12	County	4	0.01	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1701	BI24-3	41	N Michillinda Ave	640	County	4	0.49	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1702	BI24-3	42	Arboleda St	373	County	4	0.28	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1703	BI24-3	43	Arboleda St	589	County	4	0.45	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1704	BI24-3	44		614	County	1	0.12	Alley	20	4	3	6	6	0.33	3	25	LOW	
1705	BI24-3	45		984	County	1	0.19	Alley	20	4	3	6	6	0.33	3	25	LOW	
1706	BI24-3	46	E Walnut St	163	County	4	0.12	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1707	BI24-3	47	Merlon Ave	117	County	4	0.09	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1708	BI24-3	48	N Quigley Ave	89	County	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1709	BI24-3	49	N Rosemead Blvd	70	County	6	0.08	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
1710	BI24-3	50	Monte Verde Dr	20	County	4	0.01	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
1712	BI24-3	52	Carol Pine Ln	516	County	4	0.39	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1713	BI24-3	53	Elma Rd	84	County	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1714	BI24-3	54	Merlon Ave	140	County	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1715	BI24-3	55	Mohawk St	466	County	4	0.35	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1716	BI24-3	56	Monte Verde Dr	1	County	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1717	BI24-3	57	E Colorado Blvd	429	County	6	0.49	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
1718	BI24-3	58	W Colorado Blvd	25	County	6	0.03	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
1721	BI24-3	61	E Walnut St	163	County	4	0.12	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
1722	BI24-3	62	Volante Dr	21	Arcadia	4	0.02	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
1723	BI24-3	63	Monte Verde Dr	20	Arcadia	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1724	BI24-3	64	W Colorado Blvd	26	Arcadia	6	0.03	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
1725	BI24-3	65	S Rosemead Blvd	1073	County	6	1.22	Highway	100	10	2	8	3	0.77	9	53	HIGH	
1726	BI24-3	66	State Route 19	1073	County	6	1.22	Highway	100	10	2	8	3	0.77	9	53	HIGH	
1727	BI24-3	67		38	County	4	0.03	Secondary-Collector	64	8	2	8	3	0.77	9	51	HIGH	
1728	BI24-3	68	La Rosa Rd	17	County	4	0.01	Secondary-Collector	64	8	2	8	3	0.77	9	51	HIGH	
1730	BI24-3	70	San Pasqual St	4	County	4	0.00	Secondary-Collector	64	8	2	8	3	0.77	9	51	HIGH	
1731	BI24-3	71	Blanche St	831	County	4	0.63	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1732	BI24-3	72	Cole Ave	326	County	4	0.25	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1733	BI24-3	73	Elma Rd	148	County	4	0.11	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1734	BI24-3	74	Encanto Dr	18	County	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1735	BI24-3	75	La Rosa Rd	1	County	4	0.00	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1736	BI24-3	76	Laurita Ave	639	County	4	0.48	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1737	BI24-3	77	Michigan Blvd	365	County	4	0.28	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1738	BI24-3	78	Minoa Ave	537	County	4	0.41	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1739	BI24-3	79	Mountain View Ave	927	County	4	0.70	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1740	BI24-3	80	Oakdale Ave	1330	County	4	1.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1741	BI24-3	81	Paloma Dr	18	County	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1742	BI24-3	82	Panorama Dr	18	County	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1743	BI24-3	83	Sycamore Ave	1057	County	4	0.80	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1744	BI24-3	84	Raymond Dr	825	County	4	0.63	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1745	BI24-3	85	Woodward Blvd	897	County	4	0.68	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1746	BI24-3	86	Yorkshire Rd	3	County	4	0.00	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1747	BI24-3	87	N Rosemead Blvd	138	County	6	0.16	Highway	100	10	2	8	6	0.33	3	35	MED	
1748	BI24-3	88	State Route 19	138	County	6	0.16	Highway	100	10	2	8	6	0.33	3	35	MED	
1749	BI24-3	89		165	County	6	0.19	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1750	BI24-3	90	E Colorado Blvd	122	County	6	0.14	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1751	BI24-3	91	N Rosemead Blvd	327	County	6	0.37	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1752	BI24-3	92	State Route 19	227	County	6	0.26	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1753	BI24-3	93		2	County	4	0.00	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1754	BI24-3	94	Arboleda St	19	County	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1755	BI24-3	95		12	County	1	0.00	Alley	20	4	2	8	6	0.33	3	29	LOW	
1756	BI24-3	96	Buff Ave	240	County	4	0.18	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1757	BI24-3	97	Corta Cll	526	County	4	0.40	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1758	BI24-3	98	E Colorado Blvd	2	County	4	0.00	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1759	BI24-3	99	E Walnut St	877	County	4	0.66	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1760	BI24-3	100	Oakdale Ave	448	County	4	0.34	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1761	BI24-3	101	Sycamore Ave	420	County	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1762	BI24-3	102	Thorndale Rd	1	County	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1763	BI24-3	103	Raymond Dr	126	County	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1764	BI24-3	104	S Michillinda Dr	89	County	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1765	BI24-3	105	S Quigley Ave	1220	County	4	0.92	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1766	BI24-3	106	Walnut Ct	354	County	4	0.27	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1767	BI24-3	107	Walnut Dr	570	County	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1768	BI24-3	108	Woodward Blvd	99	County	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1769	BI24-3	109	Woodward Blvd	624	County	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1770	BI24-3	110	Encanto Dr	14	Arcadia	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1771	BI24-3	111	La Rosa Rd	18	Arcadia	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1772	BI24-3	112	Paloma Dr	16	Arcadia	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1773	BI24-3	113	Panorama Dr	12	Arcadia	4	0.01	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
1777	BI24-3	117	Balboa Dr	214	Arcadia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1778	BI24-3	118	Columbia Rd	631	Arcadia	4	0.48	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1779	BI24-3	119	Hugo Reid Dr	83	Arcadia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1780	BI24-3	120	Sano Ct	99	Arcadia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1781	BI24-3	121	S Rosemead Blvd	184	County	6	0.21	Highway	100	10	1	9	3	0.77	9	55	HIGH	
1782	BI24-3	122	State Route 19	184	County	6	0.21	Highway	100	10	1	9	3	0.77	9	55	HIGH	
1783	BI24-3	123	Anita Ave	177	County	4	0.13	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
1784	BI24-3	124	Laurita Ave	186	County	4	0.14	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
1785	BI24-3	125	Michigan Blvd	391	County	4	0.30	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
1786	BI24-3	126	N Rosemead Blvd	89	County	6	0.10	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1787	BI24-3	127	State Route 19	79	County	6	0.09	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1788	BI24-3	128	Corta Cll	139	County	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1789	BI24-3	129	S Michillinda Dr	662	County	4	0.50	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1790	BI24-3	130	S Quigley Ave	38	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1791	BI24-3	131	S Rosemead Blvd	101	County	6	0.12	Highway	100	10	0	10	3	0.77	9	57	HIGH	
1792	BI24-3	132	State Route 19	101	County	6	0.12	Highway	100	10	0	10	3	0.77	9	57	HIGH	
1793	BI24-3	133	N Rosemead Blvd	100	County	6	0.11	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
1794	BI24-3	134		76	County	6	0.09	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1795	BI24-3	135	N Rosemead Blvd	295	County	6	0.34	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1796	BI24-3	136	Rosemead Blvd	76	County	6	0.09	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1797	BI24-3	137	S Rosemead Blvd	1135	County	6	1.29	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1798	BI24-3	138	State Route 19	1506	County	6	1.71	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1800	BI24-3	140	E Colorado Blvd	124	County	6	0.14	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1801	BI24-3	141	Huntington Dr	954	County	6	1.08	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1802	BI24-3	142	N Sunset Blvd	20	County	6	0.02	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1803	BI24-3	143	Woodward Blvd	1298	County	4	0.98	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1804	BI24-3	144	Woodward Blvd	161	County	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1806	BI24-3	146	Anita Ave	400	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1807	BI24-3	147		152	County	1	0.03	Alley	20	4	1	9	7	0.66	7	43	MED	
1808	BI24-3	148		278	County	1	0.05	Alley	20	4	1	9	7	0.66	7	43	MED	
1809	BI24-3	149	Corta Cll	40	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1810	BI24-3	150	E California Blvd	309	County	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1811	BI24-3	151	E Green St	620	County	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1812	BI24-3	152	Elma Rd	395	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1813	BI24-3	153	Locksley Dr	612	County	4	0.46	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1814	BI24-3	154	Michigan Blvd	1338	County	4	1.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1815	BI24-3	155	Mohawk St	427	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1817	BI24-3	157	W Huntington Dr	701	Arcadia	6	0.80	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1819	BI24-3	159	Columbia Rd	30	Arcadia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1820	BI24-3	160	Portola Dr	38	Arcadia	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1821	BI24-3	161		2	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1822	BI24-4	1	Leroy St	100	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1823	BI24-4	2	Shining Ave	195	County	4	0.15	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1826	BI24-4	5	Don Jay Pl	249	County	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1827	BI24-4	6	E Arcadia Ave	432	County	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1828	BI24-4	7	E Fairview Ave	1228	County	4	0.93	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1829	BI24-4	8	E Greenwood Ave	72	County	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1830	BI24-4	9	Encinita Ave	62	County	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1831	BI24-4	10	Fairview Ave	1	County	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1832	BI24-4	11	Jackson Pl	257	County	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1833	BI24-4	12	Duarte Rd	62	County	6	0.07	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1834	BI24-4	13	Arcadia Ave	1	County	4	0.00	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1835	BI24-4	14	E Arcadia Ave	231	County	4	0.18	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1836	BI24-4	15	E Greenwood Ave	50	County	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1837	BI24-4	16	Encinita Ave	38	County	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1838	BI24-4	17	Encinita Ave	83	County	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1839	BI24-4	18	Parkbyrn Pl	219	County	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1840	BI24-4	19	Shining Ave	43	County	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1841	BI24-4	20	Southview Rd	1228	County	4	0.93	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1843	BI24-4	22	Arcadia Ave	333	Arcadia	4	0.25	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1844	BI24-4	23	Fairview Ave	310	Arcadia	4	0.23	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1846	BI24-4	25	N Sunset Blvd	7	Arcadia	6	0.01	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1847	BI24-4	26	S Sunset Blvd	11	Arcadia	6	0.01	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1850	BI24-4	29	Fairview Ave	459	Arcadia	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1851	BI24-4	30	Okoboji Dr	404	Arcadia	4	0.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1852	BI24-4	31	Southview Rd	0	Arcadia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1853	BI24-4	32	Rosemead Blvd	87	County	6	0.10	Highway	100	10	1	9	6	0.33	3	37	MED	
1854	BI24-4	33	State Route 19	87	County	6	0.10	Highway	100	10	1	9	6	0.33	3	37	MED	
1856	BI24-4	35		192	County	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1857	BI24-4	36		255	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1858	BI24-4	37	Ardendale Ave	394	County	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1859	BI24-4	38	Brentmead Ave	339	County	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1860	BI24-4	39	Brentmead Ave	222	County	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1861	BI24-4	40	Camino Real	936	County	4	0.71	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1862	BI24-4	41	Cloverly Ave	281	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1863	BI24-4	42	E Ardendale Ave	1359	County	4	1.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1864	BI24-4	43	E Greenwood Ave	675	County	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1866	BI24-4	45	E Youngdale St	924	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1867	BI24-4	46	Encinita Ave	384	County	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1868	BI24-4	47	Encinita Ave	308	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1869	BI24-4	48	Encinita Ave	127	County	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1870	BI24-4	49	Leroy St	117	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1871	BI24-4	50	Leroy St	851	County	4	0.64	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1872	BI24-4	51	N Loma Ave	163	County	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1874	BI24-4	53	Shining Ave	119	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1875	BI24-4	54	Southview Rd	212	County	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1876	BI24-4	55		10	County	6	0.01	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1877	BI24-4	56	Rosemead Blvd	191	County	6	0.22	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1878	BI24-4	57	Rosemead Blvd	2093	County	6	2.38	Highway	100	10	1	9	7	0.66	7	49	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1879	BI24-4	58	State Route 19	191	County	6	0.22	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1880	BI24-4	59	State Route 19	2093	County	6	2.38	Highway	100	10	1	9	7	0.66	7	49	HIGH	
1883	BI24-4	62	Zion Ln	298	County	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1884	BI24-4	63	Duarte Rd	30	Arcadia	6	0.03	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1887	BI24-4	66	Temple City Blvd	69	Arcadia	6	0.08	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1889	BI24-4	68	Don Jay Pl	51	County	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1890	BI24-4	69	E Arcadia Ave	1128	County	4	0.85	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1891	BI24-4	70	E Ardendale Ave	104	County	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1892	BI24-4	71	E Fairview Ave	559	County	4	0.42	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1893	BI24-4	72	E Greenwood Ave	834	County	4	0.63	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1894	BI24-4	73	E Youngdale St	7	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1895	BI24-4	74	Jackson Pl	167	County	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1896	BI24-4	75	Leroy St	190	County	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1897	BI24-4	76		41	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1898	BI24-4	77	Arcadia Ave	471	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1899	BI24-4	78	N Oak Ave	54	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1900	BI24-4	79	N Sunset Blvd	27	Arcadia	6	0.03	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1903	BI24-4	82	Okoboji Dr	316	Arcadia	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1904	BI25	1	Novice Ln	100	Monrovia	4	0.08	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
1905	BI25	2	S Myrtle Ave	300	County	6	0.34	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
1906	BI25	3	E Wyland Wy	194	County	4	0.15	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
1907	BI25	4	E Wyland Wy	6	County	4	0.00	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
1908	BI25	5	Joella St	131	County	4	0.10	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1909	BI25	6	S Graydon Ave	458	County	4	0.35	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1910	BI25	7	S Primrose Ave	174	County	4	0.13	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1911	BI25	8	Wesleygrove Ave	109	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1912	BI25	9	Euclid Ave	522	County	4	0.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1913	BI25	10	S Myrtle Ave	217	County	6	0.25	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
1914	BI25	11	E Benrud St	92	County	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1915	BI25	12	S Myrtle Ave	53	Monrovia	6	0.06	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
1916	BI25	13	Novice Ln	89	Monrovia	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
1917	BI25	14	S Myrtle Ave	250	County	6	0.28	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1919	BI25	16	Ansley Ave	481	County	4	0.36	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1920	BI25	17	E Benrud St	100	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1921	BI25	18	E Brisbane St	772	County	4	0.58	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1922	BI25	19	E Wyland Wy	100	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1923	BI25	20	E Wyland Wy	366	County	4	0.28	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1924	BI25	21	Euclid Ave	404	County	4	0.31	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1925	BI25	22	Flagstone Ave	868	County	4	0.66	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1927	BI25	24	Rochelle Ave	740	County	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1928	BI25	25	Rock Rose St	85	County	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1929	BI25	26	Newington St	77	County	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1930	BI25	27	Shamrock Ave	50	County	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1931	BI25	28	Wesleygrove Ave	167	County	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1932	BI25	29	S Myrtle Ave	490	Monrovia	6	0.56	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
1934	BI25	31	Jeffries Ave	114	Monrovia	4	0.09	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
1936	BI25	33		1263	Monrovia	4	0.96	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1937	BI25	34		1126	Monrovia	4	0.85	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1938	BI25	35		869	Monrovia	4	0.66	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1939	BI25	36		571	Monrovia	4	0.43	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1940	BI25	37		325	Monrovia	4	0.25	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1941	BI25	38		80	Monrovia	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1942	BI25	39		221	Monrovia	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1943	BI25	40		420	Monrovia	4	0.32	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1944	BI25	41		468	Monrovia	4	0.35	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1945	BI25	42		77	Monrovia	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1946	BI25	43		92	Monrovia	4	0.07	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1947	BI25	44		224	Monrovia	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1948	BI25	45		105	Monrovia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1949	BI25	46		112	Monrovia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1950	BI25	47		371	Monrovia	4	0.28	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1951	BI25	48		27	Monrovia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1952	BI25	49		108	Monrovia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1953	BI25	50	Bob St	183	Monrovia	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1954	BI25	51	E Brisbane St	29	Monrovia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1955	BI25	52	E El Norte St	552	Monrovia	4	0.42	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1956	BI25	53	El Norte St	305	Monrovia	4	0.23	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1957	BI25	54	Hurstview Ave	196	Monrovia	4	0.15	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1958	BI25	55	Kruse Ave	660	Monrovia	4	0.50	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1959	BI25	56	Monrovista Ave	55	Monrovia	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1960	BI25	57	Novice Ln	8	Monrovia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1961	BI25	58	Taylor St	409	Monrovia	4	0.31	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1962	BI25	59	Peck Rd	813	Monrovia	4	0.62	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1963	BI25	60	Santa Fe Pl	717	Monrovia	4	0.54	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1964	BI25	61	Spanner St	370	Monrovia	4	0.28	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1965	BI25	62	Walker Ave	561	Monrovia	4	0.43	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1966	BI25	63	Walker Ave	585	Monrovia	4	0.44	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1968	BI25	65		225	Monrovia	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1969	BI25	66	Hurstview Ave	907	Monrovia	4	0.69	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1970	BI25	67	Monrovista Ave	1208	Monrovia	4	0.91	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1971	BI25	68	Shamrock Ave	616	Monrovia	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1975	BI25	72		75	County	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1976	BI25	73	Bradbury Ln	15	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1977	BI25	74	E Altern St	1070	County	4	0.81	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1978	BI25	75	E Andre St	178	County	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1979	BI25	76	E Benrud St	171	County	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1980	BI25	77	E Brisbane St	157	County	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1981	BI25	78	E Camino Real	584	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1983	BI25	80	E El Sur St	501	County	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1984	BI25	81	E Pamela Rd	1366	County	4	1.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1985	BI25	82	E Shrode Ave	56	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1986	BI25	83	E Wyland Wy	70	County	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1987	BI25	84	Flagstone Ave	170	County	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1988	BI25	85	Flagstone Ave	416	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1989	BI25	86	Goodall Ave	311	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1990	BI25	87	Goodall Ave	461	County	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1991	BI25	88	Joella St	689	County	4	0.52	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1992	BI25	89	Maydee St	358	County	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1994	BI25	91	S Flagstone Ave	224	County	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1995	BI25	92	S Graydon Ave	567	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1996	BI25	93	S Graydon Ave	1828	County	4	1.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1997	BI25	94	S Primrose Ave	509	County	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1998	BI25	95	S Redell Ave	89	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1999	BI25	96	S Rochelle Ave	41	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2000	BI25	97	S Treelane Ave	279	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2001	BI25	98	Shrode Ave	1413	County	4	1.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2002	BI25	99	Stagio Dr	152	County	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2003	BI25	100	Standish St	444	County	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2004	BI25	101	W Altern St	97	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2006	BI25	103	W Armijo St	1	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2007	BI25	104	Newington St	141	County	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2008	BI25	105	Rock Rose St	157	County	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2009	BI25	106	S Graydon Ave	622	County	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2010	BI25	107	S Treelane Ave	11	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2011	BI25	108	Shamrock Ave	640	County	4	0.48	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2012	BI25	109	Stagio Dr	264	County	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2013	BI25	110	Stagio Dr	515	County	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2014	BI25	111	Standish St	43	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2015	BI25	112	W Armijo St	310	County	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2016	BI25	113	W Atara St	396	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2017	BI25	114	W Avora St	200	County	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2021	BI25	118	W Atara St	407	County	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2022	BI25	119	W Atara St	124	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2023	BI25	120	W Avora St	477	County	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2025	BI25	122	W El Sur St	485	County	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2026	BI25	123	W Wyland Wy	200	County	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2027	BI25	124	Wesleygrove Ave	1025	County	4	0.78	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2028	BI25	125	Alta Vista Ave	605	Monrovia	4	0.46	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2029	BI25	126	Bella Vista St	363	Monrovia	4	0.27	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2030	BI25	127	Bob St	25	Monrovia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2031	BI25	128	Chula St	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2032	BI25	129	Estrella Ave	493	Monrovia	4	0.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2033	BI25	130	Hurstview Ave	201	Monrovia	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2034	BI25	131	W El Norte St	142	County	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2035	BI25	132	Wesleygrove Ave	278	County	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2036	BI25	133	Peck Rd	533	Monrovia	4	0.40	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2037	BI25	134	W Avora St	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2038	BI25	135		52	County	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2039	BI25	136		396	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2040	BI25	137	Bradbury Ln	91	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2041	BI25	138	Chula St	294	County	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2042	BI25	139	Euclid Ave	334	County	4	0.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2043	BI25	140	Goodall Ave	1224	County	4	0.93	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2044	BI25	141	Short St	38	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2045	BI25	142	Alta Vista Ave	184	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2046	BI25	143	Alta Vista Ave	540	Arcadia	4	0.41	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2048	BI25	145	Jeffries Ave	58	Monrovia	4	0.04	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2049	BI25	146	Bella Vista St	105	Monrovia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2050	BI25	147	Bob St	250	Monrovia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2051	BI25	148	E Atara St	215	Monrovia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2052	BI25	149	E Atara St	87	Monrovia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2053	BI25	150	E Camino Real St	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2054	BI25	151	E El Sur St	200	Monrovia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2055	BI25	152	El Norte St	403	Monrovia	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2056	BI25	153	Estrella Ave	38	Monrovia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2057	BI25	154	Peck Rd	3120	Monrovia	4	2.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2058	BI25	155	Rock Rose St	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2059	BI25	156	Santa Fe Pl	7	Monrovia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2060	BI25	157	Spanner St	294	Monrovia	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2061	BI25	158	Stagio Dr	0	Monrovia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2062	BI25	159	W Armijo St	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2063	BI25	160	W Atara St	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2064	BI25	161	W Camino Real	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2065	BI25	162	W Wyland Wy	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2066	BI25	163	W El Norte St	97	Monrovia	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2067	BI25	164		5	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2068	BI25	165		181	County	4	0.14	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2069	BI25	166	E Altern St	994	County	4	0.75	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2070	BI25	167	E Andre St	948	County	4	0.72	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2071	BI25	168	E Camino Real	464	County	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2073	BI25	170	E Camino Real St	48	County	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2074	BI25	171	E El Sur St	1326	County	4	1.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2075	BI25	172	E Pamela Rd	1267	County	4	0.96	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2076	BI25	173	E Shrode Ave	458	County	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2077	BI25	174	Flagstone Ave	168	County	4	0.13	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2078	BI25	175	Goodall Ave	269	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2079	BI25	176	Maydee St	542	County	4	0.41	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2080	BI25	177	Maydee St	475	County	4	0.36	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2082	BI25	179	S Flagstone Ave	697	County	4	0.53	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2083	BI25	180	S Graydon Ave	246	County	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2084	BI25	181	S Graydon Ave	342	County	4	0.26	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2085	BI25	182	S Primrose Ave	1008	County	4	0.76	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2087	BI25	184	Shrode Ave	746	County	4	0.57	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2088	BI25	185	W Altern St	151	County	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2089	BI25	186	W El Sur St	20	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2090	BI25	187	W El Sur St	120	County	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2091	BI25	188	Wesleygrove Ave	759	County	4	0.58	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2092	BI25	189	S Graydon Ave	189	County	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2093	BI25	190	W El Sur St	173	County	4	0.13	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2094	BI25	191	W El Sur St	76	County	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2096	BI25	193	E Altern St	30	Monrovia	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2097	BI25	194	E Atara St	316	Monrovia	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2098	BI25	195	E Atara St	188	Monrovia	4	0.14	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2099	BI25	196	E El Sur St	399	Monrovia	4	0.30	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2100	BI25	197	Peck Rd	857	Monrovia	4	0.65	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2101	BI25	198	W El Sur St	31	Monrovia	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2102	BI25	199	Peck Rd	72	Monrovia	4	0.05	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2483	BI525	1	Gladesmore St	22	County	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2484	BI525	2	N Golden West Ave	84	County	4	0.06	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2485	BI525	3	Callita St	162	County	4	0.12	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2486	BI525	4	Coralee Ave	25	County	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2487	BI525	5	Emperor Ave	308	County	4	0.23	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2489	BI525	7	Ancourt St	498	County	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2490	BI525	8	Ardendale Ave	823	County	4	0.62	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2491	BI525	9	Ardsley Dr	228	County	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2492	BI525	10	Barela Ave	243	County	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2493	BI525	11	Brentmead Ave	35	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2494	BI525	12	Callita St	853	County	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2495	BI525	13	Callita St	614	County	4	0.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2496	BI525	14	Cloverly Ave	101	County	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2497	BI525	15	Coralee Ave	494	County	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2498	BI525	16	E Camino Real Ave	1689	County	4	1.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2500	BI525	18	Emperor Ave	698	County	4	0.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2501	BI525	19	Emperor Ave	628	County	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2502	BI525	20	Gladesmore St	250	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2503	BI525	21	Kauffman Ave	246	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2504	BI525	22	Kia Ora Pl	396	County	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2505	BI525	23	Leroy St	216	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2506	BI525	24	McClean Dr	268	County	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2508	BI525	26	Salter Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2509	BI525	27	W Camino Real Ave	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2511	BI525	29	W Palm Dr	72	Arcadia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2512	BI525	30		188	Arcadia	6	0.21	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
2513	BI525	31	Baldwin Ave	1218	Arcadia	6	1.38	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
2514	BI525	32	Las Tunas Dr	293	Arcadia	6	0.33	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
2515	BI525	33	N Baldwin Ave	321	Arcadia	6	0.37	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
2519	BI525	37	Ardendale Ave	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2520	BI525	38	E Camino Real Ave	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2521	BI525	39	E Naomi Ave	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2522	BI525	40	E Naomi Ave	211	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2523	BI525	41	Garibaldi Ave	223	Arcadia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2525	BI525	43	N Golden West Ave	25	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2526	BI525	44	W Woodruff Ave	126	Arcadia	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2527	BI525	45	Woodruff Ave	213	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2528	BI525	46	Workman Ave	264	Arcadia	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2529	BI602B	1	W Longden Ave	56	Arcadia	4	0.04	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
2530	BI602B	2	El Monte Ave	393	Arcadia	4	0.30	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
2531	BI602B	3	W Longden Ave	109	Arcadia	4	0.08	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
2532	BI602B	4	Walnut Ave	92	Arcadia	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
2533	BI602B	5	El Monte Ave	1153	Arcadia	4	0.87	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2534	BI602B	6	Delta Ln	111	Arcadia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2535	BI602B	7	Sharon Rd	325	Arcadia	4	0.25	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2536	BI602B	8	W Lemon Ave	426	Arcadia	4	0.32	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2537	BI602B	9	W Lemon Ave	10	Arcadia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2538	BI602B	10	W Palm Dr	19	Arcadia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2539	BI602B	11	Walnut Ave	409	Arcadia	4	0.31	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2540	BI602B	12	Walnut Ave	39	Arcadia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2541	BI602B	13	Terra Ln	753	Arcadia	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2542	BI602B	14	Rosemarie Dr	1078	Arcadia	4	0.82	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2543	BI602B	15	Rosemarie Dr	752	Arcadia	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2544	BI602B	16	W Las Flores Ave	2198	Arcadia	4	1.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2545	BI602B	17	W Las Flores Ave	257	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2546	BI602B	18	W Lemon Ave	4340	Arcadia	4	3.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2547	BI602B	19	W Norman Ave	415	Arcadia	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2548	BI602B	20	W Palm Dr	4705	Arcadia	4	3.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2549	BI602B	21	W Sandra Ave	44	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2550	BI602B	22	W Wistaria Ave	1302	Arcadia	4	0.99	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2551	BI602B	23	W Wistaria Ave	2201	Arcadia	4	1.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2553	BI602B	25	Sharon Rd	1865	Arcadia	4	1.41	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2554	BI602B	26	Sharon Rd	2312	Arcadia	4	1.75	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2555	BI602B	27	W Arthur Ave	13	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2556	BI602B	28		33	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2557	BI602B	29		5	Arcadia	4	0.00	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2558	BI602B	30		32	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2559	BI602B	31	El Monte Ave	901	Arcadia	4	0.68	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2560	BI602B	32	El Monte Ave	2053	Arcadia	4	1.56	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2564	BI602B	36	W Longden Ave	2389	Arcadia	4	1.81	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2565	BI602B	37	W Longden Ave	2392	Arcadia	4	1.81	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2566	BI602B	38	Albert Wy	733	Arcadia	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2567	BI602B	39	Bella Vista Dr	286	Arcadia	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2568	BI602B	40	Bella Vista Dr	238	Arcadia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2569	BI602B	41	Bella Vista Dr	512	Arcadia	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2570	BI602B	42	Delta Ln	20	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2571	BI602B	43	El Sereno Ave	156	Arcadia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2572	BI602B	44	El Sereno Dr	481	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2573	BI602B	45	El Sereno Dr	365	Arcadia	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2574	BI602B	46	Estrella Ave	753	Arcadia	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2575	BI602B	47	Florence Ave	1321	Arcadia	4	1.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2576	BI602B	48	Judith Ct	238	Arcadia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2577	BI602B	49	Leafwood Ln	276	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2578	BI602B	50	Leafwood Ln	463	Arcadia	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2579	BI602B	51	Longley Wy	1529	Arcadia	4	1.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2580	BI602B	52	Longley Wy	33	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2581	BI602B	53	Los Altos Ave	1622	Arcadia	4	1.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2582	BI602B	54	Melanie Ln	365	Arcadia	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2583	BI602B	55	Melanie Ln	1	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2584	BI602B	56	W Wistaria Ave	22	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2585	BI602B	57	W Woodruff Ave	4223	Arcadia	4	3.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2586	BI602B	58	W Woodruff Ave	22	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2587	BI602B	59	Walnut Ave	4132	Arcadia	4	3.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2588	BI602B	60	Warren Wy	1536	Arcadia	4	1.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2589	BI602B	61	Wistaria Ave	87	Arcadia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2590	BI602B	62	Wistaria Ave	29	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2591	BI602B	63	W Norman Ave	137	Arcadia	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2593	BI602B	65	El Monte Ave	20	Arcadia	4	0.02	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
2811	BVSTA	1	Shrode Ave	33	County	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2812	BVSTA	2	E Camino Real	20	County	4	0.02	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
2813	BVSTA	3	Mountain Ave	60	County	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
2814	BVSTA	4	Mountain Ave	24	County	4	0.02	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
2815	BVSTA	5	Shrode Ave	16	County	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3544	RH1	1	Clark St	108	Arcadia	4	0.08	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
3545	RH1	2	Hodges Ave	151	County	4	0.11	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3546	RH1	3	Lynd Ave	652	County	4	0.49	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3547	RH1	4	Peck Rd	47	Arcadia	6	0.05	Primary-Arterial	100	10	4	4	15	0.72	8	42	MED	
3548	RH1	5	Clark St	108	Arcadia	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
3549	RH1	6	Hodges Ave	142	County	4	0.11	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
3550	RH1	7	Lynd Ave	241	County	4	0.18	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
3551	RH1	8	Peck Rd	458	Arcadia	6	0.52	Primary-Arterial	100	10	3	6	15	0.72	8	46	HIGH	
3552	RH1	9	Clark St	96	Arcadia	4	0.07	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3553	RH1	10	9th Ave	553	County	4	0.42	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3554	RH1	11	Doolittle Ave	537	County	4	0.41	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3555	RH1	12	Peck Rd	508	Arcadia	6	0.58	Primary-Arterial	100	10	2	8	15	0.72	8	50	HIGH	
3556	RH1	13	Clark St	310	Arcadia	4	0.24	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3557	RH1	14	Goldring Rd	276	Arcadia	4	0.21	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3558	RH1	15	8th Ave	85	County	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3559	RH1	16	9th Ave	827	County	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3560	RH1	17	Center St	1114	County	4	0.84	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3561	RH1	18	Daines Dr	707	County	4	0.54	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3562	RH1	19	Doolittle Ave	607	County	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3563	RH1	20	Eisenhower Ave	563	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3564	RH1	21	Halsey Ave	500	County	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3565	RH1	22	Hodges Ave	635	County	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3566	RH1	23	Lynd Ave	1497	County	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3567	RH1	24	S Mayflower Ave	529	County	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3568	RH1	25		55	Arcadia	4	0.04	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3569	RH1	26	Clark St	2715	Arcadia	4	2.06	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3570	RH1	27	Cogswell Rd	26	Arcadia	4	0.02	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3571	RH1	28	Lynd Ave	456	County	4	0.35	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3572	RH1	29	Peck Rd	227	Arcadia	6	0.26	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	
3573	RH1	30	Clark St	141	Arcadia	4	0.11	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3574	RH1	31	Goldring Rd	264	Arcadia	4	0.20	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3575	RH1	32	Randolph St	725	Arcadia	4	0.55	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3576	RH1	33	S Mayflower Ave	1	Monrovia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3577	RH1	34	Center St	38	County	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3578	RH1	35	Eisenhower Ave	151	County	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3579	RH1	36	Lynd Ave	349	County	4	0.26	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3580	RH1	37	Durfee Ave	0	Arcadia	4	0.00	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3581	RH1	38	Goldring Rd	1895	Arcadia	4	1.44	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3582	RH1	39	Kardashian Ave	632	Arcadia	4	0.48	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3583	RH1	40	Randolph St	520	Arcadia	4	0.39	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3584	RH1	41	Varus St	293	Arcadia	4	0.22	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3585	RH2	1	W Hondo Pkwy	644	County	4	0.49	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3586	RH2	2	Florinda Ave	14	County	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3587	SANIT5	1		88	Arcadia	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3588	SANIT5	2		124	Monrovia	4	0.09	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
3589	SANIT5	3	Lower Clamshell Tktr	124	Monrovia	4	0.09	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
3590	SANIT5	4		49	Arcadia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3591	SANIT5	5		19	Arcadia	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3592	SANIT5	6	Lower Clamshell Tktr	93	Arcadia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3593	SANIT6	1	E Sierra Madre Blvd	204	Arcadia	4	0.15	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
3594	SANIT6	2	Oakwood Ave	151	Arcadia	4	0.11	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
3595	SANIT6	3	Wilson Ave	258	Arcadia	4	0.20	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
3596	SANIT6	4		116	Arcadia	4	0.09	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3597	SANIT6	5	Alta Oaks Dr	948	Arcadia	4	0.72	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3598	SANIT6	6	Doshier Ave	650	Arcadia	4	0.49	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3599	SANIT6	7	E Grandview Ave	327	Arcadia	4	0.25	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3600	SANIT6	8	Elevado Ave	813	Arcadia	4	0.62	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3601	SANIT6	9	Elkins Ave	106	Arcadia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3602	SANIT6	10	Highland Oaks Dr	1320	Arcadia	4	1.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3603	SANIT6	11	White Oak Dr	324	Arcadia	4	0.25	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3604	SANIT6	12	Wilson Ave	216	Arcadia	4	0.16	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3605	SANIT6	13	Alta Oaks Dr	217	Arcadia	4	0.16	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3606	SANIT6	14	Doshier Ave	66	Arcadia	4	0.05	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3607	SANIT6	15	E Sierra Madre Blvd	422	Arcadia	4	0.32	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3608	SANIT6	16	Elevado Ave	1094	Arcadia	4	0.83	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3609	SANIT6	17	Highland Oaks Dr	29	Arcadia	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3610	SANIT6	18	Oakglen Ave	86	Arcadia	4	0.07	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3611	SANIT6	19	Virginia Rd	298	Arcadia	4	0.23	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3612	SANIT6	20	Wilson Ave	850	Arcadia	4	0.64	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3613	SANIT6	21	Highland Oaks Dr	404	Arcadia	4	0.31	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
3614	SANIT6	22	Oakglen Ave	170	Arcadia	4	0.13	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
3615	SANIT6	23	Oakwood Ave	108	Arcadia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
3616	SANIT6	24	Virginia Rd	0	Arcadia	4	0.00	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
3617	SANIT6	25	Highland Oaks Dr	248	Arcadia	4	0.19	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3618	SANIT6	26	Alta Oaks Dr	309	Arcadia	4	0.23	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3619	SANIT6	27	Doshier Ave	5	Arcadia	4	0.00	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3620	SANIT6	28	Elevado Ave	74	Arcadia	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3621	SANIT6	29	Highland Oaks Dr	459	Arcadia	4	0.35	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3622	SANIT6	30	Virginia Rd	571	Arcadia	4	0.43	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3623	SANIT6	31	Wilson Ave	180	Arcadia	4	0.14	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3624	SANIT6	32	Oakglen Ave	109	Arcadia	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
3625	SANIT6	33	Oakwood Ave	232	Arcadia	4	0.18	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
3626	SANIT6	34	Virginia Rd	224	Arcadia	4	0.17	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
3627	SANIT6	35		134	Arcadia	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3628	SANIT6	36	Elkins Ave	194	Arcadia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3629	SANIT6	37	Alta Oaks Dr	7	Arcadia	4	0.00	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3630	SANIT6	38	Highland Oaks Dr	169	Arcadia	4	0.13	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3631	SANIT6	39	Highland Oaks Dr	109	Arcadia	4	0.08	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3632	SANIT6	40	Highland Oaks Dr	90	Arcadia	4	0.07	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3633	SANIT6	41	Highland Oaks Dr	88	Arcadia	4	0.07	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3634	SANIT6	42		201	Arcadia	4	0.15	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3635	SANIT6	43	Highland Oaks Dr	46	Arcadia	4	0.04	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3636	SANIT7	1	Laurel Ave	104	Arcadia	4	0.08	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3637	SANIT7	2	Northview Ave	98	Arcadia	4	0.07	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3638	SANIT7	3	Oakglen Ave	77	Arcadia	4	0.06	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3640	SANIT7	5	N 2nd Ave	396	Arcadia	4	0.30	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	
3641	SANIT7	6	E Newman Ave	118	Arcadia	4	0.09	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3642	SANIT7	7	E Sycamore Ave	355	Arcadia	4	0.27	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3643	SANIT7	8	Laurel Ave	979	Arcadia	4	0.74	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3644	SANIT7	9	Northview Ave	113	Arcadia	4	0.09	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3645	SANIT7	10	Oakglen Ave	276	Arcadia	4	0.21	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3646	SANIT7	11	Wigwam Ave	386	Arcadia	4	0.29	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3648	SANIT7	13	N 2nd Ave	418	Arcadia	4	0.32	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
3649	SANIT7	14	Country Oaks Cir	206	Arcadia	4	0.16	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3650	SANIT7	15	Country Oaks Ln	251	Arcadia	4	0.19	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3651	SANIT7	16	Santa Clara St	13	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3652	SANIT7	17		37	Arcadia	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3653	SANIT7	18	N 2nd Ave	634	Arcadia	4	0.48	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3655	SANIT7	20		24	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3656	SANIT7	21	E Saint Joseph St	1498	Arcadia	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3657	SANIT7	22	E Santa Clara St	63	Arcadia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3658	SANIT7	23	E Santa Clara St	1376	Arcadia	4	1.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3659	SANIT7	24	Flower St	555	Arcadia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3660	SANIT7	25	La Porte St	1649	Arcadia	4	1.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3662	SANIT7	27		325	Arcadia	4	0.25	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3664	SANIT7	29	N 2nd Ave	1780	Arcadia	4	1.35	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3665	SANIT7	30	E Floral Ave	734	Arcadia	4	0.56	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3666	SANIT7	31	E Forest Ave	1361	Arcadia	4	1.03	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3667	SANIT7	32	E Haven Ave	1399	Arcadia	4	1.06	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3668	SANIT7	33	E Newman Ave	1280	Arcadia	4	0.97	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3669	SANIT7	34	E Santa Clara St	194	Arcadia	4	0.15	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3670	SANIT7	35	Joyce Ave	412	Arcadia	4	0.31	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3671	SANIT7	36	La Porte St	226	Arcadia	4	0.17	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3672	SANIT7	37	Laurel Ave	798	Arcadia	4	0.60	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3673	SANIT7	38	N 4th Ave	641	Arcadia	4	0.49	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3674	SANIT7	39	Northview Ave	607	Arcadia	4	0.46	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3675	SANIT7	40	Wigwam Ave	123	Arcadia	4	0.09	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3676	SANIT7	41		202	Monrovia	4	0.15	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3677	SANIT7	42	E Colorado Blvd	30	Monrovia	4	0.02	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3678	SANIT7	43	N 5th Ave	1126	Monrovia	4	0.85	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3679	SANIT7	44	S 5th Ave	2658	Monrovia	4	2.01	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
3680	SANIT7	45	W Colorado Blvd	14	Monrovia	4	0.01	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3681	SANIT7	46	5th Ct	8	Monrovia	4	0.01	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3682	SANIT7	47	E Forest Ave	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3683	SANIT7	48	E Haven Ave	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3684	SANIT7	49	E Newman Ave	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3685	SANIT7	50	Laurel Ave	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3686	SANIT7	51	W Olive Ave	10	Monrovia	4	0.01	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3687	SANIT7	52	W Walnut Ave	6	Monrovia	4	0.00	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3689	SANIT7	54	E Floral Ave	661	Arcadia	4	0.50	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3690	SANIT7	55	E Forest Ave	39	Arcadia	4	0.03	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3691	SANIT7	56	E Santa Clara St	763	Arcadia	4	0.58	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3692	SANIT7	57	Northview Ave	126	Arcadia	4	0.10	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3693	SANIT7	58	Wigwam Ave	242	Arcadia	4	0.18	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3694	SANIT7	59	Wigwam Ave	81	Arcadia	4	0.06	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3695	SANIT7	60	Wigwam Ave	42	Arcadia	4	0.03	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3697	SANIT7	62		62	Monrovia	4	0.05	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
3698	SANIT7	63	N 5th Ave	755	Monrovia	4	0.57	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
3699	SANIT7	64	S 5th Ave	1141	Monrovia	4	0.86	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
3700	SANIT7	65	E Floral Ave	30	Monrovia	4	0.02	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3701	SANIT7	66	E Santa Clara St	31	Monrovia	4	0.02	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3702	SANIT7	67	S 5th Ave	82	Monrovia	4	0.06	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3703	SANIT7	68	W Chestnut Ave	4	Monrovia	4	0.00	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3704	SANIT8	1	Contented Ln	379	Monrovia	4	0.29	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3705	SANIT8	2	Diamond St	248	Monrovia	4	0.19	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3706	SANIT8	3	Eldorado St	92	Monrovia	4	0.07	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3707	SANIT8	4	Encino Ave	699	Monrovia	4	0.53	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
3708	SANIT8	5	Othello St	141	County	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3709	SANIT8	6	Eldorado St	50	Arcadia	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3710	SANIT8	7	S 3rd Ave	71	Arcadia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3711	SANIT8	8	Diamond St	248	Monrovia	4	0.19	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3712	SANIT8	9	Eldorado St	440	Monrovia	4	0.33	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3713	SANIT8	10	Encino Ave	312	Monrovia	4	0.24	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3714	SANIT8	11	Genoa St	235	Monrovia	4	0.18	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3715	SANIT8	12	Genoa St	8	Monrovia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3716	SANIT8	13	Leafwood Dr	181	Monrovia	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3717	SANIT8	14	Rosewood Dr	265	Monrovia	4	0.20	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3718	SANIT8	15	S 5th Ave	657	Monrovia	4	0.50	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3719	SANIT8	16	Contented Ln	51	Monrovia	4	0.04	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3720	SANIT8	17	Diamond St	333	Monrovia	4	0.25	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3721	SANIT8	18	Eldorado St	136	Monrovia	4	0.10	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3722	SANIT8	19	Encino Ave	416	Monrovia	4	0.32	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3723	SANIT8	20	Sierra Blanca Dr	188	Monrovia	4	0.14	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
3725	SANIT8	22	Boley St	346	County	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3726	SANIT8	23	Doolittle Ave	918	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3727	SANIT8	24	E Boley St	126	County	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3728	SANIT8	25	Ednuel St	305	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3729	SANIT8	26	Foss Ave	210	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3730	SANIT8	27	Pamela Pl	181	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3731	SANIT8	28	Tulip Ln	818	Arcadia	4	0.62	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3732	SANIT8	29	S 3rd Ave	107	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3733	SANIT8	30	S 3rd Ave	2570	Arcadia	4	1.95	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3734	SANIT8	31	S 4th Ave	96	Arcadia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3735	SANIT8	32	S 5th Ave	26	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3738	SANIT8	35	S 8th Ave	628	Arcadia	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3739	SANIT8	36	S 8th Ave	335	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3740	SANIT8	37	S 8th Ave	327	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3741	SANIT8	38	S 9th Ave	94	Arcadia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3742	SANIT8	39		115	Arcadia	4	0.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3743	SANIT8	40	S 2nd Ave	323	Arcadia	4	0.24	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3744	SANIT8	41		30	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3745	SANIT8	42	8th Ave	1166	Arcadia	4	0.88	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3746	SANIT8	43	8th Ave	41	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3747	SANIT8	44	Alice St	3	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3748	SANIT8	45	Alta St	21	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3749	SANIT8	46	Altern St	251	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3750	SANIT8	47	Bonita St	475	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3751	SANIT8	48	California St	1260	Arcadia	4	0.95	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3752	SANIT8	49	Derek Dr	242	Arcadia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3753	SANIT8	50	Diamond St	920	Arcadia	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3754	SANIT8	51	Doolittle Ave	1068	Arcadia	4	0.81	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3755	SANIT8	52	E Boley St	111	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3756	SANIT8	53	E Camino Grove Ave	168	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3757	SANIT8	54	E Camino Real	22	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3759	SANIT8	56	E Norman Ave	334	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3760	SANIT8	57	E Winnie Wy	249	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3761	SANIT8	58	E Winnie Wy	607	Arcadia	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3762	SANIT8	59	E Winnie Wy	315	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3763	SANIT8	60	Eldorado St	925	Arcadia	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3764	SANIT8	61	Foss Ave	249	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3765	SANIT8	62	Genoa St	993	Arcadia	4	0.75	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3766	SANIT8	63	Linda Wy	1015	Arcadia	4	0.77	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3767	SANIT8	64	Magnis St	644	Arcadia	4	0.49	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3768	SANIT8	65	Magnolia Ln	139	Arcadia	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3769	SANIT8	66	Magnolia Ln	137	Arcadia	4	0.10	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3771	SANIT8	68	E Duarte Rd	31	Monrovia	6	0.04	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3773	SANIT8	70	8th Ave	73	Monrovia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3774	SANIT8	71	California St	30	Monrovia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3775	SANIT8	72	Diamond St	153	Monrovia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3776	SANIT8	73	El Norte Ave	117	Monrovia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3777	SANIT8	74	Eldorado St	314	Monrovia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3778	SANIT8	75	Encino Ave	671	Monrovia	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3779	SANIT8	76	Genoa St	746	Monrovia	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3780	SANIT8	77	Genoa St	173	Monrovia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3781	SANIT8	78	Leafwood Dr	330	Monrovia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3782	SANIT8	79	Rosewood Dr	282	Monrovia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3783	SANIT8	80	S 5th Ave	1838	Monrovia	4	1.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3784	SANIT8	81	S 6th Ave	162	Monrovia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3785	SANIT8	82	Sierra Blanca Dr	205	Monrovia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3787	SANIT8	84	8th Ave	89	Monrovia	4	0.07	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3788	SANIT8	85	El Norte Ave	180	Monrovia	4	0.14	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3789	SANIT8	86	Genoa St	578	Monrovia	4	0.44	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3791	SANIT8	88	Sierra Blanca Dr	76	Monrovia	4	0.06	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3792	SANIT8	89	Venice Ave	127	Monrovia	4	0.10	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
3793	SANIT8	90	Doolittle Ave	0	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3794	SANIT8	91	Doolittle Ave	139	County	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3795	SANIT8	92	Othello St	388	County	4	0.29	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3796	SANIT8	93	Weidermeyer Ave	0	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3798	SANIT8	95	S 2nd Ave	296	Arcadia	4	0.22	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
3799	SANIT8	96	Doolittle Ave	436	Arcadia	4	0.33	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3800	SANIT8	97	Tulip Ln	84	Arcadia	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3801	SANIT8	98	S 8th Ave	263	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3802	SANIT8	99	S 9th Ave	85	Arcadia	4	0.06	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3803	SANIT8	100	S 5th Ave	606	Monrovia	4	0.46	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3804	SANIT8	101	Genoa St	27	Monrovia	4	0.02	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3805	SANIT8	102	Naples St	235	Monrovia	4	0.18	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3806	SANIT8	103	S 5th Ave	162	Monrovia	4	0.12	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3807	SANIT8	104	Venice Ave	583	Monrovia	4	0.44	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
3808	SANIT9	1	E Live Oak Ave	15	County	6	0.02	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3809	SANIT9	2	8th Ave	1239	County	4	0.94	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3810	SANIT9	3	Aduana Dr	304	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3811	SANIT9	4	Aduana Dr	6	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3812	SANIT9	5	Daines Dr	501	County	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3813	SANIT9	6	Daines Dr	216	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3814	SANIT9	7	E Sandra Ave	313	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3815	SANIT9	8	Hempstead Ave	1351	County	4	1.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3816	SANIT9	9	Lenore Ave	570	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3817	SANIT9	10	Lovejoy St	213	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3818	SANIT9	11	Lynrose St	38	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3819	SANIT9	12	S 6th Ave	44	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3821	SANIT9	14		16	Arcadia	6	0.02	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3823	SANIT9	16	S 8th Ave	978	Arcadia	4	0.74	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3824	SANIT9	17	Hempstead Ave	230	Arcadia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3825	SANIT9	18	Lenore Ave	427	Arcadia	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3826	SANIT9	19	8th Ave	302	County	4	0.23	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3827	SANIT9	20	Aduana Dr	565	County	4	0.43	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3828	SANIT9	21	Daines Dr	35	County	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3829	SANIT9	22	Hempstead Ave	260	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3830	SANIT9	23	Lenore Ave	189	County	4	0.14	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3831	SANIT9	24	S 8th Ave	539	Arcadia	4	0.41	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3832	SAWPT2	1		110	Monrovia	4	0.08	Minor-Local	60	6	4	4	78	0.52	5	29	LOW	
3834	SAWPT3	1	Sawpit Ln	30	Bradbury	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3835	SAWPT3	2	E Greystone Ave	271	Monrovia	4	0.21	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3836	SAWPT3	3	Madeline Dr	34	Monrovia	4	0.03	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3837	SAWPT3	4	N Bradoaks Ave	204	Monrovia	4	0.15	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3838	SAWPT3	5	Norumbega Dr	140	Monrovia	4	0.11	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3839	SAWPT3	6	Oakcliff Ave	21	Monrovia	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3840	SAWPT3	7	Valle Vista Ave	406	Monrovia	4	0.31	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3841	SAWPT3	8	Sawpit Ln	46	Bradbury	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3842	SAWPT3	9		439	Bradbury	4	0.33	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
3843	SAWPT3	10		102	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3844	SAWPT3	11		109	Monrovia	4	0.08	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3845	SAWPT3	12		110	Monrovia	4	0.08	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3846	SAWPT3	13		134	Monrovia	4	0.10	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3847	SAWPT3	14	Acorn Cir	64	Monrovia	4	0.05	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3848	SAWPT3	15	N Bradoaks Ave	100	Monrovia	4	0.08	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3849	SAWPT3	16	Norumbega Dr	454	Monrovia	4	0.34	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3850	SAWPT3	17	Valmont Dr	107	Monrovia	4	0.08	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3851	SAWPT3	18	Valmont Pl	62	Monrovia	4	0.05	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
3852	SAWPT3	19	E Greystone Ave	219	Monrovia	4	0.17	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3853	SAWPT3	20	Madeline Dr	334	Monrovia	4	0.25	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3854	SAWPT3	21	Oakcliff Ave	136	Monrovia	4	0.10	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3855	SAWPT3	22		206	Bradbury	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3856	SAWPT3	23	Sawpit Ln	307	Bradbury	4	0.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3857	SAWPT3	24		258	Bradbury	4	0.20	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
3858	SAWPT3	25		36	Monrovia	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3859	SAWPT3	26	E Greystone Ave	435	Monrovia	4	0.33	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3860	SAWPT3	27	N Shamrock Ave	244	Monrovia	4	0.19	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3861	SAWPT3	28		179	Monrovia	4	0.14	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
3862	SAWPT3	29		8	Monrovia	4	0.01	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
3863	SAWPT3	30		62	Monrovia	4	0.05	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
3864	SAWPT3	31	Norumbega Dr	116	Monrovia	4	0.09	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
3865	SAWPT3	32	Oakcliff Ave	66	Monrovia	4	0.05	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
3866	SAWPT3	33	E Foothill Blvd	51	Monrovia	4	0.04	Secondary-Collector	64	8	3	6	13	0.45	4	32	MED	
3867	SAWPT3	34	S Mountain Ave	74	Monrovia	4	0.06	Secondary-Collector	64	8	3	6	13	0.45	4	32	MED	
3868	SAWPT3	35		151	Monrovia	4	0.11	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3869	SAWPT3	36		163	Monrovia	4	0.12	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3870	SAWPT3	37		216	Monrovia	4	0.16	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3871	SAWPT3	38	Deodar Ln	277	Monrovia	4	0.21	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3872	SAWPT3	39	E Greystone Ave	517	Monrovia	4	0.39	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3873	SAWPT3	40	E Wildrose Ave	100	Monrovia	4	0.08	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3874	SAWPT3	41	Madeline Dr	590	Monrovia	4	0.45	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3875	SAWPT3	42	Maryknoll Cir	98	Monrovia	4	0.07	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3876	SAWPT3	43	Mountain View Ave	190	Monrovia	4	0.14	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3877	SAWPT3	44	N Bradoaks Ave	116	Monrovia	4	0.09	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3878	SAWPT3	45	N Mountain Ave	1782	Monrovia	4	1.35	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3879	SAWPT3	46	N Mountain Ave	678	Monrovia	4	0.51	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3880	SAWPT3	47	Oakcliff Ave	287	Monrovia	4	0.22	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3881	SAWPT3	48	Ocean View Ave	417	Monrovia	4	0.32	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3882	SAWPT3	49	Ocean View Ave	68	Monrovia	4	0.05	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3883	SAWPT3	50	Valleyview Ave	540	Monrovia	4	0.41	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3886	SAWPT3	53	Central Ave	15	Duarte	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3887	SAWPT3	54		162	Bradbury	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3888	SAWPT3	55	Deodar Ln	326	Bradbury	4	0.25	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3890	SAWPT3	57	E Huntington Dr	969	Monrovia	6	1.10	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
3891	SAWPT3	58	E Foothill Blvd	1139	Monrovia	4	0.86	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
3894	SAWPT3	61		213	Monrovia	4	0.16	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3895	SAWPT3	62		109	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3896	SAWPT3	63		832	Monrovia	4	0.63	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3897	SAWPT3	64		919	Monrovia	4	0.70	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3898	SAWPT3	65		30	Monrovia	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3899	SAWPT3	66		895	Monrovia	4	0.68	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3900	SAWPT3	67		278	Monrovia	4	0.21	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3901	SAWPT3	68		550	Monrovia	4	0.42	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3902	SAWPT3	69		146	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3903	SAWPT3	70		4	Monrovia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3904	SAWPT3	71		128	Monrovia	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3905	SAWPT3	72	Almond Ave	395	Monrovia	4	0.30	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3906	SAWPT3	73	Central Ave	3	Monrovia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3908	SAWPT3	75	E Evergreen Ave	106	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3909	SAWPT3	76	E Lime Ave	414	Monrovia	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3910	SAWPT3	77	E Maple Ave	412	Monrovia	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3911	SAWPT3	78	E Oakdale Ave	696	Monrovia	4	0.53	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3912	SAWPT3	79	E Palm Ave	1348	Monrovia	4	1.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3913	SAWPT3	80	E Wildrose Ave	409	Monrovia	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3914	SAWPT3	81	E Wildrose Ave	57	Monrovia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3915	SAWPT3	82	Madeline Dr	113	Monrovia	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3916	SAWPT3	83	Mountain View Ave	613	Monrovia	4	0.46	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3917	SAWPT3	84	N Shamrock Ave	280	Monrovia	4	0.21	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3918	SAWPT3	85	Oakdale Ave	514	Monrovia	4	0.39	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3919	SAWPT3	86	Ocean View Ave	669	Monrovia	4	0.51	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3920	SAWPT3	87	Poppy Ave	203	Monrovia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3921	SAWPT3	88	S Shamrock Ave	910	Monrovia	4	0.69	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3923	SAWPT3	90	Shamrock Ave	205	Monrovia	4	0.16	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3924	SAWPT3	91	Valleyview Ave	317	Monrovia	4	0.24	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3925	SAWPT3	92	Wildrose Ave	1343	Monrovia	4	1.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3926	SAWPT3	93		7	Monrovia	4	0.01	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
3927	SAWPT3	94	Norumbega Dr	105	Monrovia	4	0.08	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
3928	SAWPT3	95		36	Monrovia	4	0.03	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3929	SAWPT3	96	E Wildrose Ave	99	Monrovia	4	0.07	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3930	SAWPT3	97	Madeline Dr	105	Monrovia	4	0.08	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3931	SAWPT3	98	N Mountain Ave	108	Monrovia	4	0.08	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3932	SAWPT3	99	N Mountain Ave	169	Monrovia	4	0.13	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3933	SAWPT3	100	Oakcliff Ave	103	Monrovia	4	0.08	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3935	SAWPT3	102	Bloomdale St	17	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3936	SAWPT3	103	E Evergreen Ave	1	Duarte	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3937	SAWPT3	104	Evergreen St	13	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3938	SAWPT3	105	Hamilton Rd	11	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3939	SAWPT3	106		4	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3940	SAWPT3	107		422	Monrovia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3941	SAWPT3	108		58	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3942	SAWPT3	109		754	Monrovia	4	0.57	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3943	SAWPT3	110		122	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3944	SAWPT3	111		202	Monrovia	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3945	SAWPT3	112		137	Monrovia	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3947	SAWPT3	114	E Huntington Dr	873	Monrovia	6	0.99	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
3948	SAWPT3	115		22	Monrovia	4	0.02	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3949	SAWPT3	116		62	Monrovia	4	0.05	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3950	SAWPT3	117		38	Monrovia	4	0.03	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3951	SAWPT3	118	E Colorado Blvd	55	Monrovia	4	0.04	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3953	SAWPT3	120	E Foothill Blvd	233	Monrovia	4	0.18	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3954	SAWPT3	121	E Foothill Blvd	105	Monrovia	4	0.08	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3958	SAWPT3	125	Shamrock Ave	47	Monrovia	4	0.04	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3960	SAWPT3	127	Shamrock Ave	339	Monrovia	4	0.26	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
3961	SAWPT3	128		576	Monrovia	4	0.44	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3962	SAWPT3	129		49	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3963	SAWPT3	130		45	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3964	SAWPT3	131		398	Monrovia	4	0.30	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3965	SAWPT3	132		14	Monrovia	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3966	SAWPT3	133		232	Monrovia	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3967	SAWPT3	134		383	Monrovia	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3968	SAWPT3	135		571	Monrovia	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3969	SAWPT3	136	Almond Ave	9	Monrovia	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3970	SAWPT3	137	Bloomdale St	2	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3972	SAWPT3	139	E Cherry Ave	77	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3973	SAWPT3	140	E Cypress Ave	821	Monrovia	4	0.62	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3974	SAWPT3	141	E Cypress Ave	415	Monrovia	4	0.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3975	SAWPT3	142	E Evergreen Ave	2472	Monrovia	4	1.87	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3976	SAWPT3	143	E Lemon Ave	1727	Monrovia	4	1.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3977	SAWPT3	144	E Lemon Ave	416	Monrovia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3978	SAWPT3	145	E Lime Ave	1349	Monrovia	4	1.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3979	SAWPT3	146	E Los Angeles Ave	81	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3980	SAWPT3	147	E Olive Ave	60	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3981	SAWPT3	148	E Olive Ave	1389	Monrovia	4	1.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3982	SAWPT3	149	E Walnut Ave	420	Monrovia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3983	SAWPT3	150	E Wildrose Ave	121	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3984	SAWPT3	151	Fig Ave	420	Monrovia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3985	SAWPT3	152	Los Angeles Ave	341	Monrovia	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3986	SAWPT3	153	Los Angeles Ave	460	Monrovia	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3987	SAWPT3	154	N Poppy Ave	184	Monrovia	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3988	SAWPT3	155	N Shamrock Ave	1215	Monrovia	4	0.92	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3989	SAWPT3	156	Norumbega Dr	112	Monrovia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3990	SAWPT3	157	Oakdale Ave	140	Monrovia	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3991	SAWPT3	158	Ocean View Ave	371	Monrovia	4	0.28	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3992	SAWPT3	159	Poppy Ave	935	Monrovia	4	0.71	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3993	SAWPT3	160	Royal Oaks Dr	47	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3994	SAWPT3	161	S Shamrock Ave	319	Monrovia	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3995	SAWPT3	162	Shamrock Ave	38	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3997	SAWPT3	164	Shamrock Ave	394	Monrovia	4	0.30	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3998	SAWPT3	165	Shamrock Ave	157	Monrovia	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3999	SAWPT3	166	Sherman Ave	1016	Monrovia	4	0.77	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4000	SAWPT3	167	Valleyview Ave	505	Monrovia	4	0.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4001	SAWPT3	168		225	Monrovia	4	0.17	Minor-Local	60	6	2	8	78	0.52	5	37	MED	
4002	SAWPT3	169		8	Monrovia	4	0.01	Minor-Local	60	6	2	8	88	0.62	6	40	MED	
4003	SAWPT3	170	Norumbega Dr	10	Monrovia	4	0.01	Minor-Local	60	6	2	8	88	0.62	6	40	MED	
4004	SAWPT3	171	Norumbega Dr	52	Monrovia	4	0.04	Minor-Local	60	6	1	9	88	0.62	6	42	MED	
4005	SAWPT3	172		116	Monrovia	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4006	SAWPT3	173	Madeline Dr	220	Monrovia	4	0.17	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4007	SAWPT3	174	Oakcliff Ave	105	Monrovia	4	0.08	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4009	SAWPT3	176	Royal Oaks Dr	41	Monrovia	4	0.03	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4010	SAWPT3	177	N Bradoaks Ave	1	Monrovia	4	0.00	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4011	SAWPT3	178	Oakcliff Ave	235	Monrovia	4	0.18	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4013	SAWPT3	180		132	Monrovia	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4014	SAWPT3	181	Norumbega Dr	275	Monrovia	4	0.21	Minor-Local	60	6	0	10	88	0.62	6	44	MED	
4015	SAWPT4	1	Valley Cir	99	Monrovia	4	0.08	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4016	SAWPT4	2		21	County	4	0.02	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4017	SAWPT4	3	S El Toro Rd	49	County	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4018	SAWPT4	4		59	County	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4019	SAWPT4	5	Valley Cir	10	Monrovia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4020	SAWPT4	6	Valley Cir	72	Monrovia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4021	SAWPT4	7	S Broderick Ave	866	County	4	0.66	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4022	SAWPT4	8	S Calmia Rd	528	County	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4023	SAWPT4	9		61	County	4	0.05	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4024	SAWPT4	10	Valley Cir	36	Monrovia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4025	SAWPT4	11	Valley Cir	95	Monrovia	4	0.07	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4026	SAWPT4	12	Valley Cir	15	Monrovia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4027	SAWPT4	13		196	County	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4028	SAWPT4	14	E Andre St	89	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4029	SAWPT4	15	E Camino Real	868	County	4	0.66	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4030	SAWPT4	16	E Camino Real St	86	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4031	SAWPT4	17	E Pamela Rd	3	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4032	SAWPT4	18	Lincoln Ave	926	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4033	SAWPT4	19	S El Toro Rd	592	County	4	0.45	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4034	SAWPT4	20	Shrode Ave	576	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4035	SAWPT4	21	S Broderick Ave	90	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4036	SAWPT4	22	S Broderick Ave	1438	County	4	1.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4037	SAWPT4	23	S Felberg Ave	314	County	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4038	SAWPT4	24	Shrode Ave	392	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4039	SAWPT4	25		94	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4040	SAWPT4	26		36	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4041	SAWPT4	27	E Beckville St	272	County	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4042	SAWPT4	28	E Joella St	285	County	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4043	SAWPT4	29	E Pamela Rd	248	County	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4044	SAWPT4	30	Euclid Ave	234	County	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4045	SAWPT4	31	Maydee St	355	County	4	0.27	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4046	SAWPT4	32		2	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4047	SAWPT4	33	E Benrud St	143	County	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4048	SAWPT4	34	E Pamela Rd	124	County	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4049	SAWPT4	35	E Van Meter St	131	County	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4050	SAWPT4	36	Lincoln Ave	261	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4051	SAWPT4	37	S Broderick Ave	594	County	4	0.45	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4052	SAWPT4	38	S Broderick Ave	24	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4053	SAWPT4	39	S Calmia Rd	622	County	4	0.47	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4054	SAWPT4	40	S El Toro Rd	228	County	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4055	SAWPT4	41		180	County	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4056	SAWPT4	42	S Broderick Ave	260	County	4	0.20	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4057	SAWPT4	43		93	County	4	0.07	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4058	SAWPT4	44		61	County	4	0.05	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4059	SAWPT4	45		152	County	4	0.12	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4060	SAWPT4	46	E Van Meter St	269	County	4	0.20	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4061	SAWPT4	47	S El Toro Rd	178	County	4	0.13	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4062	SAWPT4	48	Valley Cir	6	Monrovia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4063	SAWPT5	1	S California Ave	81	Monrovia	4	0.06	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4064	SAWPT5	2	Valley Cir	29	County	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4065	SAWPT5	3		138	Monrovia	4	0.10	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4066	SAWPT5	4	Valley Cir	105	Monrovia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4067	SAWPT5	5	Valley Cir	100	Monrovia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4068	SAWPT5	6		27	Monrovia	4	0.02	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4069	SAWPT5	7		76	Monrovia	4	0.06	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
4070	SAWPT5	8	S California Ave	111	Monrovia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4071	SAWPT5	9	Valley Cir	127	Monrovia	4	0.10	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4072	SAWPT5	10	Valley Cir	105	Monrovia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4073	SAWPT5	11		86	Monrovia	4	0.06	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4074	SAWPT5	12	Peck Rd	183	Monrovia	4	0.14	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4075	SAWPT5	13	E Benrud St	542	County	4	0.41	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4076	SAWPT5	14	E Wyland Wy	1	County	4	0.00	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4077	SAWPT5	15	Rochelle Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4078	SAWPT5	16		122	Monrovia	4	0.09	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4079	SAWPT5	17	Doray Cir	336	Monrovia	4	0.25	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4080	SAWPT5	18	Doray Cir	227	Monrovia	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4081	SAWPT5	19	Novice Ln	100	Monrovia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4082	SAWPT5	20	Peck Rd	846	Monrovia	4	0.64	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4083	SAWPT5	21	S California Ave	40	Monrovia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4084	SAWPT5	22	Valley Cir	191	Monrovia	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4085	SAWPT5	23	Valley Cir	529	Monrovia	4	0.40	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4086	SAWPT5	24	Valley Cir	123	Monrovia	4	0.09	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4087	SAWPT5	25	Peck Rd	413	Monrovia	4	0.31	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4089	SAWPT5	27		76	County	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4090	SAWPT5	28	E Andre St	577	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4091	SAWPT5	29	E Benrud St	268	County	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4092	SAWPT5	30	E Brisbane St	272	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4093	SAWPT5	31	E Brisbane St	861	County	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4094	SAWPT5	32	E Camino Real	3	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4095	SAWPT5	33	E Camino Real St	950	County	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4096	SAWPT5	34	E Wyland Wy	319	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4097	SAWPT5	35	Flagstone Ave	303	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4098	SAWPT5	36	S Flagstone Ave	566	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4099	SAWPT5	37	S Wesley Grove Ave	83	County	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4100	SAWPT5	38	E Longden Ave	57	County	4	0.04	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
4101	SAWPT5	39	S California Ave	301	Monrovia	4	0.23	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4102	SAWPT5	40		120	Monrovia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4103	SAWPT5	41	Doray Cir	558	Monrovia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4104	SAWPT5	42	Novice Ln	119	Monrovia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4105	SAWPT5	43	Rochelle Ave	222	Monrovia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4106	SAWPT5	44	Valley Cir	11	Monrovia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4107	SAWPT5	45	Peck Rd	36	Monrovia	6	0.04	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	
4108	SAWPT5	46	E Longden Ave	32	Monrovia	4	0.02	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
4109	SAWPT5	47		86	Monrovia	4	0.07	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4110	SAWPT5	48		23	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4111	SAWPT5	49	E Longden Ave	31	Monrovia	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4112	SAWPT5	50	Peck Rd	316	Monrovia	4	0.24	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4113	SAWPT5	51	Boley St	19	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4114	SAWPT5	52	E Benrud St	135	County	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4115	SAWPT5	53	E Brisbane St	66	County	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4116	SAWPT5	54	Magnis St	118	County	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4117	SAWPT5	55	Rochelle Ave	188	County	4	0.14	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4118	SAWPT5	56	S Treelane Ave	405	County	4	0.31	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4119	SAWPT5	57	S Wesley Grove Ave	157	County	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4120	SAWPT5	58	Valley Cir	27	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4121	SAWPT5	59	Boley St	185	County	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4122	SAWPT5	60	S Treelane Ave	141	County	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4123	SAWPT5	61	Rochelle Ave	0	Monrovia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4124	SAWPT5	62	Valley Cir	28	Monrovia	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4125	SAWPT5	63	Peck Rd	88	Monrovia	6	0.10	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	
4126	SAWPT5	64		298	Monrovia	4	0.23	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4127	SAWPT5	65		32	Monrovia	4	0.02	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4128	SAWPT5	66		38	Monrovia	4	0.03	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4129	SAWPT5	67	Peck Rd	100	Monrovia	4	0.08	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4395	SMADR2	1	E Grandview Ave	100	Sierra Madre	4	0.08	Secondary-Collector	64	8	5	2	15	0.72	8	36	MED	
4396	SMADR2	2	W Grandview Ave	40	Sierra Madre	4	0.03	Secondary-Collector	64	8	5	2	15	0.72	8	36	MED	
4397	SMADR2	3	Foothill Ave	4	Sierra Madre	4	0.00	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4398	SMADR2	4	Oak View Ln	22	Sierra Madre	4	0.02	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4399	SMADR2	5	Audubon Wy	107	Sierra Madre	4	0.08	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
4400	SMADR2	6	Foothill Ave	21	Sierra Madre	4	0.02	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
4401	SMADR2	7	Foothill Ave	98	Sierra Madre	4	0.07	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
4402	SMADR2	8	Oak View Ln	15	Arcadia	4	0.01	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4403	SMADR2	9	E Grandview Ave	498	Sierra Madre	4	0.38	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4404	SMADR2	10	Sycamore Pl	6	Sierra Madre	4	0.00	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4405	SMADR2	11	Acacia St	165	Sierra Madre	4	0.12	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4406	SMADR2	12	Sycamore Pl	81	Sierra Madre	4	0.06	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4407	SMADR2	13	Foothill Ave	93	Sierra Madre	4	0.07	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4408	SMADR2	14	Audubon Wy	20	Sierra Madre	4	0.01	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
4409	SMADR2	15	E Grandview Ave	429	Sierra Madre	4	0.32	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
4410	SMADR2	16	Sycamore Pl	1	Sierra Madre	4	0.00	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4411	SMADR2	17	Audubon Wy	85	Sierra Madre	4	0.06	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4412	SMADR2	18	Camillo Rd	170	Sierra Madre	4	0.13	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4413	SMADR2	19	Camillo St	170	Sierra Madre	4	0.13	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4414	SMADR2	20	E Grandview Ave	90	Sierra Madre	4	0.07	Secondary-Collector	64	8	3	6	15	0.72	8	44	MED	
4415	SMADR2	21	Foothill Ave	106	Sierra Madre	4	0.08	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4416	SMADR2	22		20	Sierra Madre	4	0.02	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
4417	SMADR2	23	Acacia St	22	Sierra Madre	4	0.02	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
4418	SMADR2	24	Acacia St	84	Sierra Madre	4	0.06	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
4419	SMADR2	25	Foothill Ave	16	Sierra Madre	4	0.01	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
4420	SMADR2	26	Foothill Ave	38	Sierra Madre	4	0.03	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
4421	SMADR2	27	E Grandview Ave	10	Sierra Madre	4	0.01	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
4422	SMADR3	1		51	Arcadia	4	0.04	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4423	SMADR3	2	Sierra Madre Blvd	51	Arcadia	4	0.04	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4424	SMADR3	3	W Sierra Madre Blvd	31	Arcadia	4	0.02	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4425	SMADR3	4	W Sierra Madre Blvd	48	Arcadia	4	0.04	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
4426	SMADR3	5	Anita Crest Dr	110	Arcadia	4	0.08	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4427	SMADR3	6	La Ramada Ave	109	Arcadia	4	0.08	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4428	SMADR3	7	La Ramada Ave	188	Arcadia	4	0.14	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4429	SMADR3	8	E Sierra Madre Blvd	119	Sierra Madre	4	0.09	Secondary-Collector	64	8	5	2	13	0.45	4	24	LOW	
4430	SMADR3	9	Coburn Ave	72	Sierra Madre	4	0.05	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4431	SMADR3	10	Sycamore Pl	91	Sierra Madre	4	0.07	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4432	SMADR3	11	Claridge St	444	Arcadia	4	0.34	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4433	SMADR3	12	Oak View Ln	236	Arcadia	4	0.18	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4434	SMADR3	13	Rodeo Rd	117	Arcadia	4	0.09	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4435	SMADR3	14	E Laurel Ave	111	Sierra Madre	4	0.08	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4436	SMADR3	15	Sycamore Pl	452	Sierra Madre	4	0.34	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4437	SMADR3	16	E Sierra Madre Blvd	0	Arcadia	4	0.00	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
4438	SMADR3	17	Oakhaven Dr	62	Arcadia	4	0.05	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
4439	SMADR3	18	W Sierra Madre Blvd	239	Arcadia	4	0.18	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
4440	SMADR3	19	Anita Crest Dr	13	Arcadia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4441	SMADR3	20	Claridge St	55	Arcadia	4	0.04	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4442	SMADR3	21	La Ramada Ave	2	Arcadia	4	0.00	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4443	SMADR3	22	Oakhaven Dr	310	Arcadia	4	0.23	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4444	SMADR3	23	W Sierra Madre Blvd	531	Arcadia	4	0.40	Secondary-Collector	64	8	4	4	15	0.72	8	40	MED	
4445	SMADR3	24	Sycamore Pl	61	Sierra Madre	4	0.05	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4446	SMADR3	25	Claridge St	184	Arcadia	4	0.14	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4447	SMADR3	26	Oak View Ln	109	Arcadia	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4448	SMADR3	27	Rodeo Rd	293	Arcadia	4	0.22	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4449	SMADR3	28	E Sierra Madre Blvd	268	Sierra Madre	4	0.20	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
4450	SMADR3	29	Monterey Ln	43	Sierra Madre	4	0.03	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4451	SMADR3	30	Hyland Ave	10	Arcadia	4	0.01	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4452	SMADR3	31	La Ramada Ave	235	Arcadia	4	0.18	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4453	SMADR3	32	Oakhaven Dr	51	Arcadia	4	0.04	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4454	SMADR3	33	Oak View Ln	24	Arcadia	4	0.02	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4455	SMADR3	34	Oakhaven Dr	212	Arcadia	4	0.16	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4456	SMADR3	35	Rodeo Rd	100	Arcadia	4	0.08	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4457	SMADR3	36	E Sierra Madre Blvd	200	Sierra Madre	4	0.15	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
4458	SMADR3	37	Monterey Ln	11	Sierra Madre	4	0.01	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	

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Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4459	SMADR3	38	La Ramada Ave	10	Arcadia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4460	SMADR3	39	Oakhaven Dr	55	Arcadia	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4461	SMADR3	40	Rodeo Rd	98	Arcadia	4	0.07	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4462	SMADR3	41	N Santa Anita Ave	71	Arcadia	4	0.05	Secondary-Collector	64	8	2	8	13	0.45	4	36	MED	
4463	SMADR3	42	W Orange Grove Ave	65	Arcadia	4	0.05	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4464	SMADR3	43	Oak View Ln	84	Arcadia	4	0.06	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4465	SMADR3	44	Rodeo Rd	53	Arcadia	4	0.04	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4466	SMADR4	1	E Orange Grove Ave	92	Arcadia	4	0.07	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4467	SMADR4	2	Highland Oaks Dr	154	Arcadia	4	0.12	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4468	SMADR4	3	Highland Oaks Dr	46	Arcadia	4	0.03	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4469	SMADR4	4	E Orange Grove Ave	100	Arcadia	4	0.08	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4470	SMADR4	5	Highland Oaks Dr	332	Arcadia	4	0.25	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4471	SMADR4	6	Ontare Rd	37	Arcadia	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4472	SMADR4	7	Highland Oaks Dr	116	Arcadia	4	0.09	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4473	SMADR4	8	Highland Oaks Dr	4	Arcadia	4	0.00	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4474	SMADR4	9	E Woodland Ave	2	Arcadia	4	0.00	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4475	SMADR4	10	Highland Oaks Dr	400	Arcadia	4	0.30	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4476	SMADR4	11	2nd	291	Arcadia	4	0.22	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4477	SMADR4	12	E Orange Grove Ave	391	Arcadia	4	0.30	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4478	SMADR4	13	Highland Oaks Dr	102	Arcadia	4	0.08	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4479	SMADR4	14	Oakwood Dr	238	Arcadia	4	0.18	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4480	SMADR4	15	Ontare Rd	416	Arcadia	4	0.31	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4481	SMADR4	16	E Woodland Ave	112	Arcadia	4	0.08	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4482	SMADR4	17	Highland Oaks Dr	109	Arcadia	4	0.08	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4483	SMADR4	18	Oakwood Dr	68	Arcadia	4	0.05	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4484	SMADR4	19	Highland Oaks Dr	541	Arcadia	4	0.41	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4485	SMADR4	20	Ontare Rd	225	Arcadia	4	0.17	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4486	SMADR4	21	Highland Oaks Dr	124	Arcadia	4	0.09	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4487	SMADR4	22	Ontare Rd	1	Arcadia	4	0.00	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4537	Unknown1005	1	Hacienda Dr	203	Arcadia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4540	Unknown1005	4	Oakwood Dr	47	Arcadia	4	0.04	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4544	Unknown1005	8	E Sycamore Ave	711	Arcadia	4	0.54	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4545	Unknown1005	9	Hacienda Dr	1265	Arcadia	4	0.96	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4546	Unknown1005	10	Highland Oaks Dr	183	Arcadia	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4547	Unknown1005	11	N 1st Ave	83	Arcadia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4548	Unknown1005	12	Oakwood Dr	696	Arcadia	4	0.53	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4549	Unknown1005	13	Tindalo Rd	87	Arcadia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4550	Unknown1005	14	Ramona Rd	1081	Arcadia	4	0.82	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4551	Unknown1005	15	W Sycamore Ave	1110	Arcadia	4	0.84	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4552	Unknown1005	16	Woodland Ln	1186	Arcadia	4	0.90	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4554	Unknown1005	18	2nd	24	Arcadia	4	0.02	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4557	Unknown1005	21		11	Arcadia	4	0.01	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4558	Unknown1005	22	E Sycamore Ave	173	Arcadia	4	0.13	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4559	Unknown1005	23	E Sycamore Ave	8	Arcadia	4	0.01	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4560	Unknown1005	24	E Woodland Ave	785	Arcadia	4	0.59	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4561	Unknown1005	25	Hacienda Dr	259	Arcadia	4	0.20	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4562	Unknown1005	26	Highland Oaks Dr	480	Arcadia	4	0.36	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4563	Unknown1005	27	Highland Oaks Dr	503	Arcadia	4	0.38	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4564	Unknown1005	28	Oakwood Dr	950	Arcadia	4	0.72	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4565	Unknown1005	29	Oakwood Dr	42	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4569	Unknown1005	33	E Sycamore Ave	30	Arcadia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4570	Unknown1005	34	Oakwood Dr	72	Arcadia	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4571	Unknown1005	35	W Sycamore Ave	204	Arcadia	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4572	Unknown1005	36	Highland Oaks Dr	143	Arcadia	4	0.11	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4573	Unknown1021	1	Dexter Ave	648	Arcadia	4	0.49	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4574	Unknown1021	2	Fallen Leaf Rd	1778	Arcadia	4	1.35	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4575	Unknown1021	3	Englemann Ct	29	Arcadia	4	0.02	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4576	Unknown1021	4	Fallen Leaf Rd	190	Arcadia	4	0.14	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4577	Unknown1021	5	W Foothill Blvd	889	Arcadia	4	0.67	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
4578	Unknown1021	6		11	Arcadia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4579	Unknown1021	7	Dexter Ave	388	Arcadia	4	0.29	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4580	Unknown1021	8	Don Alvarado Dr	96	Arcadia	4	0.07	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4581	Unknown1021	9	Don Robles Dr	93	Arcadia	4	0.07	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4582	Unknown1021	10	El Caballo Dr	75	Arcadia	4	0.06	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4583	Unknown1021	11	Fallen Leaf Rd	882	Arcadia	4	0.67	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4584	Unknown1021	12	W Foothill Blvd	372	Arcadia	4	0.28	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4585	Unknown1021	13	W Foothill Blvd	165	Arcadia	4	0.12	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4586	Unknown1021	14	W Foothill Blvd	190	Arcadia	4	0.14	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
4587	Unknown1021	15	Don Diablo Dr	99	Arcadia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4588	Unknown1021	16	Englemann Ct	209	Arcadia	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4589	Unknown1021	17	Fallen Leaf Rd	496	Arcadia	4	0.38	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4590	Unknown1021	18	W Foothill Blvd	2089	Arcadia	4	1.58	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
4591	Unknown1021	19		101	Arcadia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4592	Unknown1021	20	Dexter Ave	83	Arcadia	4	0.06	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4593	Unknown1021	21	Don Pablo Dr	89	Arcadia	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4594	Unknown1021	22	Don Ricardo Dr	82	Arcadia	4	0.06	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4595	Unknown1021	23	Heritage Oaks Dr	63	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4596	Unknown1021	24	Loma Verde Dr	78	Arcadia	4	0.06	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4597	Unknown1021	25	W Foothill Blvd	922	Arcadia	4	0.70	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4598	Unknown1021	26	W Foothill Blvd	980	Arcadia	4	0.74	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4599	Unknown1021	27	Whispering Oaks Dr	67	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4602	Unknown1037	3	E Floral Ave	185	Arcadia	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4603	Unknown1037	4	E Forest Ave	761	Arcadia	4	0.58	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4604	Unknown1037	5	Tindalo Rd	504	Arcadia	4	0.38	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4605	Unknown1037	6	W Floral Ave	1112	Arcadia	4	0.84	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4606	Unknown1037	7	W Forest Ave	1039	Arcadia	4	0.79	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4608	Unknown1037	9	E Floral Ave	296	Arcadia	4	0.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4609	Unknown1037	10	N 1st Ave	573	Arcadia	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4610	Unknown1037	11	Tindalo Rd	212	Arcadia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4611	Unknown1037	12	W Floral Ave	221	Arcadia	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4612	Unknown1037	13	N 1st Ave	3	Arcadia	4	0.00	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4613	Unknown1037	14	Newman Ave	29	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4614	Unknown1037	15	W Newman Ave	405	Arcadia	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4615	Unknown1037	16	Windsor Rd	116	Arcadia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4616	Unknown1037	17	Country Oaks Cir	95	Arcadia	4	0.07	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4617	Unknown1037	18	Country Oaks Dr	199	Arcadia	4	0.15	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4618	Unknown1037	19	Country Oaks Ln	170	Arcadia	4	0.13	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4619	Unknown1037	20		116	Arcadia	4	0.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4625	Unknown1037	26	Cornell Dr	392	Arcadia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4626	Unknown1037	27	E Floral Ave	452	Arcadia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4627	Unknown1037	28	E Forest Ave	44	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4628	Unknown1037	29	E Haven Ave	156	Arcadia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4629	Unknown1037	30	E Newman Ave	675	Arcadia	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4630	Unknown1037	31	Lorena Ave	108	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4631	Unknown1037	32	N 1st Ave	887	Arcadia	4	0.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4632	Unknown1037	33	Windsor Rd	370	Arcadia	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4634	Unknown1037	35	W Floral Ave	96	Arcadia	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4636	Unknown1037	37	Country Oaks Cir	320	Arcadia	4	0.24	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4637	Unknown1037	38	Country Oaks Ln	183	Arcadia	4	0.14	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4638	Unknown1037	39	E Haven Ave	161	Arcadia	4	0.12	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4639	Unknown1037	40	Haven Ave	212	Arcadia	4	0.16	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4640	Unknown1037	41	Lorena Ave	311	Arcadia	4	0.24	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4641	Unknown1037	42	N 1st Ave	114	Arcadia	4	0.09	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4642	Unknown1037	43	Newman Ave	259	Arcadia	4	0.20	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4644	Unknown1037	45	Cornell Dr	263	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4645	Unknown1037	46	Country Oaks Dr	23	Arcadia	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4646	Unknown1037	47	E Forest Ave	80	Arcadia	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4647	Unknown1037	48	N 1st Ave	263	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4648	Unknown1037	49	E Forest Ave	48	Arcadia	4	0.04	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4649	Unknown1037	50	N 1st Ave	166	Arcadia	4	0.13	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4650	Unknown1049	1	Colorado St	78	Arcadia	6	0.09	Primary-Arterial	100	10	5	2	6	0.33	3	23	LOW	
4651	Unknown1049	2	W Colorado Blvd	78	Arcadia	6	0.09	Primary-Arterial	100	10	5	2	6	0.33	3	23	LOW	
4652	Unknown1049	3	Colorado St	623	Arcadia	6	0.71	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
4653	Unknown1049	4	W Colorado Blvd	623	Arcadia	6	0.71	Primary-Arterial	100	10	5	2	13	0.45	4	26	LOW	
4654	Unknown1049	5	Catalpa Rd	531	Arcadia	4	0.40	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4655	Unknown1049	6	Monte Vista Rd	108	Arcadia	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4656	Unknown1049	7	Vaquero Rd	211	Arcadia	4	0.16	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4657	Unknown1049	8	Catalpa Rd	137	Arcadia	4	0.10	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4658	Unknown1049	9	Monte Verde Dr	12	Arcadia	4	0.01	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4659	Unknown1049	10	Monte Vista Rd	152	Arcadia	4	0.12	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4660	Unknown1049	11	Murietta Dr	24	Arcadia	4	0.02	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4661	Unknown1049	12	N Golden West Ave	729	Arcadia	4	0.55	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4662	Unknown1049	13	Vaquero Rd	438	Arcadia	4	0.33	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4663	Unknown1049	14	Volante Dr	194	Arcadia	4	0.15	Minor-Local	60	6	4	4	3	0.77	9	41	MED	
4664	Unknown1049	15	Colorado St	215	Arcadia	6	0.24	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
4665	Unknown1049	16	W Colorado Blvd	215	Arcadia	6	0.24	Primary-Arterial	100	10	4	4	6	0.33	3	27	LOW	
4666	Unknown1049	17	Monte Vista Rd	45	Arcadia	4	0.03	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4667	Unknown1049	18	Campesina Rd	304	Arcadia	4	0.23	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4668	Unknown1049	19	Catalpa Rd	1365	Arcadia	4	1.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4669	Unknown1049	20	Monte Vista Rd	599	Arcadia	4	0.45	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4670	Unknown1049	21	Murietta Dr	345	Arcadia	4	0.26	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4671	Unknown1049	22	Valido Rd	665	Arcadia	4	0.50	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4672	Unknown1049	23	Vaquero Rd	390	Arcadia	4	0.30	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4673	Unknown1049	24	Volante Dr	206	Arcadia	4	0.16	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4674	Unknown1049	25	S Baldwin Ave	15	Arcadia	6	0.02	Primary-Arterial	100	10	3	6	3	0.77	9	49	HIGH	
4675	Unknown1049	26	Altura Ter	423	Arcadia	4	0.32	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4676	Unknown1049	27	Catalpa Rd	701	Arcadia	4	0.53	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4677	Unknown1049	28	Monte Verde Dr	2280	Arcadia	4	1.73	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4678	Unknown1049	29	Monte Vista Rd	977	Arcadia	4	0.74	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4679	Unknown1049	30	N Altura Rd	753	Arcadia	4	0.57	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4680	Unknown1049	31	N Golden West Ave	0	Arcadia	4	0.00	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4681	Unknown1049	32	Paloma Dr	64	Arcadia	4	0.05	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4682	Unknown1049	33	Vaquero Rd	401	Arcadia	4	0.30	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4683	Unknown1049	34	Volante Dr	1480	Arcadia	4	1.12	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4684	Unknown1049	35	Volante Dr	556	Arcadia	4	0.42	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4685	Unknown1049	36	Colorado St	570	Arcadia	6	0.65	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
4686	Unknown1049	37	W Colorado Blvd	570	Arcadia	6	0.65	Primary-Arterial	100	10	3	6	6	0.33	3	31	LOW	
4687	Unknown1049	38	Monte Verde Dr	44	Arcadia	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4688	Unknown1049	39	Colorado St	298	Arcadia	6	0.34	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
4689	Unknown1049	40	W Colorado Blvd	855	Arcadia	6	0.97	Primary-Arterial	100	10	3	6	13	0.45	4	34	MED	
4690	Unknown1049	41	Campesina Rd	206	Arcadia	4	0.16	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4691	Unknown1049	42	Catalpa Rd	267	Arcadia	4	0.20	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4692	Unknown1049	43	Murietta Dr	93	Arcadia	4	0.07	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4693	Unknown1049	44	N Altura Rd	610	Arcadia	4	0.46	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4694	Unknown1049	45	N Golden West Ave	68	Arcadia	4	0.05	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4695	Unknown1049	46	Old N Ranch Rd	21	Arcadia	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4696	Unknown1049	47	Vaquero Rd	311	Arcadia	4	0.24	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4697	Unknown1049	48	Vaquero Rd	82	Arcadia	4	0.06	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4698	Unknown1049	49	Volante Dr	284	Arcadia	4	0.22	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4699	Unknown1049	50	Encanto Dr	1001	Arcadia	4	0.76	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4700	Unknown1049	51	Monte Verde Dr	125	Arcadia	4	0.09	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4701	Unknown1049	52	Monte Vista Rd	301	Arcadia	4	0.23	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4702	Unknown1049	53	N Golden West Ave	52	Arcadia	4	0.04	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4703	Unknown1049	54	Paloma Dr	1143	Arcadia	4	0.87	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4704	Unknown1049	55	Vaquero Rd	136	Arcadia	4	0.10	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4705	Unknown1049	56	Volante Dr	156	Arcadia	4	0.12	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4706	Unknown1049	57	Colorado St	272	Arcadia	6	0.31	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
4707	Unknown1049	58	W Colorado Blvd	272	Arcadia	6	0.31	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
4708	Unknown1049	59	Encanto Dr	106	Arcadia	4	0.08	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4709	Unknown1049	60	Monte Verde Dr	100	Arcadia	4	0.08	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4710	Unknown1049	61	N Golden West Ave	71	Arcadia	4	0.05	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4711	Unknown1049	62	Volante Dr	93	Arcadia	4	0.07	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4712	Unknown1049	63	Encanto Dr	430	Arcadia	4	0.33	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4713	Unknown1049	64	Monte Verde Dr	780	Arcadia	4	0.59	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4714	Unknown1049	65	N Golden West Ave	1007	Arcadia	4	0.76	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4715	Unknown1049	66	Paloma Dr	570	Arcadia	4	0.43	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4716	Unknown1049	67	Tallac Dr	179	Arcadia	4	0.14	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4717	Unknown1049	68	Volante Dr	391	Arcadia	4	0.30	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4718	Unknown1069	1	San Luis Rey Rd	180	Arcadia	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4719	Unknown1069	2	Santa Cruz Rd	436	Arcadia	4	0.33	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4720	Unknown1069	3	Santa Rosa Rd	671	Arcadia	4	0.51	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4721	Unknown1069	4	San Juan Dr	160	Arcadia	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4722	Unknown1069	5	Santa Cruz Rd	3	Arcadia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4723	Unknown1069	6	Santa Rosa Rd	383	Arcadia	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4724	Unknown1069	7	Rolyn Pl	1088	Arcadia	4	0.82	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4725	Unknown1069	8	W Saint Joseph St	264	Arcadia	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4727	Unknown1069	10	San Juan Dr	91	Arcadia	4	0.07	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4731	Unknown1069	14	Saint Joseph St	107	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4732	Unknown1069	15	San Antonio Rd	1222	Arcadia	4	0.93	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4733	Unknown1069	16	San Luis Rey Rd	1058	Arcadia	4	0.80	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4734	Unknown1069	17	San Miguel Dr	1647	Arcadia	4	1.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4735	Unknown1069	18	San Rafael Rd	803	Arcadia	4	0.61	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4736	Unknown1069	19	Santa Clara St	1474	Arcadia	4	1.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4737	Unknown1069	20	Santa Cruz Rd	762	Arcadia	4	0.58	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4738	Unknown1069	21	Santa Ynez Dr	323	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4740	Unknown1069	23	W Huntington Dr	139	Arcadia	6	0.16	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
4742	Unknown1069	25		73	Arcadia	4	0.06	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4744	Unknown1069	27	E Saint Joseph St	376	Arcadia	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4745	Unknown1069	28	E Santa Clara St	871	Arcadia	4	0.66	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4746	Unknown1069	29	Front St	638	Arcadia	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4747	Unknown1069	30	Morlan Pl	947	Arcadia	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4748	Unknown1069	31	Wheeler Ave	865	Arcadia	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4750	Unknown1069	33	San Juan Dr	265	Arcadia	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4751	Unknown1069	34	Santa Cruz Rd	563	Arcadia	4	0.43	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4752	Unknown1069	35	Santa Rosa Rd	258	Arcadia	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4753	Unknown1069	36	Colorado Pl	16	Arcadia	6	0.02	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
4754	Unknown1070	1	Hugo Reid Dr	151	Arcadia	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4755	Unknown1070	2	Hugo Reid Dr	212	Arcadia	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4756	Unknown1070	3	Joaquin Rd	20	Arcadia	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4757	Unknown1070	4	Kingsley Dr	138	Arcadia	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4758	Unknown1070	5	Hugo Reid Dr	3	Arcadia	4	0.00	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4760	Unknown1070	7	Corto Rd	93	Arcadia	4	0.07	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4761	Unknown1070	8	Encanto Dr	102	Arcadia	4	0.08	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4762	Unknown1070	9	La Rosa Rd	750	Arcadia	4	0.57	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4763	Unknown1070	10	N Altura Rd	199	Arcadia	4	0.15	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4764	Unknown1070	11	Paloma Dr	279	Arcadia	4	0.21	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4765	Unknown1070	12	S Altura Rd	120	Arcadia	4	0.09	Minor-Local	60	6	3	6	3	0.77	9	45	HIGH	
4766	Unknown1070	13	Hugo Reid Dr	39	Arcadia	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4767	Unknown1070	14	Joaquin Rd	7	Arcadia	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4768	Unknown1070	15	Kingsley Dr	415	Arcadia	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4769	Unknown1070	16	Old S Ranch Rd	93	Arcadia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4770	Unknown1070	17	S Golden West Ave	314	Arcadia	4	0.24	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4771	Unknown1070	18	Hugo Reid Dr	1048	Arcadia	4	0.79	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4772	Unknown1070	19	Magellan Rd	244	Arcadia	4	0.18	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4773	Unknown1070	20	S Golden West Ave	572	Arcadia	4	0.43	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4775	Unknown1070	22	Cabrillo Rd	87	Arcadia	4	0.07	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4776	Unknown1070	23	Cabrillo Rd	187	Arcadia	4	0.14	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4777	Unknown1070	24	Columbia Rd	817	Arcadia	4	0.62	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4778	Unknown1070	25	Corto Rd	719	Arcadia	4	0.54	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4779	Unknown1070	26	De Anza Pl	546	Arcadia	4	0.41	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4780	Unknown1070	27	Encanto Dr	769	Arcadia	4	0.58	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4781	Unknown1070	28	Hugo Reid Dr	1149	Arcadia	4	0.87	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4782	Unknown1070	29	La Rosa Rd	38	Arcadia	4	0.03	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4783	Unknown1070	30	N Altura Rd	1693	Arcadia	4	1.28	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4784	Unknown1070	31	Paloma Dr	570	Arcadia	4	0.43	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4785	Unknown1070	32	Panorama Dr	1627	Arcadia	4	1.23	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4786	Unknown1070	33	S Altura Rd	741	Arcadia	4	0.56	Minor-Local	60	6	2	8	3	0.77	9	49	HIGH	
4787	Unknown1070	34	S Baldwin Ave	91	Arcadia	6	0.10	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
4788	Unknown1070	35	Cabrillo Rd	584	Arcadia	4	0.44	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4789	Unknown1070	36	Columbia Rd	134	Arcadia	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4790	Unknown1070	37	Hugo Reid Dr	341	Arcadia	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4791	Unknown1070	38	Kingsley Dr	26	Arcadia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4792	Unknown1070	39	Old S Ranch Rd	151	Arcadia	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4793	Unknown1070	40	S Altura Rd	491	Arcadia	4	0.37	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4794	Unknown1070	41	Cabrillo Rd	166	Arcadia	4	0.13	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4795	Unknown1070	42	Hugo Reid Dr	14	Arcadia	4	0.01	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4796	Unknown1070	43	Magellan Rd	51	Arcadia	4	0.04	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4797	Unknown1070	44	Cabrillo Rd	82	Arcadia	4	0.06	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4798	Unknown1070	45	Cabrillo Rd	156	Arcadia	4	0.12	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4799	Unknown1070	46	Hugo Reid Dr	161	Arcadia	4	0.12	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4800	Unknown1070	47	Panorama Dr	179	Arcadia	4	0.14	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4801	Unknown1070	48	S Golden West Ave	22	Arcadia	4	0.02	Minor-Local	60	6	1	9	3	0.77	9	51	HIGH	
4803	Unknown1070	50	Armada Rd	40	Arcadia	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4804	Unknown1070	51	Hugo Reid Dr	517	Arcadia	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4805	Unknown1070	52	Kingsley Dr	455	Arcadia	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4806	Unknown1070	53	Old S Ranch Rd	729	Arcadia	4	0.55	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4807	Unknown1070	54	S Golden West Ave	81	Arcadia	4	0.06	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4808	Unknown1070	55	Cabrillo Rd	401	Arcadia	4	0.30	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4809	Unknown1070	56	Hugo Reid Dr	100	Arcadia	4	0.08	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4810	Unknown1070	57	N Golden West Ave	0	Arcadia	4	0.00	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4811	Unknown1070	58	Panorama Dr	572	Arcadia	4	0.43	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4812	Unknown1070	59	Tallac Dr	1	Arcadia	4	0.00	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4813	Unknown1070	60	S Golden West Ave	157	Arcadia	4	0.12	Minor-Local	60	6	0	10	3	0.77	9	53	HIGH	
4814	Unknown1078	1	S 2nd Ave	8	Arcadia	4	0.01	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
4815	Unknown1078	2	S 3rd Ave	67	Arcadia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4816	Unknown1078	3	S 1st Ave	100	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4819	Unknown1078	6	S 2nd Ave	94	Arcadia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4820	Unknown1078	7	S 3rd Ave	118	Arcadia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4826	Unknown1078	13	S 2nd Ave	2819	Arcadia	4	2.14	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4827	Unknown1078	14		9	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4828	Unknown1078	15		80	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4829	Unknown1078	16	Alice St	1377	Arcadia	4	1.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4830	Unknown1078	17	Alta St	1862	Arcadia	4	1.41	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4831	Unknown1078	18	Bonita St	1883	Arcadia	4	1.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4832	Unknown1078	19	California St	2019	Arcadia	4	1.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4833	Unknown1078	20	Diamond St	1884	Arcadia	4	1.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4834	Unknown1078	21	El Monte Ave	80	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4835	Unknown1078	22	Eldorado St	2305	Arcadia	4	1.75	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4836	Unknown1078	23	Fano St	1885	Arcadia	4	1.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4837	Unknown1078	24	Genoa St	2286	Arcadia	4	1.73	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4838	Unknown1078	25	Lucile St	935	Arcadia	4	0.71	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4840	Unknown1078	27	Wheeler Ave	479	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4843	Unknown1078	30	Campus Dr	236	Arcadia	4	0.18	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
4844	Unknown1078	31	El Monte Ave	125	Arcadia	4	0.09	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
4846	Unknown1078	33	Alice St	934	Arcadia	4	0.71	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4847	Unknown1078	34	Alice St	46	Arcadia	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4848	Unknown1078	35	S 1st Ave	39	Arcadia	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4851	Unknown1079	2	N 2nd Ave	366	Arcadia	4	0.28	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4852	Unknown1079	3	Indiana St	311	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4853	Unknown1079	4	Wheeler Ave	52	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4855	Unknown1079	6	N 2nd Ave	317	Arcadia	4	0.24	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
4856	Unknown1079	7	S 2nd Ave	107	Arcadia	4	0.08	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
4857	Unknown1079	8	Gateway Dr	266	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
4858	Unknown1088	1	Joaquin Rd	117	Arcadia	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4859	Unknown1088	2	Kingsley Dr	532	Arcadia	4	0.40	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4860	Unknown1088	3	S Golden West Ave	68	Arcadia	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4861	Unknown1088	4	W Huntington Dr	436	Arcadia	6	0.49	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
4863	Unknown1088	6		101	Arcadia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4864	Unknown1088	7	W Huntington Dr	354	Arcadia	6	0.40	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
4866	Unknown1088	9	Balboa Dr	1650	Arcadia	4	1.25	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4867	Unknown1088	10	Cabrillo Rd	450	Arcadia	4	0.34	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4868	Unknown1088	11	Columbia Rd	597	Arcadia	4	0.45	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4869	Unknown1088	12	Coronado Dr	895	Arcadia	4	0.68	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4870	Unknown1088	13	Cortez Rd	1267	Arcadia	4	0.96	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4871	Unknown1088	14	Drake Rd	1578	Arcadia	4	1.20	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4872	Unknown1088	15	Joaquin Rd	100	Arcadia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4873	Unknown1088	16	Kingsley Dr	62	Arcadia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4874	Unknown1088	17	Magellan Rd	877	Arcadia	4	0.66	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4875	Unknown1088	18	Palo Alto Dr	1112	Arcadia	4	0.84	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4876	Unknown1088	19	Portola Dr	418	Arcadia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4877	Unknown1088	20	S Golden West Ave	1369	Arcadia	4	1.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4878	Unknown1088	21	Victoria Dr	1067	Arcadia	4	0.81	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4879	Unknown1088	22	Kingsley Dr	181	Arcadia	4	0.14	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4880	Unknown1088	23	Magellan Rd	34	Arcadia	4	0.03	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4881	Unknown1088	24	Old S Ranch Rd	1315	Arcadia	4	1.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4883	Unknown1088	26	Victoria Dr	166	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4884	Unknown1088	27	W Huntington Dr	3892	Arcadia	6	4.42	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
4886	Unknown1088	29		105	Arcadia	4	0.08	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4887	Unknown1088	30	Campus Dr	36	Arcadia	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4888	Unknown1088	31	Holly Ave	213	Arcadia	4	0.16	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
4891	Unknown1088	34		332	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4892	Unknown1088	35	Balboa Dr	332	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4893	Unknown1088	36	Coronado Dr	789	Arcadia	4	0.60	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4894	Unknown1088	37	Hungate Ln	75	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4895	Unknown1088	38	La Cadena Ave	81	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4897	Unknown1088	40	W Huntington Dr	1098	Arcadia	6	1.25	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4899	Unknown1088	42		121	Arcadia	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4900	Unknown1088	43		24	Arcadia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4901	Unknown1088	44	Armada Rd	582	Arcadia	4	0.44	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4902	Unknown1088	45	Balboa Dr	1018	Arcadia	4	0.77	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4903	Unknown1088	46	Coronado Dr	923	Arcadia	4	0.70	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4904	Unknown1088	47	Cortez Rd	984	Arcadia	4	0.75	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4905	Unknown1088	48	Drake Rd	5	Arcadia	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4906	Unknown1088	49	Joaquin Rd	278	Arcadia	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4907	Unknown1088	50	Joaquin Rd	211	Arcadia	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4908	Unknown1088	51	Magellan Rd	233	Arcadia	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4909	Unknown1088	52	Old S Ranch Rd	690	Arcadia	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4910	Unknown1088	53	Palo Alto Dr	665	Arcadia	4	0.50	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4911	Unknown1088	54	Portola Dr	291	Arcadia	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4912	Unknown1088	55	Portola Dr	586	Arcadia	4	0.44	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4914	Unknown1088	57	Victoria Dr	698	Arcadia	4	0.53	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4915	Unknown1091	1		98	County	4	0.07	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
4916	Unknown1091	2	Galen St	176	Duarte	4	0.13	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4917	Unknown1091	3		259	County	4	0.20	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4918	Unknown1091	4	Mountain Ave	73	County	4	0.06	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
4919	Unknown1091	5		49	County	4	0.04	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4920	Unknown1091	6	Mountain Ave	220	County	4	0.17	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4921	Unknown1091	7		215	County	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4922	Unknown1091	8	Citrus View Ave	54	County	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4923	Unknown1091	9	Meridian St	8	County	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4925	Unknown1091	11		83	Duarte	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4926	Unknown1091	12	Broach Ave	193	Duarte	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4929	Unknown1091	15	Park Rose Ave	57	Duarte	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4930	Unknown1091	16	E Camino Real	59	County	4	0.04	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4931	Unknown1091	17	Mountain Ave	45	County	4	0.03	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
4932	Unknown1091	18	Mountain Ave	1	County	4	0.00	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4933	Unknown1091	19	Broach Ave	52	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4935	Unknown1091	21	Citrus View Ave	36	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4936	Unknown1091	22	Delford Ave	350	Duarte	4	0.27	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4940	Unknown1091	26	Park Rose Ave	39	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4941	Unknown1091	27	Park Rose Ave	19	Duarte	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4942	Unknown1091	28	Park Rose Ave	290	Duarte	4	0.22	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4943	Unknown1091	29		105	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4944	Unknown1091	30	Citrus View Ave	176	County	4	0.13	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
4945	Unknown1091	31	Shrode Ave	457	County	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4946	Unknown1091	32		39	County	4	0.03	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4948	Unknown1091	34		165	Duarte	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4949	Unknown1091	35		1	Duarte	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4950	Unknown1091	36		55	Duarte	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4951	Unknown1091	37		177	Duarte	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4952	Unknown1091	38		251	Duarte	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4953	Unknown1091	39	Bradbury Ave	1295	Duarte	4	0.98	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4954	Unknown1091	40	Bradbury Ave	806	Duarte	4	0.61	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4955	Unknown1091	41	Broach Ave	172	Duarte	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4958	Unknown1091	44	Broadland Ave	731	Duarte	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4959	Unknown1091	45	Capehart Ave	149	Duarte	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4960	Unknown1091	46	Capehart Ave	977	Duarte	4	0.74	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4961	Unknown1091	47	Cinnamon Ln	32	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4962	Unknown1091	48	Citrus View Ave	4	Duarte	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4964	Unknown1091	50	Citrus View Ave	794	Duarte	4	0.60	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4965	Unknown1091	51	Delford Ave	643	Duarte	4	0.49	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4966	Unknown1091	52	Delford Ave	368	Duarte	4	0.28	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4967	Unknown1091	53	Evergreen St	578	Duarte	4	0.44	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4968	Unknown1091	54	Evergreen St	375	Duarte	4	0.28	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4969	Unknown1091	55	Evergreen St	1080	Duarte	4	0.82	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4971	Unknown1091	57	Hamilton Rd	1209	Duarte	4	0.92	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4974	Unknown1091	60	Ivory Dr	196	Duarte	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4976	Unknown1091	62	Kellwil Wy	480	Duarte	4	0.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4977	Unknown1091	63	Lewiston St	1039	Duarte	4	0.79	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4981	Unknown1091	67	Park Rose Ave	378	Duarte	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4982	Unknown1091	68	Park Rose Ave	18	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4983	Unknown1091	69	Park Rose Ave	934	Duarte	4	0.71	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4984	Unknown1091	70	Three Ranch Rd	800	Duarte	4	0.61	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4985	Unknown1091	71	Ruelas St	37	Duarte	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4986	Unknown1091	72	Shepherd Dr	347	Duarte	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4988	Unknown1091	74	Wardell Ave	1077	Duarte	4	0.82	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4989	Unknown1091	75	Warrington Ave	1219	Duarte	4	0.92	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4990	Unknown1091	76		28	Monrovia	4	0.02	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
4993	Unknown1091	79	E Duarte Rd	500	Monrovia	4	0.38	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
4995	Unknown1091	81	Mountain Ave	93	Monrovia	4	0.07	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
4996	Unknown1091	82		118	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4997	Unknown1091	83	Enterprise Wy	452	Monrovia	4	0.34	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4998	Unknown1091	84	Hurstview St	0	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
5000	Unknown1091	86		272	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5001	Unknown1091	87	E Camino Real	14	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5002	Unknown1091	88	Mountain Ave	33	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5003	Unknown1091	89	S Broderick Ave	399	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5004	Unknown1091	90	S Felberg Ave	460	County	4	0.35	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5005	Unknown1091	91	S Felberg Ave	725	County	4	0.55	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5006	Unknown1091	92	Shrode Ave	92	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5008	Unknown1091	94		18	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5009	Unknown1091	95		3	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5010	Unknown1091	96		221	County	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5011	Unknown1091	97	Beckville St	4	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5012	Unknown1091	98	E Beckville St	415	County	4	0.31	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5013	Unknown1091	99	E Joella St	6	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5014	Unknown1091	100	El Sur St	186	County	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5015	Unknown1091	101	Euclid Ave	627	County	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5016	Unknown1091	102	Joella St	8	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5017	Unknown1091	103	Maydee St	468	County	4	0.35	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5020	Unknown1091	106		942	Duarte	4	0.71	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5021	Unknown1091	107		90	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5022	Unknown1091	108		51	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5023	Unknown1091	109		19	Duarte	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5024	Unknown1091	110		150	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5025	Unknown1091	111		99	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5027	Unknown1091	113	Broach Ave	247	Duarte	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5028	Unknown1091	114	Broach Ave	108	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5030	Unknown1091	116	Cinnamon Ln	260	Duarte	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5032	Unknown1091	118	Citrus View Ave	239	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5033	Unknown1091	119	Citrus View Ave	603	Duarte	4	0.46	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5034	Unknown1091	120	Delford Ave	843	Duarte	4	0.64	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5035	Unknown1091	121	Delford Ave	307	Duarte	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5036	Unknown1091	122	Earlington Ave	1265	Duarte	4	0.96	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5037	Unknown1091	123	Evergreen St	52	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5041	Unknown1091	127	Lewiston St	282	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5043	Unknown1091	129	Park Rose Ave	517	Duarte	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5044	Unknown1091	130	Park Rose Ave	242	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5045	Unknown1091	131	Park Rose Ave	167	Duarte	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5046	Unknown1091	132	Three Ranch Rd	439	Duarte	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5047	Unknown1091	133	Shepherd Dr	283	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5049	Unknown1091	135	Newington St	3	County	4	0.00	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5050	Unknown1091	136		115	Duarte	4	0.09	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5051	Unknown1091	137		79	Duarte	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5052	Unknown1091	138		215	Duarte	4	0.16	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5053	Unknown1091	139		57	Duarte	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5055	Unknown1091	141	Broach Ave	232	Duarte	4	0.18	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5056	Unknown1091	142	Cinnamon Ln	316	Duarte	4	0.24	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5057	Unknown1091	143	Citrus View Ave	73	Duarte	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5058	Unknown1091	144	Delford Ave	100	Duarte	4	0.08	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5059	Unknown1091	145	Lewiston St	47	Duarte	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5061	Unknown1091	147	Park Rose Ave	501	Duarte	4	0.38	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5064	Unknown1097	1	S Rochelle Ave	423	County	4	0.32	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5065	Unknown1097	2	W Wyland Wy	235	County	4	0.18	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5066	Unknown1097	3	Rochelle Ave	0	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5068	Unknown1097	5	Doray Cir	71	Monrovia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5069	Unknown1097	6	W Wyland Wy	1	Monrovia	4	0.00	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5071	Unknown1097	8	Loganrita Ave	25	County	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5072	Unknown1097	9	Loganrita Ave	0	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5074	Unknown1097	11	S Rochelle Ave	927	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5075	Unknown1097	12	S Treelane Ave	1496	County	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5076	Unknown1097	13	Standish St	241	County	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5077	Unknown1097	14	W Altern St	310	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5079	Unknown1097	16	Standish St	399	County	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5081	Unknown1097	18	S Mayflower Ave	28	Arcadia	4	0.02	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	
5083	Unknown1097	20	W Atara St	154	County	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5084	Unknown1097	21	W Avora St	20	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5086	Unknown1097	23	W El Sur St	15	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5087	Unknown1097	24	W Wyland Wy	149	County	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5090	Unknown1097	27	S Mayflower Ave	30	County	4	0.02	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5091	Unknown1097	28	Short St	432	Arcadia	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5092	Unknown1097	29	Shrode St	218	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5093	Unknown1097	30	Standish Pl	423	Arcadia	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5094	Unknown1097	31	Standish St	78	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5095	Unknown1097	32		29	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5096	Unknown1097	33	Jeffries Ave	73	Arcadia	4	0.06	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5097	Unknown1097	34	Magnolia Ct	380	Arcadia	4	0.29	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5098	Unknown1097	35	S 10th Ave	3579	Arcadia	4	2.71	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5100	Unknown1097	37	Altern St	548	Arcadia	4	0.41	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5101	Unknown1097	38	Altern St	25	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5102	Unknown1097	39	Bungalow Pl	656	Arcadia	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5103	Unknown1097	40	Derek Dr	23	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5106	Unknown1097	43	E Winnie Wy	2	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5107	Unknown1097	44	El Norte Ave	955	Arcadia	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5108	Unknown1097	45	El Sur St	956	Arcadia	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5109	Unknown1097	46	Loganrita Ave	725	Arcadia	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5110	Unknown1097	47	Loganrita Ave	1007	Arcadia	4	0.76	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5111	Unknown1097	48	Loganrita Ave	745	Arcadia	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5112	Unknown1097	49	Magnolia Ln	445	Arcadia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5114	Unknown1097	51	E Camino Real	1	Arcadia	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5115	Unknown1097	52	W Camino Real	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5116	Unknown1097	53		0	Monrovia	4	0.00	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5117	Unknown1097	54	10th Ave	582	Monrovia	4	0.44	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5120	Unknown1097	57	Rochelle Ave	66	Monrovia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5123	Unknown1097	60	S Rochelle Ave	247	County	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5124	Unknown1097	61	S Treelane Ave	73	County	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5125	Unknown1097	62	S Treelane Ave	593	County	4	0.45	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5127	Unknown1097	64	S Mayflower Ave	0	County	4	0.00	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	
5130	Unknown1097	67	Loganrita Ave	198	Arcadia	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5131	Unknown1097	68	Shrode St	100	Arcadia	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5132	Unknown1097	69	Standish St	92	Arcadia	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5134	Unknown1099	1	W Duarte Rd	114	Arcadia	6	0.13	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
5135	Unknown1099	2	Fairview Ave	112	Arcadia	4	0.09	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5137	Unknown1099	4	Park Ave	532	Arcadia	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5141	Unknown1099	8	Southview Rd	830	Arcadia	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5143	Unknown1099	10	Arcadia Ave	2999	Arcadia	4	2.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5144	Unknown1099	11	Arcadia Ave	1594	Arcadia	4	1.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5145	Unknown1099	12	Fairview Ave	6927	Arcadia	4	5.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5146	Unknown1099	13	Hungate Ln	494	Arcadia	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5147	Unknown1099	14	Hungate Ln	350	Arcadia	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5148	Unknown1099	15	La Cadena Ave	1634	Arcadia	4	1.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5149	Unknown1099	16	Lovell Ave	79	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5150	Unknown1099	17	Lyndon Wy	107	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5153	Unknown1099	20	Fairview Ave	205	Arcadia	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5154	Unknown1099	21	Park Ave	415	Arcadia	4	0.31	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5155	Unknown1101	1	Nicholas Ln	181	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5156	Unknown1101	2	Pamela Cir	259	Arcadia	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5157	Unknown1101	3	Pamela Pl	169	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5158	Unknown1101	4	Tiffany Ter	206	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5159	Unknown1101	5	Patricia Wy	251	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5160	Unknown1101	6	Peachtree Ln	163	Arcadia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5161	Unknown1101	7	Robbins Dr	257	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5162	Unknown1101	8	S 1st Ave	2828	Arcadia	4	2.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5163	Unknown1101	9	S 2nd Ave	3014	Arcadia	4	2.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5164	Unknown1101	10	S 3rd Ave	3075	Arcadia	4	2.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5165	Unknown1101	11	S 4th Ave	1096	Arcadia	4	0.83	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5166	Unknown1101	12	S 4th Ave	2044	Arcadia	4	1.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5167	Unknown1101	13	S 5th Ave	3244	Arcadia	4	2.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5168	Unknown1101	14	S 6th Ave	2438	Arcadia	4	1.85	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5169	Unknown1101	15	S 8th Ave	8	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5170	Unknown1101	16	Scott Pl	195	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5171	Unknown1101	17		45	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5172	Unknown1101	18	8th Ave	2382	Arcadia	4	1.80	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5173	Unknown1101	19	Altern St	210	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5174	Unknown1101	20	Altern St	179	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5175	Unknown1101	21	Altern St	190	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5176	Unknown1101	22	Altern St	184	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5177	Unknown1101	23	Christina St	214	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5178	Unknown1101	24	Christina St	90	Arcadia	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5179	Unknown1101	25	Connie Rae Wy	172	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5180	Unknown1101	26	E Camino Grove Ave	179	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5181	Unknown1101	27	E Camino Grove Ave	455	Arcadia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5185	Unknown1101	31	E Camino Real Ave	29	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5186	Unknown1101	32	E Crystal Ct	187	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5187	Unknown1101	33	E La Sierra Dr	470	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5188	Unknown1101	34	E La Sierra Dr	470	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5189	Unknown1101	35	E La Sierra Dr	202	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5190	Unknown1101	36	E Magna Vista Ave	229	Arcadia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5191	Unknown1101	37	E Magna Vista Ave	471	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5192	Unknown1101	38	E Magna Vista Ave	369	Arcadia	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5193	Unknown1101	39	E Pamela Rd	100	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5194	Unknown1101	40	E Pamela Rd	260	Arcadia	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5195	Unknown1101	41	E Pamela Rd	471	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5196	Unknown1101	42	E Pamela Rd	192	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5197	Unknown1101	43	E Pamela Rd	255	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5198	Unknown1101	44	E Santa Anita Ter	344	Arcadia	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5199	Unknown1101	45	Ellen Wy	345	Arcadia	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5200	Unknown1101	46	Encino Ave	1644	Arcadia	4	1.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5201	Unknown1101	47	Encino Ct	161	Arcadia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5202	Unknown1101	48	Encino Dr	165	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5203	Unknown1101	49	Greenfield Ave	2347	Arcadia	4	1.78	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5204	Unknown1101	50	Greenfield Pl	272	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5205	Unknown1101	51	Ilene Dr	219	Arcadia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5206	Unknown1101	52	Ilene Dr	172	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5207	Unknown1101	53	Ilene Dr	207	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5208	Unknown1101	54	Ilene Dr	203	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5209	Unknown1101	55	Kari Wy	210	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5210	Unknown1101	56	La Sierra Dr	174	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5211	Unknown1101	57	La Sierra Dr	177	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5212	Unknown1101	58	Leda Ln	471	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5213	Unknown1101	59	Leda Ln	469	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5214	Unknown1101	60	Leda Ln	473	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5215	Unknown1101	61	Leland Wy	288	Arcadia	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5216	Unknown1101	62	Louise Ave	518	Arcadia	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5217	Unknown1101	63	Magna Vista Ave	188	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5218	Unknown1101	64	Magnolia Ln	44	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5219	Unknown1101	65	Wesley Ln	115	Arcadia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5220	Unknown1101	66	8th Ave	570	Arcadia	4	0.43	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5221	Unknown1101	67	E Camino Grove Ave	487	Arcadia	4	0.37	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5223	Unknown1101	69	E Pamela Rd	394	Arcadia	4	0.30	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5224	Unknown1101	70	Encino Ave	12	Arcadia	4	0.01	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5225	Unknown1101	71	S 6th Ave	564	Arcadia	4	0.43	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5226	Unknown1101	72	8th Ave	404	Monrovia	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5227	Unknown1101	73	El Norte Ave	37	Monrovia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5228	Unknown1101	74	Encino Ave	402	Monrovia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5229	Unknown1101	75	Encino Pl	220	Monrovia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5230	Unknown1101	76	Encino Wy	143	Monrovia	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5231	Unknown1101	77	S 6th Ave	252	Monrovia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5232	Unknown1109	1	S 1st Ave	25	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5233	Unknown1109	2	W La Sierra Dr	2162	Arcadia	4	1.64	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5234	Unknown1109	3	W Le Roy Ave	2192	Arcadia	4	1.66	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5235	Unknown1109	4	W Magna Vista Ave	1941	Arcadia	4	1.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5236	Unknown1109	5	W Naomi Ave	2244	Arcadia	4	1.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5237	Unknown1109	6	W Pamela Rd	2328	Arcadia	4	1.76	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5238	Unknown1109	7	W Santa Anita Ter	1933	Arcadia	4	1.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5240	Unknown1109	9	El Monte Ave	28	Arcadia	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5241	Unknown1109	10	Azure Wy	32	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5242	Unknown1109	11	Christina St	853	Arcadia	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5243	Unknown1109	12	E Le Roy Ave	450	Arcadia	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5244	Unknown1109	13	E Magna Vista Ave	221	Arcadia	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5245	Unknown1109	14	Linda Rae Wy	214	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5246	Unknown1109	15	Louise Ave	1354	Arcadia	4	1.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5247	Unknown1109	16	Azure Wy	273	Arcadia	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5248	Unknown1118	1	W Norman Ave	173	Arcadia	4	0.13	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
5249	Unknown1118	2	El Monte Ave	54	Arcadia	4	0.04	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
5251	Unknown1118	4	W Camino Real	92	Arcadia	4	0.07	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5252	Unknown1118	5	W Norman Ave	102	Arcadia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5253	Unknown1118	6	W Winnie Wy	36	Arcadia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5254	Unknown1118	7	W Camino Real	4877	Arcadia	4	3.69	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5255	Unknown1118	8	W Le Roy Ave	7	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5256	Unknown1118	9	W Leroy Ave	1650	Arcadia	4	1.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5257	Unknown1118	10	W Naomi Ave	3776	Arcadia	4	2.86	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5258	Unknown1118	11	W Naomi Ave	1070	Arcadia	4	0.81	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5259	Unknown1118	12	W Norman Ave	4324	Arcadia	4	3.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5260	Unknown1118	13	W Pamela Rd	828	Arcadia	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5261	Unknown1118	14	W Winnie Wy	1625	Arcadia	4	1.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5262	Unknown1118	15	S Baldwin Ave	5	Arcadia	6	0.01	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
5263	Unknown1118	16	El Monte Ave	465	Arcadia	4	0.35	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5265	Unknown1118	18	Christine Ln	324	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5267	Unknown1118	20	Melanie Ln	41	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5268	Unknown1118	21	Melanie Ln	335	Arcadia	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5269	Unknown1118	22	Melanie Ln	235	Arcadia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5270	Unknown1118	23	Melanie Ln	245	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5271	Unknown1118	24	El Monte Ave	104	Arcadia	4	0.08	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
5272	Unknown1119	1	Tuckaway Ln	120	Duarte	4	0.09	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5273	Unknown1119	2	Beckville St	30	Duarte	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5274	Unknown1121	1	W Lemon Ave	103	Arcadia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5275	Unknown1121	2	Wistaria Ave	64	Arcadia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5276	Unknown1121	3	S Baldwin Ave	39	Arcadia	6	0.04	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
5277	Unknown1121	4	W Camino Real Ave	85	Arcadia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
5278	Unknown1121	5	Callita St	19	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5279	Unknown1121	6	Emperor Ave	31	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5280	Unknown1121	7	Salter Ave	247	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5281	Unknown1121	8	W Camino Real	26	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5282	Unknown1121	9	W Camino Real Ave	156	Arcadia	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5283	Unknown1121	10	W Lemon Ave	559	Arcadia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5284	Unknown1121	11	W Lemon Ave	36	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5286	Unknown1121	13	W Naomi Ave	53	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5287	Unknown1121	14		32	Arcadia	6	0.04	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
5289	Unknown1121	16	Sharon Rd	295	Arcadia	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5290	Unknown1121	17	Sharon Rd	216	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5291	Unknown1121	18	Val St	665	Arcadia	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5292	Unknown1121	19	W Longden Ave	713	Arcadia	4	0.54	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5293	Unknown1121	20		303	Arcadia	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5294	Unknown1121	21	Callita St	534	Arcadia	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5295	Unknown1121	22	Cambury Ave	112	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5296	Unknown1121	23	Cambury Ave	316	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5297	Unknown1121	24	E Naomi Ave	111	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5298	Unknown1121	25	Emperor Ave	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5299	Unknown1121	26	Estrella Ave	721	Arcadia	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5300	Unknown1121	27	La Vida Ln	174	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5301	Unknown1121	28	Walnut Ave	35	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5302	Unknown1121	29	Wistaria Ave	212	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5304	Unknown1121	31	Callita St	222	Arcadia	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5305	Unknown1121	32	W Camino Real	53	Arcadia	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5306	Unknown1121	33	W Camino Real Ave	701	Arcadia	4	0.53	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5308	Unknown1121	35	W Norman Ave	30	Arcadia	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5309	Unknown1131	1	W Lemon Ave	110	Arcadia	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5310	Unknown1131	2	S 1st Ave	1819	Arcadia	4	1.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5312	Unknown1131	4	S 3rd Ave	116	Arcadia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5313	Unknown1131	5	S 3rd Ave	1684	Arcadia	4	1.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5314	Unknown1131	6	S 4th Ave	1767	Arcadia	4	1.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5315	Unknown1131	7	S 5th Ave	465	Arcadia	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5316	Unknown1131	8	S 5th Ave	277	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5317	Unknown1131	9	S 6th Ave	885	Arcadia	4	0.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5318	Unknown1131	10	W Camino Real	380	Arcadia	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5319	Unknown1131	11	W Lemon Ave	1704	Arcadia	4	1.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5320	Unknown1131	12	W Norman Ave	1118	Arcadia	4	0.85	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5321	Unknown1131	13	W Winnie Wy	552	Arcadia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5322	Unknown1131	14	W Wistaria Ave	347	Arcadia	4	0.26	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5324	Unknown1131	16		30	Arcadia	6	0.03	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
5326	Unknown1131	18	S 8th Ave	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5327	Unknown1131	19	S 8th Ave	44	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5328	Unknown1131	20	Verner Cir	19	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5330	Unknown1131	22	7th Ave	1644	Arcadia	4	1.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5331	Unknown1131	23	7th Pl	1185	Arcadia	4	0.90	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5332	Unknown1131	24	Alster Ave	1320	Arcadia	4	1.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5333	Unknown1131	25	Andrews Rd	45	Arcadia	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5334	Unknown1131	26	Coyle Ave	112	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5335	Unknown1131	27	Coyle Ave	353	Arcadia	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5336	Unknown1131	28	Danimere Ave	560	Arcadia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5337	Unknown1131	29	E Arthur Ave	395	Arcadia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5338	Unknown1131	30	E Camino Real	130	Arcadia	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5339	Unknown1131	31	E Camino Real	23	Arcadia	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5340	Unknown1131	32	E Las Flores Ave	557	Arcadia	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5341	Unknown1131	33	E Las Flores Ave	390	Arcadia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5342	Unknown1131	34	E Lemon Ave	944	Arcadia	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5343	Unknown1131	35	E Lemon Ave	1318	Arcadia	4	1.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5344	Unknown1131	36	E Norman Ave	942	Arcadia	4	0.71	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5345	Unknown1131	37	E Norman Ave	621	Arcadia	4	0.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5346	Unknown1131	38	E Norman Ave	1710	Arcadia	4	1.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5347	Unknown1131	39	E Winnie Wy	272	Arcadia	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5348	Unknown1131	40	E Winnie Wy	295	Arcadia	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5349	Unknown1131	41	E Winnie Wy	210	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5350	Unknown1131	42	E Winnie Wy	370	Arcadia	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5351	Unknown1131	43	E Wistaria Ave	721	Arcadia	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5352	Unknown1131	44	E Wistaria Ave	809	Arcadia	4	0.61	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5353	Unknown1131	45	E Wistaria Ave	567	Arcadia	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5354	Unknown1131	46	Grace Ave	654	Arcadia	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5355	Unknown1131	47	Lee Ave	498	Arcadia	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5356	Unknown1131	48	Lee Ave	397	Arcadia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5357	Unknown1131	49	Louise Ave	137	Arcadia	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5358	Unknown1131	50	Louise Ave	488	Arcadia	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5359	Unknown1131	51	Luben Ln	54	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5360	Unknown1131	52	W Wistaria Ave	1487	Arcadia	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5361	Unknown1131	53	Watson Dr	1307	Arcadia	4	0.99	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5362	Unknown1131	54	Wesley Ln	47	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5364	Unknown1131	56	Alster Ave	183	Arcadia	4	0.14	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5365	Unknown1131	57	Coyle Ave	134	Arcadia	4	0.10	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5366	Unknown1131	58	E Camino Real	36	Arcadia	4	0.03	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5367	Unknown1131	59	E Lemon Ave	196	Arcadia	4	0.15	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5368	Unknown1131	60	E Norman Ave	201	Arcadia	4	0.15	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5369	Unknown1131	61	E Norman Ave	175	Arcadia	4	0.13	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5370	Unknown1131	62	E Wistaria Ave	40	Arcadia	4	0.03	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5371	Unknown1131	63	Lenta Ln	0	Arcadia	4	0.00	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5372	Unknown1131	64	S 6th Ave	1593	Arcadia	4	1.21	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5373	Unknown1131	65	Verner Cir	126	Arcadia	4	0.10	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5376	Unknown1131	68	7th Ave	132	Arcadia	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5377	Unknown1131	69	Alster Ave	4	Arcadia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5378	Unknown1131	70	Coyle Ave	62	Arcadia	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5379	Unknown1131	71	Coyle Ave	327	Arcadia	4	0.25	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5380	Unknown1131	72	Danimere Ave	641	Arcadia	4	0.49	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5381	Unknown1131	73	E Arthur Ave	990	Arcadia	4	0.75	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5382	Unknown1131	74	E Las Flores Ave	645	Arcadia	4	0.49	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5383	Unknown1131	75	E Las Flores Ave	1494	Arcadia	4	1.13	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5384	Unknown1131	76	E Wistaria Ave	267	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5385	Unknown1131	77	E Wistaria Ave	358	Arcadia	4	0.27	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5386	Unknown1131	78	Louise Ave	332	Arcadia	4	0.25	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5387	Unknown1131	79	Luben Ln	291	Arcadia	4	0.22	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5388	Unknown1131	80	S 1st Ave	626	Arcadia	4	0.47	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5390	Unknown1131	82	S 3rd Ave	222	Arcadia	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5391	Unknown1131	83	S 3rd Ave	420	Arcadia	4	0.32	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5392	Unknown1131	84	S 4th Ave	352	Arcadia	4	0.27	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5393	Unknown1131	85	S 5th Ave	173	Arcadia	4	0.13	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5394	Unknown1131	86	S 6th Ave	295	Arcadia	4	0.22	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5395	Unknown1131	87	Verner Cir	37	Arcadia	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5396	Unknown1131	88	W Camino Real	198	Arcadia	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5398	Unknown1131	90	W Lemon Ave	22	Arcadia	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5399	Unknown1131	91	Coyle Ave	292	Arcadia	4	0.22	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5400	Unknown1131	92	E Las Flores Ave	19	Arcadia	4	0.01	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5401	Unknown1131	93	Verner Cir	5	Arcadia	4	0.00	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5402	Unknown1137	1	S Ashmont Ave	703	County	4	0.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5403	Unknown1137	2		11	County	6	0.01	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
5406	Unknown1137	5	S 10th Ave	2611	County	4	1.98	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5407	Unknown1137	6	8th Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5408	Unknown1137	7	9th Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5409	Unknown1137	8	Birchcroft St	946	County	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5410	Unknown1137	9	Boley St	21	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5411	Unknown1137	10	Center St	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5412	Unknown1137	11	Doolittle Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5413	Unknown1137	12	Doolittle Ave	891	County	4	0.68	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5414	Unknown1137	13	E Sandra Ave	880	County	4	0.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5415	Unknown1137	14	Ednuel St	895	County	4	0.68	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5416	Unknown1137	15	Eisenhower Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5417	Unknown1137	16	Foss Ave	1273	County	4	0.96	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5418	Unknown1137	17	Halsey Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5419	Unknown1137	18	Halsey Ave	432	County	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5420	Unknown1137	19	Hodges Ave	29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5421	Unknown1137	20	Loganrita Ave	431	County	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5422	Unknown1137	21	Loganrita Ave	922	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5423	Unknown1137	22	Lovejoy St	36	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5424	Unknown1137	23	Lovejoy St	170	County	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5425	Unknown1137	24	S Fairgreen Ave	190	County	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5426	Unknown1137	25	S Fairgreen Ave	357	County	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5427	Unknown1137	26	S Heather Heights Ave	247	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5428	Unknown1137	27	S Larkfield Ave	733	County	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5430	Unknown1137	29	S Fairgreen Ave	3	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5431	Unknown1137	30		61	County	4	0.05	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
5433	Unknown1137	32	S 10th Ave	551	County	4	0.42	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
5434	Unknown1137	33	Weidermeyer Ave	947	County	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5436	Unknown1137	35	E Longden Ave	61	County	4	0.05	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	
5437	Unknown1137	36	Lynd Ave	72	County	4	0.05	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5438	Unknown1137	37	S Ashmont Ave	552	County	4	0.42	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5439	Unknown1137	38	Jeffries Ave	9	Arcadia	4	0.01	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5440	Unknown1137	39	S 10th Ave	305	Arcadia	4	0.23	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5441	Unknown1137	40	Doolittle Ave	391	County	4	0.30	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5442	Unknown1137	41	Ednuel St	463	County	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5443	Unknown1137	42	Foss Ave	456	County	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5444	Unknown1137	43	Loganrita Ave	447	County	4	0.34	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5445	Unknown1137	44	Magnis St	136	County	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5446	Unknown1137	45	S Ashmont Ave	209	County	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5447	Unknown1137	46	S Fairgreen Ave	193	County	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5448	Unknown1137	47	S Fairgreen Ave	505	County	4	0.38	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5449	Unknown1137	48	S Heather Heights Ave	196	County	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5450	Unknown1137	49	S Larkfield Ave	258	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5452	Unknown1137	51	Weidermeyer Ave	376	County	4	0.29	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5453	Unknown1137	52	Magnis St	55	County	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5454	Unknown1137	53	S Fairgreen Ave	350	County	4	0.27	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5455	Unknown1137	54	S 10th Ave	302	Arcadia	4	0.23	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
5456	Unknown1149	1	W Longden Ave	9	Arcadia	4	0.01	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
5457	Unknown1149	2	Santa Anita Ave	227	County	6	0.26	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
5458	Unknown1149	3	Florinda Ave	399	County	4	0.30	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5459	Unknown1149	4	W Longden Ave	304	Arcadia	4	0.23	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
5460	Unknown1149	5	Azure Wy	33	Arcadia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5461	Unknown1149	6	W Arthur Ave	749	Arcadia	4	0.57	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5462	Unknown1149	7	W Sandra Ave	340	Arcadia	4	0.26	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5463	Unknown1149	8	W Woodruff Ave	496	Arcadia	4	0.38	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5464	Unknown1149	9		25	County	6	0.03	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
5465	Unknown1149	10	Santa Anita Ave	1137	County	6	1.29	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
5466	Unknown1149	11	Freer St	10	County	4	0.01	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5467	Unknown1149	12		24	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5468	Unknown1149	13		29	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5469	Unknown1149	14	Daines Dr	168	County	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5470	Unknown1149	15	Florinda Ave	217	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5471	Unknown1149	16	Freer St	425	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5472	Unknown1149	17	Freer St	21	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5473	Unknown1149	18	Myrtus Ave	680	County	4	0.52	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5474	Unknown1149	19	Myrtus Ave	25	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5475	Unknown1149	20	Palm Cir	250	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5476	Unknown1149	21	Palm Cir	406	Arcadia	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5477	Unknown1149	22	Paxson Ln	200	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5478	Unknown1149	23	W Birchcroft St	804	Arcadia	4	0.61	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5479	Unknown1149	24	W Las Flores Ave	471	Arcadia	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5480	Unknown1149	25	W Palm Dr	830	Arcadia	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5481	Unknown1149	26	W Palm Dr	498	Arcadia	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5482	Unknown1149	27	W Rodell Pl	200	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5483	Unknown1149	28	W Sandra Ave	605	Arcadia	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5484	Unknown1149	29	Santa Anita Ave	11	County	6	0.01	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
5485	Unknown1149	30	W Woodruff Ave	240	Arcadia	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5489	Unknown1149	34	S Ivyland Ave	516	Arcadia	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5490	Unknown1149	35	Sewanee Ln	245	Arcadia	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5491	Unknown1149	36	W Arthur Ave	403	Arcadia	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5492	Unknown1149	37	W Birchcroft St	16	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5493	Unknown1149	38	W Live Oak Ave	941	Arcadia	4	0.71	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5494	Unknown1149	39	W Longden Ave	1302	Arcadia	4	0.99	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5495	Unknown1149	40		12	Arcadia	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5496	Unknown1149	41		1	Arcadia	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5497	Unknown1149	42	Bishop Ct	302	Arcadia	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5498	Unknown1149	43	E Palm Dr	203	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5499	Unknown1149	44	E Rodell Pl	386	Arcadia	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5500	Unknown1149	45	E Woodruff Ave	100	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5501	Unknown1149	46	El Capitan Ave	106	Arcadia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5502	Unknown1149	47	Ivyland Ave	169	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5503	Unknown1149	48	Louise Ave	182	Arcadia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5504	Unknown1149	49	Louise Ave	212	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5505	Unknown1149	50	W Woodruff Ave	979	Arcadia	4	0.74	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5506	Unknown1149	51	Welland Ave	343	Arcadia	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5507	Unknown1149	52	Daines Dr	194	County	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5508	Unknown1149	53	Florinda Ave	605	County	4	0.46	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5509	Unknown1149	54	Freer St	363	County	4	0.28	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5510	Unknown1149	55	Kristi Ct	239	County	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5511	Unknown1149	56	Myrtus Ave	259	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5514	Unknown1149	59	N Santa Anita Ave	200	Arcadia	6	0.23	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
5517	Unknown1149	62	E Longden Ave	840	Arcadia	4	0.64	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
5519	Unknown1149	64	W Longden Ave	196	Arcadia	4	0.15	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
5520	Unknown1149	65		8	Arcadia	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5521	Unknown1149	66	E Rodell Pl	413	Arcadia	4	0.31	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5522	Unknown1149	67	E Woodruff Ave	256	Arcadia	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5523	Unknown1149	68	El Capitan Ave	1322	Arcadia	4	1.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5524	Unknown1149	69	Ivyland Ave	156	Arcadia	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5525	Unknown1149	70	Louise Ave	734	Arcadia	4	0.56	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5526	Unknown1149	71	Louise Ave	673	Arcadia	4	0.51	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5527	Unknown1149	72	Louise Ave	2	Arcadia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5528	Unknown1149	73	Palm Cir	121	Arcadia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5529	Unknown1149	74	Paxson Ln	263	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5530	Unknown1149	75	S Ivyland Ave	58	Arcadia	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5531	Unknown1149	76	Sewanee Ln	313	Arcadia	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5532	Unknown1149	77	W Arthur Ave	228	Arcadia	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5533	Unknown1149	78	W Birchcroft St	142	Arcadia	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5534	Unknown1149	79	W Birchcroft St	39	Arcadia	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5535	Unknown1149	80	W Las Flores Ave	1278	Arcadia	4	0.97	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5536	Unknown1149	81	W Palm Dr	474	Arcadia	4	0.36	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5537	Unknown1149	82	W Rodell Pl	300	Arcadia	4	0.23	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5538	Unknown1156	1	Marshburn Ave	110	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5539	Unknown1156	2	Tyler Ave	271	County	4	0.21	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5540	Unknown1156	3	W Hondo Pkwy	116	County	4	0.09	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
5541	Unknown1156	4	Marshburn Ave	39	County	4	0.03	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5542	Unknown1156	5	Rockfield Dr	91	County	4	0.07	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5543	Unknown1156	6	Tyler Ave	195	County	4	0.15	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5544	Unknown1156	7	Cochin Ave	1395	County	4	1.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5545	Unknown1156	8	Daines Dr	1194	County	4	0.90	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5546	Unknown1156	9	Danbury St	426	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5547	Unknown1156	10	Daneswood Dr	339	County	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5548	Unknown1156	11	Farna Ave	1298	County	4	0.98	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5549	Unknown1156	12	Florinda Ave	156	County	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5550	Unknown1156	13	Freer St	18	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5551	Unknown1156	14	Freer St	433	County	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5552	Unknown1156	15	Garypark Ave	616	County	4	0.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5553	Unknown1156	16	Huddart Ave	383	County	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5554	Unknown1156	17	Lynrose St	674	County	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5555	Unknown1156	18	Marshburn Ave	114	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5556	Unknown1156	19	Marshburn Ave	930	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5557	Unknown1156	20	Miloann St	123	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5558	Unknown1156	21	Myrtus Ave	54	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5561	Unknown1156	24	S 3rd Ave	533	Arcadia	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5562	Unknown1156	25	S 4th Ave	1492	Arcadia	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5563	Unknown1156	26	S 5th Ave	791	Arcadia	4	0.60	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5564	Unknown1156	27	S 6th Ave	1290	Arcadia	4	0.98	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5566	Unknown1156	29	Wildflower Rd	275	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5567	Unknown1156	30	Ethan Ave	195	County	4	0.15	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5568	Unknown1156	31	Marshburn Ave	425	County	4	0.32	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5569	Unknown1156	32	Marshburn Ave	102	County	4	0.08	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5570	Unknown1156	33	Rockfield Dr	527	County	4	0.40	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5571	Unknown1156	34	Tyler Ave	144	County	4	0.11	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5573	Unknown1156	36	S 8th Ave	59	Arcadia	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5576	Unknown1156	39	E Rodell Pl	171	Arcadia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5577	Unknown1156	40	E Rodell Pl	387	Arcadia	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5578	Unknown1156	41	E Rodell Pl	67	Arcadia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5579	Unknown1156	42	E Sandra Ave	761	Arcadia	4	0.58	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5580	Unknown1156	43	El Capitan Ave	75	Arcadia	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5581	Unknown1156	44	Farna Ave	216	Arcadia	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5582	Unknown1156	45	Flamingo Wy	196	Arcadia	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5583	Unknown1156	46	Hollis Ln	64	Arcadia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5584	Unknown1156	47	Lee Ave	315	Arcadia	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5585	Unknown1156	48	Myrtus Ave	119	Arcadia	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5586	Unknown1156	49	E Rodell Pl	269	Arcadia	4	0.20	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5587	Unknown1156	50	E Rodell Pl	205	Arcadia	4	0.15	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5588	Unknown1156	51	E Sandra Ave	283	Arcadia	4	0.21	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5589	Unknown1156	52	Lenta Ln	864	Arcadia	4	0.65	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5590	Unknown1156	53	Ansdell Pl	103	County	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5591	Unknown1156	54	Arrowood St	921	County	4	0.70	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5592	Unknown1156	55	Cochin Ave	813	County	4	0.62	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5593	Unknown1156	56	Daines Dr	984	County	4	0.75	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5594	Unknown1156	57	Danbury St	901	County	4	0.68	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5595	Unknown1156	58	Daneswood Dr	1025	County	4	0.78	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5596	Unknown1156	59	Farna Ave	739	County	4	0.56	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5597	Unknown1156	60	Florinda Ave	786	County	4	0.60	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5598	Unknown1156	61	Freer St	400	County	4	0.30	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5599	Unknown1156	62	Freer St	530	County	4	0.40	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5600	Unknown1156	63	Garypark Ave	96	County	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5601	Unknown1156	64	Huddart Ave	403	County	4	0.30	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5602	Unknown1156	65	Kristi Ct	31	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5603	Unknown1156	66	La Rosa St	506	County	4	0.38	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5604	Unknown1156	67	Lynrose St	2419	County	4	1.83	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5605	Unknown1156	68	Marshburn Ave	413	County	4	0.31	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5606	Unknown1156	69	Marshburn Ave	1263	County	4	0.96	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5607	Unknown1156	70	Miloann St	903	County	4	0.68	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5608	Unknown1156	71	Myrtus Ave	409	County	4	0.31	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5609	Unknown1156	72	Myrtus Ave	155	County	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5610	Unknown1156	73	Rockfield Dr	14	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5612	Unknown1156	75	Wildflower Rd	694	County	4	0.53	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5613	Unknown1156	76	Arrowood St	138	County	4	0.10	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5614	Unknown1156	77	La Rosa St	165	County	4	0.13	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5615	Unknown1156	78	Rockfield Dr	818	County	4	0.62	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5618	Unknown1156	81	Beverly Dr	462	Arcadia	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5619	Unknown1156	82	E Rodell Pl	249	Arcadia	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5620	Unknown1156	83	E Sandra Ave	311	Arcadia	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5621	Unknown1156	84	El Capitan Ave	318	Arcadia	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5622	Unknown1156	85	Farna Ave	230	Arcadia	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5623	Unknown1156	86	Greenfield Ave	1941	Arcadia	4	1.47	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5624	Unknown1156	87	Hollis Ln	269	Arcadia	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5625	Unknown1156	88	Lee Ave	1646	Arcadia	4	1.25	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5626	Unknown1156	89	Myrtus Ave	127	Arcadia	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5628	Unknown1156	91	S 3rd Ave	1594	Arcadia	4	1.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5629	Unknown1156	92	S 3rd Ave	1	Arcadia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5630	Unknown1156	93	S 4th Ave	571	Arcadia	4	0.43	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5631	Unknown1156	94	S 5th Ave	165	Arcadia	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5632	Unknown1156	95	S 5th Ave	0	Arcadia	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5633	Unknown1156	96	S 6th Ave	566	Arcadia	4	0.43	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5634	Unknown1156	97	Tyler Ave	155	Arcadia	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5635	Unknown1156	98	Lenta Ln	501	Arcadia	4	0.38	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5636	Unknown1174	1	W Live Oak Ave	234	Arcadia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5637	Unknown1174	2	Winthrop Ave	44	Arcadia	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5639	Unknown1174	4	El Monte Ave	481	Arcadia	4	0.36	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5640	Unknown1174	5	Holly Ave	899	Arcadia	4	0.68	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5641	Unknown1174	6	W Live Oak Ave	322	Arcadia	4	0.24	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
5643	Unknown1174	8	Caroline Wy	786	Arcadia	4	0.60	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5644	Unknown1174	9	E Live Oak Ave	234	Arcadia	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5645	Unknown1174	10	Gilpin Wy	573	Arcadia	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5646	Unknown1174	11	Longley Wy	672	Arcadia	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5647	Unknown1174	12	Warren Wy	738	Arcadia	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5648	Unknown1174	13	Winthrop Ave	878	Arcadia	4	0.66	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5649	Unknown1174	14	Workman Ave	1086	Arcadia	4	0.82	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5650	Unknown1174	15	Las Tunas Dr	65	Arcadia	6	0.07	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
5651	Unknown1179	1	Daines Dr	461	County	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5652	Unknown1179	2	Farna Ave	339	County	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5653	Unknown1179	3	Freer St	254	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5654	Unknown1179	4	Garypark Ave	594	County	4	0.45	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5655	Unknown1179	5	Garypark Ave	37	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5656	Unknown1179	6	Huddart Ave	365	County	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5657	Unknown1179	7	Huddart Ave	27	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5658	Unknown1179	8	Lenore Ave	643	County	4	0.49	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5659	Unknown1179	9	Maple Tree Ave	578	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5660	Unknown1179	10	Miloann St	430	County	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5661	Unknown1179	11	Wildflower Rd	491	County	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5662	Unknown1179	12	Daines Dr	525	County	4	0.40	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5663	Unknown1179	13	Farna Ave	261	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5664	Unknown1179	14	Freer St	298	County	4	0.23	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5665	Unknown1179	15	Garypark Ave	380	County	4	0.29	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5666	Unknown1179	16	Huddart Ave	347	County	4	0.26	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5667	Unknown1179	17	Huddart Ave	8	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5668	Unknown1179	18	Lenore Ave	340	County	4	0.26	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5669	Unknown1179	19	Maple Tree Ave	113	County	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5670	Unknown1179	20	Miloann St	19	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5671	Unknown1179	21	Rockfield Dr	8	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5672	Unknown1179	22	Wildflower Rd	589	County	4	0.45	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5673	Unknown851	1		106	Monrovia	4	0.08	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5674	Unknown851	2	Cloverleaf Dr	100	Monrovia	4	0.08	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5675	Unknown851	3		2	Monrovia	4	0.00	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5676	Unknown894	1		100	Monrovia	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5677	Unknown894	2	Cloverleaf Dr	88	Monrovia	4	0.07	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5678	Unknown894	3	N Alta Vista Ave	20	Monrovia	4	0.02	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5679	Unknown894	4	Laurel Ln	54	Monrovia	4	0.04	Minor-Local	60	6	3	6	14	0.81	10	48	HIGH	
5680	Unknown894	5	Cloverleaf Dr	47	Monrovia	4	0.04	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
5681	Unknown894	6	N Alta Vista Ave	14	Monrovia	4	0.01	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5682	Unknown920	1	N Baldwin Ave	10	Arcadia	4	0.01	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
5683	Unknown920	2	W Foothill Blvd	147	Arcadia	4	0.11	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
5684	Unknown920	3	Hampton Rd	177	Arcadia	4	0.13	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5685	Unknown920	4	Old Oak Ln	243	Sierra Madre	4	0.18	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5686	Unknown920	5	Ramona Ave	343	Sierra Madre	4	0.26	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5687	Unknown920	6	S Hermosa Ave	1542	Sierra Madre	4	1.17	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5688	Unknown920	7	Santa Margarita Dr	0	Sierra Madre	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5689	Unknown920	8	Suffolk Ave	54	Sierra Madre	4	0.04	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5690	Unknown920	9	W Bonita Ave	945	Sierra Madre	4	0.72	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5691	Unknown920	10	W Highland Ave	398	Sierra Madre	4	0.30	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5692	Unknown920	11	W Laurel Ave	93	Sierra Madre	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5693	Unknown920	12	W Montecito Ave	1395	Sierra Madre	4	1.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5694	Unknown920	13	W Montecito Ave	617	Sierra Madre	4	0.47	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5695	Unknown920	14	W Orange Grove Ave	460	Sierra Madre	4	0.35	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5696	Unknown920	15	Webster Wy	174	Sierra Madre	4	0.13	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5697	Unknown920	16	Windsor Ln	557	Sierra Madre	4	0.42	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5699	Unknown920	18	Old Oak Ln	0	Arcadia	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5700	Unknown920	19	S Hermosa Ave	0	Arcadia	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5701	Unknown920	20	Santa Margarita Dr	511	Arcadia	4	0.39	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5702	Unknown920	21	Singingwood Dr	954	Arcadia	4	0.72	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5703	Unknown920	22	W Orange Grove Ave	726	Arcadia	4	0.55	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5704	Unknown920	23		275	Sierra Madre	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5705	Unknown920	24		359	Sierra Madre	4	0.27	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5706	Unknown920	25		460	Sierra Madre	4	0.35	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5707	Unknown920	26		277	Sierra Madre	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5708	Unknown920	27		277	Sierra Madre	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5709	Unknown920	28		210	Sierra Madre	4	0.16	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5710	Unknown920	29		338	Sierra Madre	4	0.26	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5711	Unknown920	30		164	Sierra Madre	4	0.12	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5712	Unknown920	31		226	Sierra Madre	4	0.17	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5713	Unknown920	32		253	Sierra Madre	4	0.19	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5714	Unknown920	33		437	Sierra Madre	4	0.33	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5715	Unknown920	34	Auburn Ave	617	Sierra Madre	4	0.47	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5716	Unknown920	35	Esperanza Ave	1140	Sierra Madre	4	0.86	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5717	Unknown920	36	Kersting Ct	264	Sierra Madre	4	0.20	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5718	Unknown920	37	Lowell Ave	56	Sierra Madre	4	0.04	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5719	Unknown920	38	Manzanita Ave	324	Sierra Madre	4	0.25	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5720	Unknown920	39	Mariposa Ave	773	Sierra Madre	4	0.59	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5721	Unknown920	40	Mariposa Ave	1159	Sierra Madre	4	0.88	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5722	Unknown920	41	Montecito Ct	864	Sierra Madre	4	0.65	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5724	Unknown920	43	E Sierra Madre Blvd	15	Sierra Madre	4	0.01	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
5727	Unknown920	46	N Hermosa Ave	380	Sierra Madre	4	0.29	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5728	Unknown920	47	N Hermosa Ave	94	Sierra Madre	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5729	Unknown920	48	N Baldwin Ave	1220	Arcadia	4	0.92	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
5730	Unknown920	49	W Foothill Blvd	255	Arcadia	4	0.19	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
5731	Unknown920	50	Anita Ln	214	Arcadia	4	0.16	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5732	Unknown920	51	Anoakia Ln	981	Arcadia	4	0.74	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5733	Unknown920	52	Arbolada Dr	77	Arcadia	4	0.06	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5734	Unknown920	53	Carriage House Dr	1051	Arcadia	4	0.80	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5735	Unknown920	54	Carriage House Rd	203	Arcadia	4	0.15	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5736	Unknown920	55	Hampton Rd	748	Arcadia	4	0.57	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5737	Unknown920	56	Santa Margarita Dr	101	Arcadia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5738	Unknown920	57	S Hermosa Ave	205	Sierra Madre	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5739	Unknown920	58	W Bonita Ave	165	Sierra Madre	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5741	Unknown920	60	W Foothill Blvd	265	Arcadia	4	0.20	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
5742	Unknown920	61	Carriage House Dr	6	Arcadia	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5743	Unknown920	62	Gloria Rd	65	Arcadia	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5744	Unknown920	63	Hampton Rd	179	Arcadia	4	0.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5745	Unknown920	64	Old N Ranch Rd	80	Arcadia	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5746	Unknown920	65	Santa Margarita Dr	495	Arcadia	4	0.37	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5747	Unknown920	66	Singingwood Dr	82	Arcadia	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5748	Unknown920	67	W Orange Grove Ave	550	Arcadia	4	0.42	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5749	Unknown920	68	Auburn Ave	70	Sierra Madre	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5750	Unknown920	69	E Bonita Ave	59	Sierra Madre	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5751	Unknown920	70	Manzanita Ave	563	Sierra Madre	4	0.43	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5754	Unknown930	1	Valencia Wy	142	Arcadia	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5755	Unknown930	2	Oakhaven Rd	6	Arcadia	4	0.00	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5756	Unknown930	3	Valencia Wy	158	Arcadia	4	0.12	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5757	Unknown930	4	El Nido Ave	79	Monrovia	4	0.06	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
5758	Unknown930	5	N McKinley Pl	35	Monrovia	4	0.03	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
5759	Unknown930	6	N Mayflower Ave	40	Monrovia	4	0.03	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
5761	Unknown930	8		494	Monrovia	4	0.37	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5762	Unknown930	9	Cloverleaf Dr	29	Monrovia	4	0.02	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5763	Unknown930	10	Court St	611	Monrovia	4	0.46	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5764	Unknown930	11	El Nido Ave	170	Monrovia	4	0.13	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5765	Unknown930	12	Hidden Valley Rd	61	Monrovia	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5766	Unknown930	13	Highland Pl	909	Monrovia	4	0.69	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5767	Unknown930	14	Mauna Loa Dr	273	Monrovia	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5768	Unknown930	15	Mayflower Ct	35	Monrovia	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5769	Unknown930	16	N Heather Heights Ct	351	Monrovia	4	0.27	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5770	Unknown930	17	N Madison Ave	100	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5771	Unknown930	18	N Mayflower Ave	52	Monrovia	4	0.04	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5772	Unknown930	19	N McKinley Pl	137	Monrovia	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5773	Unknown930	20	N Sunset Pl	184	Monrovia	4	0.14	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5774	Unknown930	21	Hidden Valley Rd	101	Monrovia	4	0.08	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
5775	Unknown930	22	Valencia Wy	56	Arcadia	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5776	Unknown930	23	Oakhaven Rd	96	Arcadia	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5777	Unknown930	24	Valencia Wy	345	Arcadia	4	0.26	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5778	Unknown930	25	N Alta Vista Ave	28	Monrovia	4	0.02	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
5779	Unknown930	26	W Foothill Blvd	538	Monrovia	4	0.41	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
5780	Unknown930	27	El Nido Ave	880	Monrovia	4	0.67	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5781	Unknown930	28	Mauna Loa Dr	32	Monrovia	4	0.02	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5782	Unknown930	29	N McKinley Pl	108	Monrovia	4	0.08	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5783	Unknown930	30	N Sunset Pl	499	Monrovia	4	0.38	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5784	Unknown930	31	Violet Ave	62	Monrovia	4	0.05	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
5787	Unknown930	34		385	Monrovia	4	0.29	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5788	Unknown930	35	Cloverleaf Dr	15	Monrovia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5789	Unknown930	36	Heather Heights Ct	31	Monrovia	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5790	Unknown930	37	Highland Pl	354	Monrovia	4	0.27	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5791	Unknown930	38	Mauna Loa Dr	588	Monrovia	4	0.45	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5792	Unknown930	39	Mayflower Ct	34	Monrovia	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5793	Unknown930	40	N El Nido Ave	100	Monrovia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5794	Unknown930	41	N Heather Heights Ct	332	Monrovia	4	0.25	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5795	Unknown930	42	N Sunset Pl	116	Monrovia	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5796	Unknown930	43		102	Monrovia	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5797	Unknown930	44	Cloverleaf Dr	38	Monrovia	4	0.03	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5798	Unknown930	45	N Alta Vista Ave	27	Monrovia	4	0.02	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5799	Unknown930	46	Sutter Creek	104	Monrovia	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
5800	Unknown930	47	E Sycamore Ave	451	Arcadia	4	0.34	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5802	Unknown930	49	Northview Ave	74	Arcadia	4	0.06	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
5803	Unknown930	50	Oakglen Ave	23	Arcadia	4	0.02	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
5804	Unknown930	51	Valencia Wy	100	Arcadia	4	0.08	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
5805	Unknown930	52	W Foothill Blvd	100	Monrovia	4	0.08	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
5806	Unknown930	53	Garfield Pl	34	Monrovia	4	0.03	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
5807	Unknown930	54	N McKinley Pl	100	Monrovia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
5808	Unknown930	55	N Sunset Pl	100	Monrovia	4	0.08	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
5810	Unknown930	57	Cloverleaf Dr	101	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
5811	Unknown930	58	Garfield Pl	66	Monrovia	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
5812	Unknown930	59	Hidden Valley Rd	183	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
5813	Unknown930	60	Highland Pl	167	Monrovia	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
5814	Unknown930	61	N Lincoln Pl	100	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
5815	Unknown930	62	N 5th Ave	100	Monrovia	4	0.08	Secondary-Collector	64	8	3	6	15	0.72	8	44	MED	
5816	Unknown930	63	Cloverleaf Dr	218	Monrovia	4	0.17	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
5817	Unknown930	64	E Sycamore Ave	358	Arcadia	4	0.27	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
5818	Unknown930	65	N 2nd Ave	42	Arcadia	4	0.03	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
5819	Unknown930	66	Oakhaven Rd	85	Arcadia	4	0.06	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
5821	Unknown930	68	N 2nd Ave	77	Arcadia	4	0.06	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	
5822	Unknown930	69	E Sycamore Ave	508	Arcadia	4	0.38	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5823	Unknown930	70	N 2nd Ave	619	Arcadia	4	0.47	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5824	Unknown930	71	Oakglen Ave	113	Arcadia	4	0.09	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5825	Unknown930	72	Oakhaven Rd	187	Arcadia	4	0.14	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5826	Unknown930	73	Wigwam Ave	80	Arcadia	4	0.06	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5827	Unknown930	74	W Foothill Blvd	100	Monrovia	4	0.08	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
5828	Unknown930	75		38	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
5829	Unknown930	76	Cloverleaf Dr	180	Monrovia	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
5830	Unknown930	77	Hidden Valley Rd	117	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
5831	Unknown930	78	Cloverleaf Dr	4	Monrovia	4	0.00	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
5834	Unknown930	81	Hidden Valley Rd	63	Monrovia	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5835	Unknown930	82	N Madison Ave	131	Monrovia	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5836	Unknown930	83	S Madison Ave	68	Monrovia	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
5838	Unknown930	85	Valencia Wy	100	Arcadia	4	0.08	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
5839	Unknown930	86	N Alta Vista Ave	33	Monrovia	4	0.02	Minor-Local	60	6	1	9	14	0.81	10	54	HIGH	
5841	Unknown930	88	Garfield Pl	103	Monrovia	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5842	Unknown930	89	N McKinley Pl	174	Monrovia	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5843	Unknown930	90	N Sunset Pl	180	Monrovia	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5844	Unknown930	91	S Sunset Pl	65	Monrovia	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
5845	Unknown930	92	N Madison Ave	5	Monrovia	4	0.00	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5846	Unknown930	93	Valencia Wy	10	Arcadia	4	0.01	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5847	Unknown930	94	Garfield Pl	387	Monrovia	4	0.29	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5848	Unknown930	95	N Madison Ave	117	Monrovia	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5849	Unknown930	96	N McKinley Pl	211	Monrovia	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
5851	Unknown930	98	Cloverleaf Dr	81	Monrovia	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5852	Unknown930	99	N Lincoln Pl	256	Monrovia	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5853	Unknown930	100	N Madison Ave	246	Monrovia	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
5854	Unknown930	101	E Foothill Blvd	0	Monrovia	4	0.00	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
5855	Unknown930	102	N 5th Ave	305	Monrovia	4	0.23	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
5856	Unknown930	103	S 5th Ave	71	Monrovia	4	0.05	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
5858	Unknown930	105		50	Monrovia	4	0.04	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5859	Unknown930	106	N Lincoln Pl	144	Monrovia	4	0.11	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5860	Unknown930	107	Sutter Creek	41	Monrovia	4	0.03	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
5861	Unknown945	1	Old Ranch Rd	315	Bradbury	4	0.24	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5862	Unknown945	2	Palm Hill Ln	16	Bradbury	4	0.01	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5863	Unknown945	3	Sycamore Ln	28	Bradbury	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5864	Unknown945	4	Sawpit Ln	616	Bradbury	4	0.47	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5865	Unknown945	5	E Wildrose Ave	127	Monrovia	4	0.10	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5866	Unknown945	6	Lemon Ave	100	Monrovia	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5868	Unknown945	8		95	Duarte	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5869	Unknown945	9		214	Duarte	4	0.16	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5870	Unknown945	10		253	Duarte	4	0.19	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5871	Unknown945	11		378	Duarte	4	0.29	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5872	Unknown945	12	1st St	408	Duarte	4	0.31	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5873	Unknown945	13	1st St	447	Duarte	4	0.34	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5874	Unknown945	14	2nd St	342	Duarte	4	0.26	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5875	Unknown945	15	3rd St	883	Duarte	4	0.67	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5876	Unknown945	16	Cotter Ave	1079	Duarte	4	0.82	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5877	Unknown945	17	Duncannon Ave	149	Duarte	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5878	Unknown945	18	Eastford Ave	43	Duarte	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5879	Unknown945	19	Portola Dr	248	Duarte	4	0.19	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5880	Unknown945	20		83	Bradbury	4	0.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5881	Unknown945	21		334	Bradbury	4	0.25	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5882	Unknown945	22	Deodar Ln	129	Bradbury	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5883	Unknown945	23	Dovetail Ln	246	Bradbury	4	0.19	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5884	Unknown945	24	Old Ranch Rd	60	Bradbury	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5885	Unknown945	25	Royal Oaks Dr N	632	Bradbury	4	0.48	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5886	Unknown945	26	Sawpit Ln	48	Bradbury	4	0.04	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5887	Unknown945	27		20	Bradbury	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5888	Unknown945	28		173	Bradbury	4	0.13	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5889	Unknown945	29		279	Bradbury	4	0.21	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5890	Unknown945	30		202	Bradbury	4	0.15	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5891	Unknown945	31		13	Bradbury	4	0.01	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5892	Unknown945	32		24	Bradbury	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5893	Unknown945	33		25	Bradbury	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5894	Unknown945	34		101	Bradbury	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5895	Unknown945	35		205	Bradbury	4	0.15	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5896	Unknown945	36		82	Bradbury	4	0.06	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5897	Unknown945	37		117	Bradbury	4	0.09	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5898	Unknown945	38	Barranca Rd	504	Bradbury	4	0.38	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5899	Unknown945	39	Circle Dr	221	Bradbury	4	0.17	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5900	Unknown945	40	Deodar Ln	120	Bradbury	4	0.09	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
5901	Unknown945	41		56	Bradbury	4	0.04	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
5902	Unknown945	42		106	Bradbury	4	0.08	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
5903	Unknown945	43	Sycamore Ln	221	Bradbury	4	0.17	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
5904	Unknown945	44	Bradbury Rd	108	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5905	Unknown945	45	E Wildrose Ave	111	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5906	Unknown945	46	E Winding Oak Ln	151	Monrovia	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5907	Unknown945	47	Terrado Dr	311	Monrovia	4	0.24	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5908	Unknown945	48	S Bradbury Rd	100	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5909	Unknown945	49	Sombrero Rd	220	Monrovia	4	0.17	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
5910	Unknown945	50	Norumbega Dr	179	Monrovia	4	0.14	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
5911	Unknown945	51	Old Ranch Rd	47	Bradbury	4	0.04	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5912	Unknown945	52	Palm Hill Ln	90	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5913	Unknown945	53		21	Monrovia	4	0.02	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5914	Unknown945	54	Deodar Ln	233	Monrovia	4	0.18	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5915	Unknown945	55	E Oak Leaf Ave	78	Monrovia	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5916	Unknown945	56	E Wildrose Ave	169	Monrovia	4	0.13	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5917	Unknown945	57	Lemon Ave	148	Monrovia	4	0.11	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5918	Unknown945	58	Terrado Dr	62	Monrovia	4	0.05	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5919	Unknown945	59	S Circle Oak Dr	45	Monrovia	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5920	Unknown945	60	Wildrose Ave	108	Monrovia	4	0.08	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5922	Unknown945	62	E Huntington Dr	200	Duarte	6	0.23	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
5924	Unknown945	64	Buena Vista St	100	Duarte	4	0.08	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
5926	Unknown945	66		93	Duarte	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5927	Unknown945	67		836	Duarte	4	0.63	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5928	Unknown945	68		264	Duarte	4	0.20	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5929	Unknown945	69		68	Duarte	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5930	Unknown945	70		286	Duarte	4	0.22	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5931	Unknown945	71		134	Duarte	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5932	Unknown945	72		638	Duarte	4	0.48	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5933	Unknown945	73		305	Duarte	4	0.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5934	Unknown945	74	1st St	363	Duarte	4	0.27	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5935	Unknown945	75	1st St	1499	Duarte	4	1.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5936	Unknown945	76	2nd St	986	Duarte	4	0.75	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5937	Unknown945	77	3rd St	888	Duarte	4	0.67	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5938	Unknown945	78	Cabrillo Dr	422	Duarte	4	0.32	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5939	Unknown945	79	Calle Granada	20	Duarte	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5940	Unknown945	80	Calle Mariposa	127	Duarte	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5941	Unknown945	81	Cotter Ave	66	Duarte	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5942	Unknown945	82	Duncannon Ave	165	Duarte	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5943	Unknown945	83	Eastford Ave	274	Duarte	4	0.21	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5944	Unknown945	84	Junipero Dr	811	Duarte	4	0.61	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5945	Unknown945	85	Oak Ave	626	Duarte	4	0.47	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5946	Unknown945	86	Oaks Ave	25	Duarte	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5947	Unknown945	87		10	Bradbury	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
5948	Unknown945	88		61	Bradbury	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5949	Unknown945	89		69	Bradbury	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5950	Unknown945	90		15	Bradbury	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5951	Unknown945	91	Deodar Ln	29	Bradbury	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5952	Unknown945	92	Deodar Ln	373	Bradbury	4	0.28	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5953	Unknown945	93	Dovetail Ln	195	Bradbury	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5954	Unknown945	94	Sawpit Ln	289	Bradbury	4	0.22	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5955	Unknown945	95		128	Bradbury	4	0.10	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5956	Unknown945	96		231	Bradbury	4	0.18	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5957	Unknown945	97		38	Bradbury	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5958	Unknown945	98		99	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5959	Unknown945	99		84	Bradbury	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5960	Unknown945	100		15	Bradbury	4	0.01	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5961	Unknown945	101		85	Bradbury	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5962	Unknown945	102	Barranca Rd	218	Bradbury	4	0.17	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5963	Unknown945	103	Deodar Ln	51	Bradbury	4	0.04	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5964	Unknown945	104	Deodar Ln	86	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5965	Unknown945	105	Dovetail Ln	136	Bradbury	4	0.10	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
5966	Unknown945	106		94	Bradbury	4	0.07	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
5967	Unknown945	107	Sycamore Ln	150	Bradbury	4	0.11	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
5968	Unknown945	108		95	Monrovia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5969	Unknown945	109	E Winding Oak Ln	244	Monrovia	4	0.18	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5970	Unknown945	110	Orange Ave	100	Monrovia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5971	Unknown945	111	Terrado Dr	490	Monrovia	4	0.37	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5972	Unknown945	112	S Circle Oak Dr	101	Monrovia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5973	Unknown945	113	S Woodacre Ln	210	Monrovia	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
5974	Unknown945	114	Norumbega Dr	27	Monrovia	4	0.02	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
5975	Unknown945	115	Palm Hill Ln	61	Bradbury	4	0.05	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5976	Unknown945	116	Sawpit Ln	18	Bradbury	4	0.01	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5977	Unknown945	117	Rose Ln	20	Monrovia	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5978	Unknown945	118		5	Monrovia	4	0.00	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5979	Unknown945	119	Barranca Rd	0	Monrovia	4	0.00	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5980	Unknown945	120	Deodar Ln	33	Monrovia	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5981	Unknown945	121	E Oak Leaf Ave	408	Monrovia	4	0.31	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5982	Unknown945	122	E Wildrose Ave	121	Monrovia	4	0.09	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5983	Unknown945	123	Hacienda Dr	47	Monrovia	4	0.04	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5984	Unknown945	124	Lemon Ave	765	Monrovia	4	0.58	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5985	Unknown945	125	Ranchito Rd	91	Monrovia	4	0.07	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5986	Unknown945	126	S Circle Oak Dr	27	Monrovia	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5987	Unknown945	127	S Park Rose Ave	424	Monrovia	4	0.32	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5988	Unknown945	128	Wildrose Ave	471	Monrovia	4	0.36	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
5992	Unknown945	132	E Huntington Dr	1318	Duarte	6	1.50	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
5995	Unknown945	135		4	Duarte	4	0.00	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
5999	Unknown945	139		4	Duarte	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6000	Unknown945	140		21	Duarte	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6001	Unknown945	141		414	Duarte	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6002	Unknown945	142		26	Duarte	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6003	Unknown945	143		47	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6004	Unknown945	144		33	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6005	Unknown945	145		76	Duarte	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6006	Unknown945	146		129	Duarte	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6007	Unknown945	147		236	Duarte	4	0.18	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6008	Unknown945	148		591	Duarte	4	0.45	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6009	Unknown945	149		401	Duarte	4	0.30	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6010	Unknown945	150		127	Duarte	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6011	Unknown945	151	2nd St	302	Duarte	4	0.23	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6012	Unknown945	152	3rd St	964	Duarte	4	0.73	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6013	Unknown945	153	Bloomdale St	39	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6014	Unknown945	154	Bloomdale St	93	Duarte	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6015	Unknown945	155	Bloomdale St	87	Duarte	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6016	Unknown945	156	Bradbury Ave	223	Duarte	4	0.17	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6017	Unknown945	157	Brycedale Ave	38	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6018	Unknown945	158	Buena Vista St	127	Duarte	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6019	Unknown945	159	Calle Coronado	154	Duarte	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6020	Unknown945	160	Calle Granada	149	Duarte	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6021	Unknown945	161	Calle Mariposa	98	Duarte	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6023	Unknown945	163	Cotter Ave	101	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6024	Unknown945	164	Junipero Dr	47	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6025	Unknown945	165	Maynard Dr	106	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6026	Unknown945	166	Oak Ave	724	Duarte	4	0.55	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6027	Unknown945	167	Parkrose Ave	295	Duarte	4	0.22	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6028	Unknown945	168	Pops Rd	273	Duarte	4	0.21	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6029	Unknown945	169		61	Bradbury	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6030	Unknown945	170		110	Bradbury	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6031	Unknown945	171		28	Bradbury	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6032	Unknown945	172	Deodar Ln	87	Bradbury	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6033	Unknown945	173	Deodar Ln	298	Bradbury	4	0.23	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6034	Unknown945	174	Deodar Ln	220	Bradbury	4	0.17	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6035	Unknown945	175	Dovetail Ln	103	Bradbury	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6036	Unknown945	176	Palm Hill Ln	501	Bradbury	4	0.38	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6037	Unknown945	177	Sawpit Ln	250	Bradbury	4	0.19	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6038	Unknown945	178		35	Bradbury	4	0.03	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6039	Unknown945	179		123	Bradbury	4	0.09	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6040	Unknown945	180		6	Bradbury	4	0.00	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6041	Unknown945	181		59	Bradbury	4	0.05	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6042	Unknown945	182		133	Bradbury	4	0.10	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6043	Unknown945	183		36	Bradbury	4	0.03	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6044	Unknown945	184		84	Bradbury	4	0.06	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6045	Unknown945	185		198	Bradbury	4	0.15	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6046	Unknown945	186		166	Bradbury	4	0.13	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6047	Unknown945	187		31	Bradbury	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6048	Unknown945	188		94	Bradbury	4	0.07	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6049	Unknown945	189	Barranca Rd	365	Bradbury	4	0.28	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6050	Unknown945	190	Deodar Ln	296	Bradbury	4	0.22	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6051	Unknown945	191	Deodar Ln	268	Bradbury	4	0.20	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6052	Unknown945	192	Dovetail Ln	106	Bradbury	4	0.08	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6053	Unknown945	193		6	Bradbury	4	0.00	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
6054	Unknown945	194	Oak Mountain Rd	0	Bradbury	4	0.00	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
6055	Unknown945	195	Sycamore Ln	117	Bradbury	4	0.09	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
6056	Unknown945	196	E Huntington Dr	248	Monrovia	6	0.28	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
6058	Unknown945	198		97	Monrovia	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6059	Unknown945	199		15	Monrovia	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6060	Unknown945	200	Buena Vista St	15	Monrovia	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6061	Unknown945	201	Hacienda Dr	607	Monrovia	4	0.46	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6062	Unknown945	202	La Casita Ln	38	Monrovia	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6063	Unknown945	203	Lemon Ave	30	Monrovia	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6064	Unknown945	204	Orange Ave	587	Monrovia	4	0.44	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6065	Unknown945	205	Ranchito Rd	126	Monrovia	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6066	Unknown945	206	Ranchito Rd	429	Monrovia	4	0.33	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6067	Unknown945	207	S Bradbury Rd	110	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6068	Unknown945	208	S Holly Ave	6	Monrovia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6069	Unknown945	209	S Park Rose Ave	204	Monrovia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6070	Unknown945	210	Norumbega Dr	102	Monrovia	4	0.08	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
6071	Unknown945	211	Old Ranch Rd	38	Bradbury	4	0.03	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6072	Unknown945	212	Rose Ln	98	Monrovia	4	0.07	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6073	Unknown945	213	Wildrose Ave	9	Monrovia	4	0.01	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6076	Unknown945	216	E Huntington Dr	2656	Duarte	6	3.02	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
6082	Unknown945	222		390	Duarte	4	0.30	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6083	Unknown945	223		675	Duarte	4	0.51	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6084	Unknown945	224		695	Duarte	4	0.53	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6085	Unknown945	225		191	Duarte	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6086	Unknown945	226		781	Duarte	4	0.59	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6087	Unknown945	227		69	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6088	Unknown945	228		1216	Duarte	4	0.92	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6089	Unknown945	229		317	Duarte	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6090	Unknown945	230		223	Duarte	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6091	Unknown945	231		1059	Duarte	4	0.80	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6092	Unknown945	232		26	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6093	Unknown945	233		250	Duarte	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6094	Unknown945	234		225	Duarte	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6095	Unknown945	235		48	Duarte	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6096	Unknown945	236		58	Duarte	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6097	Unknown945	237		76	Duarte	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6098	Unknown945	238		66	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6099	Unknown945	239	Bloomdale St	893	Duarte	4	0.68	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6100	Unknown945	240	Bloomdale St	427	Duarte	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6101	Unknown945	241	Bloomdale St	414	Duarte	4	0.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6102	Unknown945	242	Bradbury Ave	399	Duarte	4	0.30	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6103	Unknown945	243	Broadland Ave	274	Duarte	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6104	Unknown945	244	Brycedale Ave	710	Duarte	4	0.54	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6105	Unknown945	245	Business Center Dr	292	Duarte	4	0.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6106	Unknown945	246	Carmel Ct	148	Duarte	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6107	Unknown945	247	Central Ave	178	Duarte	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6111	Unknown945	251	Cotter	116	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6112	Unknown945	252	Cotter Ave	243	Duarte	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6113	Unknown945	253	Cotter Ave	104	Duarte	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6114	Unknown945	254	Denning Ave	35	Duarte	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6115	Unknown945	255	Evergreen St	557	Duarte	4	0.42	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6117	Unknown945	257	Glenford Ave	310	Duarte	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6118	Unknown945	258	Laguna Ct	60	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6119	Unknown945	259	Las Posadas Dr	466	Duarte	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6120	Unknown945	260		181	Monrovia	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6121	Unknown945	261		659	Monrovia	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6122	Unknown945	262		411	Monrovia	4	0.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6123	Unknown945	263		1279	Monrovia	4	0.97	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6124	Unknown945	264		402	Monrovia	4	0.30	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6125	Unknown945	265		444	Monrovia	4	0.34	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6126	Unknown945	266		20	Monrovia	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6127	Unknown945	267		176	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6128	Unknown945	268		82	Monrovia	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6129	Unknown945	269		106	Monrovia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6130	Unknown945	270		4	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6131	Unknown945	271	Maynard Dr	138	Duarte	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6132	Unknown945	272	Maynard Dr	942	Duarte	4	0.71	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6133	Unknown945	273	Maynard Dr	386	Duarte	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6134	Unknown945	274	Montecito	142	Duarte	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6135	Unknown945	275	Monterey Ct	213	Duarte	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6136	Unknown945	276	Town Center Villas	118	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6137	Unknown945	277	Parkrose Ave	221	Duarte	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6138	Unknown945	278	Pony Ranch Rd	502	Duarte	4	0.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6139	Unknown945	279	Pops Rd	407	Duarte	4	0.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6140	Unknown945	280		248	Bradbury	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6141	Unknown945	281		304	Bradbury	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6142	Unknown945	282	Dovetail Ln	126	Bradbury	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6143	Unknown945	283		107	Bradbury	4	0.08	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6144	Unknown945	284		19	Bradbury	4	0.01	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6145	Unknown945	285		306	Bradbury	4	0.23	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6146	Unknown945	286		60	Bradbury	4	0.05	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6147	Unknown945	287		80	Bradbury	4	0.06	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6148	Unknown945	288	Deodar Ln	54	Bradbury	4	0.04	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6149	Unknown945	289	Dovetail Ln	7	Bradbury	4	0.01	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6150	Unknown945	290		115	Bradbury	4	0.09	Minor-Local	60	6	2	8	88	0.62	6	40	MED	
6151	Unknown945	291		68	Bradbury	4	0.05	Minor-Local	60	6	2	8	88	0.62	6	40	MED	
6152	Unknown945	292	Sycamore Ln	103	Bradbury	4	0.08	Minor-Local	60	6	2	8	88	0.62	6	40	MED	
6153	Unknown945	293	E Huntington Dr	1474	Monrovia	6	1.67	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
6155	Unknown945	295		2	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6156	Unknown945	296		28	Monrovia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6157	Unknown945	297		136	Monrovia	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6158	Unknown945	298		319	Monrovia	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6159	Unknown945	299		94	Monrovia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6160	Unknown945	300		1757	Monrovia	4	1.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6161	Unknown945	301		272	Monrovia	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6162	Unknown945	302		109	Monrovia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6163	Unknown945	303		253	Monrovia	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6164	Unknown945	304		136	Monrovia	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6165	Unknown945	305	Bradbury Rd	147	Monrovia	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6166	Unknown945	306	Bradbury Rd	1083	Monrovia	4	0.82	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6167	Unknown945	307	Bradoaks Ave	236	Monrovia	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6168	Unknown945	308	Carmelita Cir	178	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6169	Unknown945	309	E Berry Ave	322	Monrovia	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6170	Unknown945	310	E Lemon Ave	1442	Monrovia	4	1.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6171	Unknown945	311	Hacienda Dr	324	Monrovia	4	0.25	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6172	Unknown945	312	La Casita Ln	485	Monrovia	4	0.37	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6173	Unknown945	313	Lemon Ave	90	Monrovia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6174	Unknown945	314	Maurice St	349	Monrovia	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6175	Unknown945	315	Orange Ave	1155	Monrovia	4	0.87	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6176	Unknown945	316	Orange Ave	720	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6177	Unknown945	317	Teresita Cir	165	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6178	Unknown945	318	Terrado Dr	124	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6179	Unknown945	319	Parkrose Ave	1505	Monrovia	4	1.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6180	Unknown945	320	Ranchito Rd	14	Monrovia	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6181	Unknown945	321	S Bradbury Rd	433	Monrovia	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6182	Unknown945	322	S Holly Ave	162	Monrovia	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6183	Unknown945	323	S Park Rose Ave	474	Monrovia	4	0.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6184	Unknown945	324	S Park Rose Ave	99	Monrovia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6185	Unknown945	325	Sesmas St	415	Monrovia	4	0.31	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6186	Unknown945	326	Sierra Ter	808	Monrovia	4	0.61	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6187	Unknown945	327		7	Monrovia	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6188	Unknown945	328	Hacienda Dr	200	Monrovia	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6189	Unknown945	329	Orange Ave	100	Monrovia	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6190	Unknown945	330	Terrado Dr	100	Monrovia	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6191	Unknown945	331	Ranchito Rd	202	Monrovia	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6192	Unknown945	332	Old Ranch Rd	108	Bradbury	4	0.08	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6193	Unknown945	333	Rose Ln	107	Monrovia	4	0.08	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6194	Unknown945	334		161	Monrovia	4	0.12	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6195	Unknown945	335	Deodar Ln	67	Monrovia	4	0.05	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6197	Unknown945	337		46	Duarte	4	0.03	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
6198	Unknown945	338		24	Duarte	4	0.02	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
6199	Unknown945	339		84	Duarte	4	0.06	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
6203	Unknown945	343		202	Duarte	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6204	Unknown945	344		279	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6205	Unknown945	345		480	Duarte	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6206	Unknown945	346		357	Duarte	4	0.27	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6207	Unknown945	347		1060	Duarte	4	0.80	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6208	Unknown945	348		303	Duarte	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6209	Unknown945	349		562	Duarte	4	0.43	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6210	Unknown945	350		287	Duarte	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6211	Unknown945	351		437	Duarte	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6212	Unknown945	352		377	Duarte	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6213	Unknown945	353		255	Duarte	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6214	Unknown945	354		99	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6215	Unknown945	355		858	Duarte	4	0.65	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6216	Unknown945	356		431	Duarte	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6217	Unknown945	357		283	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6218	Unknown945	358		702	Duarte	4	0.53	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6219	Unknown945	359		241	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6220	Unknown945	360		58	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6221	Unknown945	361		278	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6222	Unknown945	362		491	Duarte	4	0.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6223	Unknown945	363		480	Duarte	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6224	Unknown945	364		93	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6225	Unknown945	365		314	Duarte	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6226	Unknown945	366		9	Duarte	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6227	Unknown945	367		251	Duarte	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6228	Unknown945	368		91	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6229	Unknown945	369		282	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6230	Unknown945	370		9	Duarte	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6231	Unknown945	371		61	Duarte	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6232	Unknown945	372	Asti St	227	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6233	Unknown945	373	Brightside Ave	595	Duarte	4	0.45	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6234	Unknown945	374	Brycedale Ave	686	Duarte	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6235	Unknown945	375	Business Center Dr	625	Duarte	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6236	Unknown945	376	Business Center Dr	904	Duarte	4	0.68	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6238	Unknown945	378	Chandler Ln	222	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6239	Unknown945	379	Cinco Robles Dr	1154	Duarte	4	0.87	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6240	Unknown945	380	Cinco Robles Dr	653	Duarte	4	0.49	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6241	Unknown945	381	Citrus Ln	322	Duarte	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6242	Unknown945	382	Cotter Ave	447	Duarte	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6243	Unknown945	383	Date St	619	Duarte	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6244	Unknown945	384	Denning Ave	268	Duarte	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6245	Unknown945	385	Duncannon Ave	528	Duarte	4	0.40	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6246	Unknown945	386	Eastford Ave	412	Duarte	4	0.31	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6247	Unknown945	387	Evergreen St	2185	Duarte	4	1.66	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6248	Unknown945	388	Evergreen St	35	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6249	Unknown945	389	Fairdale Ave	69	Duarte	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6250	Unknown945	390	Galen St	434	Duarte	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6251	Unknown945	391	Kellwil Wy	39	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6252	Unknown945	392	Mandarin Ln	221	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6253	Unknown945	393	Marand St	219	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6254	Unknown945	394	Meadow Ln	155	Duarte	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6255	Unknown945	395	Noyon St	208	Duarte	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6256	Unknown945	396	Orange Grove Rd	643	Duarte	4	0.49	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6257	Unknown945	397	Three Ranch Rd	2134	Duarte	4	1.62	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6258	Unknown945	398	Pengra St	221	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6259	Unknown945	399	Sandefur St	236	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6260	Unknown945	400	Santo Domingo Ave	91	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6261	Unknown945	401	Starhaven St	448	Duarte	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6262	Unknown945	402	Valencia Ln	222	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6263	Unknown945	403		46	Bradbury	4	0.03	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6264	Unknown945	404		71	Bradbury	4	0.05	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6265	Unknown945	405	Deodar Ln	26	Bradbury	4	0.02	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6266	Unknown945	406	Deodar Ln	36	Bradbury	4	0.03	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
6267	Unknown945	407	Sycamore Ln	59	Bradbury	4	0.04	Minor-Local	60	6	1	9	88	0.62	6	42	MED	
6269	Unknown945	409	Old Ranch Rd	625	Bradbury	4	0.47	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6271	Unknown945	411		330	Duarte	4	0.25	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6272	Unknown945	412		228	Duarte	4	0.17	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6273	Unknown945	413		148	Duarte	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6274	Unknown945	414	Business Center Dr	146	Duarte	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6276	Unknown945	416	Cotter Ave	133	Duarte	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6277	Unknown945	417	Duncannon Ave	253	Duarte	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6278	Unknown945	418	E Circle Rd	23	Duarte	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6279	Unknown945	419	Eastford Ave	367	Duarte	4	0.28	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6280	Unknown945	420	Evergreen St	893	Duarte	4	0.68	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6281	Unknown945	421	Fairdale Ave	408	Duarte	4	0.31	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6282	Unknown945	422	Meadow Ln	50	Duarte	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6283	Unknown945	423		63	Bradbury	4	0.05	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6284	Unknown945	424		195	Bradbury	4	0.15	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6285	Unknown945	425		87	Bradbury	4	0.07	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6286	Unknown945	426		328	Bradbury	4	0.25	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6287	Unknown945	427		85	Bradbury	4	0.06	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6288	Unknown945	428		59	Bradbury	4	0.04	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6289	Unknown945	429		99	Bradbury	4	0.07	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6290	Unknown945	430		314	Bradbury	4	0.24	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6291	Unknown945	431	Deodar Ln	376	Bradbury	4	0.28	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6292	Unknown945	432		137	Bradbury	4	0.10	Minor-Local	60	6	0	10	88	0.62	6	44	MED	
6293	Unknown945	433	Terrado Dr	100	Monrovia	4	0.08	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6294	Unknown945	434	Ranchito Rd	100	Monrovia	4	0.08	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6295	Unknown947	1	N Santa Anita Ave	84	Arcadia	4	0.06	Secondary-Collector	64	8	5	2	6	0.33	3	21	LOW	
6296	Unknown947	2	Perkins Dr	100	Arcadia	4	0.08	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
6297	Unknown947	3	N Santa Anita Ave	144	Arcadia	4	0.11	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	
6298	Unknown947	4	Perkins Dr	389	Arcadia	4	0.29	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6299	Unknown947	5	Marendale Ln	26	Arcadia	4	0.02	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
6300	Unknown947	6	N Santa Anita Ave	613	Arcadia	4	0.46	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
6301	Unknown947	7	Perkins Dr	613	Arcadia	4	0.46	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6302	Unknown947	8	Virginia Rd	232	Arcadia	4	0.18	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6303	Unknown947	9	N Santa Anita Ave	343	Arcadia	4	0.26	Secondary-Collector	64	8	3	6	13	0.45	4	32	MED	
6304	Unknown947	10	E Yorkshire Dr	210	Arcadia	4	0.16	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6305	Unknown947	11	Marendale Ln	266	Arcadia	4	0.20	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6306	Unknown947	12	N Santa Anita Ave	131	Arcadia	4	0.10	Secondary-Collector	64	8	2	8	13	0.45	4	36	MED	
6307	Unknown947	13	Marendale Ln	265	Arcadia	4	0.20	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6308	Unknown947	14	Ontare Rd	365	Arcadia	4	0.28	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
6309	Unknown947	15	N Santa Anita Ave	176	Arcadia	4	0.13	Secondary-Collector	64	8	1	9	13	0.45	4	38	MED	
6310	Unknown949	1	Rancho Rd	938	Sierra Madre	4	0.71	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6311	Unknown949	2	S Canon Ave	264	Sierra Madre	4	0.20	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6312	Unknown949	3	S Mountain Trail Ave	474	Sierra Madre	4	0.36	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6313	Unknown949	4	S Mountain Trl	474	Sierra Madre	4	0.36	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6314	Unknown949	5	San Carlos Rd	0	Sierra Madre	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6315	Unknown949	6	San Gabriel Ct	102	Sierra Madre	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6316	Unknown949	7	San Gabriel Ct	639	Sierra Madre	4	0.48	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6317	Unknown949	8	San Gabriel Ct	124	Sierra Madre	4	0.09	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6318	Unknown949	9	Santa Anita Ct	127	Sierra Madre	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6319	Unknown949	10	Santa Anita Ct	50	Sierra Madre	4	0.04	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6320	Unknown949	11	Sierra Pl	197	Sierra Madre	4	0.15	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6321	Unknown949	12	Suffolk Ave	691	Sierra Madre	4	0.52	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6322	Unknown949	13	W Orange Grove Ave	776	Sierra Madre	4	0.59	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6323	Unknown949	14	Windwood Ln	620	Sierra Madre	4	0.47	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6324	Unknown949	15	E Orange Grove Ave	169	Arcadia	4	0.13	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6325	Unknown949	16	San Carlos Rd	94	Arcadia	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6326	Unknown949	17	W Orange Grove Ave	169	Arcadia	4	0.13	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6327	Unknown949	18	Windwood Ln	0	Arcadia	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6328	Unknown949	19	E Sierra Madre Blvd	325	Sierra Madre	4	0.25	Secondary-Collector	64	8	5	2	13	0.45	4	24	LOW	
6329	Unknown949	20	Coburn Ave	177	Sierra Madre	4	0.13	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6330	Unknown949	21	Colony Dr	325	Sierra Madre	4	0.25	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6331	Unknown949	22	Holdman Ave	260	Sierra Madre	4	0.20	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6332	Unknown949	23	Rancho Rd	199	Sierra Madre	4	0.15	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6333	Unknown949	24	San Gabriel Ct	32	Sierra Madre	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6334	Unknown949	25	Santa Anita Ct	1026	Sierra Madre	4	0.78	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6335	Unknown949	26		187	Sierra Madre	4	0.14	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6336	Unknown949	27		69	Sierra Madre	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6337	Unknown949	28		149	Sierra Madre	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6338	Unknown949	29		81	Sierra Madre	4	0.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6339	Unknown949	30	Canon Pl	84	Sierra Madre	4	0.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6340	Unknown949	31	Colony Dr	41	Sierra Madre	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6341	Unknown949	32	E Bonita Ave	138	Sierra Madre	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6342	Unknown949	33	E Bonita Ave	226	Sierra Madre	4	0.17	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6343	Unknown949	34	E Montecito Ave	288	Sierra Madre	4	0.22	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6344	Unknown949	35	E Orange Grove Ave	776	Sierra Madre	4	0.59	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6345	Unknown949	36	Fane St	147	Sierra Madre	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6346	Unknown949	37	Holdman Ave	65	Sierra Madre	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6347	Unknown949	38	Lowell Ave	784	Sierra Madre	4	0.59	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6348	Unknown949	39	Monte Vista Ln	468	Sierra Madre	4	0.35	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6349	Unknown949	40	Rancho Rd	91	Sierra Madre	4	0.07	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
6350	Unknown949	41	E Sierra Madre Blvd	552	Sierra Madre	4	0.42	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
6351	Unknown949	42	N Canon Ave	44	Sierra Madre	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6352	Unknown949	43	N Mountain Trail Ave	454	Sierra Madre	4	0.34	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6353	Unknown949	44	N Mountain Trl	454	Sierra Madre	4	0.34	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6354	Unknown949	45	Oak Meadow Rd	4	Sierra Madre	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6355	Unknown949	46	Orlando Dr	1	Sierra Madre	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6356	Unknown949	47	Rancho Rd	307	Sierra Madre	4	0.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6357	Unknown949	48	S Canon Ave	516	Sierra Madre	4	0.39	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6358	Unknown949	49	S Mountain Trail Ave	344	Sierra Madre	4	0.26	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6359	Unknown949	50	S Mountain Trl	344	Sierra Madre	4	0.26	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6360	Unknown949	51	San Gabriel Ct	321	Sierra Madre	4	0.24	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6361	Unknown949	52	W Orange Grove Ave	433	Sierra Madre	4	0.33	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6362	Unknown949	53	Caballero Rd	14	Arcadia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6364	Unknown949	55	Oak Meadow Rd	97	Arcadia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6365	Unknown949	56	Orlando Dr	93	Arcadia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6366	Unknown949	57	Rancho Rd	102	Arcadia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6367	Unknown949	58	S Canon Ave	0	Arcadia	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6369	Unknown949	60	Colony Dr	74	Sierra Madre	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
6370	Unknown949	61	Holdman Ave	261	Sierra Madre	4	0.20	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
6371	Unknown949	62	Sycamore Pl	56	Sierra Madre	4	0.04	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
6372	Unknown949	63	San Gabriel Ct	140	Sierra Madre	4	0.11	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
6373	Unknown949	64	San Gabriel Ct	23	Sierra Madre	4	0.02	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
6374	Unknown949	65	Caballero Rd	1	Sierra Madre	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6375	Unknown949	66	Colony Dr	265	Sierra Madre	4	0.20	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6376	Unknown949	67	E Bonita Ave	126	Sierra Madre	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6377	Unknown949	68	E Orange Grove Ave	433	Sierra Madre	4	0.33	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6378	Unknown949	69	Fane St	173	Sierra Madre	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6379	Unknown949	70	Holdman Ave	205	Sierra Madre	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6380	Unknown949	71	Monte Vista Ln	122	Sierra Madre	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6381	Unknown949	72	Oak Meadow Rd	789	Sierra Madre	4	0.60	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6383	Unknown949	74	Caballero Rd	84	Arcadia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6387	Unknown949	78	Monte Vista Ln	63	Sierra Madre	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6388	Unknown957	1	Norumbega Dr	236	Monrovia	4	0.18	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
6389	Unknown957	2	Laurel Ln	99	Monrovia	4	0.07	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
6390	Unknown957	3	Aspen Dr	203	Monrovia	4	0.15	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6391	Unknown957	4	Crestview Pl	136	Monrovia	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6392	Unknown957	5	E Greystone Ave	86	Monrovia	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6393	Unknown957	6	E Greystone Ave	442	Monrovia	4	0.33	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6394	Unknown957	7	Grand Ave	131	Monrovia	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6395	Unknown957	8	Granite Ave	86	Monrovia	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6396	Unknown957	9	N Canyon Blvd	103	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6397	Unknown957	10	N Encinitas Ave	218	Monrovia	4	0.17	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6398	Unknown957	11	N Ivy Ave	622	Monrovia	4	0.47	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6399	Unknown957	12	N May Ave	398	Monrovia	4	0.30	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6400	Unknown957	13	Valle Vista Ave	686	Monrovia	4	0.52	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6401	Unknown957	14	E Foothill Blvd	5	Monrovia	4	0.00	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
6402	Unknown957	15		125	Monrovia	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6403	Unknown957	16		7	Monrovia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6404	Unknown957	17		14	Monrovia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6405	Unknown957	18	Aspen Dr	96	Monrovia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6406	Unknown957	19	Cedar Ave	32	Monrovia	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6407	Unknown957	20	E Greystone Ave	232	Monrovia	4	0.18	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6408	Unknown957	21	E Prospect Ave	96	Monrovia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6409	Unknown957	22	Grand Ave	214	Monrovia	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6410	Unknown957	23	Grand Ave	48	Monrovia	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6411	Unknown957	24	May Ave	88	Monrovia	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6412	Unknown957	25	N Canyon Blvd	1055	Monrovia	4	0.80	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6413	Unknown957	26	N Encinitas Ave	11	Monrovia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6414	Unknown957	27	N Grand Ave	56	Monrovia	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6415	Unknown957	28	N Ivy Ave	1308	Monrovia	4	0.99	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6416	Unknown957	29	N May Ave	1427	Monrovia	4	1.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6417	Unknown957	30	N Shamrock Ave	29	Monrovia	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6418	Unknown957	31	Norumbega Dr	714	Monrovia	4	0.54	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6419	Unknown957	32	Poinsettia Ave	325	Monrovia	4	0.25	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6420	Unknown957	33	Poinsettia Ave	309	Monrovia	4	0.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6421	Unknown957	34	Valle Vista Ave	320	Monrovia	4	0.24	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6422	Unknown957	35	Norumbega Dr	415	Monrovia	4	0.31	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
6427	Unknown957	40		891	Monrovia	4	0.68	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6428	Unknown957	41		657	Monrovia	4	0.50	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6429	Unknown957	42		634	Monrovia	4	0.48	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6430	Unknown957	43		839	Monrovia	4	0.64	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6431	Unknown957	44		659	Monrovia	4	0.50	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6432	Unknown957	45		507	Monrovia	4	0.38	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6433	Unknown957	46		516	Monrovia	4	0.39	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6434	Unknown957	47		743	Monrovia	4	0.56	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6435	Unknown957	48		218	Monrovia	4	0.17	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6436	Unknown957	49		182	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6437	Unknown957	50		190	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6438	Unknown957	51		112	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6439	Unknown957	52		30	Monrovia	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6440	Unknown957	53		107	Monrovia	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6441	Unknown957	54		50	Monrovia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6442	Unknown957	55		141	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6443	Unknown957	56		57	Monrovia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6444	Unknown957	57		65	Monrovia	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6445	Unknown957	58		123	Monrovia	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6446	Unknown957	59		212	Monrovia	4	0.16	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6447	Unknown957	60		186	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6448	Unknown957	61		155	Monrovia	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6449	Unknown957	62		169	Monrovia	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6450	Unknown957	63		3	Monrovia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6451	Unknown957	64		21	Monrovia	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6452	Unknown957	65	White Oak Aly	105	Monrovia	1	0.02	Alley	20	4	3	6	7	0.66	7	37	MED	
6453	Unknown957	66	Crestview Pl	65	Monrovia	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6454	Unknown957	67	E Lemon Ave	1818	Monrovia	4	1.38	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6455	Unknown957	68	E Lime Ave	2261	Monrovia	4	1.71	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6456	Unknown957	69	E Palm Ave	1137	Monrovia	4	0.86	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6457	Unknown957	70	E Palm Ave	500	Monrovia	4	0.38	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6458	Unknown957	71	E Wildrose Ave	1378	Monrovia	4	1.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6459	Unknown957	72	Gladys Ave	50	Monrovia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6460	Unknown957	73	Grand Ave	1230	Monrovia	4	0.93	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6461	Unknown957	74	Jasmine Ave	815	Monrovia	4	0.62	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6462	Unknown957	75	May Ave	22	Monrovia	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6463	Unknown957	76	N Canyon Blvd	739	Monrovia	4	0.56	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6464	Unknown957	77	N Heliotrope Ave	180	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6465	Unknown957	78	N Ivy Ave	178	Monrovia	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6466	Unknown957	79	N Norumbega Dr	147	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6467	Unknown957	80	Norumbega Dr	410	Monrovia	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6468	Unknown957	81	Pearl Ave	46	Monrovia	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6469	Unknown957	82	Poinsettia Ave	810	Monrovia	4	0.61	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6470	Unknown957	83	Poinsettia Ave	836	Monrovia	4	0.63	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6472	Unknown957	85	S Encinitas Ave	767	Monrovia	4	0.58	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6473	Unknown957	86	S Heliotrope Ave	1081	Monrovia	4	0.82	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6475	Unknown957	88	S Jasmine Ave	201	Monrovia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6476	Unknown957	89	Sierra Vista Ave	470	Monrovia	4	0.36	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6477	Unknown957	90	Valle Vista Ave	738	Monrovia	4	0.56	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6478	Unknown957	91	Shadow Ln	12	Monrovia	4	0.01	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
6479	Unknown957	92	Shady Oaks Dr	79	Monrovia	4	0.06	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
6480	Unknown957	93		59	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6481	Unknown957	94		174	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6482	Unknown957	95		166	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6483	Unknown957	96		729	Monrovia	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6484	Unknown957	97		227	Monrovia	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6486	Unknown957	99	S Myrtle Ave	60	Monrovia	6	0.07	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
6494	Unknown957	107		102	Monrovia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6495	Unknown957	108		461	Monrovia	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6496	Unknown957	109		106	Monrovia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6497	Unknown957	110		245	Monrovia	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6498	Unknown957	111		136	Monrovia	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6499	Unknown957	112		59	Monrovia	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6500	Unknown957	113		24	Monrovia	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6501	Unknown957	114		624	Monrovia	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6502	Unknown957	115	Date Ct	52	Monrovia	1	0.01	Alley	20	4	2	8	7	0.66	7	41	MED	
6504	Unknown957	117	Crestview Pl	103	Monrovia	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6505	Unknown957	118	E Lemon Ave	854	Monrovia	4	0.65	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6506	Unknown957	119	E Lime Ave	417	Monrovia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6507	Unknown957	120	E Palm Ave	42	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6508	Unknown957	121	E Pearl Ave	298	Monrovia	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6509	Unknown957	122	Gladys Ave	6	Monrovia	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6510	Unknown957	123	Grand Ave	121	Monrovia	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6511	Unknown957	124	Jasmine Ave	216	Monrovia	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6512	Unknown957	125	N Heliotrope Ave	429	Monrovia	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6513	Unknown957	126	N Norumbega Dr	535	Monrovia	4	0.41	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6514	Unknown957	127	Norumbega Dr	485	Monrovia	4	0.37	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6515	Unknown957	128	Pearl Ave	164	Monrovia	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6517	Unknown957	130	S Heliotrope Ave	515	Monrovia	4	0.39	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6519	Unknown957	132	S Primrose Ave	62	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6520	Unknown957	133	Shady Oaks Dr	65	Monrovia	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6521	Unknown957	134	Sierra Vista Ave	196	Monrovia	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6522	Unknown957	135	W Lemon Ave	98	Monrovia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6523	Unknown957	136	W Lime Ave	92	Monrovia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6524	Unknown957	137	Shady Oaks Dr	69	Monrovia	4	0.05	Minor-Local	60	6	1	9	88	0.62	6	42	MED	
6525	Unknown957	138	Shady Oaks Dr	92	Monrovia	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6526	Unknown957	139	Crestview Pl	101	Monrovia	4	0.08	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6528	Unknown965	2	N Alta Vista Ave	808	Monrovia	4	0.61	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6529	Unknown965	3	N Magnolia Ave	100	Monrovia	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6530	Unknown965	4	N Stedman Pl	454	Monrovia	4	0.34	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6531	Unknown965	5	Acacia Ave	12	Monrovia	4	0.01	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6533	Unknown965	7		34	Monrovia	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6534	Unknown965	8		597	Monrovia	4	0.45	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6535	Unknown965	9	Acacia Ave	489	Monrovia	4	0.37	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6536	Unknown965	10	Concord Ave	34	Monrovia	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6537	Unknown965	11	Melrose Ave	1928	Monrovia	4	1.46	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6538	Unknown965	12	Melrose Ave	540	Monrovia	4	0.41	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6539	Unknown965	13	Monroe Pl	596	Monrovia	4	0.45	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6540	Unknown965	14	N Alta Vista Ave	1783	Monrovia	4	1.35	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6541	Unknown965	15	N Magnolia Ave	1538	Monrovia	4	1.17	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6542	Unknown965	16	N Primrose Ave	108	Monrovia	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6543	Unknown965	17	Oaks Ave	598	Monrovia	4	0.45	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6544	Unknown965	18	Patterson Dr	506	Monrovia	4	0.38	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6545	Unknown965	19	W Greystone Ave	227	Monrovia	4	0.17	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6546	Unknown965	20	W Scenic Dr	13	Monrovia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6547	Unknown965	21	W Foothill Blvd	413	Monrovia	4	0.31	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
6548	Unknown965	22		218	Monrovia	4	0.17	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6549	Unknown965	23		836	Monrovia	4	0.63	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6550	Unknown965	24		3	Monrovia	4	0.00	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6551	Unknown965	25		153	Monrovia	4	0.12	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6552	Unknown965	26	Acacia Ave	97	Monrovia	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6553	Unknown965	27	Linwood Ave	697	Monrovia	4	0.53	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6554	Unknown965	28	S Alta Vista Ave	848	Monrovia	4	0.64	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6555	Unknown965	29	S Magnolia Ave	44	Monrovia	4	0.03	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6556	Unknown965	30	S Magnolia Ave	261	Monrovia	4	0.20	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6557	Unknown965	31	W Palm Ave	596	Monrovia	4	0.45	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6560	Unknown965	34		76	Monrovia	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6561	Unknown965	35		543	Monrovia	4	0.41	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6562	Unknown965	36	Acacia Ave	751	Monrovia	4	0.57	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6563	Unknown965	37	Melrose Ave	302	Monrovia	4	0.23	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6564	Unknown965	38	N Alta Vista Ave	156	Monrovia	4	0.12	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6565	Unknown965	39	N Magnolia Ave	1200	Monrovia	4	0.91	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6566	Unknown965	40	N Primrose Ave	139	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6567	Unknown965	41	S Alta Vista Ave	287	Monrovia	4	0.22	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6568	Unknown965	42	S Magnolia Ave	141	Monrovia	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6569	Unknown965	43	W Greystone Ave	200	Monrovia	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6570	Unknown965	44	W Lime Ave	301	Monrovia	4	0.23	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6571	Unknown965	45		198	Monrovia	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6572	Unknown965	46		859	Monrovia	4	0.65	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6573	Unknown965	47		437	Monrovia	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6574	Unknown965	48		175	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6575	Unknown965	49		831	Monrovia	4	0.63	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6576	Unknown965	50		244	Monrovia	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6577	Unknown965	51	S Mayflower Ave	44	Monrovia	4	0.03	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
6578	Unknown965	52		170	Monrovia	4	0.13	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6579	Unknown965	53		217	Monrovia	4	0.16	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6580	Unknown965	54		25	Monrovia	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	

Table S-1 Potential Green Streets Worksheet: LAR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6581	Unknown965	55	Linwood Ave	566	Monrovia	4	0.43	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6582	Unknown965	56	S Alta Vista Ave	70	Monrovia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6583	Unknown965	57	S Magnolia Ave	347	Monrovia	4	0.26	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6584	Unknown965	58	W Lemon Ave	9	Monrovia	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6585	Unknown965	59	W Lemon Ave	282	Monrovia	4	0.21	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6586	Unknown965	60	W Lime Ave	64	Monrovia	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6587	Unknown965	61	W Palm Ave	138	Monrovia	4	0.10	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6589	Unknown965	63	Linwood Ave	34	Monrovia	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6590	Unknown965	64	Melrose Ave	92	Monrovia	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6591	Unknown965	65	N Magnolia Ave	200	Monrovia	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6592	Unknown965	66	S Alta Vista Ave	349	Monrovia	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6593	Unknown965	67	S Magnolia Ave	816	Monrovia	4	0.62	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6594	Unknown965	68	W Greystone Ave	170	Monrovia	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6595	Unknown965	69	W Lemon Ave	1469	Monrovia	4	1.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6596	Unknown965	70	W Lime Ave	932	Monrovia	4	0.71	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6597	Unknown965	71	W Palm Ave	562	Monrovia	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6598	Unknown965	72	S Alta Vista Ave	95	Monrovia	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6599	Unknown965	73	W Lemon Ave	153	Monrovia	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6600	Unknown973	1	Olivera Ln	133	Sierra Madre	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
6601	Unknown973	2	Monterey Ln	60	Sierra Madre	4	0.05	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
6602	Unknown973	3	Monterey Pl	24	Sierra Madre	4	0.02	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
6603	Unknown973	4	Olivera Ln	67	Sierra Madre	4	0.05	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
6604	Unknown973	5	Monterey Pl	1	Arcadia	4	0.00	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6605	Unknown973	6	Old Oak Ln	429	Arcadia	4	0.32	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6606	Unknown973	7	Rodeo Rd	69	Arcadia	4	0.05	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6607	Unknown973	8	E Orange Grove Ave	12	Arcadia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6608	Unknown973	9	W Orange Grove Ave	12	Arcadia	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6609	Unknown973	10	Old Oak Ln	1	Arcadia	4	0.00	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
6610	Unknown973	11	Rodeo Rd	612	Arcadia	4	0.46	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
6611	Unknown973	12	Monterey Ln	558	Sierra Madre	4	0.42	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6612	Unknown973	13	Monterey Pl	176	Sierra Madre	4	0.13	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6613	Unknown973	14	Monterey Pl	129	Sierra Madre	4	0.10	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6614	Unknown973	15	Monterey Pl	156	Sierra Madre	4	0.12	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
6615	Unknown973	16	Hyland Ave	245	Arcadia	4	0.19	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6616	Unknown973	17	Old Oak Ln	67	Arcadia	4	0.05	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6617	Unknown973	18	Rodeo Rd	721	Arcadia	4	0.55	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6618	Unknown973	19	W Orange Grove Ave	38	Arcadia	4	0.03	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6619	Unknown973	20	Olivera Ln	459	Sierra Madre	4	0.35	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6621	Unknown973	22	Hyland Ave	114	Arcadia	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6622	Unknown973	23	Olivera Ln	3	Arcadia	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6623	Unknown973	24	Rodeo Rd	362	Arcadia	4	0.27	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6625	Unknown973	26	Hyland Ave	570	Arcadia	4	0.43	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
6626	Unknown973	27	Rodeo Rd	60	Arcadia	4	0.05	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
6627	Unknown973	28	Monterey Ln	89	Sierra Madre	4	0.07	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6628	Unknown973	29	Olivera Ln	176	Sierra Madre	4	0.13	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
6629	Unknown973	30	Hyland Ave	133	Arcadia	4	0.10	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6630	Unknown973	31	W Orange Grove Ave	40	Arcadia	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
6633	Unknown973	34	Hyland Ave	107	Arcadia	4	0.08	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	

Table S-1 Potential Green Streets Worksheet: LAR Watershed																		
Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
6635	Unknown973	36	Olivera Ln	44	Sierra Madre	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
387	BDALT8	12	E Gladstone St	353	County	4	0.27	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
403	BDALT8	28	N Citrus Ave	828	County	6	0.94	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
404	BDALT8	29	S Citrus Ave	828	County	6	0.94	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
405	BDALT8	30	E Gladstone St	796	County	4	0.60	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
426	BDALT8	51	N Citrus Ave	313	Azusa	6	0.36	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
427	BDALT8	52	S Citrus Ave	313	Azusa	6	0.36	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
428	BDALT8	53	E Gladstone St	108	Azusa	4	0.08	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
429	BDALT8	54	N Cerritos Ave	124	Azusa	4	0.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
430	BDALT8	55	N Cerritos Ave	207	Azusa	4	0.16	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
431	BDALT8	56	S Cerritos Ave	147	Azusa	4	0.11	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
432	BDALT8	57	S Cerritos Ave	23	Azusa	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
437	BDALT8	62	N Cerritos Ave	80	Azusa	4	0.06	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
458	BDALT8	83	E Gladstone St	102	County	4	0.08	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	G
468	BDALT9	5		713	County	6	0.81	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
469	BDALT9	6	Arrow Hwy	1101	County	6	1.25	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
470	BDALT9	7	E Arrow Hwy	735	County	6	0.83	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
471	BDALT9	8	W Arrow Hwy	735	County	6	0.83	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
472	BDALT9	9	E Gladstone St	866	County	4	0.66	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
508	BDALT9	45	N Azusa Ave	44	County	6	0.05	Highway	100	10	0	10	6	0.33	3	39	MED	G
510	BDALT9	47	State Route 39	44	County	6	0.05	Highway	100	10	0	10	6	0.33	3	39	MED	G
511	BDALT9	48	Arrow Hwy	201	County	6	0.23	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
512	BDALT9	49	E Arrow Hwy	381	County	6	0.43	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
513	BDALT9	50	S Azusa Ave	321	County	6	0.36	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
515	BDALT9	52	State Route 39	321	County	6	0.36	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
517	BDALT9	54	W Arrow Hwy	459	County	6	0.52	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
520	BDALT9	57	E Arrow Hwy	293	County	6	0.33	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
521	BDALT9	58	W Arrow Hwy	293	County	6	0.33	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
524	BDALT9	61	E Arrow Hwy	733	Azusa	6	0.83	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
526	BDALT9	63	S Azusa Ave	1472	Azusa	6	1.67	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
528	BDALT9	65	State Route 39	1472	Azusa	6	1.67	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
530	BDALT9	67	W Arrow Hwy	542	Azusa	6	0.62	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
531	BDALT9	68	E Gladstone St	1387	Azusa	4	1.05	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
560	BDALT9	97	W Arrow Hwy	733	Azusa	6	0.83	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
572	BDALT9	109	S Azusa Ave	935	Azusa	6	1.06	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
574	BDALT9	111	State Route 39	935	Azusa	6	1.06	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
576	BDALT9	113	W Arrow Hwy	55	Azusa	6	0.06	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
577	BDALT9	114	E Gladstone St	216	Azusa	4	0.16	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
858	BI1119-2	2		73	County	4	0.06	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
859	BI1119-2	3	W Gladstone St	56	County	4	0.04	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
860	BI1119-2	4	W Gladstone St	69	County	4	0.05	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
864	BI1119-2	8	W Gladstone St	23	County	4	0.02	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
865	BI1119-2	9	E Gladstone St	163	County	4	0.12	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
866	BI1119-2	10	W Gladstone St	163	County	4	0.12	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
872	BI1119-2	16	W Gladstone St	707	Azusa	4	0.54	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
884	BI1119-2	28	W Gladstone St	423	Azusa	4	0.32	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
964	BI1219C	4	S Citrus Ave	2293	County	6	2.61	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
977	BI1219C	17	N Citrus Ave	176	County	6	0.20	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
978	BI1219C	18	S Citrus Ave	176	County	6	0.20	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3						
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
979	BI1219C	19	E Gladstone St	32	County	4	0.02	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
985	BI1219C	25	S Citrus Ave	671	Azusa	6	0.76	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
986	BI1219C	26	E Gladstone St	830	Azusa	4	0.63	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
989	BI1219C	29	E Armstead St	1670	Azusa	4	1.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
999	BI1219C	39	E Gladstone St	1006	Azusa	4	0.76	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
1009	BI1219E	2	N Rockvale Ave	2353	County	4	1.78	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
1017	BI1219E	10	E Gladstone St	2035	County	4	1.54	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1047	BI1219E	40	E Gladstone St	57	Azusa	4	0.04	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1049	BI1219E	42	N Cerritos Ave	1442	Azusa	4	1.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1050	BI1219E	43	N Cerritos Ave	342	Azusa	4	0.26	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1052	BI1219E	45	S Cerritos Ave	107	Azusa	4	0.08	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
1054	BI1219E	47		325	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	G
1056	BI1219E	49	N Cerritos Ave	25	Azusa	4	0.02	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
1065	BI1228	9	E Arrow Hwy	359	Azusa	6	0.41	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1066	BI1228	10	W Arrow Hwy	359	Azusa	6	0.41	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
1069	BI1228	13	E Arrow Hwy	617	County	6	0.70	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1070	BI1228	14	W Arrow Hwy	617	County	6	0.70	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1085	BI1228	29	N Clydebank Ave	2055	County	4	1.56	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
1088	BI1228	32	E Arrow Hwy	69	Azusa	6	0.08	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1089	BI1228	33	W Arrow Hwy	69	Azusa	6	0.08	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1103	BI1228	47	E Arrow Hwy	724	County	6	0.82	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
1107	BI1228	51	N Clydebank Ave	554	County	4	0.42	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
1354	BI1265	1	S Barranca Ave	128	County	4	0.10	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
1356	BI1265	3	E Arrow Hwy	105	County	6	0.12	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1363	BI1265	10	E Arrow Hwy	31	County	6	0.03	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1365	BI1265	12	E Arrow Hwy	1332	County	6	1.51	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1369	BI1265	16	N Barranca Ave	1093	County	4	0.83	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
1370	BI1265	17	S Barranca Ave	2278	County	4	1.73	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
1385	BI1265	32	N Citrus Ave	226	Azusa	6	0.26	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1386	BI1265	33	S Citrus Ave	226	Azusa	6	0.26	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1387	BI1265	34	E Arrow Hwy	700	Azusa	6	0.79	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1388	BI1265	35	N Citrus Ave	118	Azusa	6	0.13	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1389	BI1265	36	S Citrus Ave	111	Azusa	6	0.13	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
1399	BI1265	46	E Arrow Hwy	52	Azusa	6	0.06	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
1400	BI1265	47	W Arrow Hwy	52	Azusa	6	0.06	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
1402	BI1270	2	E Arrow Hwy	457	Azusa	6	0.52	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1403	BI1270	3	W Arrow Hwy	457	Azusa	6	0.52	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
1407	BI1270	7	E Arrow Hwy	696	Azusa	6	0.79	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
1408	BI1270	8	W Arrow Hwy	696	Azusa	6	0.79	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
2103	BI2701H	1	E Arrow Hwy	36	County	6	0.04	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2104	BI2701H	2	W Arrow Hwy	36	County	6	0.04	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2105	BI2701H	3	E Arrow Hwy	1177	Azusa	6	1.34	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2106	BI2701H	4	W Arrow Hwy	1177	Azusa	6	1.34	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2107	BI2701H	5	N Cerritos Ave	37	Azusa	4	0.03	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
2108	BI2701H	6	N Hollenbeck Ave	49	Azusa	4	0.04	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
2118	BI3201A	10	Royal Oaks Dr	252	Duarte	4	0.19	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	G
2124	BI3201A	16	Las Lomas Rd	800	Duarte	4	0.61	Minor-Local	60	6	4	4	7	0.66	7	35	MED	G
2130	BI3201A	22	Royal Oaks Dr	303	Duarte	4	0.23	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2136	BI3201A	28	Las Lomas Rd	353	Duarte	4	0.27	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
2140	BI3201A	32	Royal Oaks Dr	2036	Duarte	4	1.54	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
2154	BI3201A	46	Las Lomas Rd	278	Duarte	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
2158	BI3201A	50	Royal Oaks Dr	1655	Duarte	4	1.25	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
2169	BI3201A	61	Royal Oaks Dr	154	Duarte	4	0.12	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	G
2198	BI406A	19		222	County	6	0.25	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2199	BI406A	20	E Baseline Rd	2294	County	6	2.61	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2200	BI406A	21	N Citrus Ave	1119	County	6	1.27	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2232	BI406A	53		1005	Azusa	6	1.14	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2233	BI406A	54	1st St	824	Azusa	6	0.94	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2235	BI406A	56	E 1st St	2263	Azusa	6	2.57	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2236	BI406A	57	E Baseline Rd	868	Azusa	6	0.99	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2237	BI406A	58	N Citrus Ave	1490	Azusa	6	1.69	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
2239	BI406A	60	N Pasadena Ave	436	Azusa	4	0.33	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
2348	BI406B	44	E 10th St	138	Azusa	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
2354	BI406B	50	N Pasadena Ave	457	Azusa	4	0.35	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
2359	BI406B	55	N Azusa Ave	744	Azusa	6	0.85	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2360	BI406B	56	N San Gabriel Ave	154	Azusa	6	0.17	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2361	BI406B	57	State Route 39	744	Azusa	6	0.85	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2362	BI406B	58	State Route 39	154	Azusa	6	0.17	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2368	BI406B	64	E 11th St	1528	Azusa	4	1.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
2376	BI406B	72	N Pasadena Ave	498	Azusa	4	0.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
2382	BI406B	78	W 11th St	50	Azusa	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
2384	BI406B	80	E Foothill Blvd	1635	Azusa	6	1.86	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2385	BI406B	81	N Azusa Ave	4154	Azusa	6	4.72	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2386	BI406B	82	N San Gabriel Ave	2819	Azusa	6	3.20	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2391	BI406B	87	State Route 39	4154	Azusa	6	4.72	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2392	BI406B	88	State Route 39	2819	Azusa	6	3.20	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2394	BI406B	90	W Foothill Blvd	219	Azusa	6	0.25	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2396	BI406B	92	N Pasadena Ave	2443	Azusa	4	1.85	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
2439	BI406B	135	E 10th St	1454	Azusa	4	1.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2442	BI406B	138	E 6th St	2050	Azusa	4	1.55	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2444	BI406B	140	E 9th St	1806	Azusa	4	1.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2459	BI406B	155	N Dalton Ave	1340	Azusa	4	1.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2462	BI406B	158	N Pasadena Ave	2027	Azusa	4	1.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2469	BI406B	165	W 11th St	476	Azusa	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2471	BI406B	167	W 6th St	220	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2472	BI406B	168	W 9th St	474	Azusa	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2477	BI406B	173	E 10th St	410	Azusa	4	0.31	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
2481	BI406B	177	N Pasadena Ave	152	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
2657	BRDBY5	5	Encanto Pkwy	595	Azusa	4	0.45	Secondary-Collector	64	8	3	6	15	0.72	8	44	MED	G
2664	BRDBY5	12	Mount Olive Dr	179	Duarte	4	0.14	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
2683	BRDBY5	31	Encanto Pkwy	281	Duarte	4	0.21	Secondary-Collector	64	8	3	6	15	0.72	8	44	MED	G
2686	BRDBY5	34	Encanto Pkwy	40	Azusa	4	0.03	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
2687	BRDBY5	35	Encanto Pkwy	431	Azusa	4	0.33	Secondary-Collector	64	8	2	8	15	0.72	8	48	HIGH	G
2689	BRDBY5	37	E Huntington Dr	135	Duarte	6	0.15	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2691	BRDBY5	39	Encanto Pkwy	259	Duarte	4	0.20	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
2692	BRDBY5	40	Mount Olive Dr	100	Duarte	4	0.08	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2714	BRDBY5	62	Las Lomas Rd	770	Duarte	4	0.58	Minor-Local	60	6	2	8	7	0.66	7	43	MED	G
2728	BRDBY5	76	Encanto Pkwy	738	Azusa	4	0.56	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	G
2731	BRDBY5	79	E Huntington Dr	115	Duarte	6	0.13	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2732	BRDBY5	80	E Huntington Dr	1077	Duarte	6	1.22	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
2736	BRDBY5	84	Mount Olive Dr	1013	Duarte	4	0.77	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
2765	BRDBY5	113	Las Lomas Rd	100	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
2783	BRDBY5	131	Encanto Pkwy	126	Azusa	4	0.10	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	G
2785	BRDBY5	133	E Huntington Dr	472	Duarte	6	0.54	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
2786	BRDBY5	134	E Huntington Dr	240	Duarte	6	0.27	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
2787	BRDBY5	135	E Huntington Dr	726	Duarte	6	0.82	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
2789	BRDBY5	137	Huntington Dr	631	Duarte	6	0.72	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
2790	BRDBY5	138	Huntington Dr	139	Duarte	6	0.16	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
2804	BRDBY5	152	Las Lomas Rd	1290	Duarte	4	0.98	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
2972	LDLTW5	79	E Alosta Ave	819	Azusa	6	0.93	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2974	LDLTW5	81	E Foothill Blvd	2019	Azusa	6	2.29	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2976	LDLTW5	83	Route 66	819	Azusa	6	0.93	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
2978	LDLTW5	85	E Alosta Ave	42	Azusa	6	0.05	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
2980	LDLTW5	87	Route 66	42	Azusa	6	0.05	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	G
3041	LDLTW5	148	E Alosta Ave	428	Azusa	6	0.49	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3043	LDLTW5	150	E Foothill Blvd	1604	Azusa	6	1.82	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3045	LDLTW5	152	Route 66	428	Azusa	6	0.49	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3049	LDLTW5	156	E Alosta Ave	3440	Azusa	6	3.91	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3050	LDLTW5	157	N Citrus Ave	851	Azusa	6	0.97	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3052	LDLTW5	159	Route 66	4269	Azusa	6	4.85	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3151	LDLTW5	258	E 9th St	182	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
3182	LDLTW6	2	N Azusa Ave	158	Azusa	6	0.18	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
3192	LDLTW6	12	S Citrus Ave	23	County	6	0.03	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3196	LDLTW6	16	W Gladstone St	573	County	4	0.43	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3212	LDLTW6	32	W Gladstone St	509	County	4	0.39	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
3232	LDLTW6	52	N Azusa Ave	3095	Azusa	6	3.52	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3233	LDLTW6	53	N San Gabriel Ave	3938	Azusa	6	4.48	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3235	LDLTW6	55	E 1st St	1130	Azusa	6	1.28	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3239	LDLTW6	59	S Azusa Ave	2683	Azusa	6	3.05	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3241	LDLTW6	61	S Citrus Ave	671	Azusa	6	0.76	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3242	LDLTW6	62	State Route 39	3059	Azusa	6	3.48	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3246	LDLTW6	66	E Gladstone St	118	Azusa	4	0.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3247	LDLTW6	67	Gladstone St	50	Azusa	4	0.04	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3248	LDLTW6	68	N Pasadena Ave	797	Azusa	4	0.60	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3252	LDLTW6	72	W 1st St	763	Azusa	4	0.58	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3253	LDLTW6	73	W Gladstone St	26	Azusa	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	G
3289	LDLTW6	109	State Route 39	4423	Azusa	6	5.03	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3291	LDLTW6	111	W Foothill Blvd	329	Azusa	6	0.37	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3293	LDLTW6	113	N Pasadena Ave	458	Azusa	4	0.35	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
3294	LDLTW6	114	W 1st St	838	Azusa	4	0.63	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
3323	LDLTW6	143	W 6th St	370	Azusa	4	0.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
3335	LDLTW6	155	N Pasadena Ave	226	Azusa	4	0.17	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	G
3367	LDLTW7	16	E Arrow Hwy	288	County	6	0.33	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
3369	LDLTW7	18	W Arrow Hwy	288	County	6	0.33	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3413	LDLTW7	62	E Arrow Hwy	261	County	6	0.30	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
3415	LDLTW7	64	W Arrow Hwy	129	County	6	0.15	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
3497	LDLTW7	146	E Arrow Hwy	106	County	6	0.12	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	G
3523	MDDCK2	9	Royal Oaks Dr	616	Duarte	4	0.47	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	G
3524	MDDCK2	10		109	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
3526	MDDCK2	12	Mount Olive Dr	109	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	G
3532	MDDCK2	18	Royal Oaks Dr	162	Duarte	4	0.12	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	G
3535	RD103	1	E Arrow Hwy	177	County	6	0.20	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
3536	RD103	2	W Arrow Hwy	177	County	6	0.20	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
3538	RD103	4	E Arrow Hwy	841	County	6	0.96	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3539	RD103	5	W Arrow Hwy	841	County	6	0.96	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4130	SDMSW5	1	E Arrow Hwy	116	County	6	0.13	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
4131	SDMSW5	2	W Arrow Hwy	116	County	6	0.13	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
4134	SDMSW5	5	E Arrow Hwy	520	County	6	0.59	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4143	SDMSW6	3	E Arrow Hwy	906	Azusa	6	1.03	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4144	SDMSW6	4	E Arrow Hwy	306	Azusa	6	0.35	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4145	SDMSW6	5	W Arrow Hwy	306	Azusa	6	0.35	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	G
4147	SDMSW6	7	W Arrow Hwy	906	Azusa	6	1.03	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
4150	SDMSW6	10	E Arrow Hwy	172	Azusa	6	0.20	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
4151	SDMSW6	11	W Arrow Hwy	172	Azusa	6	0.20	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	G
4235	SGR22	34	Encanto Pkwy	367	Azusa	4	0.28	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
4236	SGR22	35	Royal Oaks Dr	17	Azusa	4	0.01	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	G
4238	SGR22	37	Encanto Pkwy	944	Azusa	4	0.71	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	G
4239	SGR22	38	Encanto Pkwy	649	Azusa	4	0.49	Secondary-Collector	64	8	1	9	15	0.72	8	50	HIGH	G
4251	SGR22	50	Encanto Pkwy	88	Azusa	4	0.07	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	G
4271	SGR25	11	E Huntington Dr	850	Duarte	6	0.97	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	G
4287	SGR25	27	E Huntington Dr	528	Duarte	6	0.60	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	G
4305	SGR25	45	E Huntington Dr	1542	Duarte	6	1.75	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	G
3520	MDDCK2	6	Mount Olive Dr	616	Bradbury	4	0.47	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
376	BDALT8	1	Renwick Rd	36	County	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
377	BDALT8	2	N Rockvale Ave	1785	County	4	1.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
378	BDALT8	3	N Viceroy Ave	452	County	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
379	BDALT8	4	N Viceroy Ave	210	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
380	BDALT8	5	Orangecrest Ave	285	County	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
381	BDALT8	6	Orkney St	1724	County	4	1.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
382	BDALT8	7	Payson St	1347	County	4	1.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
383	BDALT8	8	Renwick Rd	1751	County	4	1.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
384	BDALT8	9		279	Azusa	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
385	BDALT8	10		92	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
386	BDALT8	11	Galanto Ave	23	Azusa	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
388	BDALT8	13	Cedarglen Dr	149	County	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
389	BDALT8	14	E Kirkwall Rd	1429	County	4	1.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
390	BDALT8	15	E Newburgh St	1092	County	4	0.83	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
391	BDALT8	16	Edenfield Ave	536	County	4	0.41	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
392	BDALT8	17	Galanto Ave	94	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
393	BDALT8	18	Laxford Rd	182	County	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
394	BDALT8	19	N Fenimore Ave	506	County	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
395	BDALT8	20	N Fenimore Ave	365	County	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
396	BDALT8	21	N Glenfinnan Ave	391	County	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
397	BDALT8	22	N Orangeglen St	285	County	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
398	BDALT8	23	Twintree Ave	301	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
399	BDALT8	24	Traymore Ave	520	County	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
400	BDALT8	25	Traymore Ave	426	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
401	BDALT8	26	Ranger Dr	1005	County	4	0.76	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
402	BDALT8	27	Woodcroft St	1677	County	4	1.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
406	BDALT8	31	S Barranca Ave	14	County	4	0.01	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
407	BDALT8	32		692	County	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
408	BDALT8	33		311	County	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
409	BDALT8	34		445	County	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
410	BDALT8	35		41	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
411	BDALT8	36	Calera Ave	334	County	4	0.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
412	BDALT8	37	E Chadley St	899	County	4	0.68	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
413	BDALT8	38	E Gallarno Dr	1528	County	4	1.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
414	BDALT8	39	E Laxford Rd	1159	County	4	0.88	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
415	BDALT8	40	E Weather Rd	193	County	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
416	BDALT8	41	Galanto Ave	141	County	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
417	BDALT8	42	Ghent St	413	County	4	0.31	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
418	BDALT8	43	Grantland Dr	254	County	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
419	BDALT8	44	Grantland Dr	95	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
420	BDALT8	45	Grantland Dr	330	County	4	0.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
421	BDALT8	46	N Fairvale Ave	160	County	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
422	BDALT8	47	N Fairvalley Ave	335	County	4	0.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
423	BDALT8	48	N Oakbank Dr	462	County	4	0.35	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
424	BDALT8	49	Nearfield St	532	County	4	0.40	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
425	BDALT8	50	Newburgh St	419	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
433	BDALT8	58		10	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
434	BDALT8	59		45	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
435	BDALT8	60		41	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
436	BDALT8	61		40	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
438	BDALT8	63		256	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
439	BDALT8	64		56	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
440	BDALT8	65		80	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
441	BDALT8	66		200	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
442	BDALT8	67		49	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
443	BDALT8	68		122	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
444	BDALT8	69		193	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
445	BDALT8	70		91	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
446	BDALT8	71		185	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
447	BDALT8	72		337	Azusa	4	0.26	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
448	BDALT8	73		423	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
449	BDALT8	74	Gaillard St	4	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
450	BDALT8	75	Galanto Ave	624	Azusa	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
451	BDALT8	76	Ghent St	0	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
452	BDALT8	77	Nearfield St	2	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
453	BDALT8	78	E Kirkwall Rd	241	County	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
454	BDALT8	79	E Newburgh St	58	County	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
455	BDALT8	80	N Glenfinnan Ave	17	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
456	BDALT8	81	Payson St	109	County	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
457	BDALT8	82	Renwick Rd	187	County	4	0.14	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
459	BDALT8	84	Ghent St	355	County	4	0.27	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
460	BDALT8	85	Hanlin Ave	258	County	4	0.20	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
461	BDALT8	86	Nearfield St	148	County	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
462	BDALT8	87		132	Azusa	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
463	BDALT8	88		235	Azusa	4	0.18	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
464	BDALT9	1	N Vogue Ave	46	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
465	BDALT9	2	Orkney St	4	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
466	BDALT9	3	Orkney St	25	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
467	BDALT9	4	S Donna Beth Ave	773	County	4	0.59	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
473	BDALT9	10	Lark Ellen Ave	2312	County	4	1.75	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
474	BDALT9	11		41	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
475	BDALT9	12		24	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
476	BDALT9	13		24	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
477	BDALT9	14		72	County	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
478	BDALT9	15		18	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
479	BDALT9	16	Alcross St	603	County	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
480	BDALT9	17	Bygrove St	575	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
481	BDALT9	18	Conwell Ave	1064	County	4	0.81	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
482	BDALT9	19	Devanah St	574	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
483	BDALT9	20	E Arrow Hwy	661	County	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
484	BDALT9	21	E Gragmont St	20	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
485	BDALT9	22	E Groverdale St	600	County	4	0.45	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
486	BDALT9	23	E Laxford Rd	1430	County	4	1.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
487	BDALT9	24	E Millburgh Ave	306	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
488	BDALT9	25	E Newburgh St	1704	County	4	1.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
489	BDALT9	26	E Nubia St	571	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
490	BDALT9	27	E Orkney St	418	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
491	BDALT9	28	E Orkney St	518	County	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
492	BDALT9	29	E Payson St	357	County	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
493	BDALT9	30	E Payson St	23	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
494	BDALT9	31	E Renwick Rd	1203	County	4	0.91	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
495	BDALT9	32	E Tudor St	1395	County	4	1.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
496	BDALT9	33	Gragmont St	577	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
497	BDALT9	34	Heathdale Ave	1712	County	4	1.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
498	BDALT9	35	Kirkwall Rd	420	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
499	BDALT9	36	Lark Ellen Ave	306	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
500	BDALT9	37	Larkin Dr	317	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
501	BDALT9	38	N Banewell Ave	188	County	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
502	BDALT9	39	N Donna Beth Ave	2353	County	4	1.78	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
503	BDALT9	40	N Duxford Ave	928	County	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
504	BDALT9	41	N Enid Ave	1781	County	4	1.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
505	BDALT9	42	S Lark Ellen Ave	47	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
506	BDALT9	43	Vogue Ave	197	County	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
507	BDALT9	44	N Azusa Ave	41	County	6	0.05	Highway	100	10	0	10	6	0.33	3	39	MED	
509	BDALT9	46	State Route 39	41	County	6	0.05	Highway	100	10	0	10	6	0.33	3	39	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
514	BDALT9	51	S Azusa Ave	317	County	6	0.36	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
516	BDALT9	53	State Route 39	317	County	6	0.36	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
518	BDALT9	55	Lark Ellen Ave	101	County	4	0.08	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
519	BDALT9	56	Woodcroft St	1057	County	4	0.80	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
522	BDALT9	59		31	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
523	BDALT9	60	S Alameda Ave	539	Azusa	4	0.41	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
525	BDALT9	62	Arrow Hwy	38	Azusa	6	0.04	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
527	BDALT9	64	S Azusa Ave	1595	Azusa	6	1.81	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
529	BDALT9	66	State Route 39	1595	Azusa	6	1.81	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
532	BDALT9	69	E Newburgh St	6	Azusa	4	0.00	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
533	BDALT9	70	N Cerritos Ave	179	Azusa	4	0.14	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
534	BDALT9	71	N Cerritos Ave	360	Azusa	4	0.27	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
535	BDALT9	72	S Cerritos Ave	15	Azusa	4	0.01	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
536	BDALT9	73	S Cerritos Ave	14	Azusa	4	0.01	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
537	BDALT9	74		44	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
538	BDALT9	75		73	Azusa	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
539	BDALT9	76		84	Azusa	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
540	BDALT9	77		281	Azusa	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
541	BDALT9	78		73	Azusa	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
542	BDALT9	79		209	Azusa	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
543	BDALT9	80		403	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
544	BDALT9	81		41	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
545	BDALT9	82		415	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
546	BDALT9	83		523	Azusa	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
547	BDALT9	84		439	Azusa	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
548	BDALT9	85		107	Azusa	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
549	BDALT9	86		129	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
550	BDALT9	87		323	Azusa	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
551	BDALT9	88		44	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
552	BDALT9	89	E Kirkwall Rd	375	Azusa	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
553	BDALT9	90	E Newburgh St	619	Azusa	4	0.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
554	BDALT9	91	E Payson St	632	Azusa	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
555	BDALT9	92	E Renwick Rd	661	Azusa	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
556	BDALT9	93	Leton Ave	402	Azusa	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
557	BDALT9	94	N Duxford Ave	231	Azusa	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
558	BDALT9	95	Orkney St	75	Azusa	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
559	BDALT9	96	Orkney St	86	Azusa	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
561	BDALT9	98		38	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
562	BDALT9	99	E Laxford Rd	422	County	4	0.32	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
563	BDALT9	100	E Newburgh St	234	County	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
564	BDALT9	101	E Payson St	60	County	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
565	BDALT9	102	E Tudor St	23	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
566	BDALT9	103	Heathdale Ave	20	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
567	BDALT9	104	N Omalley Ave	259	County	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
568	BDALT9	105	Woodcroft St	227	County	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
569	BDALT9	106	E Arrow Hwy	1	County	6	0.00	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
570	BDALT9	107	W Arrow Hwy	1	County	6	0.00	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
571	BDALT9	108	S Pasadena Ave	10	Azusa	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
573	BDALT9	110	S Azusa Ave	813	Azusa	6	0.92	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
575	BDALT9	112	State Route 39	813	Azusa	6	0.92	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
578	BDALT9	115		29	Azusa	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
579	BDALT9	116		266	Azusa	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
580	BDALT9	117		282	Azusa	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
581	BDALT9	118		108	Azusa	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
582	BDALT9	119		328	Azusa	4	0.25	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
583	BDALT9	120		224	Azusa	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
584	BDALT9	121		134	Azusa	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
585	BDALT9	122		66	Azusa	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
586	BDALT9	123		131	Azusa	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
587	BDALT9	124		34	Azusa	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
588	BDALT9	125		34	Azusa	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
589	BDALT9	126		98	Azusa	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
590	BDALT9	127		156	Azusa	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
591	BDALT9	128		270	Azusa	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
592	BDALT9	129		421	Azusa	4	0.32	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
593	BDALT9	130		63	Azusa	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
594	BDALT9	131		146	Azusa	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
595	BDALT9	132		67	Azusa	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
596	BDALT9	133		302	Azusa	4	0.23	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
597	BDALT9	134		220	Azusa	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
598	BDALT9	135		10	Azusa	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
599	BDALT9	136		170	Azusa	4	0.13	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
600	BDALT9	137		64	Azusa	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
601	BDALT9	138		976	Azusa	4	0.74	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
602	BDALT9	139		42	Azusa	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
603	BDALT9	140	E Newburgh St	24	Azusa	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
604	BDALT9	141	Leton Ave	586	Azusa	4	0.44	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
605	BDALT9	142		44	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
606	BDALT9	143		37	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
607	BEATY2	1	E Sierra Madre Ave	200	Azusa	6	0.23	Primary-Arterial	100	10	5	2	7	0.66	7	35	MED	
608	BEATY2	2	N Dalton Ave	11	Azusa	4	0.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
609	BEATY2	3	San Gabriel Canyon Rd	121	Azusa	6	0.14	Primary-Arterial	100	10	5	2	15	0.72	8	38	MED	
610	BEATY2	4	State Route 39	121	Azusa	6	0.14	Primary-Arterial	100	10	5	2	15	0.72	8	38	MED	
611	BEATY2	5		105	Azusa	4	0.08	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
612	BEATY2	6	San Gabriel Canyon Rd	101	Azusa	6	0.11	Primary-Arterial	100	10	3	6	15	0.72	8	46	HIGH	
613	BEATY2	7	State Route 39	101	Azusa	6	0.11	Primary-Arterial	100	10	3	6	15	0.72	8	46	HIGH	
614	BEATY2	8		75	Azusa	4	0.06	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
615	BEATY2	9	N San Gabriel Ave	7	Azusa	6	0.01	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
616	BEATY2	10	N San Gabriel Canyon Rd	33	Azusa	6	0.04	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
617	BEATY2	11	San Gabriel Ave	95	Azusa	6	0.11	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
618	BEATY2	12	State Route 39	33	Azusa	6	0.04	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
619	BEATY2	13	State Route 39	102	Azusa	6	0.12	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
620	BEATY2	14	W Sierra Madre Ave	194	Azusa	6	0.22	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
621	BEATY2	15	W Sierra Madre Ave	60	Azusa	4	0.05	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
622	BEATY2	16	N Dalton Ave	28	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
623	BEATY2	17	San Gabriel Canyon Rd	160	Azusa	6	0.18	Primary-Arterial	100	10	4	4	15	0.72	8	42	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
624	BEATY2	18	State Route 39	160	Azusa	6	0.18	Primary-Arterial	100	10	4	4	15	0.72	8	42	MED	
625	BEATY2	19	San Gabriel Ave	102	Azusa	6	0.12	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
626	BEATY2	20	San Gabriel Canyon Rd	62	Azusa	6	0.07	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
627	BEATY2	21	State Route 39	164	Azusa	6	0.19	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
628	BEATY2	22	W Sierra Madre Ave	102	Azusa	4	0.08	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
629	BEATY2	23	San Gabriel Canyon Rd	17	Azusa	6	0.02	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	
630	BEATY2	24	State Route 39	17	Azusa	6	0.02	Primary-Arterial	100	10	1	9	15	0.72	8	52	HIGH	
631	BEATY2	25	San Gabriel Ave	37	Azusa	6	0.04	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
632	BEATY2	26	San Gabriel Canyon Rd	66	Azusa	6	0.07	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
633	BEATY2	27	State Route 39	103	Azusa	6	0.12	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
634	BEATY2	28	W Sierra Madre Ave	551	Azusa	4	0.42	Secondary-Collector	64	8	0	10	7	0.66	7	49	HIGH	
635	BEATY2	29		54	Azusa	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
636	BEATY2	30		22	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
637	BEATY2	31	San Gabriel Canyon Rd	94	Azusa	6	0.11	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	
638	BEATY2	32	State Route 39	94	Azusa	6	0.11	Primary-Arterial	100	10	0	10	15	0.72	8	54	HIGH	
857	BI1119-2	1	N Angeleno Ave	34	Azusa	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
861	BI1119-2	5	Boulder St	13	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
862	BI1119-2	6	S Sunset Ave	38	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
863	BI1119-2	7	S Vernon Ave	13	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
867	BI1119-2	11	S Enid Ave	381	Azusa	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
868	BI1119-2	12	S Orange Ave	574	Azusa	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
869	BI1119-2	13	S Sunset Ave	414	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
870	BI1119-2	14	N San Gabriel Ave	718	Azusa	6	0.82	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
871	BI1119-2	15		104	Azusa	4	0.08	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
873	BI1119-2	17		16	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
874	BI1119-2	18	Adobe St	13	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
875	BI1119-2	19	Carbon St	17	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
876	BI1119-2	20	Diamond St	16	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
877	BI1119-2	21	Grandview Dr	332	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
878	BI1119-2	22	State Route 39	718	Azusa	6	0.82	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
879	BI1119-2	23	E Gladstone St	81	Azusa	4	0.06	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
880	BI1119-2	24	N Vernon Ave	1215	Azusa	4	0.92	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
881	BI1119-2	25	N Vernon Ave	156	Azusa	4	0.12	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
882	BI1119-2	26	N Vernon Ave	151	Azusa	4	0.11	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
883	BI1119-2	27	W 1st St	1063	Azusa	4	0.81	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
885	BI1119-2	29		4	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
886	BI1119-2	30		180	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
887	BI1119-2	31		181	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
888	BI1119-2	32		182	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
889	BI1119-2	33		183	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
890	BI1119-2	34		195	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
891	BI1119-2	35		241	Azusa	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
892	BI1119-2	36		285	Azusa	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
893	BI1119-2	37		224	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
894	BI1119-2	38		289	Azusa	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
895	BI1119-2	39		203	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
896	BI1119-2	40		280	Azusa	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
897	BI1119-2	41		296	Azusa	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
898	BI1119-2	42		387	Azusa	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
899	BI1119-2	43		139	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
900	BI1119-2	44		55	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
901	BI1119-2	45		144	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
902	BI1119-2	46		224	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
903	BI1119-2	47		314	Azusa	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
904	BI1119-2	48		312	Azusa	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
905	BI1119-2	49		320	Azusa	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
906	BI1119-2	50		183	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
907	BI1119-2	51		8	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
908	BI1119-2	52		261	Azusa	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
909	BI1119-2	53	Diamond St	4	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
910	BI1119-2	54	Grandview Dr	96	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
911	BI1119-2	55	Lark Ellen Ave	5	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
912	BI1119-2	56	N Angeleno Ave	1240	Azusa	4	0.94	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
913	BI1119-2	57	N Barbara Ave	666	Azusa	4	0.50	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
914	BI1119-2	58	N Orange Ave	625	Azusa	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
915	BI1119-2	59	S Enid Ave	984	Azusa	4	0.75	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
916	BI1119-2	60	S Lemon Ave	1316	Azusa	4	1.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
917	BI1119-2	61	S Louise Ave	1356	Azusa	4	1.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
918	BI1119-2	62	S Louise Ave	1317	Azusa	4	1.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
919	BI1119-2	63	S Vernon Ave	2648	Azusa	4	2.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
920	BI1119-2	64	W 1st St	437	Azusa	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
921	BI1119-2	65	W 2nd St	719	Azusa	4	0.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
922	BI1119-2	66	W 2nd St	805	Azusa	4	0.61	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
923	BI1119-2	67	W 3rd St	199	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
924	BI1119-2	68	W 6th St	16	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
925	BI1119-2	69	W Duell St	1111	Azusa	4	0.84	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
926	BI1119-2	70	W Duell St	533	Azusa	4	0.40	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
927	BI1119-2	71	W Paramount St	1095	Azusa	4	0.83	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
928	BI1119-2	72	S Orange Ave	139	Azusa	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
929	BI1119-2	73	S Sunset Ave	264	Azusa	4	0.20	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
930	BI1119-2	74	Grandview Dr	349	Azusa	4	0.26	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
931	BI1119-2	75		91	Azusa	4	0.07	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
932	BI1119-2	76		62	Azusa	4	0.05	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
933	BI1119-2	77		1	Azusa	4	0.00	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
934	BI1120	1	Donington St	1	County	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
935	BI1120	2	E Donington St	324	County	4	0.25	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
936	BI1120	3	E Leadora Ave	182	County	4	0.14	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
937	BI1120	4		94	County	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
938	BI1217	1	E Linfield St	166	County	4	0.13	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
939	BI1217	2	Petunia St	28	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
940	BI1217	3	S Briargate Ln	36	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
941	BI1217	4	E Baseline Rd	59	County	6	0.07	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
942	BI1217	5	N Barranca Ave	1455	County	4	1.10	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
943	BI1217	6	S Barranca Ave	227	County	4	0.17	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
944	BI1217	7		15	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
945	BI1217	8		55	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
946	BI1217	9	E Duell St	221	County	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
947	BI1217	10	E Hollyvale St	257	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
948	BI1217	11	E Linfield St	473	County	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
949	BI1217	12	E Linfield St	479	County	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
950	BI1217	13	E Mauna Loa Ave	657	County	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
951	BI1217	14	Haltern St	567	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
952	BI1217	15	La Serena Dr	6	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
953	BI1217	16	N Barranca Ave	631	County	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
954	BI1217	17	N La Serena Dr	276	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
955	BI1217	18	S Prospero Dr	3	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
956	BI1217	19	Starcrest Dr	6	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
957	BI1217	20	Orangepath St	711	County	4	0.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
958	BI1217	21	S Vecino Ave	157	County	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
959	BI1217	22	W Hollyvale St	89	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
960	BI1217	23	W Linfield St	113	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
961	BI1219C	1	Nearfield St	35	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
962	BI1219C	2	Orkney St	33	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
963	BI1219C	3	N Citrus Ave	314	County	6	0.36	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
965	BI1219C	5	N Barranca Ave	763	County	4	0.58	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
966	BI1219C	6	S Barranca Ave	763	County	4	0.58	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
967	BI1219C	7		273	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
968	BI1219C	8	Alford St	1	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
969	BI1219C	9	Alford St	673	County	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
970	BI1219C	10	Citrus Edge St	655	County	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
971	BI1219C	11	E Alford St	1	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
972	BI1219C	12	E Armstead St	1111	County	4	0.84	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
973	BI1219C	13	Fondale St	397	County	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
974	BI1219C	14	Galanto Ave	450	County	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
975	BI1219C	15	Galatea St	4	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
976	BI1219C	16	Galatea St	656	County	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
980	BI1219C	20	Galanto Ave	182	County	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
981	BI1219C	21	Ranger Dr	327	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
982	BI1219C	22	S Fairvale Ave	1439	Azusa	4	1.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
983	BI1219C	23	S Ranburn Ave	752	Azusa	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
984	BI1219C	24	N Citrus Ave	294	Azusa	6	0.33	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
987	BI1219C	27	Citrus Edge St	1496	Azusa	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
988	BI1219C	28	E Alford St	1386	Azusa	4	1.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
990	BI1219C	30	E Gladstone St	560	Azusa	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
991	BI1219C	31	Fondale St	865	Azusa	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
992	BI1219C	32	Gaillard St	1019	Azusa	4	0.77	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
993	BI1219C	33	Galanto Ave	610	Azusa	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
994	BI1219C	34	Galatea St	1497	Azusa	4	1.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
995	BI1219C	35	Ghent St	204	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
996	BI1219C	36	Ghent St	374	Azusa	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
997	BI1219C	37	Grantland Dr	608	Azusa	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
998	BI1219C	38	Nearfield St	832	Azusa	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1000	BI1219C	40	E Gladstone St	1020	Azusa	4	0.77	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1001	BI1219C	41	Gaillard St	639	Azusa	4	0.48	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1002	BI1219C	42	Galanto Ave	129	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1003	BI1219C	43	Ghent St	793	Azusa	4	0.60	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1004	BI1219C	44	Ranger Dr	72	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1005	BI1219C	45	S Calera Ave	392	Azusa	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1006	BI1219C	46	S Fairvale Ave	104	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1007	BI1219C	47	E Alford St	112	Azusa	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
1008	BI1219E	1	E Alford St	111	County	4	0.08	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
1010	BI1219E	3	Nearfield St	1115	County	4	0.84	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1011	BI1219E	4	Nearfield St	33	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1012	BI1219E	5	Orangecrest Ave	527	County	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1013	BI1219E	6	Orangecrest Ave	514	County	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1014	BI1219E	7	Orangecrest Ave	486	County	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1015	BI1219E	8	Renwick Rd	524	County	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1016	BI1219E	9		2	County	4	0.00	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
1018	BI1219E	11	Cedarglen Dr	2302	County	4	1.74	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1019	BI1219E	12	Citrus Edge St	1442	County	4	1.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1020	BI1219E	13	Citrus Edge St	19	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1021	BI1219E	14	E Alford St	366	County	4	0.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1022	BI1219E	15	E Armstead St	55	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1023	BI1219E	16	E Armstead St	1405	County	4	1.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1024	BI1219E	17	E Armstead St	22	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1025	BI1219E	18	E Bellefont Dr	1690	County	4	1.28	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1026	BI1219E	19	E Bellefont Dr	30	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1027	BI1219E	20	E Fondale St	26	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1028	BI1219E	21	E Gladstone St	255	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1029	BI1219E	22	E Gladstone St	1381	County	4	1.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1030	BI1219E	23	E Gladstone St	261	County	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1031	BI1219E	24	Edenfield Ave	564	County	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1032	BI1219E	25	Edenfield Ave	215	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1033	BI1219E	26	Fondale St	1449	County	4	1.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1034	BI1219E	27	Fondale St	521	County	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1035	BI1219E	28	Gaillard St	1196	County	4	0.91	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1036	BI1219E	29	Gaillard St	36	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1037	BI1219E	30	Galatea St	1243	County	4	0.94	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1038	BI1219E	31	Galatea St	14	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1039	BI1219E	32	Ghent St	1640	County	4	1.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1040	BI1219E	33	Ghent St	39	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1041	BI1219E	34	N Fenimore Ave	322	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1042	BI1219E	35	N Glenfinnan Ave	2307	County	4	1.75	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1043	BI1219E	36	Viceroy Ave	1699	County	4	1.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1044	BI1219E	37	Woodcroft St	87	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1045	BI1219E	38	Woodcroft St	20	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1046	BI1219E	39		98	Azusa	4	0.07	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
1048	BI1219E	41	E Newburgh St	37	Azusa	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
1051	BI1219E	44	N Cerritos Ave	163	Azusa	4	0.12	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
1053	BI1219E	46		40	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1055	BI1219E	48	E Gladstone St	39	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1057	BI1228	1	Vincent Ave	14	County	4	0.01	Secondary-Collector	64	8	4	4	6	0.33	3	25	LOW	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1058	BI1228	2	E Arrow Hwy	15	County	6	0.02	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1059	BI1228	3	W Arrow Hwy	15	County	6	0.02	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1060	BI1228	4	E Arrow Hwy	256	County	4	0.19	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1061	BI1228	5	N Saint Malo Ave	0	County	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1062	BI1228	6	Vincent Ave	200	County	4	0.15	Secondary-Collector	64	8	3	6	6	0.33	3	29	LOW	
1063	BI1228	7	Vincent Ave	11	County	4	0.01	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
1064	BI1228	8	N Varnell Ave	0	County	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1067	BI1228	11		110	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1068	BI1228	12	S Clydebank Ave	434	County	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1071	BI1228	15		3	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1072	BI1228	16		1	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1073	BI1228	17		177	County	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1074	BI1228	18		3	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1075	BI1228	19	Aspan Ave	423	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1076	BI1228	20	E Arrow Hwy	14	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1077	BI1228	21	E Laxford Rd	388	County	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1078	BI1228	22	E Laxford Rd	659	County	4	0.50	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1079	BI1228	23	E Newburgh St	505	County	4	0.38	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1080	BI1228	24	E Newburgh St	421	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1081	BI1228	25	E Payson St	203	County	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1082	BI1228	26	E Renwick Rd	923	County	4	0.70	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1083	BI1228	27	Kirkwall Rd	306	County	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1084	BI1228	28	Millburgh Rd	473	County	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1086	BI1228	30	N Gareloch Ave	837	County	4	0.63	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1087	BI1228	31	N Roxburgh Ave	763	County	4	0.58	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1090	BI1228	34		451	Azusa	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1091	BI1228	35		63	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1092	BI1228	36		96	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1093	BI1228	37		374	Azusa	4	0.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1094	BI1228	38		53	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1095	BI1228	39		179	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1096	BI1228	40		16	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1097	BI1228	41		310	Azusa	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1098	BI1228	42		71	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1099	BI1228	43		57	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1100	BI1228	44		213	Azusa	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1101	BI1228	45		426	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1102	BI1228	46		218	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1104	BI1228	48	W Arrow Hwy	61	County	6	0.07	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
1105	BI1228	49	Aspan Ave	11	County	4	0.01	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1106	BI1228	50	E Payson St	364	County	4	0.28	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1108	BI1228	52	S Clydebank Ave	14	County	4	0.01	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1109	BI1228	53		293	Azusa	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1110	BI1228	54		188	Azusa	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1111	BI1228	55		108	Azusa	4	0.08	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1112	BI1228	56		210	Azusa	4	0.16	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1113	BI1228	57		290	Azusa	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1114	BI1228	58		119	Azusa	4	0.09	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1115	BI1228	59		116	Azusa	4	0.09	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1116	BI1264	1		250	County	4	0.19	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
1117	BI1264	2	E Milton Dr	180	County	4	0.14	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
1118	BI1264	3	Monrovia Pl	0	County	4	0.00	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
1119	BI1264	4	N Baldy Vista Ave	153	County	4	0.12	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
1120	BI1264	5	N Barranca Ave	222	County	4	0.17	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
1121	BI1264	6	E Donington St	2	County	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1122	BI1264	7	N Barranca Ave	64	County	4	0.05	Secondary-Collector	64	8	5	2	14	0.81	10	42	MED	
1123	BI1264	8		732	County	4	0.55	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1124	BI1264	9	E Leadora Ave	95	County	4	0.07	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1125	BI1264	10	E Milton Dr	272	County	4	0.21	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1126	BI1264	11	N Baldy Vista Ave	61	County	4	0.05	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1127	BI1264	12	W Leadora Ave	95	County	4	0.07	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1128	BI1264	13		104	Azusa	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1129	BI1264	14		6	Azusa	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1130	BI1264	15		19	Azusa	4	0.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1131	BI1264	16		129	Azusa	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1132	BI1264	17		26	Azusa	4	0.02	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1133	BI1264	18		100	Azusa	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1134	BI1264	19		104	Azusa	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1135	BI1264	20	Crape Myrtle Dr	39	Azusa	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1136	BI1264	21	E Monrovia Pl	370	Azusa	4	0.28	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1137	BI1264	22	Lilac Wy	104	Azusa	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1138	BI1264	23	Monrovia Pl	270	Azusa	4	0.20	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1139	BI1264	24	Monrovia Pl	104	Azusa	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1140	BI1264	25	N Macneil Dr	244	Azusa	4	0.19	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1141	BI1264	26	Sweetbriar Ln	20	Azusa	4	0.02	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1142	BI1264	27	Rosedale Ave	129	Azusa	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
1143	BI1264	28	Lindley St	4	Azusa	4	0.00	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1144	BI1264	29	Manresa Dr	100	Azusa	4	0.08	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1145	BI1264	30	Weeping Willow Dr	102	Azusa	4	0.08	Minor-Local	60	6	5	2	14	0.81	10	40	MED	
1146	BI1264	31	E Milton Dr	113	County	4	0.09	Minor-Local	60	6	4	4	6	0.33	3	23	LOW	
1147	BI1264	32	E Leadora Ave	28	County	4	0.02	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
1148	BI1264	33	E Donington St	188	County	4	0.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1149	BI1264	34	E Leadora Ave	34	County	4	0.03	Secondary-Collector	64	8	4	4	14	0.81	10	46	HIGH	
1150	BI1264	35		194	County	4	0.15	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1151	BI1264	36	E Danton Dr	135	County	4	0.10	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1152	BI1264	37	E Milton Dr	287	County	4	0.22	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1153	BI1264	38	N Oakbank Dr	208	County	4	0.16	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1154	BI1264	39	Crape Myrtle Dr	20	Azusa	4	0.01	Minor-Local	60	6	3	6	14	0.81	10	48	HIGH	
1155	BI1264	40	Sycamore Dr	54	Azusa	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1156	BI1264	41		471	Azusa	4	0.36	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1157	BI1264	42		98	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1158	BI1264	43		19	Azusa	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1159	BI1264	44		28	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1160	BI1264	45		63	Azusa	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1161	BI1264	46		144	Azusa	4	0.11	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1162	BI1264	47		111	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1163	BI1264	48		30	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1164	BI1264	49		75	Azusa	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1165	BI1264	50		110	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1166	BI1264	51		0	Azusa	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1167	BI1264	52		578	Azusa	4	0.44	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1168	BI1264	53		47	Azusa	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1169	BI1264	54		103	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1170	BI1264	55		54	Azusa	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1171	BI1264	56		27	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1172	BI1264	57		65	Azusa	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1173	BI1264	58	Cassia Ln	83	Azusa	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1174	BI1264	59	Crape Myrtle Dr	173	Azusa	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1175	BI1264	60	E Monrovia Pl	100	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1176	BI1264	61	Griffith St	157	Azusa	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1177	BI1264	62	Hawthorn Wy	100	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1178	BI1264	63	Lilac Wy	27	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1179	BI1264	64	Magnolia Wy	103	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1180	BI1264	65	Manresa Dr	60	Azusa	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1181	BI1264	66	Monrovia Pl	100	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1182	BI1264	67	Monrovia Pl	144	Azusa	4	0.11	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1183	BI1264	68	Palm Dr	98	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1184	BI1264	69	Sweetbriar Ln	130	Azusa	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1185	BI1264	70	The Promenade	30	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1186	BI1264	71	Rosedale Ave	798	Azusa	4	0.60	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1187	BI1264	72	Ruelas Wy	64	Azusa	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1188	BI1264	73	Sierra Madre Ave	65	Azusa	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
1189	BI1264	74	E Phelps Wy	106	Azusa	4	0.08	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1190	BI1264	75	Manresa Dr	66	Azusa	4	0.05	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1191	BI1264	76	N Macneil Dr	192	Azusa	4	0.15	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1192	BI1264	77	Weeping Willow Dr	205	Azusa	4	0.16	Minor-Local	60	6	4	4	14	0.81	10	44	MED	
1193	BI1264	78	Cairngrove Ave	103	County	4	0.08	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
1194	BI1264	79		54	County	4	0.04	Minor-Local	60	6	3	6	14	0.81	10	48	HIGH	
1195	BI1264	80	E Leadora Ave	79	County	4	0.06	Minor-Local	60	6	3	6	14	0.81	10	48	HIGH	
1196	BI1264	81	W Leadora Ave	79	County	4	0.06	Minor-Local	60	6	3	6	14	0.81	10	48	HIGH	
1197	BI1264	82	N Citrus Ave	461	Azusa	6	0.52	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
1198	BI1264	83	W Foothill Blvd	3	Azusa	6	0.00	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
1199	BI1264	84		36	Azusa	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1200	BI1264	85		81	Azusa	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1201	BI1264	86		76	Azusa	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1202	BI1264	87		315	Azusa	4	0.24	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1203	BI1264	88		383	Azusa	4	0.29	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1204	BI1264	89		43	Azusa	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1205	BI1264	90		107	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1206	BI1264	91		14	Azusa	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1207	BI1264	92		104	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1208	BI1264	93		18	Azusa	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1209	BI1264	94		349	Azusa	4	0.26	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1210	BI1264	95		138	Azusa	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1211	BI1264	96		121	Azusa	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1212	BI1264	97		66	Azusa	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1213	BI1264	98		0	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1214	BI1264	99		221	Azusa	4	0.17	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1215	BI1264	100		261	Azusa	4	0.20	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1216	BI1264	101		243	Azusa	4	0.18	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1217	BI1264	102		383	Azusa	4	0.29	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1218	BI1264	103		198	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1219	BI1264	104		122	Azusa	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1220	BI1264	105		103	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1221	BI1264	106		100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1222	BI1264	107		47	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1223	BI1264	108		20	Azusa	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1224	BI1264	109		99	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1225	BI1264	110		28	Azusa	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1226	BI1264	111		6	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1227	BI1264	112		103	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1228	BI1264	113		103	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1229	BI1264	114	Azusa Veterans Wy	48	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1230	BI1264	115	Bougainvillea St	174	Azusa	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1231	BI1264	116	Bouquet Ct	199	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1232	BI1264	117	Cassia Ln	151	Azusa	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1233	BI1264	118	Citrus Ave	104	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1234	BI1264	119	Crape Myrtle Dr	105	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1235	BI1264	120	E 9th St	490	Azusa	4	0.37	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1236	BI1264	121	E Monrovia Pl	100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1237	BI1264	122	Griffith St	3	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1238	BI1264	123	Hawthorn Wy	6	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1239	BI1264	124	N Citrus Ave	100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1240	BI1264	125	N Macneil Dr	116	Azusa	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1241	BI1264	126	Palm Dr	635	Azusa	4	0.48	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1242	BI1264	127	Sweetbriar Ln	84	Azusa	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1243	BI1264	128	The Promenade	268	Azusa	4	0.20	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1244	BI1264	129	The Promenade	766	Azusa	4	0.58	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1245	BI1264	130	Rosedale	38	Azusa	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1246	BI1264	131	Rosedale Ave	636	Azusa	4	0.48	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1247	BI1264	132	Sierra Madre Ave	205	Azusa	4	0.16	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1248	BI1264	133	Sunrise Ln	47	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
1249	BI1264	134	N Yucca Ridge Rd	55	County	4	0.04	Minor-Local	60	6	2	8	14	0.81	10	52	HIGH	
1250	BI1264	135	N Citrus Ave	100	Azusa	6	0.11	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
1251	BI1264	136		100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1252	BI1264	137		100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1253	BI1264	138		22	Azusa	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1254	BI1264	139		12	Azusa	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1255	BI1264	140		13	Azusa	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1256	BI1264	141		17	Azusa	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1257	BI1264	142		98	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1258	BI1264	143	Crape Myrtle Dr	101	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1259	BI1264	144	E Monrovia Pl	300	Azusa	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1260	BI1264	145	Griffith St	1	Azusa	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1261	BI1264	146	Lavender Wy	79	Azusa	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1262	BI1264	147	Lavender Wy	19	Azusa	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1263	BI1264	148	Lavender Wy	75	Azusa	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1264	BI1264	149	Monrovia Pl	258	Azusa	4	0.20	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1265	BI1264	150	N Macneil Dr	43	Azusa	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1266	BI1264	151	Palm Dr	100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1267	BI1264	152	The Promenade	100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1268	BI1264	153	The Promenade	100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1269	BI1264	154	Ruelas Wy	105	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1270	BI1264	155	Sunrise Ln	100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
1271	BI1264	156	Lindley St	58	Azusa	4	0.04	Minor-Local	60	6	2	8	14	0.81	10	52	HIGH	
1272	BI1264	157	Weeping Willow Dr	105	Azusa	4	0.08	Minor-Local	60	6	2	8	14	0.81	10	52	HIGH	
1273	BI1264	158	N Ben Lomond Ave	41	County	4	0.03	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
1274	BI1264	159	E Foothill Blvd	27	Azusa	6	0.03	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1275	BI1264	160	N Citrus Ave	443	Azusa	6	0.50	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1276	BI1264	161	N Citrus Ave	305	Azusa	6	0.35	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1277	BI1264	162		96	Azusa	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1278	BI1264	163		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1279	BI1264	164		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1280	BI1264	165		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1281	BI1264	166		22	Azusa	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1282	BI1264	167		65	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1283	BI1264	168		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1284	BI1264	169		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1285	BI1264	170		10	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1286	BI1264	171		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1287	BI1264	172		94	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1288	BI1264	173		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1289	BI1264	174		103	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1290	BI1264	175		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1291	BI1264	176		100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1292	BI1264	177		15	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1293	BI1264	178		22	Azusa	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1294	BI1264	179	Azusa Veterans Wy	200	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1295	BI1264	180	Bougainvillea St	121	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1296	BI1264	181	Citrus Ave	100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1297	BI1264	182	Griffith St	84	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1298	BI1264	183	Lavender Wy	76	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1299	BI1264	184	Lavender Wy	14	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1300	BI1264	185	Lindley St	37	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1301	BI1264	186	Mountain Wy	0	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1302	BI1264	187	Palm Dr	100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1303	BI1264	188	The Promenade	100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1304	BI1264	189	The Promenade	100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1305	BI1264	190	Ruelas Wy	138	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1306	BI1264	191	Sierra Madre Ave	225	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1307	BI1264	192	Crape Myrtle Dr	30	Azusa	4	0.02	Minor-Local	60	6	1	9	14	0.81	10	54	HIGH	
1308	BI1264	193	Weeping Willow Dr	28	Azusa	4	0.02	Minor-Local	60	6	1	9	14	0.81	10	54	HIGH	
1309	BI1264	194	Cairngrove Ave	65	County	4	0.05	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
1310	BI1264	195	N Ben Lomond Ave	103	County	4	0.08	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
1311	BI1264	196		153	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1312	BI1264	197		470	Azusa	4	0.36	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1313	BI1264	198		79	Azusa	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1314	BI1264	199		72	Azusa	4	0.05	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1315	BI1264	200		71	Azusa	4	0.05	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1316	BI1264	201		33	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1317	BI1264	202		161	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1318	BI1264	203		23	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1319	BI1264	204		58	Azusa	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1320	BI1264	205		153	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1321	BI1264	206		146	Azusa	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1322	BI1264	207		181	Azusa	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1323	BI1264	208		36	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1324	BI1264	209		134	Azusa	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1325	BI1264	210		182	Azusa	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1326	BI1264	211		28	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1327	BI1264	212		44	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1328	BI1264	213		255	Azusa	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1329	BI1264	214		43	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1330	BI1264	215		116	Azusa	4	0.09	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1331	BI1264	216		145	Azusa	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1332	BI1264	217		132	Azusa	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1333	BI1264	218		327	Azusa	4	0.25	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1334	BI1264	219	Azusa Veterans Wy	401	Azusa	4	0.30	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1335	BI1264	220	Bougainvillea St	155	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1336	BI1264	221	Chaparral Ln	315	Azusa	4	0.24	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1337	BI1264	222	Citrus Ave	153	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1338	BI1264	223	Lindley St	98	Azusa	4	0.07	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1339	BI1264	224	Mountain Wy	832	Azusa	4	0.63	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1340	BI1264	225	N Macneil Dr	400	Azusa	4	0.30	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1341	BI1264	226	The Promenade	244	Azusa	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1342	BI1264	227	The Promenade	34	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1343	BI1264	228	The Promenade	34	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1344	BI1264	229	The Promenade	159	Azusa	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1345	BI1264	230	The Promenade	192	Azusa	4	0.15	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1346	BI1264	231	The Promenade	244	Azusa	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1347	BI1264	232	Rosedale Ave	24	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1348	BI1264	233	Ruelas Wy	188	Azusa	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1349	BI1264	234	Sierra Madre Ave	487	Azusa	4	0.37	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1350	BI1264	235	Sunrise Ln	146	Azusa	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1351	BI1264	236	Lindley St	262	Azusa	4	0.20	Minor-Local	60	6	0	10	14	0.81	10	56	HIGH	
1352	BI1264	237	N Macneil Dr	217	Azusa	4	0.16	Minor-Local	60	6	0	10	14	0.81	10	56	HIGH	
1353	BI1264	238	Weeping Willow Dr	72	Azusa	4	0.05	Minor-Local	60	6	0	10	14	0.81	10	56	HIGH	
1355	BI1265	2	N Barranca Ave	182	County	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
1357	BI1265	4	N Citrus Ave	38	County	6	0.04	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1358	BI1265	5		28	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1359	BI1265	6	Newburgh St	62	County	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1360	BI1265	7	Traymore Ave	881	County	4	0.67	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1361	BI1265	8	Payson St	305	County	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1362	BI1265	9	Ranger Dr	40	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1364	BI1265	11	E Arrow Hwy	220	County	6	0.25	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1366	BI1265	13	W Arrow Hwy	110	County	6	0.12	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
1367	BI1265	14		1	County	4	0.00	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
1368	BI1265	15	Woodcroft St	287	County	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1371	BI1265	18		750	County	4	0.57	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1372	BI1265	19		366	County	4	0.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1373	BI1265	20		338	County	4	0.26	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1374	BI1265	21		34	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1375	BI1265	22	Calera Ave	1691	County	4	1.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1376	BI1265	23	E Arrow Hwy	626	County	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1377	BI1265	24	E Laxford Rd	285	County	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1378	BI1265	25	E Weather Rd	296	County	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1379	BI1265	26	N Barranca Ave	1043	County	4	0.79	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1380	BI1265	27	N Calera Ave	23	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1381	BI1265	28	N Fairvalley Ave	29	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1382	BI1265	29	N Fairvalley Ave	1547	County	4	1.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1383	BI1265	30	N Oakbank Dr	1709	County	4	1.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1384	BI1265	31	Newburgh St	1159	County	4	0.88	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1390	BI1265	37	W Arrow Hwy	26	Azusa	6	0.03	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
1391	BI1265	38		40	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1392	BI1265	39		90	Azusa	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
1393	BI1265	40		224	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1394	BI1265	41		138	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1395	BI1265	42		91	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1396	BI1265	43		117	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1397	BI1265	44		121	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1398	BI1265	45		92	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1401	BI1270	1		4	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1404	BI1270	4		0	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1405	BI1270	5	N Armel Dr	40	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
1406	BI1270	6		14	Azusa	6	0.02	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
1409	BI1270	9		51	Azusa	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1410	BI1270	10		48	Azusa	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
1411	BI1270	11	N Heathdale Ave	43	Azusa	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2109	BI3201A	1		2	Duarte	4	0.00	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2110	BI3201A	2	Conata St	249	Duarte	4	0.19	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2111	BI3201A	3	Dalbo St	401	Duarte	4	0.30	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2112	BI3201A	4	Elda St	511	Duarte	4	0.39	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2113	BI3201A	5	Fairwood St	217	Duarte	4	0.16	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2114	BI3201A	6	Greenbank Ave	100	Duarte	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2115	BI3201A	7	Royal View St	203	Duarte	4	0.15	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2116	BI3201A	8	Vineyard Ave	515	Duarte	4	0.39	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2117	BI3201A	9	Cedarwood Ave	39	Duarte	4	0.03	Minor-Local	60	6	5	2	88	0.62	6	28	LOW	
2119	BI3201A	11	Bernwood St	890	Duarte	4	0.67	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2120	BI3201A	12	Dalbo St	201	Duarte	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2121	BI3201A	13	Elda St	89	Duarte	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2122	BI3201A	14	Fairwood St	537	Duarte	4	0.41	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2123	BI3201A	15	Freeborn St	206	Duarte	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2125	BI3201A	17	Tocino Dr	383	Duarte	4	0.29	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2126	BI3201A	18	Royal View St	611	Duarte	4	0.46	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2127	BI3201A	19	Vineyard Ave	390	Duarte	4	0.30	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2128	BI3201A	20	Woodbluff St	792	Duarte	4	0.60	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2129	BI3201A	21	Woodland Ct	538	Duarte	4	0.41	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2131	BI3201A	23	Bernwood St	61	Duarte	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2132	BI3201A	24	Bettyhill Ave	100	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2133	BI3201A	25	Freeborn St	400	Duarte	4	0.30	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2134	BI3201A	26	Gardi St	277	Duarte	4	0.21	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2135	BI3201A	27	Greenbank Ave	245	Duarte	4	0.19	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2137	BI3201A	29	Park View Ct	28	Duarte	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2138	BI3201A	30	Tocino Dr	808	Duarte	4	0.61	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2139	BI3201A	31	Vineyard Ave	90	Duarte	4	0.07	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2141	BI3201A	33		103	Duarte	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2142	BI3201A	34	Bettyhill Ave	68	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2143	BI3201A	35	Bettyhill Ave	349	Duarte	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2144	BI3201A	36	Bettyhill Ave	86	Duarte	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2145	BI3201A	37	Brinsey Ave	29	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2146	BI3201A	38	Conata St	419	Duarte	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2147	BI3201A	39	Deerlane Dr	872	Duarte	4	0.66	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2148	BI3201A	40	Fieldview Ave	393	Duarte	4	0.30	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2149	BI3201A	41	Francita Ave	24	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2150	BI3201A	42	Gardi St	606	Duarte	4	0.46	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2151	BI3201A	43	Gardi St	523	Duarte	4	0.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2152	BI3201A	44	Greenbank Ave	804	Duarte	4	0.61	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2153	BI3201A	45	Larkhall Ave	191	Duarte	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2155	BI3201A	47	Tocino Dr	7	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2156	BI3201A	48	Vineyard Ave	539	Duarte	4	0.41	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2157	BI3201A	49		302	Bradbury	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2159	BI3201A	51	Bettyhill Ave	854	Duarte	4	0.65	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2160	BI3201A	52	Conata St	603	Duarte	4	0.46	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2161	BI3201A	53	Deerlane Dr	71	Duarte	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2162	BI3201A	54	Elda St	284	Duarte	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2163	BI3201A	55	Fieldview Ave	219	Duarte	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2164	BI3201A	56	Fish Canyon Rd	875	Duarte	4	0.66	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2165	BI3201A	57	Greenbank Ave	455	Duarte	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2166	BI3201A	58	Larkhall Ave	385	Duarte	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2167	BI3201A	59	Larkhall Ave	302	Duarte	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2168	BI3201A	60	Tocino Dr	114	Duarte	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2170	BI3201A	62	Tocino Dr	132	Duarte	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2171	BI3201C	1	Van Tassel Mtwy	46	Azusa	4	0.04	Minor-Local	60	6	4	4	78	0.52	5	29	LOW	
2172	BI3201C	2	Mel Canyon Rd	100	Duarte	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2173	BI3201C	3	Opal Canyon Rd	100	Duarte	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2174	BI3201C	4	Royal Oaks Dr	275	Duarte	4	0.21	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2175	BI3201C	5	Deerlane Dr	125	Duarte	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2176	BI3201C	6	Fish Canyon Rd	273	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2177	BI3201C	7	Freeborn St	150	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2178	BI3201C	8	Mel Canyon Rd	1705	Duarte	4	1.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2179	BI3201C	9	Opal Canyon Rd	510	Duarte	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2180	BI406A	1	Galanto Ave	404	County	4	0.31	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2181	BI406A	2	N Fairvale Dr	44	County	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2182	BI406A	3	Calera Ave	16	County	4	0.01	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2183	BI406A	4	E Mauna Loa Ave	183	County	4	0.14	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2184	BI406A	5	Oakbank Dr	688	County	4	0.52	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2185	BI406A	6	Traymore Ave	581	County	4	0.44	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2186	BI406A	7	Traymore Ave	412	County	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2187	BI406A	8	Traymore Ave	932	County	4	0.71	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2188	BI406A	9	Petunia St	1591	County	4	1.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2189	BI406A	10	Petunia St	713	County	4	0.54	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2190	BI406A	11	1st St	98	Azusa	6	0.11	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
2191	BI406A	12	E Baseline Rd	98	Azusa	6	0.11	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
2192	BI406A	13		151	Azusa	4	0.11	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2193	BI406A	14	Calera Ave	26	Azusa	4	0.02	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2194	BI406A	15	E Glenlyn Dr	69	Azusa	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2195	BI406A	16	E Hollyvale St	202	Azusa	4	0.15	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2196	BI406A	17	N Calera Ave	473	Azusa	4	0.36	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2197	BI406A	18	N Calvados Ave	174	Azusa	4	0.13	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2201	BI406A	22	N Barranca Ave	710	County	4	0.54	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2202	BI406A	23		327	County	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2203	BI406A	24		278	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2204	BI406A	25		44	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2205	BI406A	26		1	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2206	BI406A	27	Calera Ave	215	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2207	BI406A	28	Calera Ave	764	County	4	0.58	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2208	BI406A	29	Calera Ave	675	County	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2209	BI406A	30	E Duell St	1503	County	4	1.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2210	BI406A	31	E Linfield St	355	County	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2211	BI406A	32	E Linfield St	344	County	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2212	BI406A	33	E Linfield St	407	County	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2213	BI406A	34	E Mauna Loa Ave	2338	County	4	1.77	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2214	BI406A	35	Factor Ave	1321	County	4	1.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2215	BI406A	36	Galanto Ave	211	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2216	BI406A	37	Galanto Ave	277	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2217	BI406A	38	Glenlyn Dr	685	County	4	0.52	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2218	BI406A	39	Glenlyn Dr	1333	County	4	1.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2219	BI406A	40	N Barranca Ave	665	County	4	0.50	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2220	BI406A	41	N Factor Ave	1	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2221	BI406A	42	N Fairvale Dr	208	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2222	BI406A	43	N Fairvale Dr	463	County	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2223	BI406A	44	N Goodway Dr	217	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2224	BI406A	45	N Goodway Dr	267	County	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2225	BI406A	46	N Hanlin Ave	426	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2226	BI406A	47	N Hanlin Ave	676	County	4	0.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2227	BI406A	48	N Oakbank Dr	1348	County	4	1.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2228	BI406A	49	N Ranger Dr	211	County	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2229	BI406A	50	N Ranger Dr	280	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2230	BI406A	51	E Baseline Rd	22	County	6	0.03	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
2231	BI406A	52	Powell Ave	334	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2234	BI406A	55	Baseline Rd	932	Azusa	6	1.06	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
2238	BI406A	59	N Cerritos Ave	2681	Azusa	4	2.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2240	BI406A	61	S Cerritos Ave	17	Azusa	4	0.01	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
2241	BI406A	62		290	Azusa	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2242	BI406A	63		161	Azusa	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2243	BI406A	64		554	Azusa	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2244	BI406A	65		408	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2245	BI406A	66		759	Azusa	4	0.58	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2246	BI406A	67		328	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2247	BI406A	68		58	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2248	BI406A	69		387	Azusa	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2249	BI406A	70		205	Azusa	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2250	BI406A	71		265	Azusa	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2251	BI406A	72		421	Azusa	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2252	BI406A	73		117	Azusa	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2253	BI406A	74		192	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2254	BI406A	75		187	Azusa	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2255	BI406A	76		792	Azusa	4	0.60	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2256	BI406A	77		127	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2257	BI406A	78		50	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2258	BI406A	79		118	Azusa	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2259	BI406A	80		165	Azusa	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2260	BI406A	81		312	Azusa	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2261	BI406A	82		527	Azusa	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2262	BI406A	83		204	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2263	BI406A	84		89	Azusa	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2264	BI406A	85		178	Azusa	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2265	BI406A	86		216	Azusa	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2266	BI406A	87		388	Azusa	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2267	BI406A	88		25	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2268	BI406A	89	E 2nd St	75	Azusa	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2269	BI406A	90	E Bagnall St	406	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2270	BI406A	91	E Duell St	506	Azusa	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2271	BI406A	92	E Duell St	100	Azusa	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2272	BI406A	93	E Glenlyn Dr	1562	Azusa	4	1.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2273	BI406A	94	E Haltern St	461	Azusa	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2274	BI406A	95	E Haltern St	1627	Azusa	4	1.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2275	BI406A	96	E Hanks St	55	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2276	BI406A	97	E Hanks St	630	Azusa	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2277	BI406A	98	E Hollyvale St	308	Azusa	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2278	BI406A	99	E Hollyvale St	407	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2279	BI406A	100	E Hollyvale St	1099	Azusa	4	0.83	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2280	BI406A	101	E Lee Pl	325	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2281	BI406A	102	E Matchwood Pl	295	Azusa	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2282	BI406A	103	E Matchwood St	618	Azusa	4	0.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2283	BI406A	104	E Mauna Loa Ave	128	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2284	BI406A	105	Edenfield Ave	1377	Azusa	4	1.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2285	BI406A	106	Linfield St	922	Azusa	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2286	BI406A	107	N Calera Ave	80	Azusa	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2287	BI406A	108	N Calvados Ave	1197	Azusa	4	0.91	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2288	BI406A	109	N Factor Ave	526	Azusa	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2289	BI406A	110	N Fenimore Ave	1800	Azusa	4	1.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2290	BI406A	111	N Orangecrest Ave	743	Azusa	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2291	BI406A	112	N Rockvale Ave	2384	Azusa	4	1.81	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2292	BI406A	113	N Rockvale Ave	402	Azusa	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2293	BI406A	114	N Rodecker Dr	721	Azusa	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2294	BI406A	115	N Rodecker Dr	52	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2295	BI406A	116	N Twintree Ave	1046	Azusa	4	0.79	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2296	BI406A	117	N Viceroy Ave	1469	Azusa	4	1.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2297	BI406A	118	Oakbank Dr	24	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2298	BI406A	119		69	Azusa	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2299	BI406A	120		158	Azusa	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2300	BI406A	121		93	Azusa	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2301	BI406A	122		77	Azusa	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2302	BI406A	123		34	Azusa	4	0.03	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2303	BI406A	124	E Lee Pl	237	Azusa	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2304	BI406A	125	N Rockvale Ave	50	Azusa	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
2305	BI406B	1	N San Gabriel Ave	103	Azusa	6	0.12	Primary-Arterial	100	10	5	2	7	0.66	7	35	MED	
2306	BI406B	2	State Route 39	103	Azusa	6	0.12	Primary-Arterial	100	10	5	2	7	0.66	7	35	MED	
2307	BI406B	3		43	Azusa	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2308	BI406B	4	E 10th St	298	Azusa	4	0.23	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2309	BI406B	5	Lakeview Ter	123	Azusa	4	0.09	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2310	BI406B	6	N Alameda Ave	167	Azusa	4	0.13	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2311	BI406B	7	N Dalton Ave	276	Azusa	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2312	BI406B	8	N Palm Dr	359	Azusa	4	0.27	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2313	BI406B	9	Old Mill Rd	94	Azusa	4	0.07	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2314	BI406B	10	N San Gabriel Ave	156	Azusa	6	0.18	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
2315	BI406B	11	N San Gabriel Canyon Rd	519	Azusa	6	0.59	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
2316	BI406B	12	State Route 39	519	Azusa	6	0.59	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
2317	BI406B	13	State Route 39	156	Azusa	6	0.18	Primary-Arterial	100	10	4	4	7	0.66	7	39	MED	
2318	BI406B	14		16	Azusa	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2319	BI406B	15		164	Azusa	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2320	BI406B	16		44	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2321	BI406B	17		129	Azusa	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2322	BI406B	18		56	Azusa	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2323	BI406B	19		186	Azusa	4	0.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2324	BI406B	20		21	Azusa	4	0.02	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2325	BI406B	21		4	Azusa	4	0.00	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2326	BI406B	22		247	Azusa	4	0.19	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2327	BI406B	23	Barberry Wy	253	Azusa	4	0.19	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2328	BI406B	24	Bougainvillea St	114	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2329	BI406B	25	E 10th St	564	Azusa	4	0.43	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2330	BI406B	26	E 11th St	34	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2331	BI406B	27	Lakeview Ter	87	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2332	BI406B	28	Lakeview Ter	182	Azusa	4	0.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2333	BI406B	29	Lakeview Ter	12	Azusa	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2334	BI406B	30	N Alameda Ave	228	Azusa	4	0.17	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2335	BI406B	31	N Azusa Dr	385	Azusa	4	0.29	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2336	BI406B	32	N Dalton Ave	197	Azusa	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2337	BI406B	33	Tangerine St	48	Azusa	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2338	BI406B	34	Woodbine Wy	213	Azusa	4	0.16	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2339	BI406B	35	N Azusa Ave	18	Azusa	6	0.02	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
2340	BI406B	36	N San Gabriel Ave	145	Azusa	6	0.16	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
2341	BI406B	37	N San Gabriel Canyon Rd	83	Azusa	6	0.09	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
2342	BI406B	38	State Route 39	101	Azusa	6	0.11	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
2343	BI406B	39	State Route 39	145	Azusa	6	0.16	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
2344	BI406B	40		100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2345	BI406B	41		192	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2346	BI406B	42		100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2347	BI406B	43	Bougainvillea St	52	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2349	BI406B	45	E 11th St	168	Azusa	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2350	BI406B	46	Lavender Wy	4	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2351	BI406B	47	Lavender Wy	69	Azusa	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2352	BI406B	48	Lopez Ln	103	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2353	BI406B	49	N Azusa Dr	128	Azusa	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2355	BI406B	51	Old Mill Rd	100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2356	BI406B	52	Tangerine St	206	Azusa	4	0.16	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2357	BI406B	53	Soldano Dr	172	Azusa	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2358	BI406B	54	Vosburg Dr	100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2363	BI406B	59		1	Azusa	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2364	BI406B	60		558	Azusa	4	0.42	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2365	BI406B	61		459	Azusa	4	0.35	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2366	BI406B	62		629	Azusa	4	0.48	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2367	BI406B	63		78	Azusa	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2369	BI406B	65	E Rainbow Dr	389	Azusa	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2370	BI406B	66	N Alameda Ave	1665	Azusa	4	1.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2371	BI406B	67	N Alameda Ave	31	Azusa	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2372	BI406B	68	N Dalton Ave	6	Azusa	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2373	BI406B	69	N Dalton Ave	614	Azusa	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2374	BI406B	70	N Dalton Ave	1232	Azusa	4	0.93	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2375	BI406B	71	N Holmar Ave	1025	Azusa	4	0.78	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2377	BI406B	73	N Soldano Ave	505	Azusa	4	0.38	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2378	BI406B	74	Tangerine St	102	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2379	BI406B	75	Soldano Dr	618	Azusa	4	0.47	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2380	BI406B	76	Vosburg Dr	78	Azusa	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2381	BI406B	77	W 10th St	36	Azusa	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2383	BI406B	79	E Foothill Blvd	1637	Azusa	6	1.86	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
2387	BI406B	83	E 4th St	469	Azusa	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2388	BI406B	84	E Hollyvale St	525	Azusa	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2389	BI406B	85	Lee Dr	639	Azusa	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2390	BI406B	86	N Durrell Ave	243	Azusa	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2393	BI406B	89	W Foothill Blvd	219	Azusa	6	0.25	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
2395	BI406B	91	E 5th St	699	Azusa	4	0.53	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2397	BI406B	93		16	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2398	BI406B	94		690	Azusa	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2399	BI406B	95		703	Azusa	4	0.53	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2400	BI406B	96		124	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2401	BI406B	97		202	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2402	BI406B	98		254	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2403	BI406B	99		278	Azusa	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2404	BI406B	100		277	Azusa	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2405	BI406B	101		126	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2406	BI406B	102		183	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2407	BI406B	103		378	Azusa	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2408	BI406B	104		38	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2409	BI406B	105		175	Azusa	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2410	BI406B	106		278	Azusa	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2411	BI406B	107		1074	Azusa	4	0.81	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2412	BI406B	108		126	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2413	BI406B	109		1399	Azusa	4	1.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2414	BI406B	110		166	Azusa	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2415	BI406B	111		690	Azusa	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2416	BI406B	112		251	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2417	BI406B	113		171	Azusa	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2418	BI406B	114		338	Azusa	4	0.26	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2419	BI406B	115		588	Azusa	4	0.45	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2420	BI406B	116		182	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2421	BI406B	117		133	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2422	BI406B	118		179	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2423	BI406B	119		51	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2424	BI406B	120		181	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2425	BI406B	121		399	Azusa	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2426	BI406B	122		413	Azusa	4	0.31	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2427	BI406B	123		236	Azusa	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2428	BI406B	124		497	Azusa	4	0.38	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2429	BI406B	125		296	Azusa	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2430	BI406B	126		124	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2431	BI406B	127		164	Azusa	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2432	BI406B	128		96	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2433	BI406B	129		180	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2434	BI406B	130		38	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2435	BI406B	131		304	Azusa	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2436	BI406B	132		205	Azusa	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2437	BI406B	133	Bougainvillea St	65	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2438	BI406B	134	Cherry Hills Ln	78	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2440	BI406B	136	E 13th St	676	Azusa	4	0.51	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2441	BI406B	137	E 4th St	256	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2443	BI406B	139	E 8th St	800	Azusa	4	0.61	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2445	BI406B	141	E Hollyvale St	39	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2446	BI406B	142	E Santa Fe Ave	416	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2447	BI406B	143	Hermitage Ln	204	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2448	BI406B	144	Lavender Wy	7	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2449	BI406B	145	Lavender Wy	13	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2450	BI406B	146	Lavender Wy	91	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2451	BI406B	147	N Alameda Ave	695	Azusa	4	0.53	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2452	BI406B	148	N Alameda Ave	774	Azusa	4	0.59	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2453	BI406B	149	N Alameda Ave	771	Azusa	4	0.58	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2454	BI406B	150	N Alameda Ave	1692	Azusa	4	1.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2455	BI406B	151	N Alameda Ave	28	Azusa	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2456	BI406B	152	N Dalton Ave	711	Azusa	4	0.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2457	BI406B	153	N Dalton Ave	726	Azusa	4	0.55	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2458	BI406B	154	N Dalton Ave	720	Azusa	4	0.55	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2460	BI406B	156	N Dalton Ave	90	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2461	BI406B	157	N Durrell Ave	422	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2463	BI406B	159	N Soldano Ave	2897	Azusa	4	2.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2464	BI406B	160	Old Mill Rd	0	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2465	BI406B	161	Old San Gabriel Canyon Rd	183	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2466	BI406B	162	Old San Gabriel Canyon Rd	267	Azusa	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2467	BI406B	163	Vosburg Dr	124	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2468	BI406B	164	W 10th St	392	Azusa	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2470	BI406B	166	W 12th St	690	Azusa	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2473	BI406B	169	W Annandale Ln	169	Azusa	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2474	BI406B	170	W Indian Dunes Ln	185	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2475	BI406B	171	W Saint Andrews Ln	120	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2476	BI406B	172		252	Azusa	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2478	BI406B	174	E 13th St	293	Azusa	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2479	BI406B	175	Lavender Wy	33	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2480	BI406B	176	N Dalton Ave	113	Azusa	4	0.09	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2482	BI406B	178	Pebble Beach Ln	204	Azusa	4	0.15	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2594	BI9601B	1		0	Arcadia	4	0.00	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
2595	BI9601B	2	Lower Azusa Rd	681	Arcadia	4	0.52	Secondary-Collector	64	8	0	10	15	0.72	8	52	HIGH	
2596	BI9601B	3		178	Arcadia	4	0.14	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
2597	BRDBY2	1		10	County	4	0.01	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2598	BRDBY2	2		50	County	4	0.04	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2599	BRDBY2	3		130	County	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2600	BRDBY2	4		76	County	4	0.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2601	BRDBY2	5		100	County	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2602	BRDBY2	6		43	County	4	0.03	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2603	BRDBY2	7		12	County	4	0.01	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2604	BRDBY2	8	Royal Oaks Dr N	134	Bradbury	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2605	BRDBY2	9	Winston Ave	199	Bradbury	4	0.15	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2606	BRDBY2	10		47	Bradbury	4	0.04	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2607	BRDBY2	11		103	Bradbury	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2608	BRDBY2	12	Bliss Canyon Rd	103	Bradbury	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2609	BRDBY2	13		100	County	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2610	BRDBY2	14		19	County	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2611	BRDBY2	15	Oaks Ave	15	County	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2612	BRDBY2	16	Royal Oaks Dr N	625	County	4	0.47	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2613	BRDBY2	17		7	County	4	0.01	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2614	BRDBY2	18		69	County	4	0.05	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2615	BRDBY2	19		33	County	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2616	BRDBY2	20	Long Canyon Rd	45	Bradbury	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2617	BRDBY2	21	Oaks Ave	100	Duarte	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2618	BRDBY2	22	Braewood Dr	200	Bradbury	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2619	BRDBY2	23	Royal Oaks Dr N	530	Bradbury	4	0.40	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2620	BRDBY2	24		6	Bradbury	4	0.00	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2621	BRDBY2	25		2	Bradbury	4	0.00	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2622	BRDBY2	26		95	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2623	BRDBY2	27		101	Bradbury	4	0.08	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2624	BRDBY2	28	Bliss Canyon Rd	90	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2625	BRDBY2	29	Bliss Canyon Rd	26	Bradbury	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
2626	BRDBY2	30		79	Bradbury	4	0.06	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
2627	BRDBY2	31	Bliss Canyon Rd	60	Bradbury	4	0.05	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
2628	BRDBY4	1	Woodlyn Ln	67	Bradbury	4	0.05	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2629	BRDBY4	2	Gardi St	189	Bradbury	4	0.14	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2630	BRDBY4	3	Spring Point Dr	39	Bradbury	4	0.03	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2631	BRDBY4	4		100	Bradbury	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2632	BRDBY4	5		124	Bradbury	4	0.09	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
2633	BRDBY4	6	Royal Oaks Dr N	407	Bradbury	4	0.31	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2634	BRDBY4	7	Royal Oaks Dr	193	Duarte	4	0.15	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
2635	BRDBY4	8	Bradbourne Ave	17	Duarte	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2636	BRDBY4	9		113	Duarte	4	0.09	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2637	BRDBY4	10	Gardi St	108	Bradbury	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2638	BRDBY4	11	Royal Oaks Dr N	68	Bradbury	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2639	BRDBY4	12		18	Bradbury	4	0.01	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2640	BRDBY4	13		148	Bradbury	4	0.11	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2641	BRDBY4	14		161	Bradbury	4	0.12	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
2642	BRDBY4	15	Mount Olive Dr	85	Bradbury	4	0.06	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
2643	BRDBY4	16	Royal Oaks Dr N	55	Bradbury	4	0.04	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
2644	BRDBY4	17	Royal Oaks Dr	336	Duarte	4	0.25	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
2645	BRDBY4	18	Random Ln	3	Duarte	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2646	BRDBY4	19	Royal Oaks Dr N	31	Bradbury	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2647	BRDBY4	20		39	Bradbury	4	0.03	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
2648	BRDBY4	21	Bradbury Hills Rd	25	Bradbury	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
2649	BRDBY4	22	Woodlyn Ln	51	Bradbury	4	0.04	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
2650	BRDBY4	23	Woodlyn Ln	101	Bradbury	4	0.08	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
2651	BRDBY4	24	Woodlyn Ln	53	Bradbury	4	0.04	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
2652	BRDBY4	25	Bradbury Hills Rd	103	Bradbury	4	0.08	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
2653	BRDBY5	1	Encanto Pkwy	56	Azusa	4	0.04	Secondary-Collector	64	8	5	2	15	0.72	8	36	MED	
2654	BRDBY5	2		62	Duarte	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2655	BRDBY5	3	Hacienda Dr	204	Duarte	4	0.15	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2656	BRDBY5	4	San Pablo Wy	280	Duarte	4	0.21	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2658	BRDBY5	6	Hacienda Dr	160	Duarte	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2659	BRDBY5	7	Tocino Dr	299	Duarte	4	0.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2660	BRDBY5	8	Rancho Rd	15	Duarte	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2661	BRDBY5	9	San Pablo Wy	249	Duarte	4	0.19	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2662	BRDBY5	10	Rancho Rd	97	Duarte	4	0.07	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
2663	BRDBY5	11	Vista Verde Cir	63	Duarte	4	0.05	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
2665	BRDBY5	13		60	Duarte	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2666	BRDBY5	14		149	Duarte	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2667	BRDBY5	15	Bernardo Cir	17	Duarte	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2668	BRDBY5	16	Brinsey Ave	62	Duarte	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2669	BRDBY5	17	Crestfield Dr	39	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2670	BRDBY5	18	Hacienda Dr	390	Duarte	4	0.30	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2671	BRDBY5	19	Livermont Ln	143	Duarte	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2672	BRDBY5	20	Oakhaven Dr	434	Duarte	4	0.33	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2673	BRDBY5	21	Park View Ct	56	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2674	BRDBY5	22	Swiss Trails Rd	281	Duarte	4	0.21	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2675	BRDBY5	23	Swiss Trails Rd	63	Duarte	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2676	BRDBY5	24	Swiss Trails Rd	74	Duarte	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2677	BRDBY5	25	Tocino Dr	10	Duarte	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2678	BRDBY5	26	Paseo Grande Cir	54	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2679	BRDBY5	27	Rancho Rd	378	Duarte	4	0.29	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2680	BRDBY5	28	San Juan Cir	182	Duarte	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2681	BRDBY5	29	San Pablo Wy	394	Duarte	4	0.30	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2682	BRDBY5	30	Vista Mesa Ct	148	Duarte	4	0.11	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2684	BRDBY5	32	Paseo Grande Cir	43	Duarte	4	0.03	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
2685	BRDBY5	33	Vista Verde Cir	5	Duarte	4	0.00	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
2688	BRDBY5	36	E Huntington Dr	0	Duarte	6	0.00	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
2690	BRDBY5	38	E Huntington Dr	163	Duarte	6	0.19	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
2693	BRDBY5	41		117	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2694	BRDBY5	42		120	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2695	BRDBY5	43		55	Duarte	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2696	BRDBY5	44		334	Duarte	4	0.25	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2697	BRDBY5	45		336	Duarte	4	0.25	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2698	BRDBY5	46		113	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2699	BRDBY5	47	Bashor St	661	Duarte	4	0.50	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2700	BRDBY5	48	Bashor St	905	Duarte	4	0.69	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2701	BRDBY5	49	Bernardo Cir	70	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2702	BRDBY5	50	Brinsey Ave	293	Duarte	4	0.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2703	BRDBY5	51	Calle Adra	10	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2704	BRDBY5	52	Calle Del Norte	118	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2705	BRDBY5	53	Calle Linares	26	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2706	BRDBY5	54	Calle Malaga	32	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2707	BRDBY5	55	Calle Martos	476	Duarte	4	0.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2708	BRDBY5	56	Crestfield Dr	756	Duarte	4	0.57	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2709	BRDBY5	57	Edie St	776	Duarte	4	0.59	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2710	BRDBY5	58	Francita Ave	362	Duarte	4	0.27	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2711	BRDBY5	59	Hacienda Dr	383	Duarte	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2712	BRDBY5	60	Hideaway Ln	235	Duarte	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2713	BRDBY5	61	Kellogg Ct	24	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2715	BRDBY5	63	Livermont Ln	528	Duarte	4	0.40	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2716	BRDBY5	64	Oakhaven Dr	127	Duarte	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2717	BRDBY5	65	Park View Ct	272	Duarte	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2718	BRDBY5	66	Swiss Trails Rd	128	Duarte	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2719	BRDBY5	67	Swiss Trails Rd	432	Duarte	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2720	BRDBY5	68	Swiss Trails Rd	685	Duarte	4	0.52	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2721	BRDBY5	69	Swiss Trails Rd	64	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2722	BRDBY5	70	Rancho Rd	233	Duarte	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2723	BRDBY5	71	San Pablo Wy	476	Duarte	4	0.36	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2724	BRDBY5	72	Sino Ave	125	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2725	BRDBY5	73	Vineyard Ave	201	Duarte	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2726	BRDBY5	74	Vineyard Ave	350	Duarte	4	0.27	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2727	BRDBY5	75	Vista Laguna Cir	71	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2729	BRDBY5	77		17	Azusa	4	0.01	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
2730	BRDBY5	78		149	Duarte	6	0.17	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
2733	BRDBY5	81	E Huntington Dr	1131	Duarte	6	1.29	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
2734	BRDBY5	82	Mount Olive Dr	51	Duarte	4	0.04	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2735	BRDBY5	83	Mount Olive Dr	52	Duarte	4	0.04	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2737	BRDBY5	85		76	Duarte	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2738	BRDBY5	86		329	Duarte	4	0.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2739	BRDBY5	87		1278	Duarte	4	0.97	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2740	BRDBY5	88		499	Duarte	4	0.38	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2741	BRDBY5	89		88	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2742	BRDBY5	90		209	Duarte	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2743	BRDBY5	91		44	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2744	BRDBY5	92		104	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2745	BRDBY5	93	Bashor St	277	Duarte	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2746	BRDBY5	94	Beardslee St	542	Duarte	4	0.41	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2747	BRDBY5	95	Bettyhill Ave	196	Duarte	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2748	BRDBY5	96	Bloomdale St	1656	Duarte	4	1.25	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2749	BRDBY5	97	Calle Del Norte	24	Duarte	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2750	BRDBY5	98	Calle Martos	80	Duarte	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2751	BRDBY5	99	Calle Villada Cir	255	Duarte	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2752	BRDBY5	100	Casillas Ct	314	Duarte	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2753	BRDBY5	101	Central Ave	24	Duarte	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2754	BRDBY5	102	Crestfield Dr	1053	Duarte	4	0.80	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2755	BRDBY5	103	Crestfield Dr	7	Duarte	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2756	BRDBY5	104	Edie St	8	Duarte	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2757	BRDBY5	105	Fernley Dr	681	Duarte	4	0.52	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2758	BRDBY5	106	Fieldview Ave	568	Duarte	4	0.43	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2759	BRDBY5	107	Freeborn St	1127	Duarte	4	0.85	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2760	BRDBY5	108	Gardi St	547	Duarte	4	0.41	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2761	BRDBY5	109	Greenbank Ave	546	Duarte	4	0.41	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2762	BRDBY5	110	Hacienda Dr	64	Duarte	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2763	BRDBY5	111	Kellogg Ct	200	Duarte	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2764	BRDBY5	112	Las Brisas Dr	702	Duarte	4	0.53	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2766	BRDBY5	114	Livermont Ln	266	Duarte	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2767	BRDBY5	115	Livermont Ln	57	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2768	BRDBY5	116	Maynard Dr	1317	Duarte	4	1.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2769	BRDBY5	117	Millbrae Ave	614	Duarte	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2770	BRDBY5	118	Mission Pl	99	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2771	BRDBY5	119	Olive Dr	294	Duarte	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2772	BRDBY5	120	Pacific Ct	99	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2773	BRDBY5	121	Swiss Trails Rd	100	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2774	BRDBY5	122	Treefern Dr	1001	Duarte	4	0.76	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2775	BRDBY5	123	San Marcos Ln	214	Duarte	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2776	BRDBY5	124	Santa Barbara Cir	26	Duarte	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2777	BRDBY5	125	Santa Maria Cir	87	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2778	BRDBY5	126	Sesmas St	411	Duarte	4	0.31	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2779	BRDBY5	127	Sierra Ct	96	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2780	BRDBY5	128	Sorrento Cir	32	Duarte	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2781	BRDBY5	129		27	Duarte	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
2782	BRDBY5	130	San Marcos Ln	148	Duarte	4	0.11	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
2784	BRDBY5	132		181	Duarte	6	0.21	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
2788	BRDBY5	136	E Huntington Dr	2276	Duarte	6	2.59	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
2791	BRDBY5	139		16	Duarte	4	0.01	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2792	BRDBY5	140		45	Duarte	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2793	BRDBY5	141		1781	Duarte	1	0.34	Alley	20	4	0	10	7	0.66	7	45	HIGH	
2794	BRDBY5	142	Bloomdale St	754	Duarte	4	0.57	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2795	BRDBY5	143	Calle Adra	458	Duarte	4	0.35	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2796	BRDBY5	144	Calle Linares	424	Duarte	4	0.32	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2797	BRDBY5	145	Calle Malaga	510	Duarte	4	0.39	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2798	BRDBY5	146	Calle Villada Cir	501	Duarte	4	0.38	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2799	BRDBY5	147	Crestfield Dr	241	Duarte	4	0.18	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2800	BRDBY5	148	Crossroads Ct	142	Duarte	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2801	BRDBY5	149	Fernley Dr	922	Duarte	4	0.70	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2802	BRDBY5	150	Greenbank Ave	105	Duarte	4	0.08	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2803	BRDBY5	151	Kellogg Ct	47	Duarte	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2805	BRDBY5	153	Maynard Dr	1314	Duarte	4	1.00	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2806	BRDBY5	154	Millbrae Ave	437	Duarte	4	0.33	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2807	BRDBY5	155	Swiss Trails Rd	312	Duarte	4	0.24	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2808	BRDBY5	156	Trails Ln	246	Duarte	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2809	BRDBY5	157	Treefern Dr	46	Duarte	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2810	BRDBY5	158	Waterfall Wy	303	Duarte	4	0.23	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2816	FISH2	1		46	Azusa	4	0.03	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
2817	FISH2	2	Fish Canyon Rd	66	Azusa	4	0.05	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
2818	FISH2	3		67	Azusa	4	0.05	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
2819	FISH2	4	Fish Canyon Rd	549	Azusa	4	0.42	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
2820	FISH2	5		124	Azusa	4	0.09	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
2821	FISH2	6	Fish Canyon Rd	270	Azusa	4	0.20	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
2822	FISH2	7	Fish Canyon Rd	134	Azusa	4	0.10	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
2823	GLDST	1	S Jackson Ave	100	Azusa	4	0.08	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
2824	GLDST	2	W Paramount St	82	Azusa	4	0.06	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2825	GLDST	3	Jackson Ave	36	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2826	GLDST	4	S Jackson Ave	81	Azusa	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2827	GLDST	5	W Paramount St	100	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2828	GLDST	6	Jackson Ave	200	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2829	GLDST	7	S Jackson Ave	100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2830	GLDST	8	Solem Ave	278	Azusa	4	0.21	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2831	GLDST	9	W Paramount St	200	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2832	GLDST	10	Aspan Ave	271	Azusa	4	0.21	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2833	GLDST	11	Jackson Ave	100	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2834	GLDST	12	Momax Ave	339	Azusa	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2835	GLDST	13	S Aspan Ave	179	Azusa	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2836	GLDST	14	S Virginia Ave	83	Azusa	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2837	GLDST	15	S Virginia Ave	189	Azusa	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2838	GLDST	16	Solem Ave	137	Azusa	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2839	GLDST	17	Solem St	141	Azusa	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2840	GLDST	18	W Paramount St	438	Azusa	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2841	GLDST	19	Orkney St	149	County	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2842	GLDST	20	S Aspan Ave	19	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2843	GLDST	21	S Clydebank Ave	20	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2844	GLDST	22	S Jackson Ave	21	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2845	GLDST	23	S Virginia Ave	29	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2846	GLDST	24	E Gladstone St	439	County	4	0.33	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2847	GLDST	25	W Gladstone St	1618	County	4	1.23	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2848	GLDST	26		25	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2849	GLDST	27	Astell Ave	414	County	4	0.31	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2850	GLDST	28	E Payson St	763	County	4	0.58	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2851	GLDST	29	Lark Ellen Ave	76	County	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2852	GLDST	30	N Clydebank Ave	20	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2853	GLDST	31	N Gareloch Ave	520	County	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2854	GLDST	32	N Roxburgh Ave	441	County	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2855	GLDST	33	W Gladstone St	43	Azusa	4	0.03	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
2856	GLDST	34		483	Azusa	4	0.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2857	GLDST	35		482	Azusa	4	0.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2858	GLDST	36		482	Azusa	4	0.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2859	GLDST	37		481	Azusa	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2860	GLDST	38		77	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2861	GLDST	39		424	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2862	GLDST	40		377	Azusa	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2863	GLDST	41	Aspan Ave	142	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2864	GLDST	42	E Payson St	3	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2865	GLDST	43	Jackson Ave	100	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2866	GLDST	44	Jerez Ave	155	Azusa	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2867	GLDST	45	Lark Ellen Ave	671	Azusa	4	0.51	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2868	GLDST	46	Momax Ave	78	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2869	GLDST	47	N Aspan Ave	245	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2870	GLDST	48	S Aspan Ave	1152	Azusa	4	0.87	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2871	GLDST	49	S Aspan Ave	151	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2872	GLDST	50	S Jackson Ave	1066	Azusa	4	0.81	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2873	GLDST	51	S Vernon Ave	8	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2874	GLDST	52	S Virginia Ave	1247	Azusa	4	0.94	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2875	GLDST	53	S Virginia Ave	733	Azusa	4	0.56	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2876	GLDST	54	Solem St	77	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2877	GLDST	55	W 1st St	66	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2878	GLDST	56	W Paramount St	540	Azusa	4	0.41	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
2879	GLDST	57		3	Azusa	4	0.00	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2880	GLDST	58	Jackson Ave	534	Azusa	4	0.40	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2881	GLDST	59	Jerez Ave	349	Azusa	4	0.26	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2882	GLDST	60	Jerez St	190	Azusa	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2883	GLDST	61	Lark Ellen Ave	281	Azusa	4	0.21	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2884	GLDST	62	N Aspan Ave	418	Azusa	4	0.32	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2885	GLDST	63	Torreon Ave	342	Azusa	4	0.26	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2886	GLDST	64	Parkside Ave	697	Azusa	4	0.53	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2887	GLDST	65	Parkside St	77	Azusa	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2888	GLDST	66	S Aspan Ave	193	Azusa	4	0.15	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2889	GLDST	67	S Virginia Ave	391	Azusa	4	0.30	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2890	GLDST	68	W 1st St	798	Azusa	4	0.60	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2891	GLDST	69	Zamara St	70	Azusa	4	0.05	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
2892	LDLTW4	1	N Citrus Ave	243	Azusa	6	0.28	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
2893	LDLTW4	2		383	Azusa	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
2894	LDLTW5	1	Sycamore Dr	53	Azusa	4	0.04	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2895	LDLTW5	2		290	Azusa	4	0.22	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2896	LDLTW5	3		300	Azusa	4	0.23	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2897	LDLTW5	4		192	Azusa	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2898	LDLTW5	5		12	Azusa	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2899	LDLTW5	6		45	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2900	LDLTW5	7		46	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2901	LDLTW5	8		698	Azusa	4	0.53	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2902	LDLTW5	9		178	Azusa	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2903	LDLTW5	10		81	Azusa	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2904	LDLTW5	11		117	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2905	LDLTW5	12		38	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2906	LDLTW5	13		122	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2907	LDLTW5	14		145	Azusa	4	0.11	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2908	LDLTW5	15		34	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2909	LDLTW5	16		131	Azusa	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2910	LDLTW5	17		61	Azusa	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2911	LDLTW5	18		105	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2912	LDLTW5	19		705	Azusa	4	0.53	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2913	LDLTW5	20		543	Azusa	4	0.41	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2914	LDLTW5	21		179	Azusa	4	0.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2915	LDLTW5	22		164	Azusa	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2916	LDLTW5	23		159	Azusa	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2917	LDLTW5	24		116	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2918	LDLTW5	25		95	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2919	LDLTW5	26		95	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2920	LDLTW5	27	Acacia Ct	99	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2921	LDLTW5	28	Azusa Veterans Wy	822	Azusa	4	0.62	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2922	LDLTW5	29	Barberry Wy	336	Azusa	4	0.25	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2923	LDLTW5	30	Botanica Ln	125	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2924	LDLTW5	31	Cornejo Wy	403	Azusa	4	0.30	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2925	LDLTW5	32	Cornejo Wy	202	Azusa	4	0.15	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2926	LDLTW5	33	E 9th St	419	Azusa	4	0.32	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2927	LDLTW5	34	E Laurel Oak Dr	128	Azusa	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2928	LDLTW5	35	E Laurel Oak Dr	283	Azusa	4	0.21	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2929	LDLTW5	36	E Silver Maple Dr	115	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2930	LDLTW5	37	Haggard Wy	20	Azusa	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2931	LDLTW5	38	Mary Hill Ln	45	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2932	LDLTW5	39	N Palm Dr	222	Azusa	4	0.17	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2933	LDLTW5	40	N Sequoia Ln	39	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2934	LDLTW5	41	N Sequoia Ln	129	Azusa	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2935	LDLTW5	42	N Sequoia Ln	136	Azusa	4	0.10	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2936	LDLTW5	43	Palm Dr	46	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2937	LDLTW5	44	Sycamore Dr	348	Azusa	4	0.26	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2938	LDLTW5	45	The Promenade	705	Azusa	4	0.53	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2939	LDLTW5	46	The Promenade	125	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2940	LDLTW5	47	Primrose Ln	190	Azusa	4	0.14	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2941	LDLTW5	48	Purple Sage Dr	342	Azusa	4	0.26	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2942	LDLTW5	49	Roseway Ct	120	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2943	LDLTW5	50	Roseway Ct	177	Azusa	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2944	LDLTW5	51	Roseway Ct	117	Azusa	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2945	LDLTW5	52	Ruby Lace Wy	297	Azusa	4	0.22	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2946	LDLTW5	53	Woodbine Wy	38	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
2947	LDLTW5	54		15	Azusa	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2948	LDLTW5	55		347	Azusa	4	0.26	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2949	LDLTW5	56		60	Azusa	4	0.05	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2950	LDLTW5	57		184	Azusa	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2951	LDLTW5	58		14	Azusa	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2952	LDLTW5	59		395	Azusa	4	0.30	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2953	LDLTW5	60		57	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2954	LDLTW5	61		55	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2955	LDLTW5	62		0	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2956	LDLTW5	63		2	Azusa	4	0.00	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2957	LDLTW5	64		112	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2958	LDLTW5	65		78	Azusa	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2959	LDLTW5	66		100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2960	LDLTW5	67	Azusa Veterans Wy	173	Azusa	4	0.13	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2961	LDLTW5	68	Cornejo Wy	128	Azusa	4	0.10	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2962	LDLTW5	69	E 9th St	335	Azusa	4	0.25	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2963	LDLTW5	70	E Silver Maple Dr	200	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2964	LDLTW5	71	Haggard Wy	519	Azusa	4	0.39	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2965	LDLTW5	72	Mary Hill Ln	184	Azusa	4	0.14	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2966	LDLTW5	73	N Palm Dr	103	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2967	LDLTW5	74	N Sequoia Ln	100	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2968	LDLTW5	75	N Sequoia Ln	59	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
2969	LDLTW5	76	Palm Dr	14	Azusa	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2970	LDLTW5	77	Ruby Lace Wy	203	Azusa	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
2971	LDLTW5	78	E Alosta Ave	805	Azusa	6	0.91	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
2973	LDLTW5	80	E Foothill Blvd	367	Azusa	6	0.42	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
2975	LDLTW5	82	Route 66	805	Azusa	6	0.91	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
2977	LDLTW5	84	E Alosta Ave	68	Azusa	6	0.08	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
2979	LDLTW5	86	Route 66	68	Azusa	6	0.08	Primary-Arterial	100	10	2	8	6	0.33	3	35	MED	
2981	LDLTW5	88		6	Azusa	4	0.00	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2982	LDLTW5	89		71	Azusa	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2983	LDLTW5	90		45	Azusa	4	0.03	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
2984	LDLTW5	91	N Cerritos Ave	101	Azusa	4	0.08	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
2985	LDLTW5	92		93	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2986	LDLTW5	93		24	Azusa	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2987	LDLTW5	94		205	Azusa	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2988	LDLTW5	95		348	Azusa	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2989	LDLTW5	96		128	Azusa	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2990	LDLTW5	97		56	Azusa	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2991	LDLTW5	98		367	Azusa	4	0.28	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2992	LDLTW5	99		106	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2993	LDLTW5	100		189	Azusa	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2994	LDLTW5	101		147	Azusa	4	0.11	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2995	LDLTW5	102		92	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2996	LDLTW5	103		64	Azusa	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2997	LDLTW5	104		92	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2998	LDLTW5	105		86	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
2999	LDLTW5	106		27	Azusa	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3000	LDLTW5	107		158	Azusa	4	0.12	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3001	LDLTW5	108		71	Azusa	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3002	LDLTW5	109		263	Azusa	4	0.20	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3003	LDLTW5	110		90	Azusa	4	0.07	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3004	LDLTW5	111		336	Azusa	4	0.25	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3005	LDLTW5	112		118	Azusa	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3006	LDLTW5	113		284	Azusa	4	0.22	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3007	LDLTW5	114		0	Azusa	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3008	LDLTW5	115		259	Azusa	4	0.20	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3009	LDLTW5	116		106	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3010	LDLTW5	117		563	Azusa	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3011	LDLTW5	118		101	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3012	LDLTW5	119	Cedarglen Dr	298	Azusa	4	0.23	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3013	LDLTW5	120	Centennial Ln	603	Azusa	4	0.46	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3014	LDLTW5	121	Cornejo Wy	1	Azusa	4	0.00	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3015	LDLTW5	122	E 6th St	482	Azusa	4	0.37	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3016	LDLTW5	123	E Lime St	259	Azusa	4	0.20	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3017	LDLTW5	124	E Pepper Tree Dr	438	Azusa	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3018	LDLTW5	125	E Ponderosa Dr	62	Azusa	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3019	LDLTW5	126	E Silver Maple Dr	121	Azusa	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3020	LDLTW5	127	Haggard Wy	340	Azusa	4	0.26	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3021	LDLTW5	128	Mary Hill Ln	563	Azusa	4	0.43	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3022	LDLTW5	129	N Glenfinnan Ave	388	Azusa	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3023	LDLTW5	130	N Olive Ct	210	Azusa	4	0.16	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3024	LDLTW5	131	N Palm Dr	541	Azusa	4	0.41	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3025	LDLTW5	132	N Rockvale Ave	1740	Azusa	4	1.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3026	LDLTW5	133	N Sequoia Ln	241	Azusa	4	0.18	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3027	LDLTW5	134	N Sequoia Ln	185	Azusa	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3028	LDLTW5	135	Orchard Lp	76	Azusa	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3029	LDLTW5	136	Orchard Lp	483	Azusa	4	0.37	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3030	LDLTW5	137	Ruby Lace Wy	67	Azusa	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3031	LDLTW5	138	Woodbine Wy	101	Azusa	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3032	LDLTW5	139	Parkway Ave	426	Azusa	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3033	LDLTW5	140	Powell Ave	16	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3034	LDLTW5	141	Ronald Ct	160	Azusa	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3035	LDLTW5	142	Shire Ln	330	Azusa	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3036	LDLTW5	143	Shire Wy	805	Azusa	4	0.61	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3037	LDLTW5	144	University Wy	1161	Azusa	4	0.88	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3038	LDLTW5	145	Village Ln	392	Azusa	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3039	LDLTW5	146	Warren Pl	294	Azusa	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3040	LDLTW5	147	E Alosta Ave	430	Azusa	6	0.49	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3042	LDLTW5	149	E Foothill Blvd	950	Azusa	6	1.08	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3044	LDLTW5	151	Route 66	430	Azusa	6	0.49	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3046	LDLTW5	153	Avenue Alosta	193	Azusa	6	0.22	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3047	LDLTW5	154	E Alosta Ave	636	Azusa	6	0.72	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3048	LDLTW5	155	E Alosta Ave	4280	Azusa	6	4.86	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3051	LDLTW5	158	Route 66	4280	Azusa	6	4.86	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3053	LDLTW5	160	E 5th St	1258	Azusa	4	0.95	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3054	LDLTW5	161	E 5th St	999	Azusa	4	0.76	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3055	LDLTW5	162	E 5th St	345	Azusa	4	0.26	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3056	LDLTW5	163	N Cerritos Ave	265	Azusa	4	0.20	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3057	LDLTW5	164		25	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3058	LDLTW5	165		24	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3059	LDLTW5	166		65	Azusa	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3060	LDLTW5	167		54	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3061	LDLTW5	168		41	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3062	LDLTW5	169		275	Azusa	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3063	LDLTW5	170		295	Azusa	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3064	LDLTW5	171		402	Azusa	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3065	LDLTW5	172		200	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3066	LDLTW5	173		200	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3067	LDLTW5	174		457	Azusa	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3068	LDLTW5	175		140	Azusa	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3069	LDLTW5	176		218	Azusa	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3070	LDLTW5	177		130	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3071	LDLTW5	178		12	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3072	LDLTW5	179		339	Azusa	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3073	LDLTW5	180		108	Azusa	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3074	LDLTW5	181		352	Azusa	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3075	LDLTW5	182		105	Azusa	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3076	LDLTW5	183		124	Azusa	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3077	LDLTW5	184		225	Azusa	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3078	LDLTW5	185		43	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3079	LDLTW5	186		136	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3080	LDLTW5	187		199	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3081	LDLTW5	188		41	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3082	LDLTW5	189		303	Azusa	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3083	LDLTW5	190		200	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3084	LDLTW5	191		606	Azusa	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3085	LDLTW5	192		185	Azusa	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3086	LDLTW5	193		651	Azusa	4	0.49	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3087	LDLTW5	194		127	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3088	LDLTW5	195		859	Azusa	4	0.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3089	LDLTW5	196		283	Azusa	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3090	LDLTW5	197		93	Azusa	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3091	LDLTW5	198		101	Azusa	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3092	LDLTW5	199		62	Azusa	4	0.05	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3093	LDLTW5	200		349	Azusa	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3094	LDLTW5	201		79	Azusa	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3095	LDLTW5	202	Campus Ln	297	Azusa	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3096	LDLTW5	203	Center Dr	138	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3097	LDLTW5	204	Circle Dr	430	Azusa	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3098	LDLTW5	205	E Hollyvale St	6	Azusa	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3099	LDLTW5	206	East Dr	204	Azusa	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3100	LDLTW5	207	Lee Dr	105	Azusa	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3101	LDLTW5	208	Magnolia Pl	224	Azusa	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3102	LDLTW5	209	N Calera Ave	25	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3103	LDLTW5	210	N Central Ave	126	Azusa	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3104	LDLTW5	211	N Rockvale Ave	169	Azusa	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3105	LDLTW5	212	Trinity Ln	450	Azusa	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3106	LDLTW5	213		40	Azusa	4	0.03	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
3107	LDLTW5	214	E 5th St	492	Azusa	4	0.37	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
3108	LDLTW5	215	N Cerritos Ave	1330	Azusa	4	1.01	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
3109	LDLTW5	216		144	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3110	LDLTW5	217		164	Azusa	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3111	LDLTW5	218		87	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3112	LDLTW5	219		181	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3113	LDLTW5	220		179	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3114	LDLTW5	221		428	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3115	LDLTW5	222		238	Azusa	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3116	LDLTW5	223		395	Azusa	4	0.30	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3117	LDLTW5	224		101	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3118	LDLTW5	225		43	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3119	LDLTW5	226		384	Azusa	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3120	LDLTW5	227		134	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3121	LDLTW5	228		229	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3122	LDLTW5	229		49	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3123	LDLTW5	230		215	Azusa	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3124	LDLTW5	231		130	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3125	LDLTW5	232		214	Azusa	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3126	LDLTW5	233		232	Azusa	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3127	LDLTW5	234		196	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3128	LDLTW5	235		90	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3129	LDLTW5	236		198	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3130	LDLTW5	237		378	Azusa	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3131	LDLTW5	238		145	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3132	LDLTW5	239		2	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3133	LDLTW5	240		78	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3134	LDLTW5	241		92	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3135	LDLTW5	242		118	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3136	LDLTW5	243		307	Azusa	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3137	LDLTW5	244		40	Azusa	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3138	LDLTW5	245		1366	Azusa	4	1.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3139	LDLTW5	246		177	Azusa	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3140	LDLTW5	247		255	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3141	LDLTW5	248		59	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3142	LDLTW5	249		108	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3143	LDLTW5	250		74	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3144	LDLTW5	251	Center Dr	298	Azusa	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3145	LDLTW5	252	Circle Dr	30	Azusa	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3146	LDLTW5	253	Circle Dr	76	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3147	LDLTW5	254	Club Wy	774	Azusa	4	0.59	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3148	LDLTW5	255	E 6th St	223	Azusa	4	0.17	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3149	LDLTW5	256	E 6th St	99	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3150	LDLTW5	257	E 8th St	613	Azusa	4	0.46	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3152	LDLTW5	259	E Ponderosa Dr	280	Azusa	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3153	LDLTW5	260	East Dr	107	Azusa	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3154	LDLTW5	261	Heritage Ct	443	Azusa	4	0.34	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3155	LDLTW5	262	Mary Hill Ln	177	Azusa	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3156	LDLTW5	263	N Glenfinnan Ave	3	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3157	LDLTW5	264	N Palm Dr	187	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3158	LDLTW5	265	N Rockvale Ave	46	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3159	LDLTW5	266	N Sequoia Ln	90	Azusa	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3160	LDLTW5	267	Orchard Lp	78	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3161	LDLTW5	268	Orchard Lp	364	Azusa	4	0.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3162	LDLTW5	269	Shire Wy	164	Azusa	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3163	LDLTW5	270	Stein Wy	665	Azusa	4	0.50	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3164	LDLTW5	271	West Dr	295	Azusa	4	0.22	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3165	LDLTW5	272	Woodbine Wy	160	Azusa	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3166	LDLTW5	273	E 5th St	187	Azusa	4	0.14	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
3167	LDLTW5	274	E 5th St	324	Azusa	4	0.25	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
3168	LDLTW5	275		95	Azusa	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3169	LDLTW5	276		80	Azusa	4	0.06	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3170	LDLTW5	277		254	Azusa	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3171	LDLTW5	278		20	Azusa	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3172	LDLTW5	279		28	Azusa	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3173	LDLTW5	280		217	Azusa	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3174	LDLTW5	281		14	Azusa	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3175	LDLTW5	282		352	Azusa	4	0.27	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3176	LDLTW5	283		93	Azusa	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3177	LDLTW5	284		159	Azusa	4	0.12	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3178	LDLTW5	285	N Rockvale Ave	277	Azusa	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3179	LDLTW5	286		179	Azusa	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3180	LDLTW5	287	N Rockvale Ave	222	Azusa	4	0.17	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3181	LDLTW6	1	Nearfield St	273	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3183	LDLTW6	3	N San Gabriel Ave	54	Azusa	6	0.06	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
3184	LDLTW6	4	State Route 39	158	Azusa	6	0.18	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
3185	LDLTW6	5	State Route 39	54	Azusa	6	0.06	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	
3186	LDLTW6	6		169	Azusa	4	0.13	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3187	LDLTW6	7		8	Azusa	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3188	LDLTW6	8	E 4th St	62	Azusa	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3189	LDLTW6	9	N Alameda Ave	185	Azusa	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3190	LDLTW6	10	W 4th St	43	Azusa	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3191	LDLTW6	11	E Baseline Rd	217	County	6	0.25	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3193	LDLTW6	13	E Alford St	0	County	4	0.00	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3194	LDLTW6	14	E Fondale St	0	County	4	0.00	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3195	LDLTW6	15	S Cerritos Ave	119	County	4	0.09	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3197	LDLTW6	17		4	County	4	0.00	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3198	LDLTW6	18		9	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3199	LDLTW6	19	Cedarglen Dr	54	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3200	LDLTW6	20	Citrus Edge St	287	County	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3201	LDLTW6	21	E Alford St	561	County	4	0.42	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3202	LDLTW6	22	E Armstead St	290	County	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3203	LDLTW6	23	E Bellefont Dr	282	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3204	LDLTW6	24	E Fondale St	327	County	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3205	LDLTW6	25	Gaillard St	271	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3206	LDLTW6	26	Galatea St	130	County	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3207	LDLTW6	27	Galatea St	299	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3208	LDLTW6	28	Ghent St	268	County	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3209	LDLTW6	29	N Glenfinnan Ave	13	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3210	LDLTW6	30	S Grandin Ave	34	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3211	LDLTW6	31	Viceroy Ave	108	County	4	0.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3213	LDLTW6	33		5	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3214	LDLTW6	34	S Angeleno Ave	146	Azusa	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3215	LDLTW6	35	S Angeleno Ave	1434	Azusa	4	1.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3216	LDLTW6	36	S Arthur Ave	532	Azusa	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3217	LDLTW6	37	S Elliot Ave	1416	Azusa	4	1.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3218	LDLTW6	38	S Grandin Ave	946	Azusa	4	0.72	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3219	LDLTW6	39	S Omalley Ave	925	Azusa	4	0.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3220	LDLTW6	40	S Orange Ave	651	Azusa	4	0.49	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3221	LDLTW6	41	S Orange Ave	121	Azusa	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3222	LDLTW6	42	S Pasadena Ave	2023	Azusa	4	1.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3223	LDLTW6	43	S Rosalinda Ave	689	Azusa	4	0.52	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3224	LDLTW6	44	S San Gabriel Ave	293	Azusa	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3225	LDLTW6	45	S Sunset Ave	606	Azusa	4	0.46	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3226	LDLTW6	46	S Sunset Ave	214	Azusa	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3227	LDLTW6	47	San Gabriel Pl	1039	Azusa	4	0.79	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3228	LDLTW6	48	Scott Ave	448	Azusa	4	0.34	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3229	LDLTW6	49	Soldano Ave	1103	Azusa	4	0.84	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3230	LDLTW6	50	W Paramount St	1599	Azusa	4	1.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3231	LDLTW6	51		316	Azusa	6	0.36	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3234	LDLTW6	54		344	Azusa	6	0.39	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3236	LDLTW6	56	E Baseline Rd	969	Azusa	6	1.10	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3237	LDLTW6	57	N Azusa Ave	376	Azusa	6	0.43	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3238	LDLTW6	58	N Citrus Ave	20	Azusa	6	0.02	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3240	LDLTW6	60	S Azusa Ave	2684	Azusa	6	3.05	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3243	LDLTW6	63	State Route 39	3028	Azusa	6	3.44	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3244	LDLTW6	64	E Alford St	42	Azusa	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3245	LDLTW6	65	E Fondale St	34	Azusa	4	0.03	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3249	LDLTW6	69	S Cerritos Ave	415	Azusa	4	0.31	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3250	LDLTW6	70	S Cerritos Ave	297	Azusa	4	0.22	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3251	LDLTW6	71	S Cerritos Ave	1881	Azusa	4	1.43	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3254	LDLTW6	74		148	Azusa	4	0.11	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3255	LDLTW6	75		227	Azusa	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3256	LDLTW6	76		41	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3257	LDLTW6	77		31	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3258	LDLTW6	78		50	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3259	LDLTW6	79		272	Azusa	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3260	LDLTW6	80		1146	Azusa	4	0.87	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3261	LDLTW6	81		485	Azusa	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3262	LDLTW6	82		152	Azusa	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3263	LDLTW6	83	Alameda Ave	590	Azusa	4	0.45	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3264	LDLTW6	84	Celeste St	835	Azusa	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3265	LDLTW6	85	Dixon St	960	Azusa	4	0.73	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3266	LDLTW6	86	E 2nd St	439	Azusa	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3267	LDLTW6	87	E 2nd St	219	Azusa	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3268	LDLTW6	88	E 3rd St	345	Azusa	4	0.26	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3269	LDLTW6	89	E Azusa Ln	740	Azusa	4	0.56	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3270	LDLTW6	90	E Casita St	239	Azusa	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3271	LDLTW6	91	E Duell St	32	Azusa	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3272	LDLTW6	92	E Duell St	309	Azusa	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3273	LDLTW6	93	E Hanks St	385	Azusa	4	0.29	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3274	LDLTW6	94	E Mc Kinley St	1328	Azusa	4	1.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3275	LDLTW6	95	E Roland St	1170	Azusa	4	0.89	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3276	LDLTW6	96	E Russell St	2246	Azusa	4	1.70	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3277	LDLTW6	97	Manning St	719	Azusa	4	0.55	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3278	LDLTW6	98	Mason St	2180	Azusa	4	1.65	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3279	LDLTW6	99	Murray Ave	826	Azusa	4	0.63	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3280	LDLTW6	100	N Dalton Ave	755	Azusa	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3281	LDLTW6	101	N Dominguez Pl	122	Azusa	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3282	LDLTW6	102	N Rockvale Ave	206	Azusa	4	0.16	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3283	LDLTW6	103	N Rodecker Dr	10	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3284	LDLTW6	104	N Rodecker Dr	1039	Azusa	4	0.79	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3285	LDLTW6	105	N San Gabriel Ave	186	Azusa	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3286	LDLTW6	106	Noble Ave	699	Azusa	4	0.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3287	LDLTW6	107	Noble Pl	49	Azusa	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3288	LDLTW6	108	State Route 39	3095	Azusa	6	3.52	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3290	LDLTW6	110	W Foothill Blvd	331	Azusa	6	0.38	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
3292	LDLTW6	112	E 5th St	1361	Azusa	4	1.03	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
3295	LDLTW6	115	W 5th St	507	Azusa	4	0.38	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
3296	LDLTW6	116		476	Azusa	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3297	LDLTW6	117		190	Azusa	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3298	LDLTW6	118		2885	Azusa	4	2.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3299	LDLTW6	119		193	Azusa	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3300	LDLTW6	120		298	Azusa	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3301	LDLTW6	121		2673	Azusa	4	2.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3302	LDLTW6	122		2594	Azusa	4	1.96	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3303	LDLTW6	123		563	Azusa	4	0.43	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3304	LDLTW6	124		2171	Azusa	4	1.64	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3305	LDLTW6	125	Alameda Ave	426	Azusa	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3306	LDLTW6	126	E 2nd St	1090	Azusa	4	0.83	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3307	LDLTW6	127	E 3rd St	1575	Azusa	4	1.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3308	LDLTW6	128	E 4th St	1322	Azusa	4	1.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3309	LDLTW6	129	N Alameda Ave	2417	Azusa	4	1.83	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3310	LDLTW6	130	N Angeleno Ave	895	Azusa	4	0.68	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3311	LDLTW6	131	N Dalton Ave	2852	Azusa	4	2.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3312	LDLTW6	132	N San Gabriel Ave	480	Azusa	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3313	LDLTW6	133	N San Gabriel Ave	134	Azusa	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3314	LDLTW6	134	N San Gabriel Ave	245	Azusa	4	0.19	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3315	LDLTW6	135	N Soldano Ave	1256	Azusa	4	0.95	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3316	LDLTW6	136	S Orange Ave	1193	Azusa	4	0.90	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3317	LDLTW6	137	S Sunset Ave	215	Azusa	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3318	LDLTW6	138	San Gabriel Pl	530	Azusa	4	0.40	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3319	LDLTW6	139	Soldano Ave	1238	Azusa	4	0.94	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3320	LDLTW6	140	W 2nd St	772	Azusa	4	0.59	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3321	LDLTW6	141	W 3rd St	762	Azusa	4	0.58	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3322	LDLTW6	142	W 4th St	609	Azusa	4	0.46	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3324	LDLTW6	144	W Duell St	15	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3325	LDLTW6	145	W Oakview Dr	347	Azusa	4	0.26	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3326	LDLTW6	146	W Paramount St	4	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3327	LDLTW6	147		20	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3328	LDLTW6	148		23	County	4	0.02	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3329	LDLTW6	149	S Angeleno Ave	530	Azusa	4	0.40	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3330	LDLTW6	150	S Angeleno Ave	105	Azusa	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3331	LDLTW6	151	S Elliot Ave	271	Azusa	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3332	LDLTW6	152	S Grandin Ave	391	Azusa	4	0.30	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3333	LDLTW6	153	S Pasadena Ave	316	Azusa	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3334	LDLTW6	154	S Sunset Ave	47	Azusa	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3336	LDLTW6	156	S Cerritos Ave	358	Azusa	4	0.27	Secondary-Collector	64	8	0	10	6	0.33	3	37	MED	
3337	LDLTW6	157		98	Azusa	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3338	LDLTW6	158		564	Azusa	4	0.43	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3339	LDLTW6	159		357	Azusa	4	0.27	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3340	LDLTW6	160		168	Azusa	4	0.13	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3341	LDLTW6	161		190	Azusa	4	0.14	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3342	LDLTW6	162		126	Azusa	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3343	LDLTW6	163		6	Azusa	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3344	LDLTW6	164	E 2nd St	233	Azusa	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3345	LDLTW6	165	E Duell St	321	Azusa	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3346	LDLTW6	166	E Mc Kinley St	127	Azusa	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3347	LDLTW6	167	E Russell St	227	Azusa	4	0.17	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3348	LDLTW6	168	Grandview Dr	644	Azusa	4	0.49	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3349	LDLTW6	169	N Rodecker Dr	243	Azusa	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3350	LDLTW6	170	Noble Ave	390	Azusa	4	0.30	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3351	LDLTW6	171	Noble Pl	725	Azusa	4	0.55	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3352	LDLTW7	1	Masline St	48	County	4	0.04	Minor-Local	60	6	5	2	6	0.33	3	19	LOW	
3353	LDLTW7	2	Masline St	380	County	4	0.29	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3354	LDLTW7	3	N Cranley Ave	420	County	4	0.32	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3355	LDLTW7	4	N Saint Malo Ave	186	County	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3356	LDLTW7	5	Masline St	297	County	4	0.23	Minor-Local	60	6	3	6	6	0.33	3	27	LOW	
3357	LDLTW7	6	N Cranley Ave	52	County	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3358	LDLTW7	7	Vincent Ave	89	County	4	0.07	Secondary-Collector	64	8	2	8	6	0.33	3	33	MED	
3359	LDLTW7	8	E Greenhaven St	68	County	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3360	LDLTW7	9	E Tudor St	62	County	4	0.05	Minor-Local	60	6	2	8	6	0.33	3	31	LOW	
3361	LDLTW7	10	N Saint Malo Ave	277	County	4	0.21	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3362	LDLTW7	11	Orkney St	45	County	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3363	LDLTW7	12	Orkney St	456	County	4	0.35	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3364	LDLTW7	13	Renwick Rd	285	County	4	0.22	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3365	LDLTW7	14	Rimsdale Ave	201	County	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3366	LDLTW7	15	N Varnell Ave	222	County	4	0.17	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
3368	LDLTW7	17	E Arrow Hwy	1111	County	6	1.26	Primary-Arterial	100	10	1	9	6	0.33	3	37	MED	
3370	LDLTW7	19	Vincent Ave	30	County	4	0.02	Secondary-Collector	64	8	1	9	6	0.33	3	35	MED	
3371	LDLTW7	20		257	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3372	LDLTW7	21		18	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3373	LDLTW7	22		480	County	4	0.36	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3374	LDLTW7	23		76	County	4	0.06	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3375	LDLTW7	24	Alcross St	269	County	4	0.20	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3376	LDLTW7	25	Applecross Ave	197	County	4	0.15	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3377	LDLTW7	26	Aspan Ave	822	County	4	0.62	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3378	LDLTW7	27	Boulder St	54	County	4	0.04	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3379	LDLTW7	28	Burwood Ave	617	County	4	0.47	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3380	LDLTW7	29	Bygrove St	239	County	4	0.18	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3381	LDLTW7	30	Coney Ave	325	County	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3382	LDLTW7	31	Devanah St	497	County	4	0.38	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3383	LDLTW7	32	Devanah St	131	County	4	0.10	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3384	LDLTW7	33	E Arrow Hwy	247	County	4	0.19	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3385	LDLTW7	34	E Chadmont St	9	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3386	LDLTW7	35	E Gragmont St	696	County	4	0.53	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3387	LDLTW7	36	E Greenhaven St	1291	County	4	0.98	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

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Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3388	LDLTW7	37	E Groverdale St	746	County	4	0.57	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3389	LDLTW7	38	E Laxford Rd	533	County	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3390	LDLTW7	39	E Newburgh St	1292	County	4	0.98	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3391	LDLTW7	40	E Nubia St	430	County	4	0.33	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3392	LDLTW7	41	E Orkney St	687	County	4	0.52	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3393	LDLTW7	42	E Orkney St	162	County	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3394	LDLTW7	43	E Radiant Ct	98	County	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3395	LDLTW7	44	E Tudor St	8	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3396	LDLTW7	45	E Tudor St	1420	County	4	1.08	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3397	LDLTW7	46	E Tudor St	30	County	4	0.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3398	LDLTW7	47	Homerest Ave	1257	County	4	0.95	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3399	LDLTW7	48	Hyacinth Ave	324	County	4	0.25	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3400	LDLTW7	49	Lark Ellen Ave	1999	County	4	1.51	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3401	LDLTW7	50	Leaf Ave	1089	County	4	0.83	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3402	LDLTW7	51	Masline St	521	County	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3403	LDLTW7	52	Millburgh Rd	508	County	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3404	LDLTW7	53	N Aspan Ave	360	County	4	0.27	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3405	LDLTW7	54	N Banewell Ave	303	County	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3406	LDLTW7	55	N Banewell Ave	120	County	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3407	LDLTW7	56	N Clydebank Ave	592	County	4	0.45	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3408	LDLTW7	57	N Enid Ave	1230	County	4	0.93	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3409	LDLTW7	58	N Leaf Ave	493	County	4	0.37	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3410	LDLTW7	59	S Lark Ellen Ave	425	County	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3411	LDLTW7	60	S Sally Lee Ave	14	County	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3412	LDLTW7	61	Vogue Ave	316	County	4	0.24	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3414	LDLTW7	63	E Arrow Hwy	189	County	6	0.21	Primary-Arterial	100	10	0	10	6	0.33	3	39	MED	
3416	LDLTW7	65		198	County	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3417	LDLTW7	66		14	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3418	LDLTW7	67		279	County	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3419	LDLTW7	68	Woodcroft St	708	County	4	0.54	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3420	LDLTW7	69	Woodcroft St	525	County	4	0.40	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3421	LDLTW7	70	Burwood Ave	499	County	4	0.38	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3422	LDLTW7	71	Bygrove St	239	County	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3423	LDLTW7	72	Coney Ave	494	County	4	0.37	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3424	LDLTW7	73	Devanah St	195	County	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3425	LDLTW7	74	E Arrow Hwy	550	County	4	0.42	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3426	LDLTW7	75	E Chadmont St	466	County	4	0.35	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3427	LDLTW7	76	N Clydebank Ave	133	County	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3428	LDLTW7	77	N Cranley Ave	137	County	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3429	LDLTW7	78	N Roxburgh Ave	419	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3430	LDLTW7	79	N Roxburgh Ave	95	County	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3431	LDLTW7	80	N Saint Malo Ave	471	County	4	0.36	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3432	LDLTW7	81	N Varnell Ave	426	County	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3433	LDLTW7	82	Renwick Rd	1020	Azusa	4	0.77	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3434	LDLTW7	83	Rue De Vallee St	168	Azusa	4	0.13	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3435	LDLTW7	84	S Grandin Ave	98	Azusa	4	0.07	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3436	LDLTW7	85	S Lark Ellen Ave	810	Azusa	4	0.61	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3437	LDLTW7	86	S Sally Lee Ave	983	Azusa	4	0.74	Minor-Local	60	6	1	9	6	0.33	3	33	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3438	LDLTW7	87	W Kirkwall Rd	395	Azusa	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3439	LDLTW7	88	W Mary Ann Ct	125	Azusa	4	0.09	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3440	LDLTW7	89	W Orkney St	184	Azusa	4	0.14	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3441	LDLTW7	90	W Payson St	228	Azusa	4	0.17	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3442	LDLTW7	91	W Susanne Marie Ct	158	Azusa	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3443	LDLTW7	92	Woodcroft St	36	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3444	LDLTW7	93		1353	Azusa	4	1.02	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3445	LDLTW7	94		570	Azusa	4	0.43	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3446	LDLTW7	95		405	Azusa	4	0.31	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3447	LDLTW7	96		509	Azusa	4	0.39	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3448	LDLTW7	97		882	Azusa	4	0.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3449	LDLTW7	98	Adobe St	425	Azusa	4	0.32	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3450	LDLTW7	99	Boulder St	636	Azusa	4	0.48	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3451	LDLTW7	100	Carbon St	397	Azusa	4	0.30	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3452	LDLTW7	101	Cindy Lou Ct	162	Azusa	4	0.12	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3453	LDLTW7	102	Diamond St	882	Azusa	4	0.67	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3454	LDLTW7	103	E Laxford Rd	299	Azusa	4	0.23	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3455	LDLTW7	104	E Orkney St	44	Azusa	4	0.03	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3456	LDLTW7	105	Homerest Ave	765	Azusa	4	0.58	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
3457	LDLTW7	106		70	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3458	LDLTW7	107	Lark Ellen Ave	278	Azusa	4	0.21	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3459	LDLTW7	108	S Lark Ellen Ave	121	Azusa	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3460	LDLTW7	109		6	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3461	LDLTW7	110	Alcross St	200	County	4	0.15	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3462	LDLTW7	111	Applecross Ave	7	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3463	LDLTW7	112	Aspan Ave	277	County	4	0.21	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3464	LDLTW7	113	Burwood Ave	317	County	4	0.24	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3465	LDLTW7	114	Bygrove St	466	County	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3466	LDLTW7	115	Coney Ave	1045	County	4	0.79	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3467	LDLTW7	116	Devanah St	474	County	4	0.36	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3468	LDLTW7	117	E Arrow Hwy	61	County	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3469	LDLTW7	118	E Chadmont St	524	County	4	0.40	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3470	LDLTW7	119	E Gragmont St	504	County	4	0.38	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3471	LDLTW7	120	E Groverdale St	139	County	4	0.11	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3472	LDLTW7	121	E Newburgh St	8	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3473	LDLTW7	122	E Nubia St	458	County	4	0.35	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3474	LDLTW7	123	E Nubia St	234	County	4	0.18	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3475	LDLTW7	124	E Orkney St	540	County	4	0.41	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3476	LDLTW7	125	E Orkney St	55	County	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3477	LDLTW7	126	E Radiant Ct	88	County	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3478	LDLTW7	127	E Tudor St	246	County	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3479	LDLTW7	128	E Tudor St	207	County	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3480	LDLTW7	129	Fleetwell Ave	206	County	4	0.16	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3481	LDLTW7	130	Lark Ellen Ave	122	County	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3482	LDLTW7	131	Masline St	966	County	4	0.73	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3483	LDLTW7	132	N Aspan Ave	50	County	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3484	LDLTW7	133	N Banewell Ave	803	County	4	0.61	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3485	LDLTW7	134	N Banewell Ave	62	County	4	0.05	Minor-Local	60	6	0	10	6	0.33	3	35	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3486	LDLTW7	135	N Clydebank Ave	1146	County	4	0.87	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3487	LDLTW7	136	N Enid Ave	536	County	4	0.41	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3488	LDLTW7	137	N Leaf Ave	108	County	4	0.08	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3489	LDLTW7	138	N Roxburgh Ave	87	County	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3490	LDLTW7	139	N Saint Malo Ave	1114	County	4	0.84	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3491	LDLTW7	140	Orkney St	253	County	4	0.19	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3492	LDLTW7	141	Orkney St	15	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3493	LDLTW7	142	Renwick Rd	365	County	4	0.28	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3494	LDLTW7	143	Rimsdale Ave	5	County	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3495	LDLTW7	144	Roxburgh Ave	132	County	4	0.10	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3496	LDLTW7	145	Rue De Vallee St	13	County	4	0.01	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3498	LDLTW7	147	Burwood Ave	155	County	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3499	LDLTW7	148	Bygrove St	58	County	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3500	LDLTW7	149	Coney Ave	142	County	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3501	LDLTW7	150	E Arrow Hwy	198	County	4	0.15	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3502	LDLTW7	151	E Chadmont St	12	County	4	0.01	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3503	LDLTW7	152	N Clydebank Ave	465	County	4	0.35	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3504	LDLTW7	153	N Roxburgh Ave	85	County	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3505	LDLTW7	154	N Saint Malo Ave	83	County	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
3506	LDLTW7	155	Rue De Vallee St	176	Azusa	4	0.13	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3507	LDLTW7	156	S Grandin Ave	57	Azusa	4	0.04	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3508	LDLTW7	157	W Orkney St	1	Azusa	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3509	LDLTW7	158	W Payson St	92	Azusa	4	0.07	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3510	LDLTW7	159		327	Azusa	4	0.25	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3511	LDLTW7	160		377	Azusa	4	0.29	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3512	LDLTW7	161	Boulder St	113	Azusa	4	0.09	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3513	LDLTW7	162	E Orkney St	0	Azusa	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3514	LDLTW7	163	E Orkney St	2	Azusa	4	0.00	Minor-Local	60	6	0	10	6	0.33	3	35	MED	
3515	MDDCK2	1	Spring Point Dr	234	Bradbury	4	0.18	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
3516	MDDCK2	2	Royal Oaks Dr	107	Duarte	4	0.08	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
3517	MDDCK2	3	Westvale Rd	1	Duarte	4	0.00	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
3518	MDDCK2	4	Freeborn St	41	Bradbury	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3519	MDDCK2	5	Gardi St	245	Bradbury	4	0.19	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
3521	MDDCK2	7	Mount Olive Dr	55	Bradbury	4	0.04	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
3522	MDDCK2	8	Mount Olive Dr	8	Duarte	4	0.01	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
3525	MDDCK2	11	Livermont Ln	13	Duarte	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3527	MDDCK2	13	Freeborn St	380	Bradbury	4	0.29	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3528	MDDCK2	14	Gardi St	377	Bradbury	4	0.29	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3529	MDDCK2	15	Mount Olive Dr	7	Bradbury	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
3530	MDDCK2	16	Mount Olive Dr	205	Bradbury	4	0.15	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3531	MDDCK2	17	Woodlyn Ln	2	Bradbury	4	0.00	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
3533	MDDCK2	19	Mount Olive Dr	57	Bradbury	4	0.04	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
3534	MDDCK2	20	Woodlyn Ln	23	Bradbury	4	0.02	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
3537	RD103	3	W Bonita Ave	32	County	4	0.02	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3540	RD103	6		4	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
3541	RD103	7	E Arrow Hwy	13	County	6	0.02	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
3542	RD103	8	W Arrow Hwy	13	County	6	0.02	Primary-Arterial	100	10	0	10	7	0.66	7	51	HIGH	
3543	RD103	9	W Bonita Ave	21	County	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	

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Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
3833	SAWPT2	2		16	Monrovia	4	0.01	Minor-Local	60	6	1	9	78	0.52	5	39	MED	
4132	SDMSW5	3	Ranger Dr	7	County	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4133	SDMSW5	4	E Arrow Hwy	19	County	6	0.02	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
4135	SDMSW5	6	W Arrow Hwy	19	County	6	0.02	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
4136	SDMSW5	7		18	County	4	0.01	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4137	SDMSW5	8	Baranca Ave	21	County	4	0.02	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4138	SDMSW5	9	N Baranca Ave	359	County	4	0.27	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4139	SDMSW5	10	S Barranca Ave	18	County	4	0.01	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4140	SDMSW5	11	N Calera Ave	5	County	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4141	SDMSW6	1	N Aldenville Ave	42	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4142	SDMSW6	2	N Fenimore Ave	41	County	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4146	SDMSW6	6		19	Azusa	4	0.01	Minor-Local	60	6	1	9	6	0.33	3	33	MED	
4148	SDMSW6	8	N Aldenville Ave	2	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4149	SDMSW6	9	N Fenimore Ave	5	Azusa	4	0.00	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4152	SGR18	1	Mountain Laurel Wy	158	Azusa	4	0.12	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4153	SGR18	2	Shady Cove Ct	137	Azusa	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4154	SGR18	3	Mountain Laurel Wy	234	Azusa	4	0.18	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4155	SGR18	4	Shady Cove Ct	101	Azusa	4	0.08	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4156	SGR18	5	Brookside Wy	100	Azusa	4	0.08	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4157	SGR18	6	Aspendale Ct	86	Azusa	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4158	SGR18	7	Rock Springs Wy	42	Azusa	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4159	SGR18	8	Sagebrush Wy	102	Azusa	4	0.08	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4160	SGR18	9	Shady Cove Ct	147	Azusa	4	0.11	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4161	SGR18	10	Mountain Laurel Wy	112	Azusa	4	0.08	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4162	SGR18	11	Mountain Laurel Wy	16	Azusa	4	0.01	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4163	SGR18	12	Sagebrush Wy	106	Azusa	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4164	SGR18	13	Sandstone Wy	51	Azusa	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4165	SGR18	14	Mossdale Ct	7	Azusa	4	0.01	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4166	SGR18	15	Mossdale Ct	69	Azusa	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4167	SGR18	16	Mossdale Ct	32	Azusa	4	0.02	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4168	SGR18	17	Aspendale Ct	46	Azusa	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4169	SGR18	18	Mossdale Ct	350	Azusa	4	0.26	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4170	SGR18	19	Rock Springs Wy	387	Azusa	4	0.29	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4171	SGR18	20	Sandstone Wy	427	Azusa	4	0.32	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4172	SGR18	21	Aspendale Ct	42	Azusa	4	0.03	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4173	SGR18	22	Brookside Wy	604	Azusa	4	0.46	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4174	SGR18	23	Mossdale Ct	188	Azusa	4	0.14	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4175	SGR18	24	River Rock Ct	654	Azusa	4	0.50	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4176	SGR18	25	Rock Springs Wy	572	Azusa	4	0.43	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4177	SGR18	26	Sandstone Wy	350	Azusa	4	0.26	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4178	SGR18	27	Silver Forest Ct	734	Azusa	4	0.56	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4179	SGR19	1	Fish Canyon Rd	33	Azusa	4	0.02	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4180	SGR19	2	Fish Canyon Rd	279	Azusa	4	0.21	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4181	SGR19	3	Fish Canyon Rd	1692	Azusa	4	1.28	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4182	SGR20	1		101	Azusa	4	0.08	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4183	SGR20	2	Fish Canyon Rd	167	Azusa	4	0.13	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4184	SGR20	3		3	Azusa	4	0.00	Minor-Local	60	6	3	6	15	0.72	8	42	MED	
4185	SGR20	4	Fish Canyon Rd	31	Azusa	4	0.02	Minor-Local	60	6	4	4	15	0.72	8	38	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4186	SGR20	5	Fish Canyon Rd	23	Azusa	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4187	SGR20	6	Fish Canyon Rd	52	Azusa	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4188	SGR20	7	Fish Canyon Rd	205	Azusa	4	0.16	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4189	SGR20	8	Fish Canyon Rd	645	Azusa	4	0.49	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4190	SGR20	9		202	Azusa	4	0.15	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4191	SGR20	10	Fish Canyon Rd	11	Azusa	4	0.01	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4192	SGR21	1		51	Azusa	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4193	SGR21	2	Encanto Pkwy	319	Azusa	4	0.24	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4194	SGR21	3		12	Azusa	4	0.01	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4195	SGR21	4	Encanto Pkwy	69	Azusa	4	0.05	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4196	SGR21	5	Fish Canyon Rd	78	Azusa	4	0.06	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
4197	SGR21	6		61	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4198	SGR21	7	Encanto Pkwy	76	Azusa	4	0.06	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4199	SGR21	8	Fish Canyon Rd	275	Azusa	4	0.21	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
4200	SGR21	9		234	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4201	SGR21	10	Encanto Pkwy	49	Azusa	4	0.04	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4202	SGR22	1	Brookridge Rd	148	Duarte	4	0.11	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4203	SGR22	2	Fallcreek Rd	130	Duarte	4	0.10	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4204	SGR22	3	Mountain Crest Rd	447	Duarte	4	0.34	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4205	SGR22	4	Tannencrest Dr	1082	Duarte	4	0.82	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4206	SGR22	5	Shadylawn Dr	234	Duarte	4	0.18	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4207	SGR22	6	Van Tassel Mtwy	83	Azusa	4	0.06	Minor-Local	60	6	4	4	78	0.52	5	29	LOW	
4208	SGR22	7		117	Duarte	4	0.09	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4209	SGR22	8	Brookridge Rd	60	Duarte	4	0.05	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4210	SGR22	9	Clarkview Dr	510	Duarte	4	0.39	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4211	SGR22	10	Deerlane Dr	294	Duarte	4	0.22	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4212	SGR22	11	Deerlane Dr	90	Duarte	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4213	SGR22	12	Elkhorn Dr	154	Duarte	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4214	SGR22	13	Tannencrest Dr	381	Duarte	4	0.29	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4215	SGR22	14	Van Tassel Wy	164	Duarte	4	0.12	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4216	SGR22	15	Encanto Pkwy	362	Azusa	4	0.27	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4217	SGR22	16	Markwood St	20	Azusa	4	0.02	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4218	SGR22	17	Brookridge Rd	118	Duarte	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4219	SGR22	18	Conata St	720	Duarte	4	0.55	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4220	SGR22	19	Deerlane Dr	108	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4221	SGR22	20	Deerlane Dr	900	Duarte	4	0.68	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4222	SGR22	21	Elkhorn Dr	100	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4223	SGR22	22	Markwood St	494	Duarte	4	0.37	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4224	SGR22	23	Mountain Crest Rd	100	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4225	SGR22	24	Sagehurst Dr	338	Duarte	4	0.26	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4226	SGR22	25	Van Tassel Wy	124	Duarte	4	0.09	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4227	SGR22	26	Woodmere	107	Duarte	4	0.08	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4228	SGR22	27	Encanto Pkwy	379	Azusa	4	0.29	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4229	SGR22	28	Brookridge Rd	267	Duarte	4	0.20	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4230	SGR22	29	Clarkview Dr	100	Duarte	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4231	SGR22	30	Conata St	720	Duarte	4	0.55	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4232	SGR22	31	Deerlane Dr	100	Duarte	4	0.08	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4233	SGR22	32	Deerlane Dr	60	Duarte	4	0.05	Minor-Local	60	6	2	8	7	0.66	7	43	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4234	SGR22	33	Sagehurst Dr	81	Duarte	4	0.06	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4237	SGR22	36		17	Azusa	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4240	SGR22	39	Royal Oaks Dr	899	Duarte	4	0.68	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4241	SGR22	40		716	Duarte	4	0.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4242	SGR22	41	Clarkview Dr	138	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4243	SGR22	42	Conata St	513	Duarte	4	0.39	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4244	SGR22	43	Elda St	634	Duarte	4	0.48	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4245	SGR22	44	Elkhorn Dr	435	Duarte	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4246	SGR22	45	Elkhorn Dr	268	Duarte	4	0.20	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4247	SGR22	46	Fish Canyon Rd	1334	Duarte	4	1.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4248	SGR22	47	Markwood St	93	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4249	SGR22	48	Mountain Crest Rd	1182	Duarte	4	0.90	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4250	SGR22	49	Tan Canyon Rd	425	Duarte	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4252	SGR22	51	Fish Canyon Rd	22	Azusa	4	0.02	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4253	SGR22	52	Clarkview Dr	94	Duarte	4	0.07	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4254	SGR22	53	Elkhorn Dr	14	Duarte	4	0.01	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4255	SGR22	54	Fish Canyon Rd	142	Duarte	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4256	SGR22	55	Markwood St	405	Duarte	4	0.31	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4257	SGR22	56	Mountain Crest Rd	247	Duarte	4	0.19	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4258	SGR24	1		17	Azusa	4	0.01	Minor-Local	60	6	5	2	15	0.72	8	34	MED	
4259	SGR24	2		130	Azusa	4	0.10	Minor-Local	60	6	4	4	15	0.72	8	38	MED	
4260	SGR24	3		276	Azusa	4	0.21	Minor-Local	60	6	0	10	15	0.72	8	50	HIGH	
4261	SGR25	1	Royal Oaks Dr	315	Duarte	4	0.24	Secondary-Collector	64	8	5	2	7	0.66	7	33	MED	
4262	SGR25	2	Chimes Ave	60	Duarte	4	0.05	Minor-Local	60	6	5	2	7	0.66	7	31	LOW	
4263	SGR25	3	Highland Ave	474	Duarte	4	0.36	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
4264	SGR25	4	Royal Oaks Dr	757	Duarte	4	0.57	Secondary-Collector	64	8	4	4	7	0.66	7	37	MED	
4265	SGR25	5		11	Duarte	4	0.01	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4266	SGR25	6	1st St	44	Duarte	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4267	SGR25	7	Bradbourne Ave	83	Duarte	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4268	SGR25	8	Chimes Ave	175	Duarte	4	0.13	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4269	SGR25	9	Miltonwood Ave	449	Duarte	4	0.34	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4270	SGR25	10		12	Duarte	4	0.01	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4272	SGR25	12	E Huntington Dr	1262	Duarte	6	1.43	Primary-Arterial	100	10	3	6	7	0.66	7	43	MED	
4273	SGR25	13		42	Duarte	4	0.03	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
4274	SGR25	14	Highland Ave	870	Duarte	4	0.66	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
4275	SGR25	15	Royal Oaks Dr	392	Duarte	4	0.30	Secondary-Collector	64	8	3	6	7	0.66	7	41	MED	
4276	SGR25	16		42	Duarte	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4277	SGR25	17		49	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4278	SGR25	18	3rd St	50	Duarte	4	0.04	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4279	SGR25	19	Atlin St	412	Duarte	4	0.31	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4280	SGR25	20	Baylor St	196	Duarte	4	0.15	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4281	SGR25	21	Chesson St	331	Duarte	4	0.25	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4282	SGR25	22	Chimes Ave	576	Duarte	4	0.44	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4283	SGR25	23	E 2nd St	533	Duarte	4	0.40	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4284	SGR25	24	Miltonwood Ave	446	Duarte	4	0.34	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4285	SGR25	25	Random Ln	80	Duarte	4	0.06	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4286	SGR25	26	Santo Domingo Ave	321	Duarte	4	0.24	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
4288	SGR25	28	E Huntington Dr	409	Duarte	6	0.46	Primary-Arterial	100	10	2	8	7	0.66	7	47	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4289	SGR25	29	Royal Oaks Dr	1192	Duarte	4	0.90	Secondary-Collector	64	8	2	8	7	0.66	7	45	HIGH	
4290	SGR25	30		27	Duarte	4	0.02	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4291	SGR25	31		537	Duarte	4	0.41	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4292	SGR25	32		187	Duarte	4	0.14	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4293	SGR25	33		42	Duarte	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4294	SGR25	34		42	Duarte	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4295	SGR25	35		135	Duarte	4	0.10	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4296	SGR25	36		201	Duarte	4	0.15	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4297	SGR25	37	Amberwood Dr	12	Duarte	4	0.01	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4298	SGR25	38	Atlin St	757	Duarte	4	0.57	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4299	SGR25	39	Baylor St	974	Duarte	4	0.74	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4300	SGR25	40	Bradbourne Ave	649	Duarte	4	0.49	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4301	SGR25	41	Chesson St	889	Duarte	4	0.67	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4302	SGR25	42	Dresden Ave	116	Duarte	4	0.09	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4303	SGR25	43	Oakhaven Dr	49	Duarte	4	0.04	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4304	SGR25	44	Windsor Cir	439	Duarte	4	0.33	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
4306	SGR25	46	E Huntington Dr	1584	Duarte	6	1.80	Primary-Arterial	100	10	1	9	7	0.66	7	49	HIGH	
4307	SGR25	47	Royal Oaks Dr	82	Duarte	4	0.06	Secondary-Collector	64	8	1	9	7	0.66	7	47	HIGH	
4308	SGR25	48		172	Duarte	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4309	SGR25	49		525	Duarte	4	0.40	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4310	SGR25	50		126	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4311	SGR25	51		308	Duarte	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4312	SGR25	52		186	Duarte	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4313	SGR25	53		241	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4314	SGR25	54		95	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4315	SGR25	55		464	Duarte	4	0.35	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4316	SGR25	56		1166	Duarte	4	0.88	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4317	SGR25	57		201	Duarte	4	0.15	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4318	SGR25	58		237	Duarte	4	0.18	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4319	SGR25	59		128	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4320	SGR25	60		186	Duarte	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4321	SGR25	61		121	Duarte	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4322	SGR25	62		808	Duarte	4	0.61	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4323	SGR25	63		123	Duarte	4	0.09	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4324	SGR25	64		11	Duarte	4	0.01	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4325	SGR25	65		377	Duarte	4	0.29	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4326	SGR25	66		46	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4327	SGR25	67		46	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4328	SGR25	68		104	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4329	SGR25	69		146	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4330	SGR25	70		149	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4331	SGR25	71		174	Duarte	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4332	SGR25	72		146	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4333	SGR25	73		147	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4334	SGR25	74		62	Duarte	4	0.05	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4335	SGR25	75		127	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4336	SGR25	76		111	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4337	SGR25	77		148	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4338	SGR25	78		101	Duarte	4	0.08	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4339	SGR25	79		41	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4340	SGR25	80		147	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4341	SGR25	81		152	Duarte	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4342	SGR25	82		172	Duarte	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4343	SGR25	83		145	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4344	SGR25	84		577	Duarte	4	0.44	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4345	SGR25	85		141	Duarte	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4346	SGR25	86		164	Duarte	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4347	SGR25	87		158	Duarte	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4348	SGR25	88		131	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4349	SGR25	89		52	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4350	SGR25	90		134	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4351	SGR25	91		297	Duarte	4	0.23	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4352	SGR25	92		48	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4353	SGR25	93		87	Duarte	4	0.07	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4354	SGR25	94	Amberwood Dr	542	Duarte	4	0.41	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4355	SGR25	95	Bradbourne Ave	917	Duarte	4	0.69	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4356	SGR25	96	Bradbourne Ave	620	Duarte	4	0.47	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4357	SGR25	97	Business Center Dr	565	Duarte	4	0.43	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4358	SGR25	98	Business Center Dr	709	Duarte	4	0.54	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4359	SGR25	99	Central Ave	1070	Duarte	4	0.81	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4360	SGR25	100	Chesson St	209	Duarte	4	0.16	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4361	SGR25	101	Date St	737	Duarte	4	0.56	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4362	SGR25	102	Elmhurst Ave	1304	Duarte	4	0.99	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4363	SGR25	103	Evergreen St	743	Duarte	4	0.56	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4364	SGR25	104	Fairlee Ave	914	Duarte	4	0.69	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4365	SGR25	105	Flower Ave	590	Duarte	4	0.45	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4366	SGR25	106	Maynard Dr	966	Duarte	4	0.73	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4367	SGR25	107	Oakhaven Dr	416	Duarte	4	0.32	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4368	SGR25	108	Oakwood Ln	172	Duarte	4	0.13	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4369	SGR25	109	Orange Grove Rd	43	Duarte	4	0.03	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4370	SGR25	110	Orchard Rd	323	Duarte	4	0.24	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4371	SGR25	111	Pepper Tree Ln	128	Duarte	4	0.10	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4372	SGR25	112	Pepperwood Ln	164	Duarte	4	0.12	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4373	SGR25	113	Random Ln	911	Duarte	4	0.69	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4374	SGR25	114	Random Ln	786	Duarte	4	0.60	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4375	SGR25	115	Santo Domingo Ave	549	Duarte	4	0.42	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4376	SGR25	116	Santo Domingo Ave	823	Duarte	4	0.62	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4377	SGR25	117	Stonewood Dr	441	Duarte	4	0.33	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4378	SGR25	118	Windsor Cir	184	Duarte	4	0.14	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
4379	SGR25	119		10	Duarte	4	0.01	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4380	SGR25	120		70	Duarte	4	0.05	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4381	SGR25	121		268	Duarte	4	0.20	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4382	SGR25	122		190	Duarte	4	0.14	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4383	SGR25	123		73	Duarte	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4384	SGR25	124		290	Duarte	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4385	SGR25	125		259	Duarte	4	0.20	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria														
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4386	SGR25	126		264	Duarte	4	0.20	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4387	SGR25	127		308	Duarte	4	0.23	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4388	SGR25	128		40	Duarte	4	0.03	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4389	SGR25	129		282	Duarte	4	0.21	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4390	SGR25	130		139	Duarte	4	0.11	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4391	SGR25	131	Central Ave	295	Duarte	4	0.22	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4392	SGR25	132	Oakhaven Dr	75	Duarte	4	0.06	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4393	SGR25	133	Pepper Tree Ln	219	Duarte	4	0.17	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4394	SGR25	134	Santo Domingo Ave	164	Duarte	4	0.12	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
4488	SPINK1	1	Mount Olive Dr	100	Bradbury	4	0.08	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4489	SPINK1	2	Spinks Canyon Rd	34	Duarte	4	0.03	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4490	SPINK1	3		123	Bradbury	4	0.09	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4491	SPINK1	4		50	Bradbury	4	0.04	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
4492	SPINK1	5		69	Bradbury	4	0.05	Minor-Local	60	6	4	4	88	0.62	6	32	MED	
4493	SPINK1	6		174	Bradbury	4	0.13	Minor-Local	60	6	3	6	88	0.62	6	36	MED	
4494	SPINK1	7		91	Bradbury	4	0.07	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4495	SPINK1	8		40	Bradbury	4	0.03	Minor-Local	60	6	2	8	88	0.62	6	40	MED	
4496	SPINK1	9	Mount Olive Dr	88	Bradbury	4	0.07	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4497	SPINK1	10		94	Bradbury	4	0.07	Minor-Local	60	6	1	9	88	0.62	6	42	MED	
4498	SPINK1	11	Mount Olive Dr	118	Bradbury	4	0.09	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4499	SPINK1	12		79	Bradbury	4	0.06	Minor-Local	60	6	0	10	88	0.62	6	44	MED	
4500	SPINK2	1		20	County	4	0.02	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4501	SPINK2	2	Woodlyn Ln	78	Bradbury	4	0.06	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4502	SPINK2	3		65	Bradbury	4	0.05	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4503	SPINK2	4		37	Bradbury	4	0.03	Minor-Local	60	6	5	2	13	0.45	4	22	LOW	
4504	SPINK2	5	Royal Oaks Dr N	95	County	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4505	SPINK2	6		110	County	4	0.08	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4506	SPINK2	7	Deodar Ln	103	County	4	0.08	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4507	SPINK2	8	Woodlyn Ln	135	Bradbury	4	0.10	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4508	SPINK2	9	Royal Oaks Dr N	91	Bradbury	4	0.07	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4509	SPINK2	10	Woodlyn Ln	43	Bradbury	4	0.03	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
4510	SPINK2	11		108	Bradbury	4	0.08	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4511	SPINK2	12		99	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4512	SPINK2	13		75	Bradbury	4	0.06	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4513	SPINK2	14	Bradbury Hills Rd	36	Bradbury	4	0.03	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4514	SPINK2	15	El Cielo Ln	97	Bradbury	4	0.07	Minor-Local	60	6	4	4	13	0.45	4	26	LOW	
4515	SPINK2	16		101	County	4	0.08	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4516	SPINK2	17	Woodlyn Ln	12	Bradbury	4	0.01	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4517	SPINK2	18	Woodlyn Ln	117	Bradbury	4	0.09	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4518	SPINK2	19		33	Bradbury	4	0.02	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4519	SPINK2	20		90	Bradbury	4	0.07	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4520	SPINK2	21		102	Bradbury	4	0.08	Minor-Local	60	6	3	6	13	0.45	4	30	LOW	
4521	SPINK2	22	Mount Olive Dr	47	Bradbury	4	0.04	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4522	SPINK2	23	Woodlyn Ln	83	Bradbury	4	0.06	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4523	SPINK2	24		138	Bradbury	4	0.10	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4524	SPINK2	25		36	Bradbury	4	0.03	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4525	SPINK2	26	Deodar Ln	62	Bradbury	4	0.05	Minor-Local	60	6	2	8	13	0.45	4	34	MED	
4526	SPINK2	27	Woodlyn Ln	162	Bradbury	4	0.12	Minor-Local	60	6	1	9	13	0.45	4	36	MED	

Table S-2 Potential Green Streets Worksheet: SGR Watershed

Ranking Criteria				General Criteria															
				General Attributes				Street Width			Street Slope		Soil Type			Score	Rank	Selected?
Assigned Weight								1			2		3					
Object ID	Subwatershed	Subwatershed ID	Street Name	Length (ft)	City	Number of Lanes	Lane Miles	Street Type	Street Width (ft)	Score	Slope (%)	Score	Soil Type	Ksat	Score			
4527	SPINK2	28		27	Bradbury	4	0.02	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4528	SPINK2	29		291	Bradbury	4	0.22	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4529	SPINK2	30	Deodar Ln	106	Bradbury	4	0.08	Minor-Local	60	6	1	9	13	0.45	4	36	MED	
4530	SPINK2	31		41	County	4	0.03	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4531	SPINK2	32	Deodar Ln	14	County	4	0.01	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4532	SPINK2	33	Woodlyn Ln	273	Bradbury	4	0.21	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4533	SPINK2	34		8	Bradbury	4	0.01	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4534	SPINK2	35		15	Bradbury	4	0.01	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4535	SPINK2	36	Bradbury Hills Rd	369	Bradbury	4	0.28	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
4536	SPINK2	37	Deodar Ln	120	Bradbury	4	0.09	Minor-Local	60	6	0	10	13	0.45	4	38	MED	
6636	VNTSL1	1		91	Azusa	4	0.07	Minor-Local	60	6	5	2	78	0.52	5	25	LOW	
6637	VNTSL1	2	Van Tassel Mtwy	31	Azusa	4	0.02	Minor-Local	60	6	5	2	78	0.52	5	25	LOW	
6638	VNTSL1	3		114	Duarte	4	0.09	Minor-Local	60	6	5	2	78	0.52	5	25	LOW	
6639	VNTSL1	4		76	Azusa	4	0.06	Minor-Local	60	6	3	6	78	0.52	5	33	MED	
6640	VNTSL1	5	Van Tassel Mtwy	72	Azusa	4	0.05	Minor-Local	60	6	3	6	78	0.52	5	33	MED	
6641	VNTSL1	6		85	Azusa	4	0.06	Minor-Local	60	6	4	4	7	0.66	7	35	MED	
6642	VNTSL1	7		40	Azusa	4	0.03	Minor-Local	60	6	4	4	78	0.52	5	29	LOW	
6643	VNTSL1	8	Van Tassel Mtwy	90	Azusa	4	0.07	Minor-Local	60	6	4	4	78	0.52	5	29	LOW	
6644	VNTSL1	9		42	Azusa	4	0.03	Minor-Local	60	6	3	6	7	0.66	7	39	MED	
6645	VNTSL1	10		36	Azusa	4	0.03	Minor-Local	60	6	2	8	7	0.66	7	43	MED	
6646	VNTSL1	11	Fish Canyon Rd	35	Azusa	4	0.03	Minor-Local	60	6	2	8	15	0.72	8	46	HIGH	
6647	VNTSL1	12		376	Azusa	4	0.28	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6648	VNTSL1	13	Fish Canyon Rd	145	Azusa	4	0.11	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6649	VNTSL1	14	Fish Canyon Rd	297	Azusa	4	0.23	Minor-Local	60	6	1	9	15	0.72	8	48	HIGH	
6650	VNTSL1	15		58	Duarte	4	0.04	Minor-Local	60	6	1	9	7	0.66	7	45	HIGH	
6651	VNTSL1	16		16	Monrovia	4	0.01	Minor-Local	60	6	1	9	78	0.52	5	39	MED	
6652	VNTSL1	17	Fish Canyon Rd	138	Azusa	4	0.10	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	
6653	VNTSL1	18	Van Tassel Mtwy	351	Azusa	4	0.27	Minor-Local	60	6	0	10	7	0.66	7	47	HIGH	

Attachment T

Green Street Subarea Summary

The table presented in this attachment summarizes the proposed green street implementation on a subarea and jurisdictional basis and corresponds with **Section 3.4.3.1** of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP). A figure is also included to identify the subareas within the RH/SGRWQG.

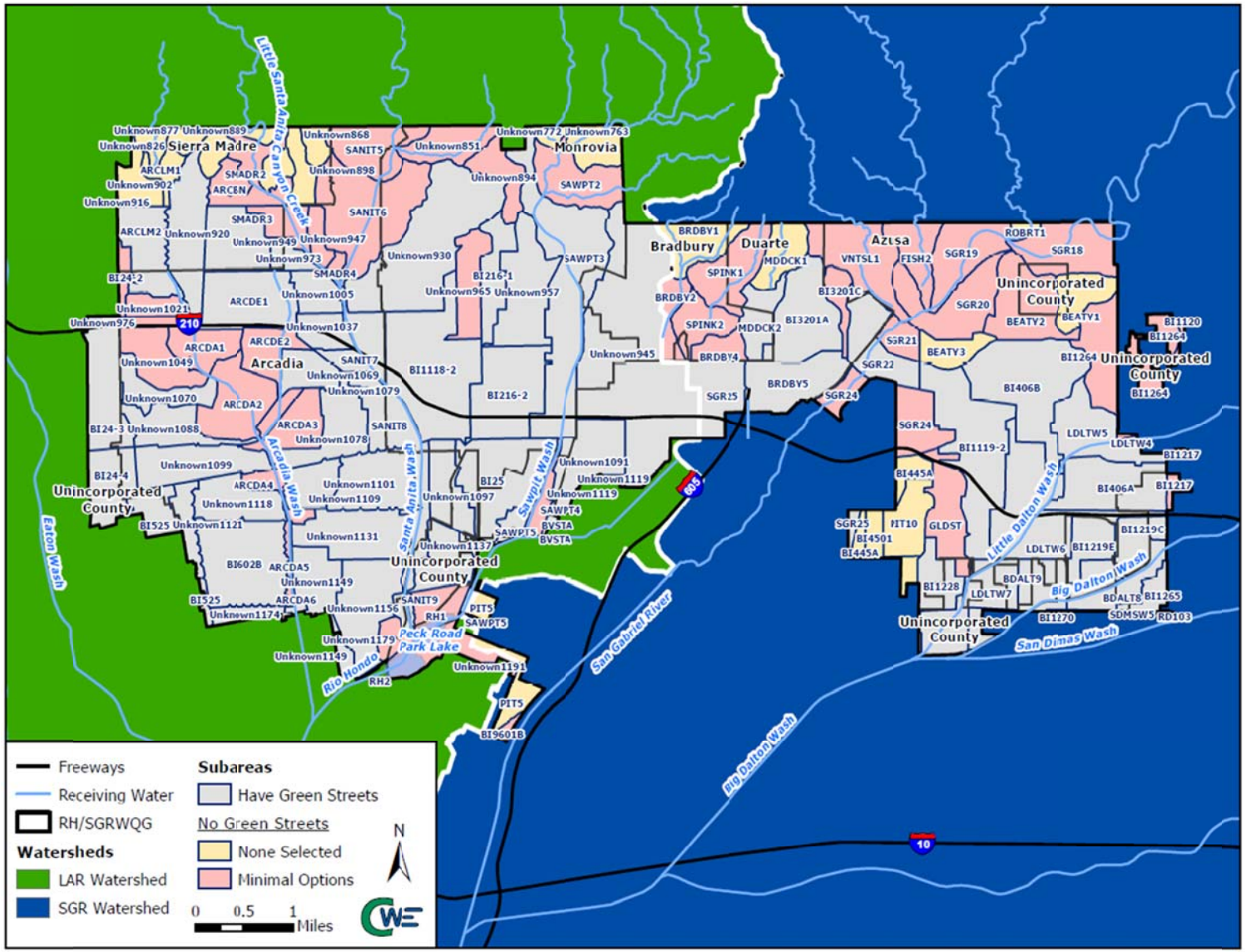

Figure T-1 RH/SGRWQG Subarea Summary for Green Street Analysis

Table T-1 Green Street Implementation Summary by Subarea			
Subarea	**Watershed**	**Lane Miles Provided**	**Jurisdictions**
Subareas with Green Streets			
ARCDA6	LAR	0.65	Arcadia
ARCDE1	LAR	0.59	Arcadia
ARCLM2	LAR	3.28	Arcadia
BDALT8	SGR	4.06	Azusa, Unincorporated County
BDALT9	SGR	16.10	Azusa, Unincorporated County
BI1118-2	LAR	14.78	Monrovia
BI1119-2	SGR	1.27	Azusa
BI1219C	SGR	6.45	Azusa, Unincorporated County
BI1219E	SGR	5.06	Unincorporated County
BI1228	SGR	5.18	Azusa, Unincorporated County
BI1265	SGR	6.01	Azusa, Unincorporated County
BI1270	SGR	2.62	Azusa
BI216-1	LAR	5.56	Monrovia
BI216-2	LAR	17.71	Monrovia
BI24-3	LAR	6.69	Arcadia, Unincorporated County
BI24-4	LAR	6.83	Arcadia, Unincorporated County
BI25	LAR	10.99	Arcadia, Monrovia, Unincorporated County
BI2701H	SGR	2.82	Azusa
BI3201A	SGR	4.42	Bradbury, Duarte
BI406A	SGR	11.79	Azusa
BI406B	SGR	31.75	Azusa, Unincorporated County
BI525	LAR	8.00	Arcadia, Unincorporated County
BI602B	LAR	8.27	Arcadia
BRDBY5	SGR	8.50	Duarte
LDLTW5	SGR	16.91	Azusa
LDLTW6	SGR	25.75	Azusa
LDLTW7	SGR	1.22	Azusa, Unincorporated County
MDDCK2	SGR	0.75	Bradbury, Duarte
RD103	SGR	2.31	Unincorporated County
SANIT7	LAR	1.52	Arcadia
SANIT8	LAR	5.52	Arcadia, Monrovia, Unincorporated County
SANIT9	LAR	1.00	Arcadia, Unincorporated County
SAWPT3	LAR	9.70	Bradbury, Monrovia
SAWPT5	LAR	1.13	Monrovia, Unincorporated County
SDMSW5	SGR	0.85	Unincorporated County
SDMSW6	SGR	3.15	Unincorporated County
SGR22	SGR	1.56	Azusa, Duarte

Table T-1 Green Street Implementation Summary by Subarea			
Subarea	**Watershed**	**Lane Miles Provided**	**Jurisdictions**
SGR25	SGR	3.32	Azusa, Duarte
Unknown1005	LAR	3.56	Arcadia
Unknown1037	LAR	1.57	Arcadia
Unknown1069	LAR	3.53	Arcadia
Unknown1070	LAR	1.82	Arcadia
Unknown1078	LAR	14.08	Arcadia
Unknown1079	LAR	2.06	Arcadia
Unknown1088	LAR	9.24	Arcadia
Unknown1091	LAR	19.03	Duarte, Monrovia, Unincorporated County
Unknown1097	LAR	9.19	Arcadia, Monrovia, Unincorporated County
Unknown1099	LAR	14.58	Arcadia
Unknown1101	LAR	3.76	Arcadia, Monrovia
Unknown1109	LAR	3.07	Arcadia
Unknown1118	LAR	3.16	Arcadia
Unknown1121	LAR	6.87	Arcadia
Unknown1131	LAR	5.45	Arcadia
Unknown1137	LAR	7.67	Arcadia, Monrovia, Unincorporated County
Unknown1149	LAR	5.56	Arcadia
Unknown1156	LAR	9.55	Arcadia, Unincorporated County
Unknown1174	LAR	1.25	Arcadia
Unknown920	LAR	4.09	Arcadia, Sierra Madre
Unknown930	LAR	2.81	Arcadia, Monrovia
Unknown945	LAR	23.20	Bradbury, Duarte, Monrovia
Unknown949	LAR	2.78	Arcadia, Sierra Madre
Unknown957	LAR	10.53	Monrovia
Unknown973	LAR	2.24	Arcadia, Sierra Madre
Subareas without Green Street – Minimal Options			
ARCLM1	LAR	0.00	Sierra Madre
BEATY1	SGR	0.00	Azusa, Unincorporated County
BEATY3	SGR	0.00	Azusa
BI3701G	SGR	0.00	Unincorporated County
BI445A	SGR	0.00	Azusa
BI4501	SGR	0.00	Azusa
BRDBY1	SGR	0.00	Bradbury, Duarte
MDDCK1	SGR	0.00	Duarte
PIT10	SGR	0.00	Azusa
PIT5	SGR	0.00	Arcadia, Monrovia
ROBRT1	SGR	0.00	Azusa

Table T-1 Green Street Implementation Summary by Subarea			
Subarea	**Watershed**	**Lane Miles Provided**	**Jurisdictions**
Unknown1191	LAR	0.00	Arcadia
Unknown756	LAR	0.00	Sierra Madre
Unknown763	LAR	0.00	Monrovia
Unknown772	LAR	0.00	Monrovia
Unknown826	LAR	0.00	Sierra Madre
Unknown868	LAR	0.00	Sierra Madre
Unknown877	LAR	0.00	Sierra Madre
Unknown889	LAR	0.00	Sierra Madre
Unknown898	LAR	0.00	Sierra Madre
Unknown902	LAR	0.00	Sierra Madre
Unknown916	LAR	0.00	Sierra Madre
Unknown922	LAR	0.00	Sierra Madre
Unknown976	LAR	0.00	Unincorporated County
Subareas without Green Streets – None Selected			
ARCDA2	LAR	0.00	Arcadia
ARCDE2	LAR	0.00	Arcadia
ARCBN	LAR	0.00	Sierra Madre
ARCDA1	LAR	0.00	Arcadia
ARCDA3	LAR	0.00	Arcadia
ARCDA4	LAR	0.00	Arcadia
ARCDA5	LAR	0.00	Arcadia
BEATY2	SGR	0.00	Azusa, Unincorporated County
BI1120	SGR	0.00	Unincorporated County
BI1217	SGR	0.00	Unincorporated County
BI1264	SGR	0.00	Azusa, Unincorporated County
BI24-2	LAR	0.00	Arcadia, Sierra Madre
BI3201C	SGR	0.00	Azusa, Duarte
BI9601B	SGR	0.00	Arcadia
BRDBY2	SGR	0.00	Bradbury, Unincorporated County
BRDBY4	SGR	0.00	Bradbury
BVSTA	LAR	0.00	Unincorporated County
FISH2	SGR	0.00	Azusa
GLDST	SGR	0.00	Azusa, Unincorporated County
LDLTW4	SGR	0.00	Azusa
RH1	LAR	0.00	Arcadia, Monrovia, Unincorporated County
RH2	LAR	0.00	Unincorporated County
SANIT5	LAR	0.00	Arcadia, Monrovia
SANIT6	LAR	0.00	Arcadia, Monrovia, Sierra Madre
SAWPT2	LAR	0.00	Monrovia

Table T-1 Green Street Implementation Summary by Subarea			
Subarea	**Watershed**	**Lane Miles Provided**	**Jurisdictions**
SAWPT4	LAR	0.00	Monrovia, Unincorporated County
SGR18	SGR	0.00	Azusa, Unincorporated County
SGR19	SGR	0.00	Azusa
SGR20	SGR	0.00	Azusa
SGR21	SGR	0.00	Azusa
SGR24	SGR	0.00	Azusa
SMADR2	LAR	0.00	Sierra Madre
SMADR3	LAR	0.00	Arcadia, Sierra Madre
SMADR4	LAR	0.00	Arcadia
SPINK1	SGR	0.00	Bradbury, Duarte
SPINK2	SGR	0.00	Bradbury, Unincorporated County
Unknown965	LAR	0.00	Monrovia
Unknown1021	LAR	0.00	Arcadia
Unknown1049	LAR	0.00	Arcadia
Unknown1119	LAR	0.00	Duarte
Unknown1179	LAR	0.00	Arcadia, Unincorporated County
Unknown851	LAR	0.00	Monrovia
Unknown894	LAR	0.00	Monrovia
Unknown947	LAR	0.00	Arcadia
VNTSL1	SGR	0.00	Azusa, Duarte

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Attachment U

LSPC Flow Calibration Figures

The tables and figures presented in this attachment demonstrate the LSPC flow calibration at each of the eight stream gauge stations, and corresponds with **Section 4.4** of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP). The statistics corresponding to the calibration are also included.

Attachment U List of Figures

Attachment U List of Tables

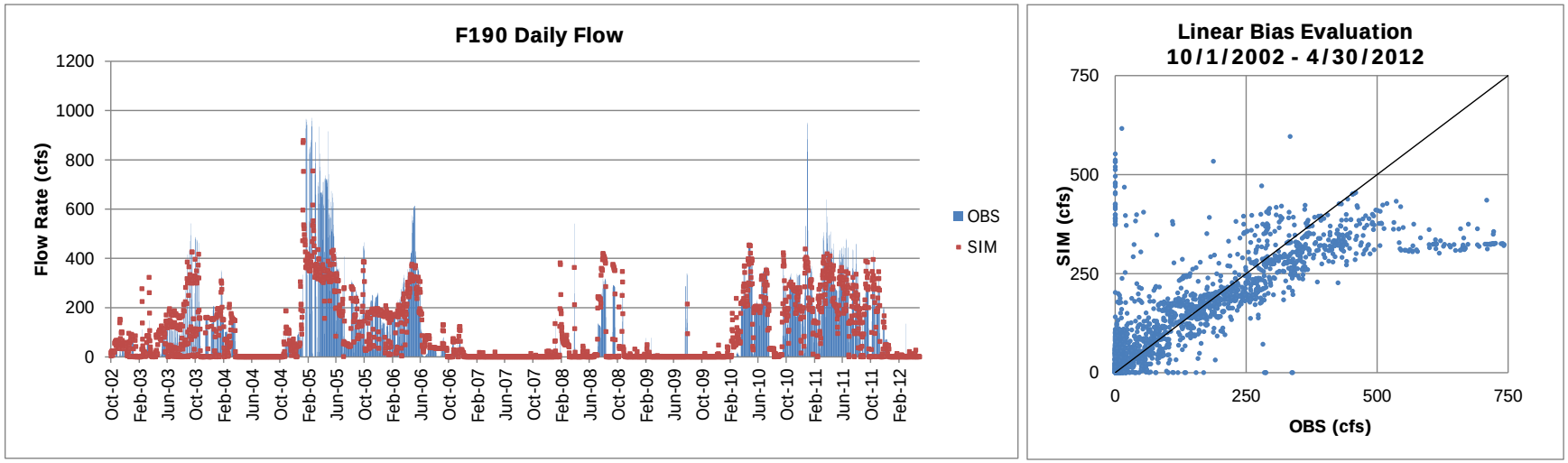


Figure U-1 Daily Flow Calibration Plot at Stream Gauge F190

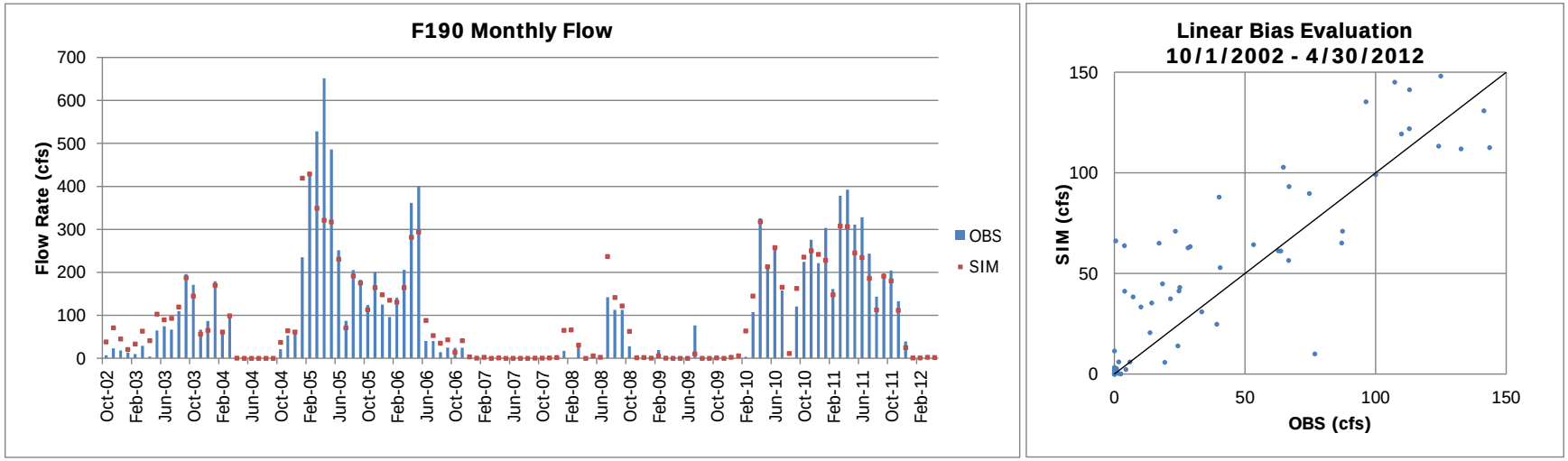


Figure U-2 Monthly Flow Calibration Plot at Stream Gauge F190

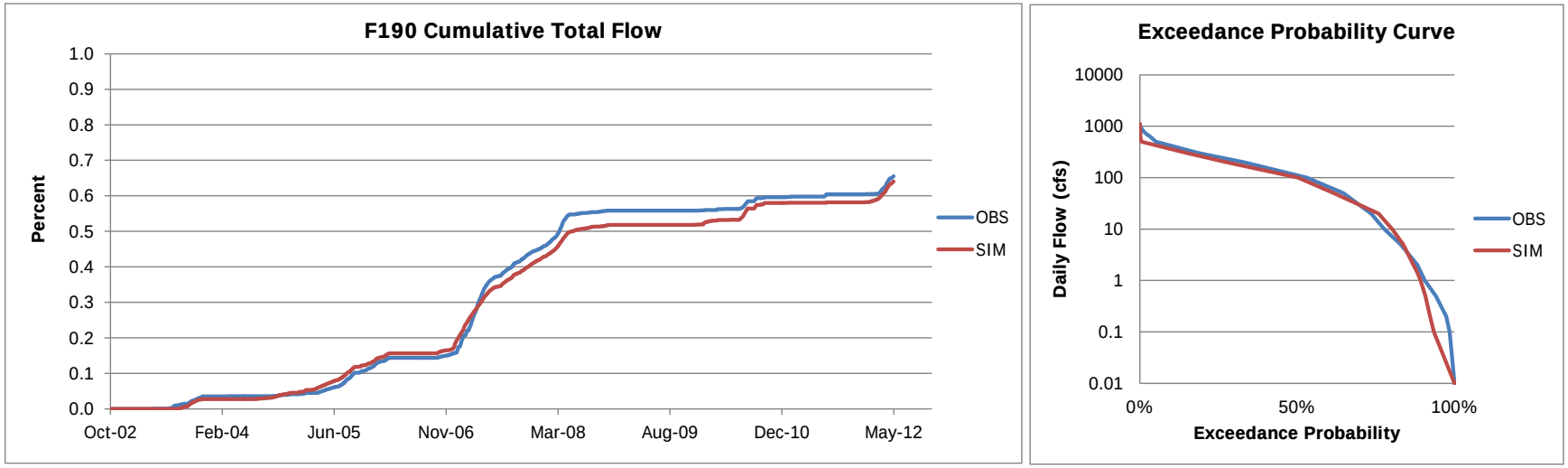
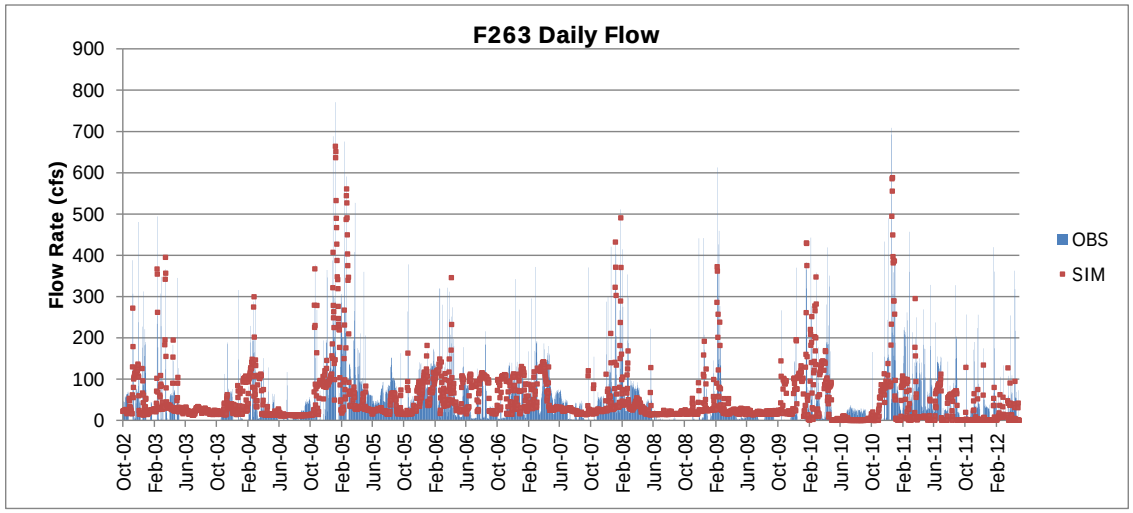


Figure U-3 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F190

Table U-1 Water Budget Parameter Statistics at Gauge F190

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget - Daily	95.6	-5.3%	0.82
Water Budget - Monthly	51.9	-5.3%	0.93



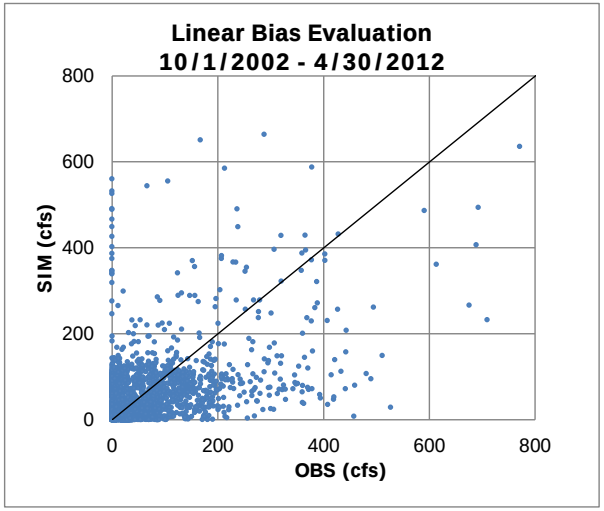
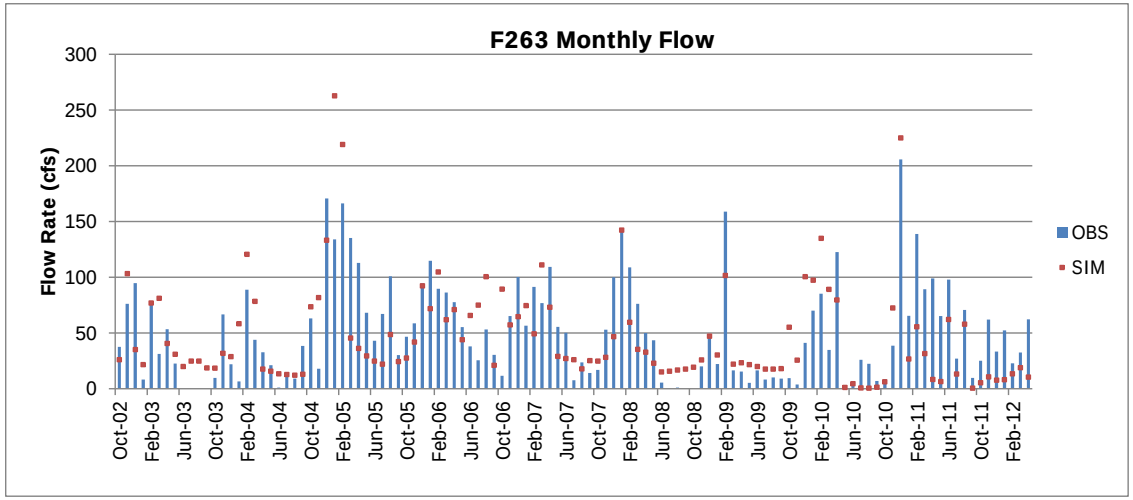


Figure U-4 Daily Flow Calibration Plot at Stream Gauge F263



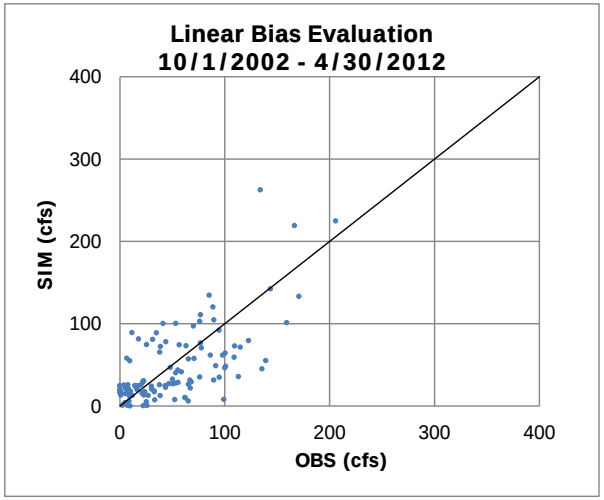
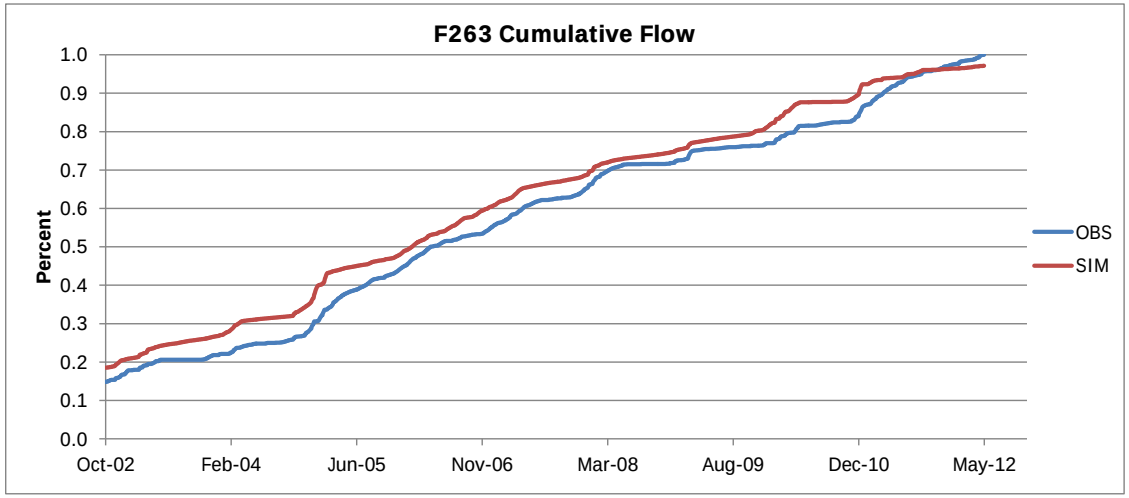


Figure U-5 Monthly Flow Calibration Plot at Stream Gauge F263



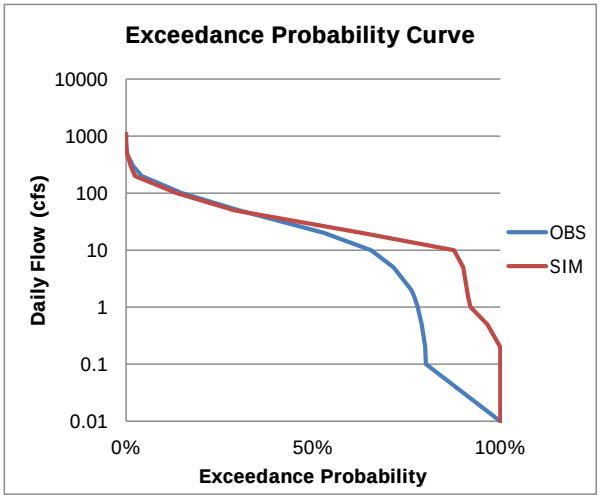
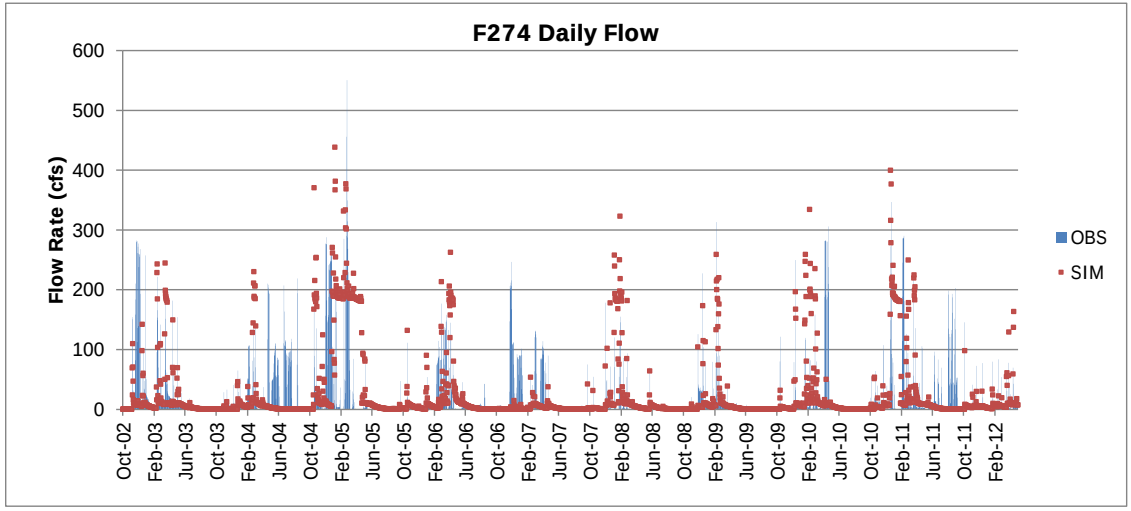


Figure U-6 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F263

Table U-2 Water Budget Parameter Statistics at Gauge F263

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget - Daily	74.2	-7.7%	0.47
Water Budget - Monthly	36.0	-7.8%	0.68



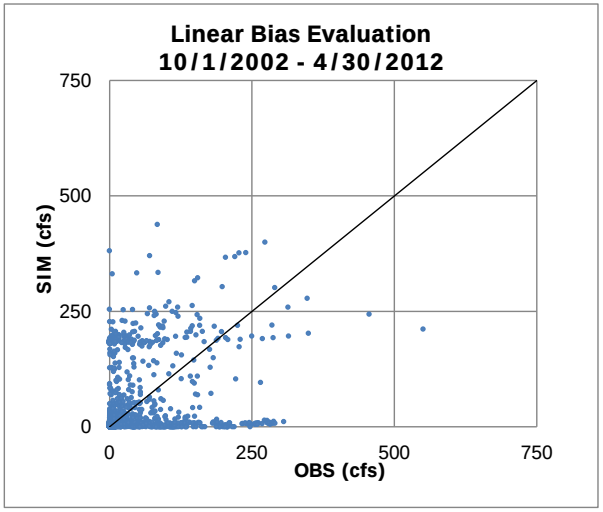
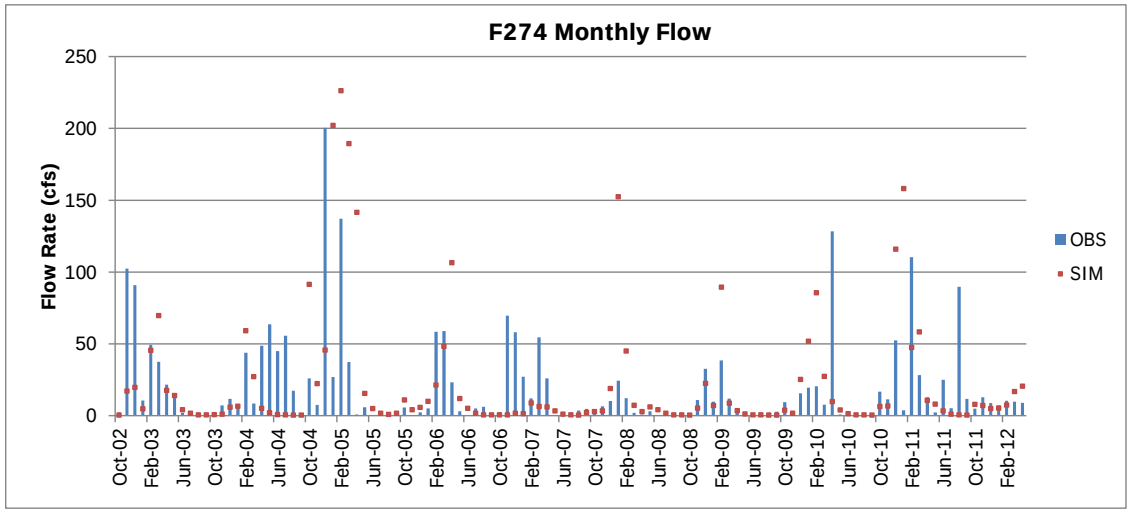


Figure U-7 Daily Flow Calibration Plot at Stream Gauge F274



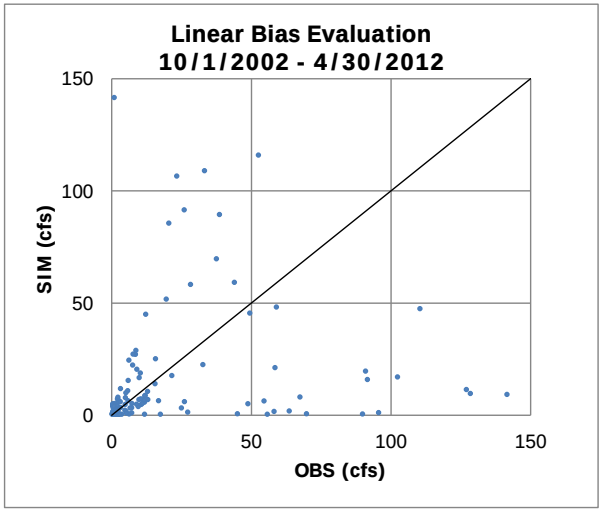


Figure U-8 Monthly Flow Calibration Plot at Stream Gauge F274

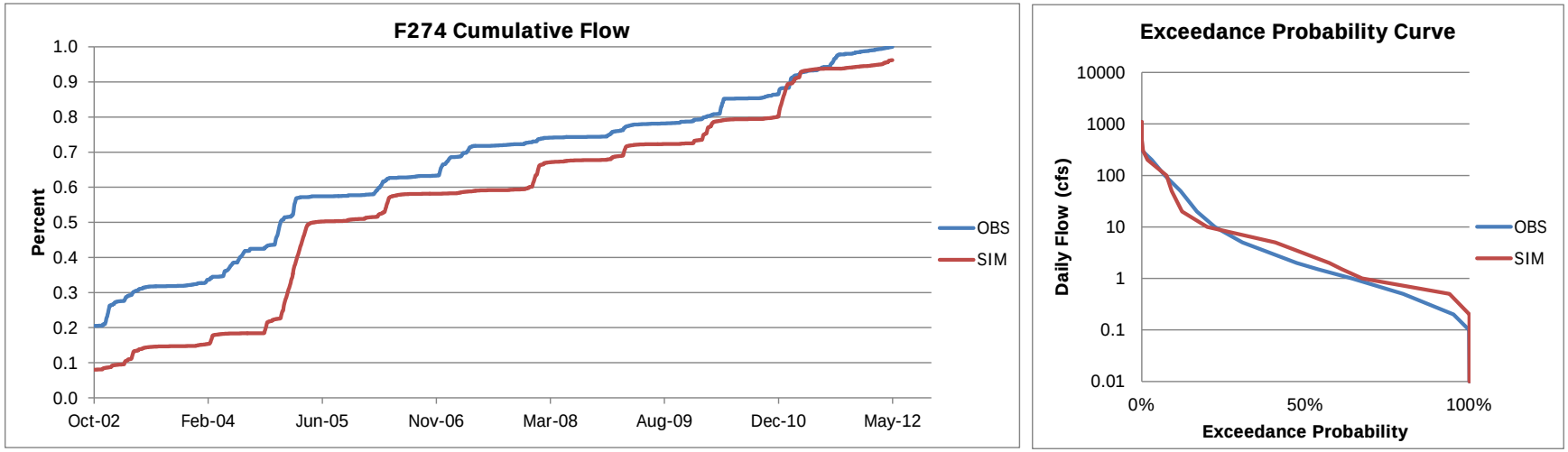
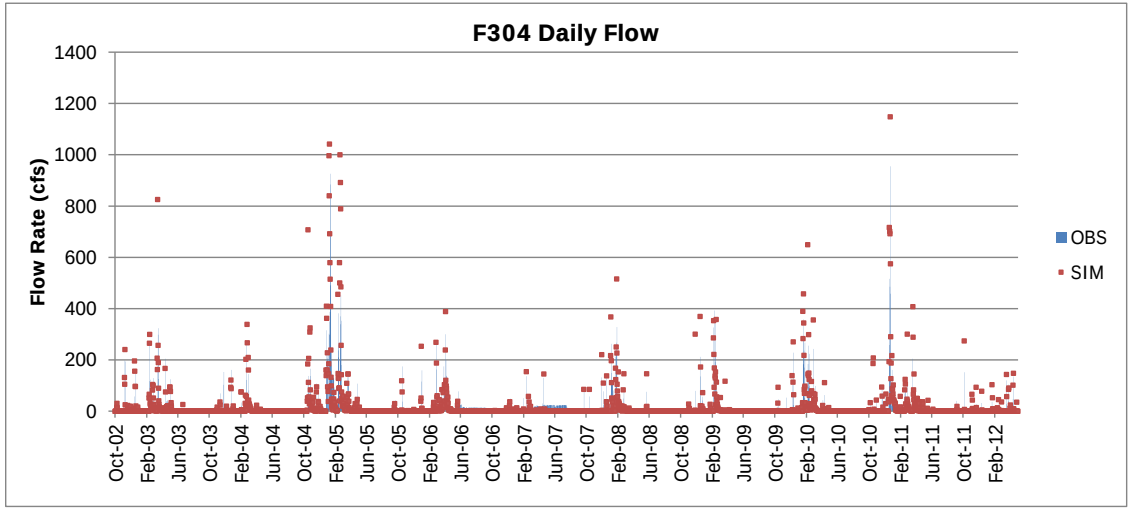


Figure U-9 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F274

Table U-3 Water Budget Parameter Statistics at Gauge F274

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget - Daily	64.2	10.9%	0.27
Water Budget - Monthly	45.4	10.9%	0.31



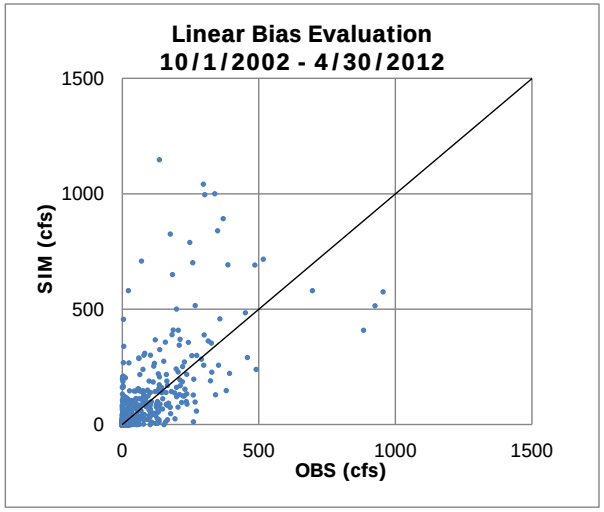
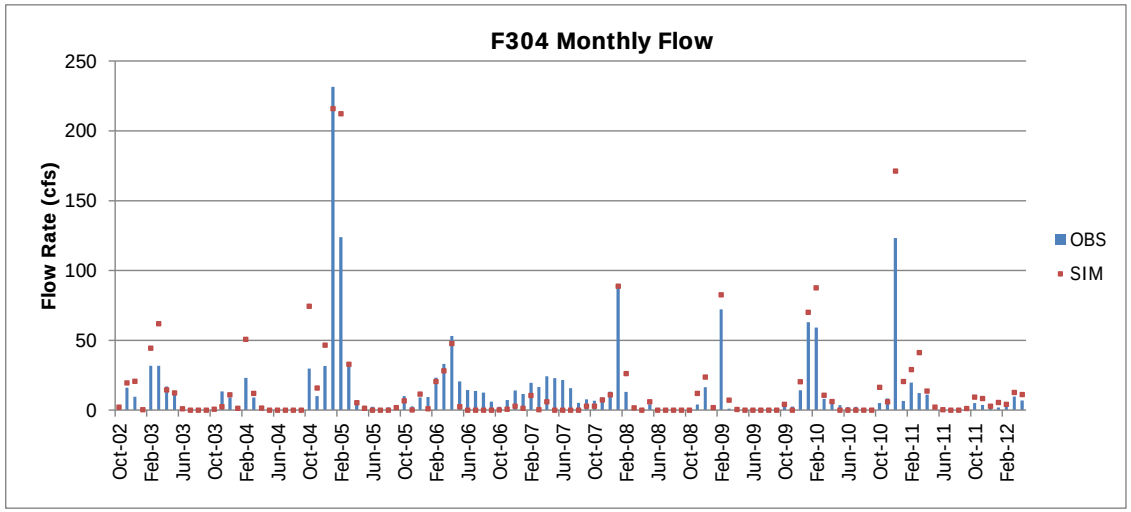


Figure U-10 Daily Flow Calibration Plot at Stream Gauge F304



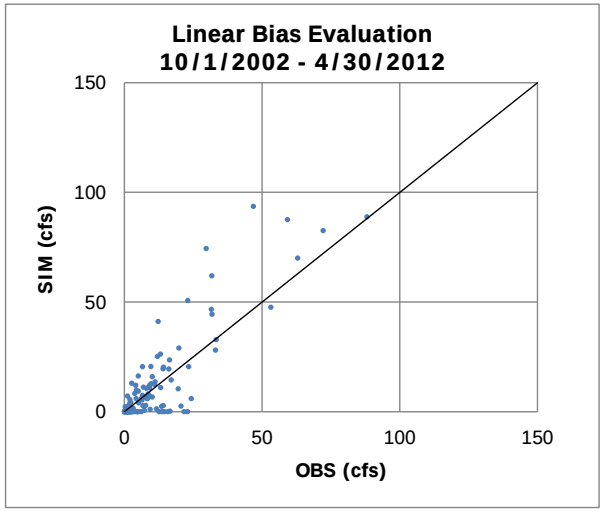


Figure U-11 Monthly Flow Calibration Plot at Stream Gauge F304

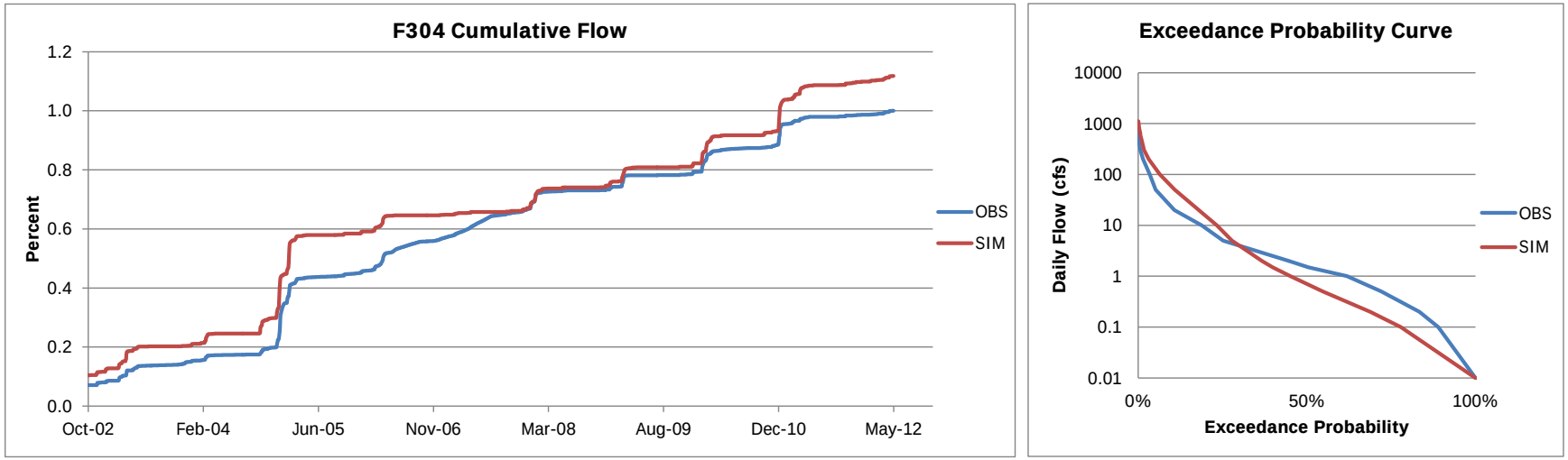
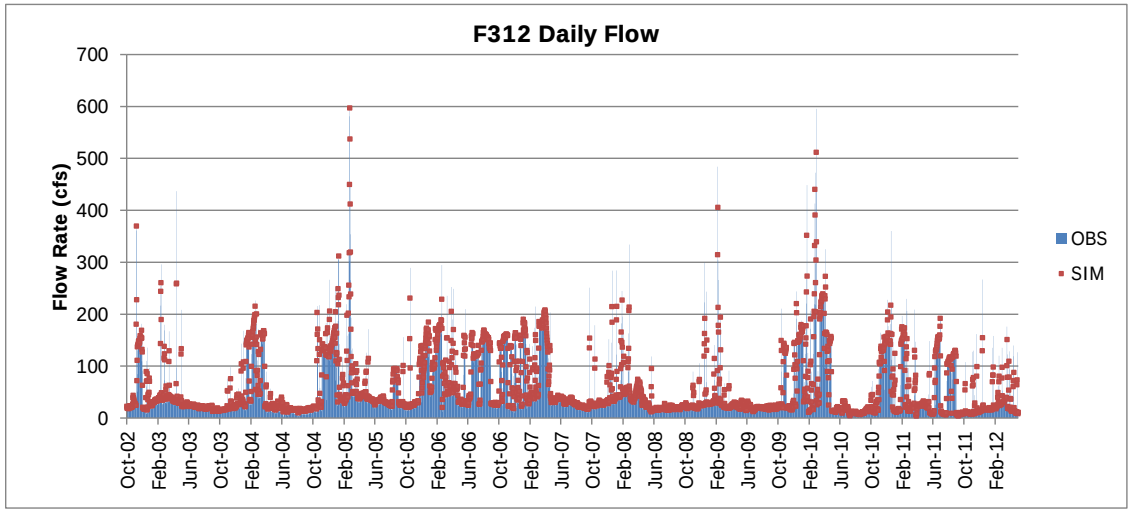


Figure U-12 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F304

Table U-4 Water Budget Parameter Statistics at Gauge F304

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget - Daily	50.1	9.1%	0.71
Water Budget - Monthly	13.5	9.6%	0.94



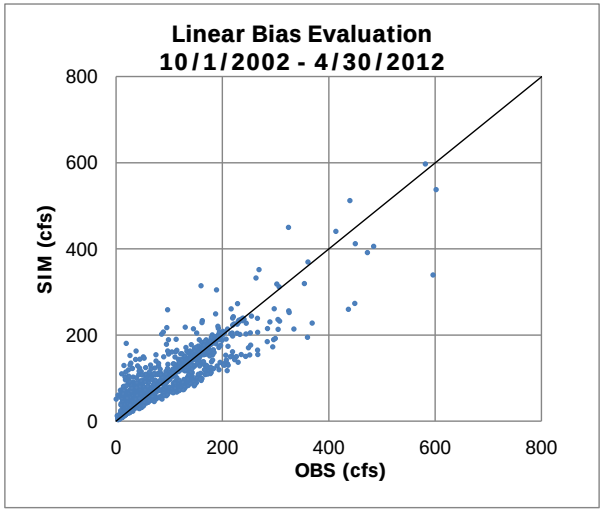
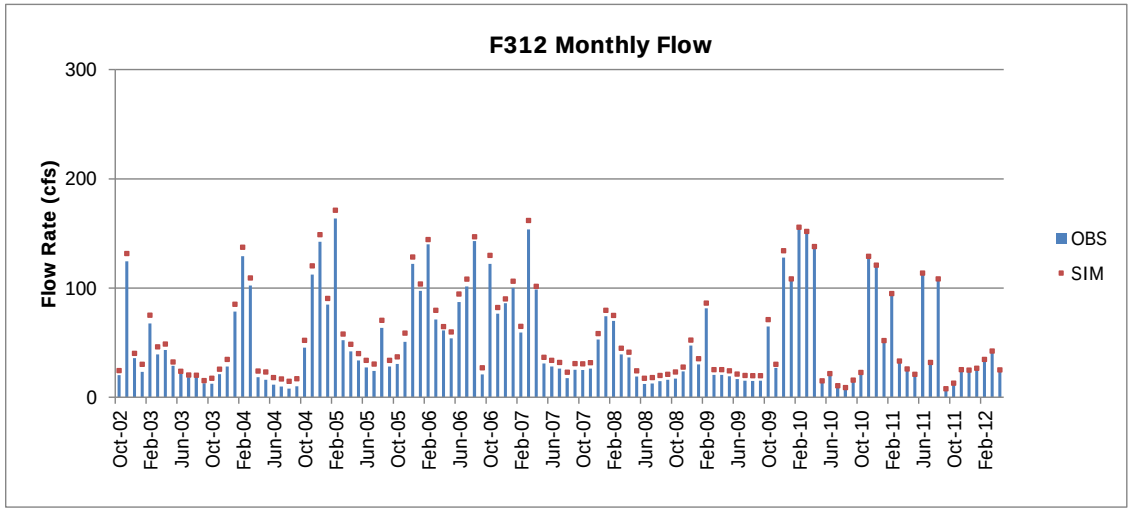


Figure U-13 Daily Flow Calibration Plot at Stream Gauge F312



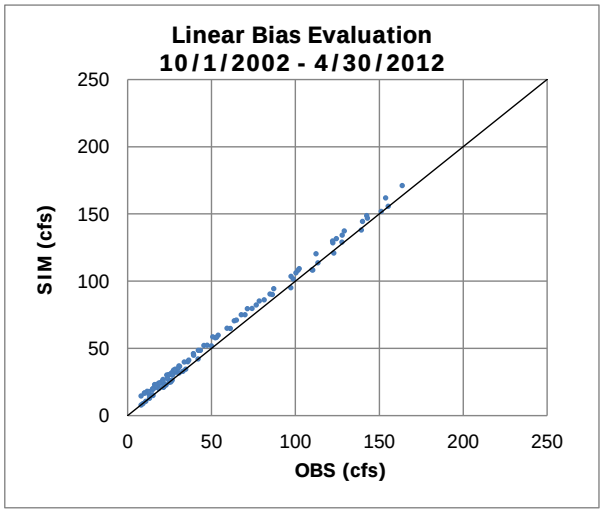


Figure U-14 Monthly Flow Calibration Plot at Stream Gauge F312

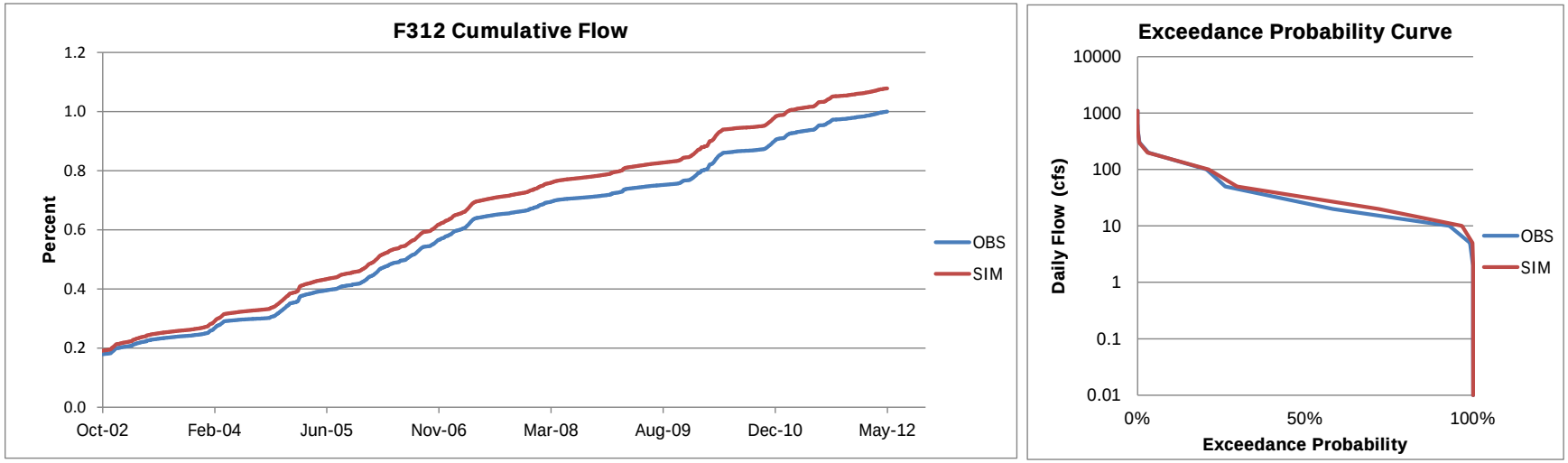


Figure U-15 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F312

Table U-5 Water Budget Parameter Statistics at Gauge F312

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget - Daily	20.6	8.1%	0.95
Water Budget - Monthly	5.1	8.1%	1.00

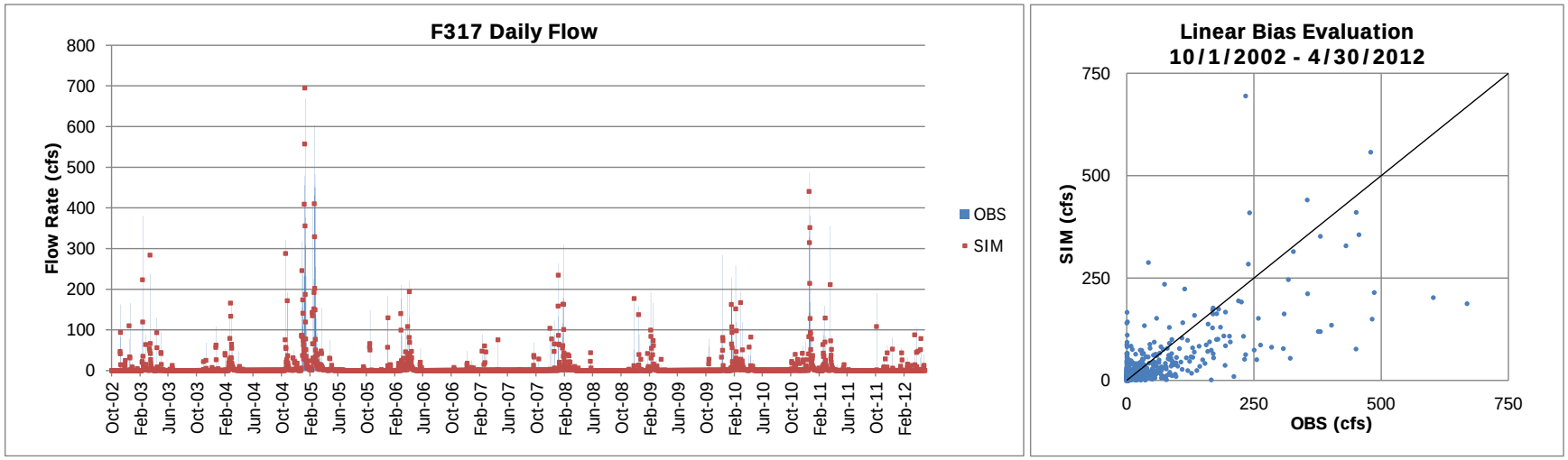


Figure U-16 Daily Flow Calibration Plot at Stream Gauge F317

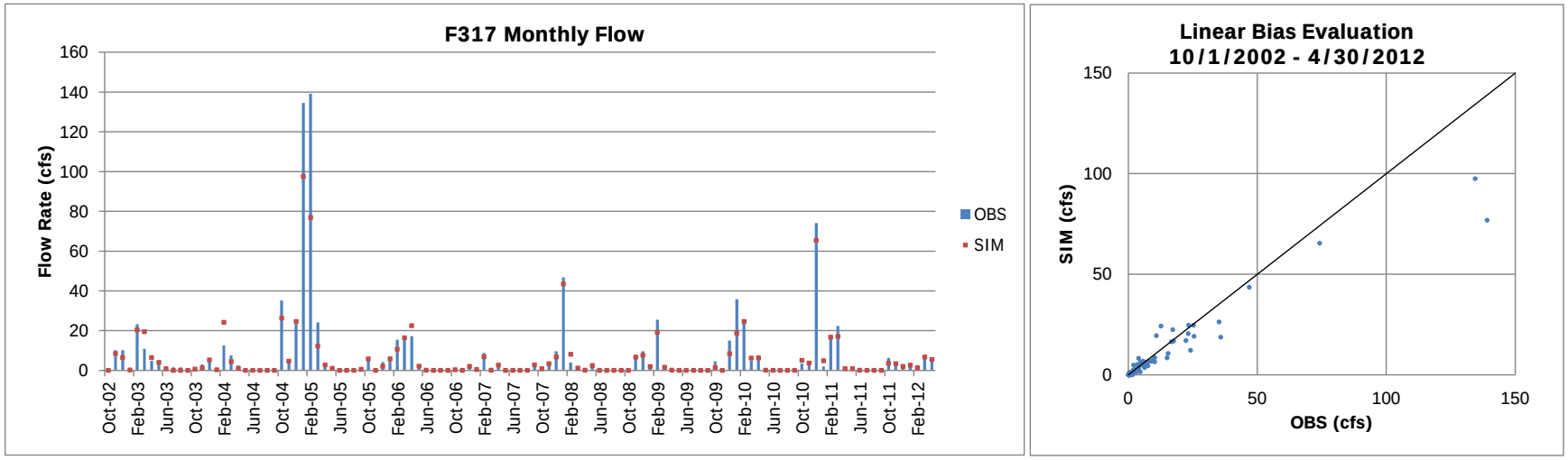


Figure U-17 Monthly Flow Calibration Plot at Stream Gauge F317

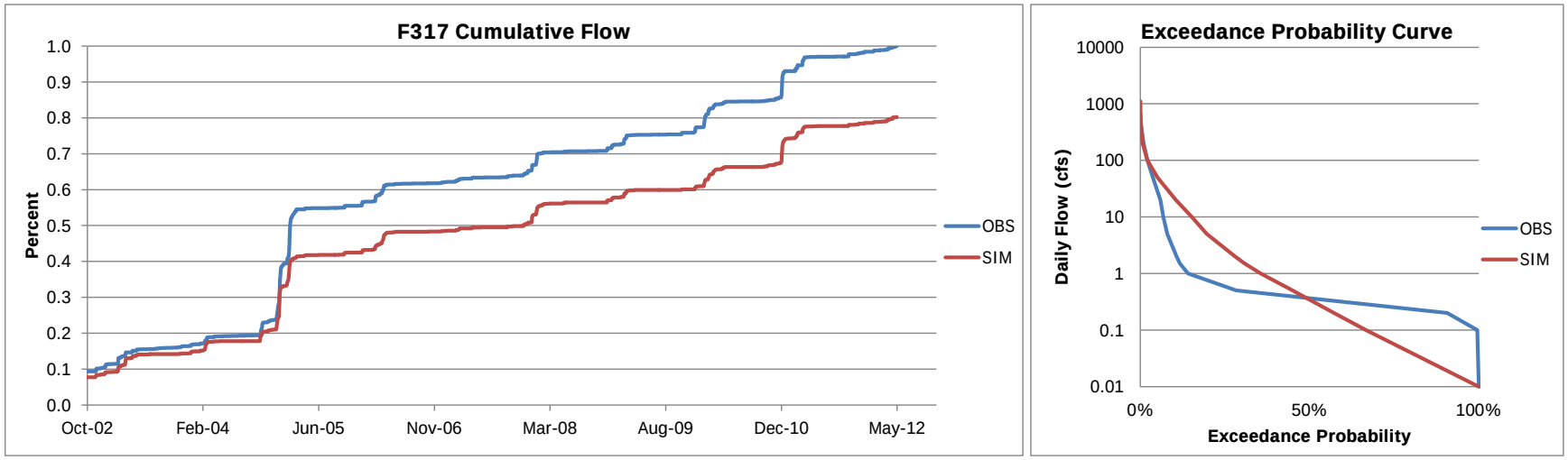


Figure U-18 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F317

Table U-6 Water Budget Parameter Statistics at Gauge F317

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget - Daily	26.3	-20.0%	0.76
Water Budget - Monthly	7.4	-20.1%	0.97

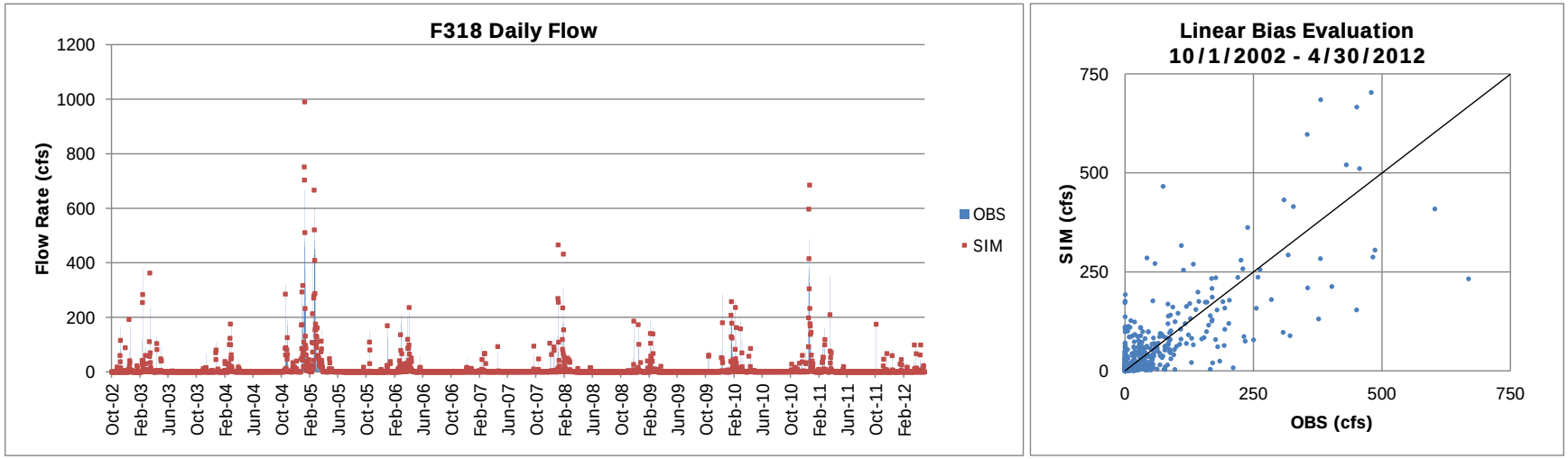


Figure U-19 Daily Flow Calibration Plot at Stream Gauge F318

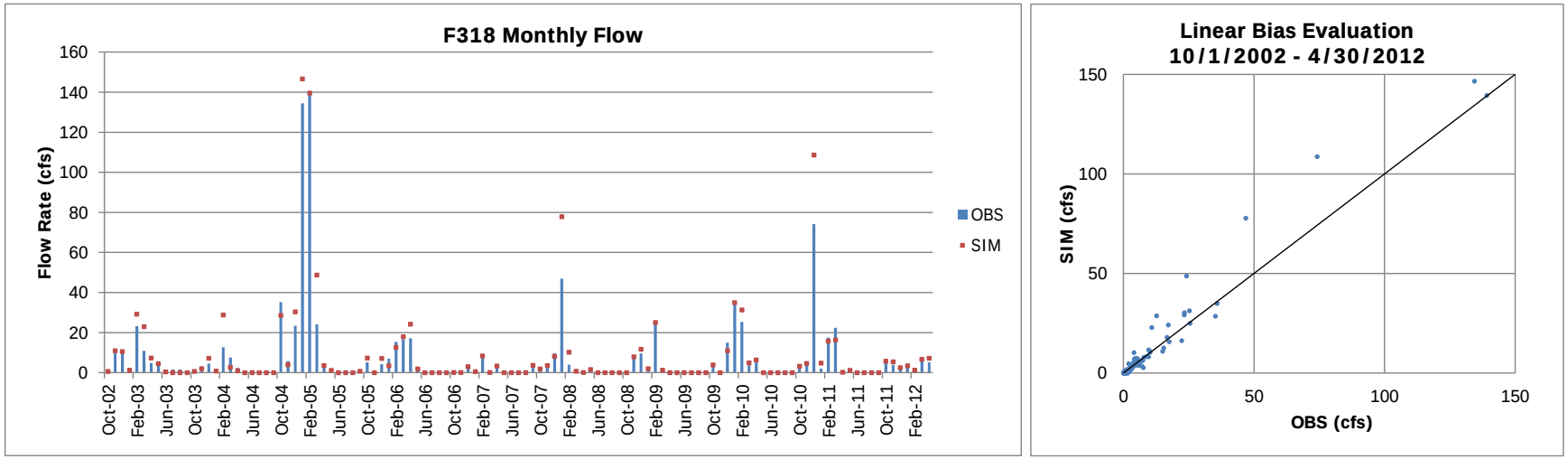


Figure U-20 Monthly Flow Calibration Plot at Stream Gauge F318

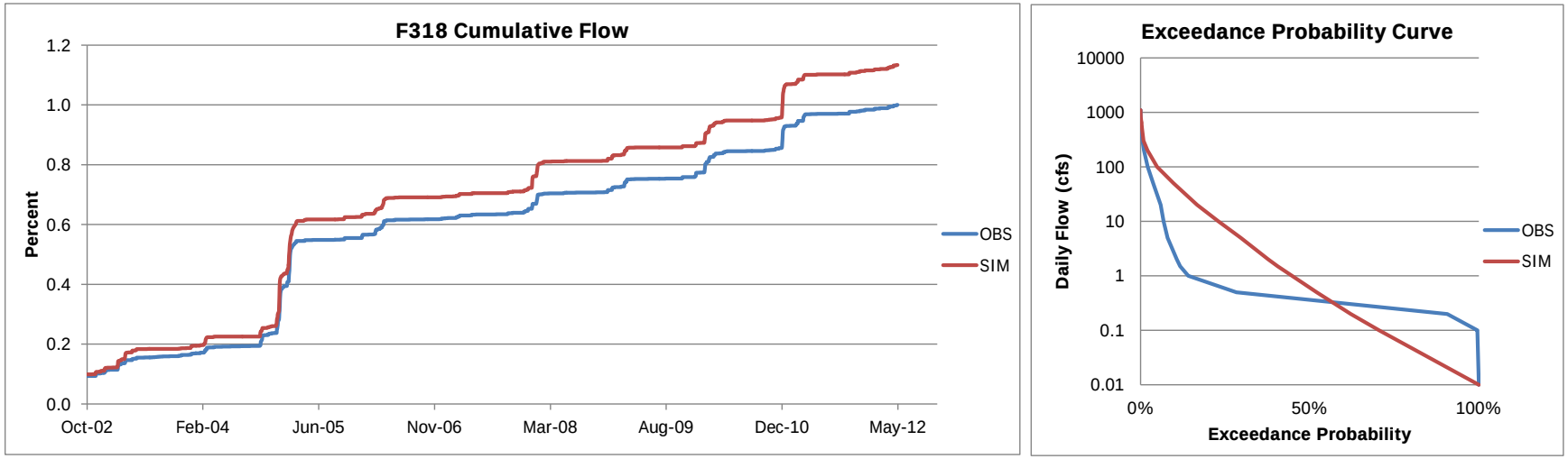


Figure U-21 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F318

Table U-7 Water Budget Parameter Statistics at Gauge F318

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget – Daily	29.1	14.1%	0.78
Water Budget - Monthly	5.7	13.9%	0.98

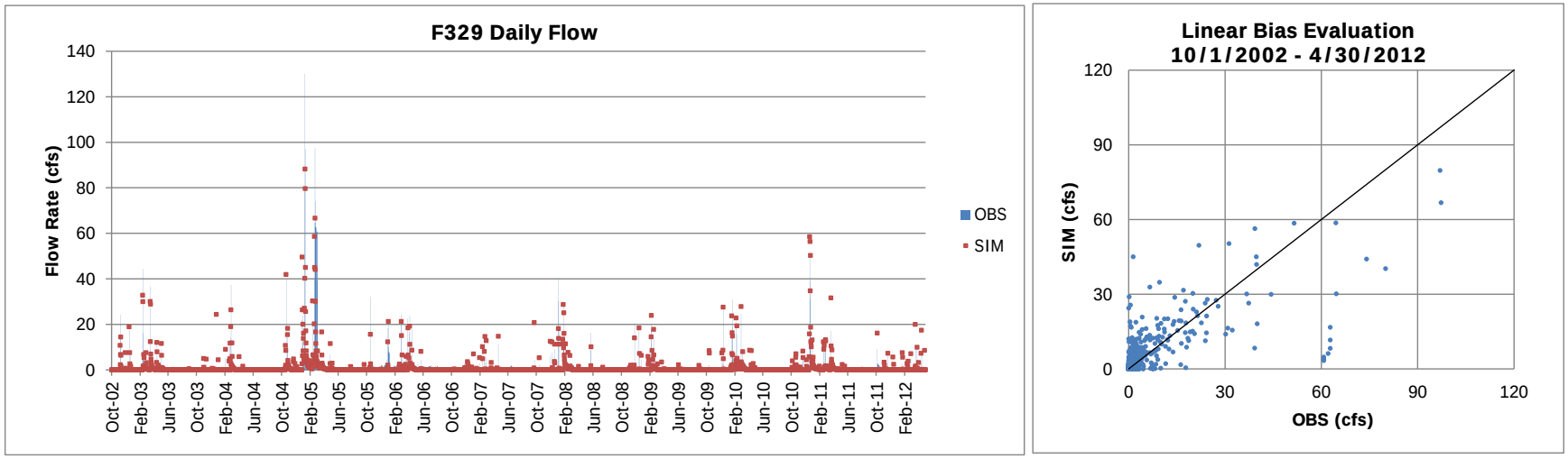


Figure U-22 Daily Flow Calibration Plot at Stream Gauge F329

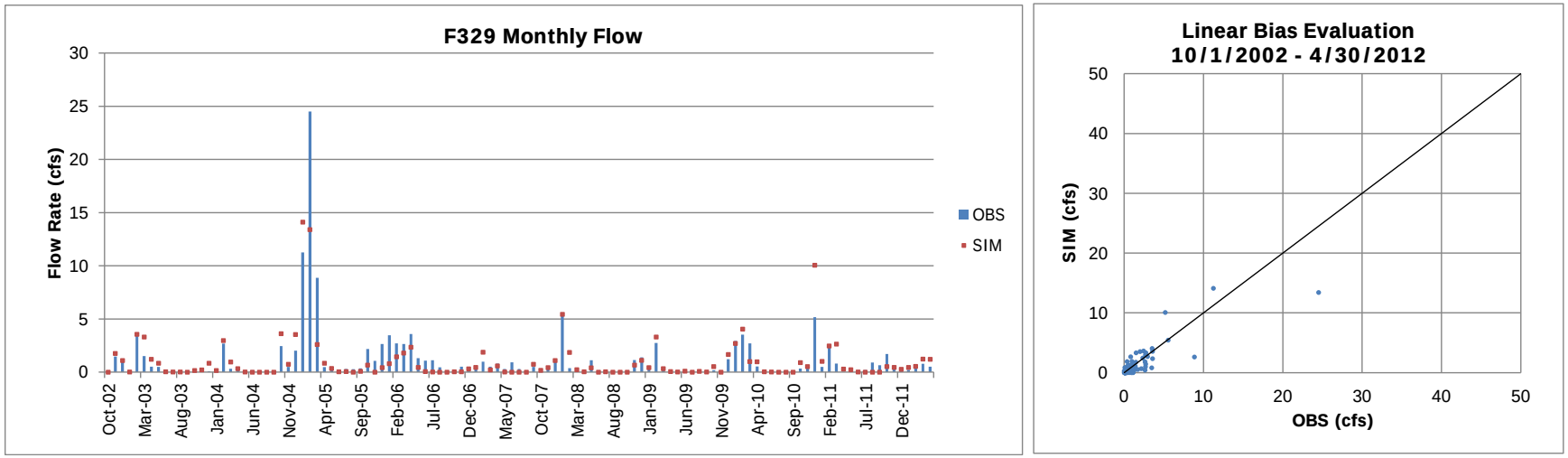


Figure U-23 Monthly Flow Calibration Plot at Stream Gauge F329

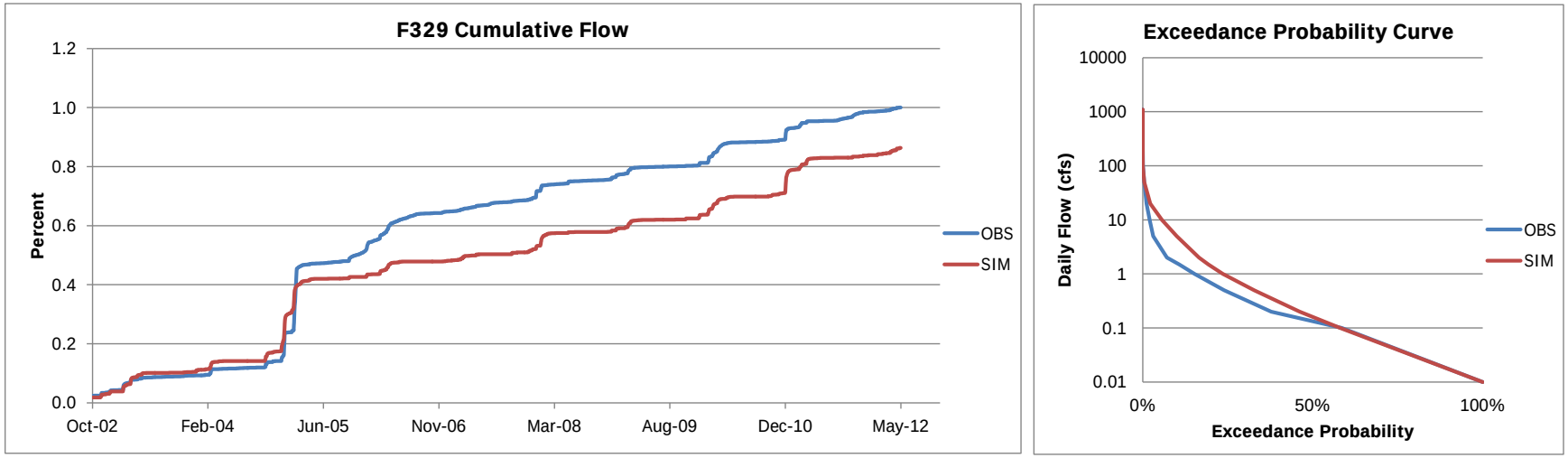


Figure U-24 Cumulative Total Flow Plot and Exceedance Probability at Stream Gauge F329

Table U-8 Water Budget Parameter Statistics at Gauge F329

Parameter	Root Mean Square (RMSE)	Linear Bias	Coefficient of Correlation (C.C.)
Water Budget – Daily	3.7	-13.4%	0.77
Water Budget - Monthly	1.5	-13.7%	0.85

Attachment V

Industrial and Other Permitted Facilities

The table and figure presented in this attachment identifies the industrial and other permitted facilities within the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG). This reference corresponds with **Section 4.6** of the RH/SGRWQG Enhanced Watershed Management Program (EWMP).

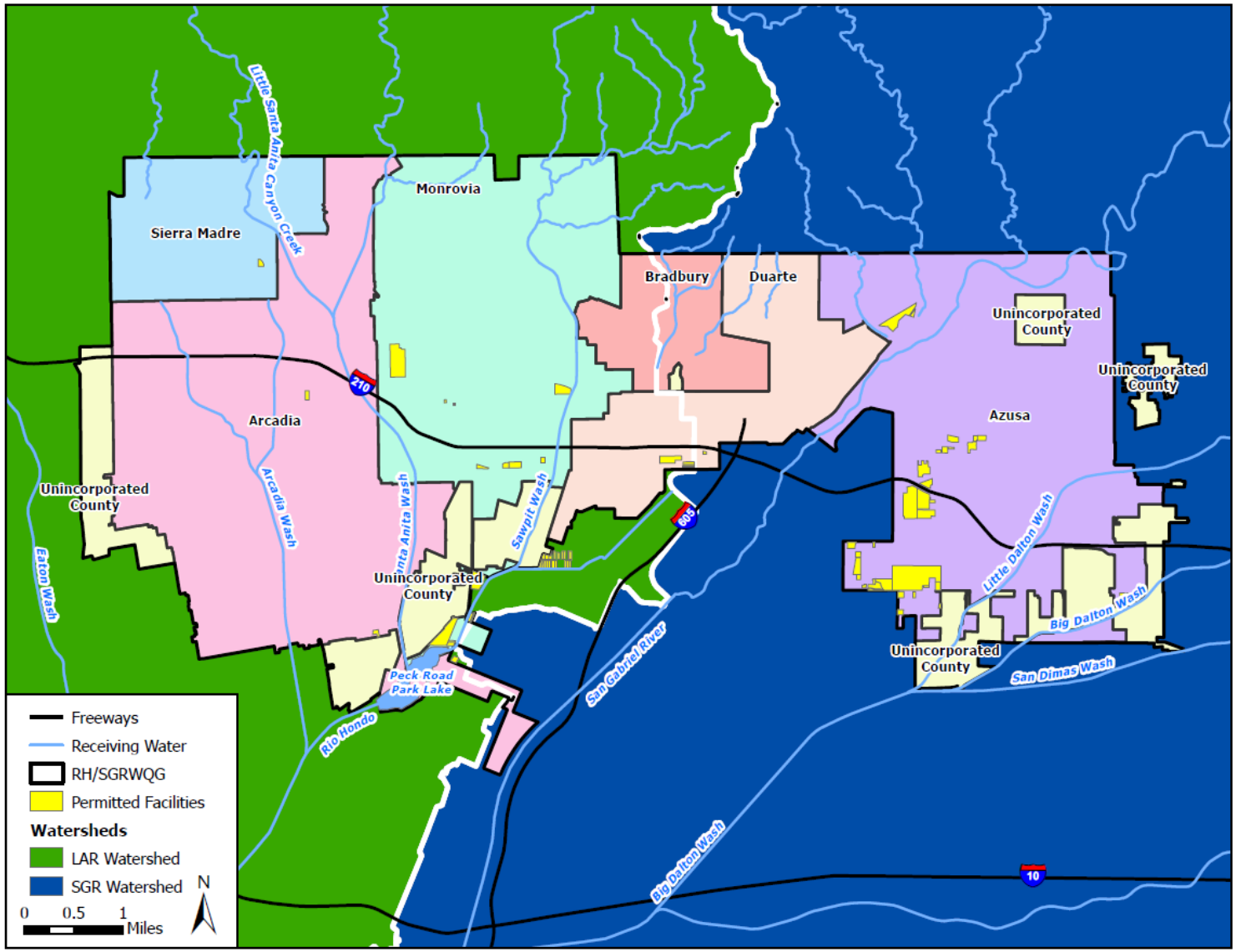


Figure V-1 Industrial Permitted Facilities Covered by the Industrial General Permit in the RH/SGRWQG

Table V-1 Summary of Industrial Permitted Facilities Covered by the Industrial General Permit in the RH/SGRWQG

Application ID	WDID	Status Date	Owner/Operator Name	Site/Facility Name	Address	City	Zip Code	APN
Arcadia								
430950	4 19I023809	41159	First Transit Inc co Strata Environmental	First Transit Inc 55593	5640 Peck Road	Arcadia	91006	8532007904
191494	4 19I017940	37693	Arcadia High School	Arcadia Vehicle Maint Fac	35 W Saint Joseph St	Arcadia	91007	5775021902
191271	4 19I016849	40927	Digital Optics Corp	DigitalOptics Corp	400 E Live Oak Ave	Arcadia	91006	8572001030
Azusa								
190871	4 19I015135	36294	Veolia ES Technical Solutions LLC	Veolia ES Technical Solutions LLC	1704 W 1st St	Azusa	91702	8533011002
440234	4 19I024436	41515	Acrylatex Recycling & Coatings	Acrylatex Recycling & Coatings	1001 W Kirkwall Rd	Azusa	91702	8619007040
190558	4 19I013578	35787	Fluorochem Inc	Fluorochem Inc	680 S Ayon Ave	Azusa	91702	8619010039
435081	4 19I024083	41324	NoracPharma	Norac Pharma	405 S Motor Ave	Azusa	91702	8615002022
190053	4 19I010982	34439	Reichhold Inc	Reichhold Inc	237 S Motor Ave	Azusa	91702	8615002025
190053	4 19I010982	34439	Reichhold Inc	Reichhold Inc	237 S Motor Ave	Azusa	91702	8615002023
413877	4 19I023093	40638	Michael K Holmes	Valley Forge Inc	444 S Motor Ave	Azusa	91702	8615005046
188694	4 19I000805	33683	Azusa School District	Azusa Sch Dist	546 S Citrus Ave	Azusa	91702	8630008900
191284	4 19I016904	37203	Northrop Grumman Systems Corporation	Northrop Grumman Systems Corporation	1100 W Hollyvale St	Azusa	91702	8615001056
191284	4 19I016904	37203	Northrop Grumman Systems Corporation	Northrop Grumman Systems Corporation	1100 W Hollyvale St	Azusa	91702	8615001068
191284	4 19I016904	37203	Northrop Grumman Systems Corporation	Northrop Grumman Systems Corporation	1100 W Hollyvale St	Azusa	91702	8615001055
191284	4 19I016904	37203	Northrop Grumman Systems Corporation	Northrop Grumman Systems Corporation	1100 W Hollyvale St	Azusa	91702	8615001065
188740	4 19I001038	33688	Mag Parts	Mag Parts	1545 W Roosevelt St	Azusa	91702	8615007010
189208	4 19I003642	33700	Universal Metal Plating	Universal Metal Plating	1526 W 1st St	Azusa	91702	8615010039
191713	4 19I018755	38099	Burrtec Waste Services LLC	Burrtec Waste Services LLC	1017 W Gladstone St	Azusa	91702	8615016012
426139	4 19I023600	41012	V & L Auto Salvage	V & L Auto Salvage	470 S Mira Loma Dr Unit B	Azusa	91702	8615016007
189367	4 19I004450	33700	USA Waste of California Inc	Azusa Land Reclamation Incorporated	1211 Gladstone	Azusa	91702	8615016006
436144	4 19I024156	41358	S and S Foods LLC	S and S Foods LLC	1120 W Foothill Blvd	Azusa	91702	8616001420
423943	4 19I023500	40941	MLS Fluid Solutions LLC	MLS Fluid Solutions LLC	1061 W 5th St	Azusa	91702	8616011012
188736	4 19I001029	33688	Don Ansell	CA Amforge	750 N Vernon Ave	Azusa	91702	8605003044
189796	4 19I009320	33922	Heppner Hardwoods Inc	Heppner Hardwoods Inc	555 Danlee	Azusa	91702	8605003049
189796	4 19I009320	33922	Heppner Hardwoods Inc	Heppner Hardwoods Inc	555 Danlee	Azusa	91702	8605003052
425139	4 19I023558	40981	Ancra International LLC	Ancra International LLC	875 W 8th St	Azusa	91702	8605015023
369964	4 19I022290	40045	Cryogenics Transportation Inc	CTI Azusa Terminal	975 W Industrial St	Azusa	91702	8605019401
334572	4 19I021259	39391	Stone Roofing Co Inc	Stone Roofing Co Inc	730 N Coney Ave	Azusa	91702	8605019423
293072	4 19I019437	38464	Keith Lindsey	Lindsey Manufacturing Co	755 N Georgia Ave	Azusa	91702	8605019405
188924	4 19I002248	33694	CalMat Co dba Vulcan Materials Co	Calmat Co Azusa Rock	3901 Fish Canyon Rd	Azusa	91016	8610023009
292983	4 19I019285	38372	Kemac Technology Inc	Kemac Tech Inc	503 S Vincent Ave	Azusa	91702	8619017037
441231	4 19I024468	41530	Azusa Land Reclamation Nc	Azusa Transfer Station & MRF	1501 W Gladstone St	Azusa	91702	8615007017
188820	4 19I001527	33661	Cemex Construction Materials Pacific LLC	Cemex Construction Materials Pacific LLC	1201 Gladstone	Azusa	91702	8615007018
292940	4 19I018895	38180	Savios Custom Furniture	Savios Custom Furniture	1340 W Gladstone St	Azusa	91702	8619010044

Table V-1 Summary of Industrial Permitted Facilities Covered by the Industrial General Permit in the RH/SGRWQG

Application ID	WDID	Status Date	Owner/Operator Name	Site/Facility Name	Address	City	Zip Code	APN
Duarte								
189919	4 19I010111	34169	De La Huerta Auto Parts	De La Huerta Auto Parts	852 Alpha St	Duarte	91010	8533013027
409806	4 19I022938	40521	Best Choice Auto Dismantling	Best Choice Auto Dismantling	750 Alpha St	Duarte	91010	8533013029
190446	4 19I012893	41726	Popular Auto Parts	Popular Auto Parts	782 Alpha St	Duarte	91010	8533013022
414193	4 19I023102	40647	Sunrise Auto Wrecker LLC dba M L Auto Wrecker	Sunrise Auto WreckSunrise Auto Wrecker LLC dba M L Auto Wreckerer LLC dba M and L Auto Wrecke	797 Alpha St	Duarte	91010	8533013030
403700	4 19I022666	40339	Nemos Auto Inc	Nemos Auto Inc	712 Alpha St	Duarte	91010	8533013037
441641	4 19I024494	41548	Narine Malkhasyan	Beemer and Benz Auto Dismantler	872 Alpha St	Duarte	91010	8533013040
292907	4 19I018559	37988	Jim Lortson	Russ Recycling	756 Alpha St	Duarte	91010	8533013033
402970	4 19I022600	40288	OK Auto Salvage	OK Auto Salvage	864 Alpha St	Duarte	91010	8533013039
434345	4 19I024029	41297	My Boys Auto Inc	My Boys Auto	706 Alpha St	Duarte	91010	8533013038
314213	4 19I020539	39027	A Abar Auto Wrecking	AAA Auto Wrecking	863 Alpha St	Duarte	91010	8533013045
188843	4 19I001717	33693	Noriega David	Dave S Auto & Truck Dismantlin	734 Alpha St	Duarte	91010	8533013035
447434	4 19I024928	41815	S & J Auto	S & J Auto	740 Alpha Street	Duarte	91010	8533013034
190288	4 19I012245	35163	PV Auto Dismantling Inc	P V Auto Dismantling Inc	775 Alpha	Duarte	91010	8533013032
190423	4 19I012811	35436	Alpha Auto Wrecking	Alpha Auto Wrecking	772 Alpha St	Duarte	91010	8533013041
440990	4 19I024442	41521	Los 3 Gallos	Los 3 Gallos	739 Alpha St	Duarte	91010	8533013042
190792	4 19I014889	36172	Sunny Morning Corp	Ylm Auto Wrecking	722 Alpha St	Duarte	91010	8533013036
190608	4 19I013800	35865	Tat Auto Dismantler	Tat Auto Dismantler	713 Alpha St	Duarte	91010	8533013043
189950	4 19I010302	34158	LPD II Auto Wrecking	LPD II Auto Wrecking	845 Alpha St	Duarte	91010	8533013048
301646	4 19I020190	38828	All California Truck Auto Salvage	All California Truck & Auto Salvage	867 Alpha St	Duarte	91010	8533013051
189950	4 19I010302	34158	LPD II Auto Wrecking	LPD II Auto Wrecking	845 Alpha St	Duarte	91010	8533013047
429352	4 19I023760	41123	IPP Plastic Products Inc	IPP Plastic Products Inc	1956 Evergreen St	Duarte	91010	8528013127
189751	4 19I009090	33915	HTL Pacific Scientific	H T L Pac Scientific	1800 Highland Ave	Duarte	91010	8528014067
435225	4 19I024098	41327	Woodward Inc	Woodward HRT	1700 Business Center Drive	Duarte	91010	8528011020
189751	4 19I009090	33915	HTL Pacific Scientific	H T L Pac Scientific	1800 Highland Ave	Duarte	91010	8528014068
189751	4 19I009090	33915	HTL Pacific Scientific	H T L Pac Scientific	1800 Highland Ave	Duarte	91010	8528014063
Monrovia								
191107	4 19I016242	36850	SLS & N Inc	S L S & N Inc Peck Rd Gravel P	128 Live Oak Ave	Monrovia	91016	8532005901
191107	4 19I016242	36850	SLS & N Inc	S L S & N Inc Peck Rd Gravel P	128 Live Oak Ave	Monrovia	91016	8532005001
188681	4 19I000751	33683	Allan Co	Monrovia Recycling	145 W Duarte Rd	Monrovia	91016	8507003044
190029	4 19I010791	34317	Pick A Part	Pick A Part Auto Dismantling	3333 Peck Rd	Monrovia	91016	8571009022
441434	4 19I024477	41540	Lexus Land Auto Wrecking Inc	Lexus Land Auto Wrecking Inc	3301 Peck Rd	Monrovia	91016	8571009024
190029	4 19I010791	34317	Pick A Part	Pick A Part Auto Dismantling	3333 Peck Rd	Monrovia	91016	8571009023
188765	4 19I001198	33689	3M Unitek	3M Unitek	2724 South Peck Road	Monrovia	91016	8511016012
189815	4 19I009484	33932	UPL Decco Inc	Decco Cerexagri Inc	1713 S California Ave	Monrovia	91016	8513011037
403432	4 19I022640	40315	Vinyl Technology Inc	Vinyl Technology Inc	200 Railroad Ave	Monrovia	91016	8513011036
188885	4 19I002054	33693	3M Company Corona	3M Monrovia Tape Mfg Div	1601 S Shamrock Ave	Monrovia	91016	8513012037
191499	4 19I017959	37694	Monrovia Unified School District	Transportaion Yard	124 S Madison Ave	Monrovia	91016	8505027900
189183	4 19I003539	33697	Mask Off Co Inc	Mask Off Co Inc	345 W Maple Ave	Monrovia	91016	8506004012

Table V-1 Summary of Industrial Permitted Facilities Covered by the Industrial General Permit in the RH/SGRWQG								
Application ID	**WDID**	**Status Date**	**Owner/Operator Name**	**Site/Facility Name**	**Address**	**City**	**Zip Code**	**APN**
189183	4 19I003539	33697	Mask Off Co Inc	Mask Off Co Inc	345 W Maple Ave	Monrovia	91016	8506004011
189183	4 19I003539	33697	Mask Off Co Inc	Mask Off Co Inc	345 W Maple Ave	Monrovia	91016	8506004013
322261	4 19I020736	39163	Donna Leiby	JP Paper Shredders	428 W Chestnut Ave	Monrovia	91016	8506007032
191811	4 19I019056	38258	Ducommun AeroStructures Inc	Ducommun Aerostructures	801 Royal Oaks Dr	Monrovia	91016	8517016015
Sierra Madre								
190553	4 19I013547	35760	Sierra Madre City	Sierra Madre City	579 E Sierra Madre Blvd	Sierra Madre	91024	5766005901

Attachment W

90th Percentile Load Determination

The tables presented in this attachment identify the 87th through 93rd percentile load events for metal constituents and fecal coliform in both the Los Angeles River (LAR) and San Gabriel River (SGR) Watersheds which were used to support the limiting pollutant determination. This attachment corresponds with **Section 4.8** of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP).

Attachment W List of Tables

Table W-1 Copper Percentile Loads for LAR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Copper Load (kg)**	**Percentile**
1/18/2010	509.82	1,011.22	162.94	203.11	93rd
4/13/2012	305.79	606.53	271.24	202.80	
2/27/2010	569.22	1,129.03	139.65	194.37	
1/25/2008	**638.93**	**1,267.30**	**113.35**	**177.08**	
11/26/2008	412.14	817.47	161.76	163.02	
2/6/2010	577.22	1,144.89	112.71	159.07	
2/18/2005	650.67	1,290.58	99.27	157.94	
12/29/2004	530.06	1,051.35	120.76	156.51	87th

Table W-2 Copper Percentile Load Statistics for LAR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Copper Load (kg)**
Mean	1,039.80	176.74
Standard Error	81.48	7.26
Median	1,090.19	170.05
Standard Deviation	230.45	20.52
Sample Variance	53,108.21	421.27
Kurtosis	0.51	-2.07
Skewness	-0.98	0.41
Range	684.05	46.60
Minimum	606.53	156.51
Maximum	1,290.58	203.11
95% Confidence Range for Mean	319.39	28.45

Table W-3 Lead Percentile Loads for LAR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Lead Load (kg)**	**Percentile**
12/22/2010	982.36	1,948.48	41.18	98.91	93rd
4/13/2012	305.79	606.53	131.53	98.35	
2/27/2010	569.22	1,129.03	68.18	94.90	
1/25/2008	**638.93**	**1,267.30**	**54.72**	**85.48**	
11/26/2008	412.14	817.47	78.73	79.34	
2/6/2010	577.22	1,144.89	54.90	77.48	
2/18/2005	650.67	1,290.58	48.43	77.06	
12/29/2004	530.06	1,051.35	58.13	75.34	87th

Table W-4 Lead Percentile Load Statistics for LAR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Lead Load (kg)**
Mean	1,156.95	85.86
Standard Error	139.31	3.56
Median	1,136.96	82.41
Standard Deviation	394.03	10.06
Sample Variance	155,261.55	101.29
Kurtosis	2.19	-2.06
Skewness	0.91	0.41
Range	1,341.95	23.57
Minimum	606.53	75.34
Maximum	1,948.48	98.91
95% Confidence Range for Mean	546.10	13.95

Table W-5 Zinc Percentile Loads for LAR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Zinc Load (kg)**	**Percentile**
1/18/2010	509.82	1,011.22	648.63	808.57	93rd
2/27/2010	569.22	1,129.03	564.65	785.89	
4/13/2012	305.79	606.53	1,046.24	782.27	
1/25/2008	**638.93**	**1,267.30**	**446.05**	**696.84**	
2/6/2010	577.22	1,144.89	457.96	646.34	
2/18/2005	650.67	1,290.58	405.51	645.15	
11/26/2008	412.14	817.47	633.62	638.52	
11/8/2002	416.39	825.90	622.14	633.42	87th

Table W-6 Zinc Percentile Load Statistics for LAR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Zinc Load (kg)**
Mean	1,011.62	704.63
Standard Error	85.67	26.68
Median	1,070.13	671.59
Standard Deviation	242.32	75.47
Sample Variance	58,717.41	5,696.04
Kurtosis	-0.89	-2.09
Skewness	-0.51	0.47
Range	684.05	175.15
Minimum	606.53	633.42
Maximum	1,290.58	808.57
95% Confidence Range for Mean	335.83	104.60

Table W-7 Fecal Coliform Percentile Loads for LAR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Fecal Coliform Load (MPN)**	**Percentile**
5/18/2011	42.47	84.24	1.28E+06	1.33E+15	93rd
12/5/2004	39.03	77.41	1.17E+06	1.12E+15	
2/15/2005	**77.89**	**154.49**	**5.64E+05**	**1.08E+15**	87th

Table W-8 Fecal Coliform Percentile Load Statistics for LAR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Fecal Coliform Load (MPN)**
Mean	105.38	1.17E+15
Standard Error	24.64	7.94E+13
Median	84.24	1.12E+15
Standard Deviation	42.67	1.38E+14
Sample Variance	1,820.82	1.89E+28
Kurtosis	NA[1]	NA[1]
Skewness	1.68	1.56E+00
Range	77.09	2.56E+14
Minimum	77.41	1.08E+15
Maximum	154.49	1.33E+15
95% Confidence Range for Mean	96.57	3.11E+14

[1] Not enough data points to perform statistical analysis

Table W-9 Copper Percentile Loads for SGR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Copper Load (kg)**	**Percentile**
11/30/2007	160.15	317.66	292.58	114.57	93rd
1/8/2005	695.44	1,379.39	66.94	113.83	
12/28/2004	423.47	839.94	108.72	112.58	
1/25/2008	399.13	791.66	115.19	112.42	
2/27/2010	**349.83**	**693.88**	**118.97**	**101.76**	
1/20/2010	292.35	579.87	125.92	90.01	
1/18/2010	279.95	555.27	130.31	89.20	
12/15/2008	234.08	464.30	148.73	85.13	87th

Table W-10 Copper Percentile Load Statistics for SGR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Copper Load (kg)**
Mean	702.75	102.44
Standard Error	113.91	4.45
Median	623.41	107.09
Standard Deviation	322.19	12.59
Sample Variance	103,806.64	158.44
Kurtosis	2.61	-2.12
Skewness	1.31	-0.39
Range	1,061.73	29.44
Minimum	317.66	85.13
Maximum	1,379.39	114.57
95% Confidence Range for Mean	257.81	17.45

Table W-11 Lead Percentile Loads for SGR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Lead Load (kg)**	**Percentile**
12/28/2004	423.47	839.94	52.21	54.06	93rd
11/30/2007	160.15	317.66	137.87	53.99	
1/25/2008	399.13	791.66	53.80	52.50	
3/16/2003	336.26	666.95	63.74	52.41	
2/27/2010	**349.83**	**693.88**	**56.99**	**48.75**	
1/20/2010	292.35	579.87	60.27	43.08	
1/18/2010	279.95	555.27	61.70	42.24	
12/15/2008	234.08	464.30	71.76	41.07	87th

Table W-12 Lead Percentile Load Statistics for SGR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Lead Load (kg)**
Mean	613.69	48.51
Standard Error	60.74	1.96
Median	623.41	50.58
Standard Deviation	171.81	5.56
Sample Variance	29,519.32	30.87
Kurtosis	-0.23	-2.09
Skewness	-0.44	-0.40
Range	522.28	12.99
Minimum	317.66	41.07
Maximum	839.94	54.06
95% Confidence Range for Mean	238.12	7.70

Table W-13 Zinc Percentile Loads for SGR Watershed Storm Events					
Date	**Flow (cfs)**	**Volume (ac-ft)**	**Concentration (µg/l)**	**Zinc Load (kg)**	**Percentile**
1/8/2005	695.44	1,379.39	278.77	474.03	93rd
12/28/2004	423.47	839.94	451.66	467.67	
1/25/2008	399.13	791.66	461.80	450.67	
11/30/2007	160.15	317.66	1,145.44	448.55	
2/27/2010	**349.83**	**693.88**	**500.13**	**427.80**	
1/18/2010	279.95	555.27	549.99	376.47	
1/20/2010	292.35	579.87	518.73	370.81	
12/15/2008	234.08	464.30	627.67	359.26	87th

Table W-14 Zinc Percentile Load Statistics for SGR Watershed Storm Events		
Statistical Analysis	**Volume (ac-ft)**	**Zinc Load (kg)**
Mean	702.75	421.91
Standard Error	113.91	16.36
Median	636.88	438.17
Standard Deviation	322.19	46.26
Sample Variance	103,806.64	2,140.41
Kurtosis	2.61	-1.95
Skewness	1.35	-0.37
Range	1,061.73	114.77
Minimum	317.66	359.26
Maximum	1,379.39	474.03
95% Confidence Range for Mean	446.53	64.12

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Attachment X

Load Reduction Summaries

The tables presented in this attachment identify the total load reduction and required load reduction associated with the water quality priorities in both the Los Angeles River (LAR) and San Gabriel River (SGR) Watersheds. The load reductions are based on the proposed control measure implementation. This attachment corresponds with **Section 4.8** of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP).

Attachment X List of Tables

Table X-1 Copper Load Reduction Based on Control Measure Implementation in the LAR Watershed		
Control Measure Implementation	**Copper Load Reduction (kg)**	
	2024 (50% Metals)	**2028 (100% Metals)**
Enhanced MCMs	8.93	8.93
New and Re-Development	1.09	4.17
Green Streets	52.77	138.23
Regional BMPs		
Recreation Park	1.71	1.71
Sierra Vista Park	2.98	2.98
Arboretum of LAC	1.81	1.81
Royal Oaks Trail (LAR)	9.10	9.10
L. Garcia Park	3.83	3.83
Eisenhower Park	6.32	6.32
Target Load Reduction:	88.54	177.08
Total Load Reduction:	88.54	177.08
Percent of Final Target:	50%	100%

Table X-2 Lead Load Reduction Based on Control Measure Implementation in the LAR Watershed		
Control Measure Implementation	**Lead Load Reduction (kg)**	
	2024 (50% Metals)	**2028 (100% Metals)**
Enhanced MCMs	4.32	4.32
New and Re-Development	0.52	2.02
Green Streets	25.43	66.67
Regional BMPs		
Recreation Park	0.83	0.83
Sierra Vista Park	1.44	1.44
Arboretum of LAC	0.88	0.88
Royal Oaks Trail (LAR)	4.41	4.41
L. Garcia Park	1.85	1.85
Eisenhower Park	3.06	3.06
Target Load Reduction:	42.74	85.48
Total Load Reduction:	42.74	85.48
Percent of Final Target:	50%	100%

Table X-3 Zinc Load Reduction Based on Control Measure Implementation in the LAR Watershed		
Control Measure Implementation	**Zinc Load Reduction (kg)**	
	2024 (50% Metals)	**2028 (100% Metals)**
Enhanced MCMs	35.20	35.20
New and Re-Development	4.28	16.44
Green Streets	207.50	543.76
Regional BMPs		
Recreation Park	6.73	6.73
Sierra Vista Park	11.76	11.76
Arboretum of LAC	7.14	7.14
Royal Oaks Trail (LAR)	35.86	35.86
L. Garcia Park	15.07	15.07
Eisenhower Park	24.88	24.88
Target Load Reduction:	348.42	696.84
Total Load Reduction:	348.42	696.84
Percent of Final Target:	50%	100%

Table X-4 Fecal Coliform Load Reduction Based on Control Measure Implementation in the LAR Watershed			
Control Measure Implementation	**Fecal Coliform Load Reduction (MPN)**		
	2024 (50% Metals)	**2028 (100% Metals)**	**2037 (100% Bacteria)**
Enhanced MCMs	5.94E+14	5.94E+14	5.94E+14
New and Re-Development	9.95E+13	3.59E+14	3.59E+14
Green Streets	8.80E+12	8.32E+13	8.32E+13
Regional BMPs			
Recreation Park	2.44E+13	7.32E+13	7.32E+13
Sierra Vista Park	4.26E+13	1.28E+14	1.28E+14
Arboretum of LAC	2.59E+13	7.76E+13	7.76E+13
Royal Oaks Trail (LAR)	1.30E+14	3.90E+14	3.90E+14
L. Garcia Park	5.46E+13	1.64E+14	1.64E+14
Eisenhower Park	9.02E+13	2.71E+14	2.71E+14
Target Load Reduction:	-	-	2.14E+15
Total Load Reduction:			2.14E+15
Percent of Final Target:	-	-	100%

Table X-5 Copper Load Reduction Based on Control Measure Implementation in the SGR Watershed				
Control Measure Implementation	**Copper Load Reduction (kg)**			
	2017 (10% Metals)	**2020 (35% Metals)**	**2023 (65% Metals)**	**2026 (100% Metals)**
Enhanced MCMs	5.11	5.11	5.11	5.11
New and Re-Development	0.34	0.84	1.32	1.86
Green Streets	4.81	28.25	50.8	86.16
Regional BMPs				
LADWP Easement	-	0.71	0.71	0.71
Encanto Park	-	0.99	0.99	0.99
Memorial Park (Azusa)	-	-	2.52	2.52
Royal Oaks Trail (SGR)	-	-	5.21	5.21
Target Load Reduction:	10.26	35.90	66.66	102.56
Total Load Reduction:	10.26	35.90	66.66	102.56
Percent of Final Target:	10%	35%	65%	100%

Table X-6 Lead Load Reduction Based on Control Measure Implementation in the SGR Watershed				
Control Measure Implementation	**Lead Load Reduction (kg)**			
	2017 (10% Metals)	**2020 (35% Metals)**	**2023 (65% Metals)**	**2026 (100% Metals)**
Enhanced MCMs	2.45	2.45	2.45	2.45
New and Re-Development	0.16	0.4	0.63	0.89
Green Streets	2.3	13.53	24.32	41.26
Regional BMPs				
LADWP Easement	-	0.34	0.34	0.34
Encanto Park	-	0.48	0.48	0.48
Memorial Park (Azusa)	-	-	1.21	1.21
Royal Oaks Trail (SGR)	-	-	2.5	2.5
Target Load Reduction:	4.91	17.20	31.93	49.13
Total Load Reduction:	4.91	17.20	31.93	49.13
Percent of Final Target:	10%	35%	65%	100%

Table X-7 Zinc Load Reduction Based on Control Measure Implementation in the SGR Watershed

Control Measure Implementation	Zinc Load Reduction (kg)			
	2017 (10% Metals)	2020 (35% Metals)	2023 (65% Metals)	2026 (100% Metals)
Enhanced MCMs	21.49	21.49	21.49	21.49
New and Re-Development	1.42	3.51	5.55	7.83
Green Streets	20.2	118.74	213.6	362.23
Regional BMPs				
LADWP Easement	-	2.99	2.99	2.99
Encanto Park	-	4.17	4.17	4.17
Memorial Park (Azusa)	-	-	10.58	10.58
Royal Oaks Trail (SGR)	-	-	21.88	21.88
Target Load Reduction:	44.97	151.24	281.80	433.27
Total Load Reduction:	43.11	151.64	281.63	431.17
Percent of Final Target:	10%	35%	65%	100%

Attachment Y

Regional Project Cost Estimates

The cost estimates for the proposed regional projects are included in this attachment and correspond with **Section 6.2** of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP). The cost estimates are presented in 2015 dollars and do not include inflation which is likely to occur prior to actual implementation. The annual Operation and Maintenance (O&M) cost and cost sharing between group members, as applicable, is presented for each project.

Attachment Y List of Tables

Table Y-1 Recreation Park Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$835,000	$835,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$209,000	$209,000
Subtotal:				**$1,069,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$835,000	$835,000
Subtotal:				**$835,000**
Construction				
Mobilization (10%)	LS	1	$759,000	$759,000
Excavation	CY	58,000	$6	$348,000
Fill	CY	41,000	$6	$246,000
Soil Export	CY	17,000	$25	$425,000
Landscaping and Irrigation	SF	41,000	$2	$82,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	450	$200	$90,000
Storage (Pipes)	GAL	2,440,000	$1.75	$4,270,000
Contingency (25%)	LS	1	$2,087,000	$2,087,000
Subtotal:				**$8,347,000**
Total:				**$10,251,000**

Annual O&M Cost: **$125,205**
Anticipated Construction Completion: **2020**
Estimated Replacement Year: **2050**
Estimated Replacement Cost: **Unknown**

Table Y-2 LAC Arboretum Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$1,231,000	$1,231,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$308,000	$308,000
Subtotal:				**$1,564,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$1,231,000	$1,231,000
Subtotal:				**$1,231,000**
Construction: Phase 1 – Lake Excavation and Shoreline Reconstruction				
Sediment Removal	CY	22,000	$75	$1,650,000
Lake Edge Demolition	SF	8,000	$10	$80,000
In Lake Grading and Compaction	CY	10,000	$80	$800,000
Lake Edge Structure	LF	2,650	$550	$1,458,000
Shoreline Detailing				
Historic	LF	1,500	$250	$375,000
Interpretive	LF	700	$350	$245,000
Grass	LF	300	$200	$60,000
Vegetated	LF	500	$500	$250,000
Lake Outlet Feature Rehabilitation	LS	1	$100,000	$100,000
Lake Liner	SF	147,500	$3	$443,000
Shoreline and Aquatic Plantings	LS	1	$175,000	$175,000
Wildlife Relocation, Mitigation, and Compliance	LS	1	$200,000	$200,000
Subtotal:				**$5,836,000**
Construction: Phase 2 – Storm Drain Outlet Reconstruction and Wetlands/Bioswale				
Grading	CY	8,000	$80	$640,000
Storm Drain Outlet Modifications	EA	3	$125,000	$375,000
Wetlands	SF	21,000	$40	$840,000
Floodplain	SF	14,000	$10	$140,000
Bioswale	SF	23,000	$40	$920,000
Subtotal:				**$2,915,000**
Construction: Phase 3 – Lake Excavation and Shoreline Reconstruction				
Water Mechanics (Aeration, Circultion)	LS	1	$150,000	$150,000
Signage	LS	1	$75,000	$75,000
New Water Supply (Arcadia and Arboretum Wells)	LS	1	$250,000	$250,000
Subtotal:				**$475,000**
Contingency (25%)	LS	1	$3,076,000	$3,076,000
Construction Subtotal:				**$12,302,000**
Total:				**$15,097,000**

Annual O&M Cost:	**$369,060**
Anticipated Construction Completion:	**2021**
Estimated Replacement Year:	**2071**
Estimated Replacement Cost:	**Unknown**

Table Y-3 Sierra Vista Park Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$392,000	$392,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$98,000	$98,000
Subtotal:				**$515,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$392,000	$392,000
Subtotal:				**$392,000**
Construction				
Mobilization (10%)	LS	1	$356,000	$356,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	2,060	$200	$412,000
Pump Station	LS	1	$2,000,000	$2,000,000
Pretreatment	LS	1	$125,000	$125,000
Contingency (25%)	LS	1	$978,000	$978,000
Subtotal:				**$3,911,000**
Total:				**$4,818,000**

Annual O&M Cost: **$117,330**
Anticipated Construction Completion: **2020**
Estimated Replacement Year: **2070**
Estimated Replacement Cost: **Unknown**

Table Y-4 Royal Oaks Trail (LAR) Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$4,334,000	$4,334,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$1,084,000	$1,084,000
Subtotal:				**$5,443,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$4,334,000	$4,334,000
Subtotal:				**$4,334,000**
Construction				
Mobilization (10%)	LS	1	$3,940,000	$3,940,000
Excavation	CY	217,000	$6	$1,302,000
Fill	CY	128,000	$6	$768,000
Soil Export	CY	89,000	$25	$2,225,000
Landscaping and Irrigation	SF	192,000	$2	$384,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	110	$200	$22,000
Storage (Concrete)	GAL	13,610,000	$1.75	$23,818,000
Contingency (25%)	LS	1	$10,833,000	$10,833,000
Subtotal:				**$43,332,000**
Total:				**$53,109,000**

Annual O&M Cost: **$500,000**
Anticipated Construction Completion: **2023**
Estimated Replacement Year: **2073**
Estimated Replacement Cost: **Unknown**

Table Y-5 L. Garcia Park Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$1,902,000	$1,902,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$476,000	$476,000
Subtotal:				**$2,403,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$1,902,000	$1,902,000
Subtotal:				**$1,902,000**
Construction				
Mobilization (10%)	LS	1	$1,729,000	$1,729,000
Excavation	CY	62,000	$6	$372,000
Fill	CY	27,000	$6	$162,000
Soil Export	CY	36,000	$25	$900,000
Landscaping and Irrigation	SF	56,000	$2	$112,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	50	$200	$10,000
Storage (Concrete)	GAL	6,250,000	$1.75	$10,938,000
Contingency (25%)	LS	1	$4,755,000	$4,755,000
Subtotal:				**$19,018,000**
Total:				**$23,323,000**

Annual O&M Cost: **$285,270**
Anticipated Construction Completion: **2024**
Estimated Replacement Year: **2074**
Estimated Replacement Cost: **Unknown**

Table Y-6 Eisenhower Park Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$3,133,000	$3,133,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$784,000	$784,000
Subtotal:				**$3,942,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$3,133,000	$3,133,000
Subtotal:				**$3,133,000**
Construction				
Mobilization (10%)	LS	1	$2,848,000	$2,848,000
Excavation	CY	86,000	$6	$516,000
Fill	CY	27,000	$6	$162,000
Soil Export	CY	59,000	$25	$1,475,000
Landscaping and Irrigation	SF	56,000	$2	$112,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	80	$200	$16,000
Storage (Concrete)	GAL	10,472,000	$1.75	$18,326,000
Contingency (25%)	LS	1	$7,832,000	$7,832,000
Subtotal:				**$31,327,000**
Total:				**$38,402,000**

Annual O&M Cost: **$469,905**
Anticipated Construction Completion: **2024**
Estimated Replacement Year: **2074**
Estimated Replacement Cost: **Unknown**

Table Y-7 LADWP Easement Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$524,000	$524,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$131,000	$131,000
Subtotal:				**$680,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$524,000	$524,000
Subtotal:				**$524,000**
Construction				
Mobilization (10%)	LS	1	$476,000	$476,000
Excavation	CY	35,000	$6	$210,000
Soil Export	CY	35,000	$25	$875,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	1,400	$200	$280,000
Weir Box	EA	4	$15,000	$60,000
1/2 Ton Riprap	CY	3,000	$110	$330,000
Inlet Structure	EA	4	$520	$3,000
Pump Station	LS	1	$1,650,000	$1,650,000
Contingency (25%)	LS	1	$1,308,000	$1,308,000
Subtotal:				**$5,232,000**
Total:				**$6,436,000**

Annual O&M Cost: **$156,960**
Anticipated Construction Completion: **2020**
Estimated Replacement Year: **2070**
Estimated Replacement Cost: **Unknown**

Table Y-8 Encanto Park Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$1,325,000	$1,325,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$332,000	$332,000
Subtotal:				**$1,682,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$1,325,000	$1,325,000
Subtotal:				**$1,325,000**
Construction				
Mobilization (10%)	LS	1	$1,205,000	$1,205,000
Excavation	CY	40,000	$6	$240,000
Fill	CY	14,000	$6	$84,000
Soil Export	CY	26,000	$25	$650,000
Landscaping and Irrigation	SF	62,000	$2	$124,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	150	$200	$30,000
Storage (Pipes)	GAL	3,750,000	$1.75	$6,563,000
Pump Station	LS	1	$1,000,000	$1,000,000
Contingency (25%)	LS	1	$3,312,000	$3,312,000
Subtotal:				**$13,248,000**
Total:				**$16,255,000**

Annual O&M Cost: **$198,720**
Anticipated Construction Completion: **2020**
Estimated Replacement Year: **2050**
Estimated Replacement Cost: **Unknown**

Table Y-9 Memorial Park (Azusa) Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$3,576,000	$3,576,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$894,000	$894,000
Subtotal:				**$4,495,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$3,576,000	$3,576,000
Subtotal:				**$3,576,000**
Construction				
Mobilization (10%)	LS	1	$3,251,000	$3,251,000
Excavation	CY	95,000	$6	$570,000
Fill	CY	30,000	$6	$180,000
Soil Export	CY	65,000	$25	$1,625,000
Landscaping and Irrigation	SF	135,000	$2	$270,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	640	$200	$128,000
Storage (Pipes)	GAL	9,860,000	$1.75	$17,255,000
Pump Station	LS	1	$3,500,000	$3,500,000
Contingency (25%)	LS	1	$8,940,000	$8,940,000
Subtotal:				**$35,759,000**
Total:				**$43,830,000**

Annual O&M Cost: **$500,000**
Anticipated Construction Completion: **2023**
Estimated Replacement Year: **2053**
Estimated Replacement Cost: **Unknown**

Table Y-10 Royal Oaks Trail (SGR) Cost Estimate				
Description	**Unit**	**Quantity**	**Unit Price**	**Item Total**
Engineering				
Design Plan and Specifications (10%)	LS	1	$7,188,000	$7,188,000
Permits	LS	1	$25,000	$25,000
Environmental Assessment (CEQA) (25% Design)	LS	1	$1,797,000	$1,797,000
Subtotal:				**$9,010,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$7,188,000	$7,188,000
Subtotal:				**$7,188,000**
Construction				
Mobilization (10%)	LS	1	$6,535,000	$6,535,000
Excavation	CY	188,000	$6	$1,128,000
Fill	CY	60,000	$6	$360,000
Soil Export	CY	129,000	$25	$3,225,000
Landscaping and Irrigation	SF	180,000	$2	$360,000
Diversion Structure	LS	1	$40,000	$40,000
Diversion Pipe	LF	200	$200	$40,000
Storage (Concrete)	GAL	21,840,000	$1.75	$38,220,000
Pump Station	LS	1	$4,000,000	$4,000,000
Contingency (25%)	LS	1	$17,970,000	$17,970,000
Subtotal:				**$71,878,000**
Total:				**$88,076,000**

Annual O&M Cost: **$500,000**
Anticipated Construction Completion: **2023**
Estimated Replacement Year: **2073**
Estimated Replacement Cost: **Unknown**

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Attachment Z

Green Street Cost Estimate

The cost estimate for 1,000 linear feet in one lane of proposed green streets is included in this attachment and corresponds with **Section 6.3** of the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP). The cost estimate is presented in 2015 dollars and does not include inflation which is likely to occur prior to actual implementation. This cost was used to determine the unit cost of green street implementation, which was determined to be $486 per linear foot per lane.

Table Z-1 Green Street Cost Estimate for 1,000 Linear Feet in One Lane

Description	Unit	Quantity	Unit Price	Item Total
Engineering				
Design Plan and Specifications (10%)	LS	1	$18,000	$18,000
Permits	LS	1	$5,000	$5,000
Subtotal:				**$23,000**
Construction Support				
Construction Administration and Inspections (10%)	LS	1	$31,000	$31,000
Subtotal:				**$31,000**
Construction				
Mobilization (10%)	LS	1	$40,000	$40,000
Excavation	CY	2230	$6	$13,400
Soil Export	CY	1780	$25	$44,500
AC Demo	SY	1600	$40	$64,000
Reconstruct AC	TONS	510	$125	$63,800
Crushed Miscellaneous Base	CY	270	$70	$18,900
Pipe System for Capture	LF	500	$200	$100,000
Gravel	TONS	1	$70	$100
Contingency (25%)	LS	1	$84,000	$87,000
Subtotal:				**$431,700**
Total:				**$485,700**

Attachment AA

Grant and Loan Opportunities

This attachment includes tables summarizing grant and loan opportunities and their applicability in funding the control measures proposed in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP), as discussed in **Section 6.5**.

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation			
Grant Program	**Proposition 84 Stormwater Program**	**Proposition 84 (Chapter 2, §75026) Integrated Regional Water Management (IRWM)**	**Proposition 84 Urban Stream Restoration**
Department	State Water Resources Control Board (SWRCB)	SWRCB	SWRCB
Purpose	Provides funding for projects that reduce and prevent stormwater contamination of rivers, lakes, and streams.	Projects to assist local public agencies to meet long-term water management needs of the State, including the delivery of safe drinking water, flood risk reduction, and protection of water quality and the environment.	Projects that reduce urban flooding and erosion, restore environmental values, and promote stewardship of urban streams.
Eligibility Requirements	Local public agencies	Local public agencies or nonprofit representing an accepted IRWM Region	Local government agencies and citizens groups/nonprofits (together)
Eligible Uses	➢ Implement Low Impact Development (LID) and other onsite and regional practices that seek to maintain predevelopment hydrology. ➢ Comply with stormwater related TMDL requirements	Projects that implement IRWM Plans	Creek cleanups; eradication of exotic or invasive plants; revegetation efforts; bioengineering bank stabilization projects; channel reconfiguration to improve stream geomorphology and aquatic habitat functions; acquisition of parcels critical for flood management; and coordination of community involvement in projects.
Ineligible Uses	Operation and maintenance activities	Operation and maintenance activities	Exclusively educational or fish and wildlife enhancement projects; lake or reservoir enhancements; planning only projects; and mitigation for development or other projects
Funding Limits	$250,000 to $3,000,000 per project Requires 20% match (less for Disadvantaged Communities (DACs))	➢ Bond funding allocation for entire program is $1,000,000,000. ➢ Prop 84 allots grant funding to 11 funding areas. ➢ Each proposal solicitation package will have predetermined amount of funds available.	$1,000,000 per eligible project
Terms/Dates	Round 2 grants were awarded by June 2014. Future opportunities will be presented at a future time.	➢ 25% minimum cost share with waivers for DACs ➢ Applicant workshop in June 2015 ➢ Applications due August 7, 2015 (Approximately $215,000,000 available for Los Angeles Funding Areas).	2014 grant cycle has been closed. 2015 grant cycle dates to be determined.
Website	http://www.waterboards.ca.gov/water_issues/programs/grants_loans/prop84/index.shtml	http://www.water.ca.gov/irwm/grants/p84implementation.cfm	http://www.water.ca.gov/urbanstreams
Examples	➢ City of Los Angeles Broadway Neighborhood Stormwater Greenway Project ➢ City of Encinitas Cottonwood Creek Watershed LID Retrofit Project	➢ City of Carson's Trash Reduction Automatic Retracting Screen Project ➢ Dominguez Gap Spreading Grounds West Basin Percolation Improvements ➢ Oxford Retention Basin Multi-Use Enhancement Project ➢ Vermont Avenue Stormwater Capture and Green Street Project.	➢ Restoration of Berkshire Creek sponsored by Pasadena and Arroyo Seco ➢ Dry Canyon Creek Historic Meander Restoration sponsored by the City of Calabasas ➢ Las Virgenes Creek Bank Stabilization, Stream Restoration, and Fish Barrier Enhancement Project
Comments	All projects awarded funds through this grant program have planning and monitoring requirements or an implementation requirement. The projects funded through this program also involve LID or green streets in order to reduce and prevent stormwater contamination of rivers, lakes, and streams. This program gives agencies the opportunity to enhance water quality while also assisting in compliance.	IRWM is a collaborative effort to manage all aspects of water resources in a region. IRWM crosses jurisdictional, watershed, and political boundaries; involves multiple agencies, stakeholders, individuals, and groups; and attempts to address the issues and differing perspectives of all the entities involved through mutually beneficial solutions. Some eligible project types include: ➢ Stormwater capture, storage, clean-up, treatment, and management; ➢ Non-point source pollution reduction, management, and monitoring; ➢ Groundwater recharge and management projects; ➢ Planning and implementation of multipurpose flood management programs; and ➢ Watershed protection and management.	RH/SGRWQG may be able to take advantage of this funding opportunity if the proposed projects are related to stream restoration. If project concepts change in the future, this opportunity may be more applicable.
RH/SGRWQG Potential Uses	➢ Regional BMP Projects ➢ Distributed BMP Projects	➢ Regional BMP Projects ➢ Distributed BMP Projects	No projects apply at this time
Contact Information	Robert Reeves Division of Financial Assistance Project Development (916) 341-5877 Robert.Reeves@waterboards.ca.gov	Zaffar Eusuff or Keith Wallace Program Manager/Project Manager (916) 651-9266 or (916) 651-9624 Muzaffar.Eusuff@water.ca.gov Keith.Wallace@water.ca.gov	Program Manager Amy Young Staff Environmental Scientist (916) 651-9626 Amy.Young@water.ca.gov

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Community Action for a Renewed Environment (CARE)**	**Pollution Prevention (P2)**	**Clean Beaches Initiative (CBI)**
Department	United States Environmental Protection Agency (USEPA)	USEPA	SWRCB
Purpose	Provide support to help communities form collaborative partnerships, develop a comprehensive understanding of many sources of risk from toxics and environmental pollutants, set priorities and identify and carry out projects to reduce risks through collaborative action at the local level.	Fund projects that help reduce hazardous substances, pollutants, or contaminants entering waste streams or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, disposal or energy recovery activities.	Projects that restore and protect water quality of coastal waters, estuaries, bays, and near shore waters, with an emphasis on projects that reduce bacterial contamination on public beaches.
Eligibility Requirements	Local non-profit organizations, Native American Organizations, quasi-public non-profit organizations, inter and intrastate, local government, colleges, and universities.	State governments, colleges, and universities, federally-recognized tribes and intertribal consortia.	Local agencies, public agencies, non-profits, and Indian tribes
Eligible Uses	Community projects involving education of environmental pollutants	Projects that implement pollution prevention technical assistance services and/or training for businesses and support projects that utilize pollution prevention techniques to reduce and/or eliminate pollution from air, water, and/or land.	Planning and implementation projects meeting CBI priorities
Ineligible Uses	Not identified	Not identified	Operation and maintenance activities
Funding Limits	➢ Two funding levels: $75,000-$100,000 and $150,000-$300,000 ➢ No matching required	➢ Approximately forty grants awarded annually for $20,000-$180,000 ➢ 50 percent match required	➢ $150,000 to $5,000,000 ➢ Requires match (variable based on project or if benefits a DAC)
Terms/Dates	Applications are not currently being accepted due to absence of congressional funding.	Current applications are due May 14, 2015. Grants are posted annually and are awarded between May and August.	➢ Continuous funding cycle, with intermittent closures to review proposals, until funds are exhausted ($30,000,000 available). ➢ Applications through Financial Assistance Application Submittal Tool (FAAST)
Website	www.epa.gov/care	http://www.epa.gov/p2/pubs/grants/index.htm	http://www.waterboards.ca.gov/water_issues/programs/beaches/cbi_projects/index.shtml
Examples	➢ Environmental Justice Action Collaborative for Maywood in 2010 ➢ Environmental Health Coalition - Clean Ports in 2009 ➢ Pacoima Beautiful in 2005 and 2007	➢ Funded the Santa Ynez Band of Chumash Indians and trained over 1,700 business employees regarding pollution prevention techniques (2013) ➢ Funded the University of California San Francisco so that a database could be developed that identifies environmentally friendlier product alternatives (2012)	➢ Los Angeles Sanitation District and City of Los Angeles Ballona Creek Water Quality Improvement and Beneficial Use Project ➢ City of Santa Cruz Reduce Sources of Bacteria at Cowell Beach and Main Beach Project ➢ Low flow diversions and sewer improvements
Comments	CARE projects have been implemented and funded within the United States since 2005. RH/SGRWQG may be able to take advantage of the CARE grant opportunity to fund community programs associated with MCM program elements involving community outreach.	P2 has funded various training and educational programs across the United States. RH/SGRWQG may be able to benefit from this grant program in order to implement requirements associated with the MS4 Permit required MCMs and other pollution prevention training programs.	The projects awarded this grant promote LID and projects are designed to implement a stormwater resource plan. As mentioned above, priority is given to projects that reduce bacterial contamination on public beaches. An even higher priority is given to projects addressing bacteria on beaches that have a low grade on the Heal the Bay Report Card (http://brc.healthebay.org).
RH/SGRWQG Potential Uses	➢ Stormwater Program	➢ Stormwater Program	➢ Regional BMP Projects ➢ Distributed BMP Projects (If a link between clean beaches can be made)
Contact Information	CARE Program USEPA (8001A) 1200 Pennsylvania Avenue, NW Washington, DC 20460 (877) CARE-909	Jessica Counts-Arnold USEPA Region 9 75 Hawthorne Street (WST-7) San Francisco, CA 94105 (415) 972-3288 Counts-arnold.jessica@epa.gov	Patricia Leary Senior Water Resources Control Engineer Division of Financial Assistance (916) 341-5167 pleary@waterboards.ca.gov

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Urban Waters Small Grant**	**Environmental Education Grant and SubGrant**	**Cooperative Watershed Management Plan**
Department	USEPA	USEPA	United States Department of the Interior Bureau of Reclamation
Purpose	Fund projects that will foster a comprehensive understanding of local urban water issues, identify and address these issues at the local level, and educate and empower the community.	Provide financial support for projects which design, demonstrate or disseminate environmental education practices, methods, or techniques.	Enhance water conservation including alternative uses, improve water quality, improve ecological resiliency of a river or stream, and reduce conflicts over water at the watershed level by supporting the formation of watershed groups.
Eligibility Requirements	Educational institutions, Indian tribes, local governments, non-profit groups, schools, governments, state/territorial agency, and Tribal agencies.	Local, Tribal, or state education agencies, colleges and universities, state environmental agencies, and non-commercial educational broadcasting agencies.	Existing or proposed watershed groups, states, and local districts.
Eligible Uses	Fund research, investigations, experiments, training, surveys, studies, and demonstrations that will advance the restoration of urban waters by improving water quality through activities that also support community revitalization and other local priorities.	Project must address one of the following educational and environmental priority issues. Educational issues: community projects; human health and environment; or career development. Environmental issues: protecting air quality; safety of chemicals; cleaning up our communities; or protecting America's waters.	Activities falling under categories Task Area A and B described below. Task Area A: establishment of a new watershed group. Task Area B: expansion of an existing watershed group.
Ineligible Uses	Not identified	Not identified	Not identified
Funding Limits	Approximately $1.6 million annually, $40,000-$60,000 each	➢ Approximately $2,778,940 available annually ➢ Each grant between $75,000-$200,000 ➢ 2-3 grants awarded to each region for an expected 22-32 grants total ➢ Cost sharing requirement of a minimum of 25% of the total cost	Typically $22,000-$100,000 each and an annual total of about $200,000
Terms/Dates	The 2013/14 application period is closed and future periods have not been announced.	The 2014-2015 program cycle is closed. Future opportunities to be determined.	The 2014 cycle is closed. Future dates have not yet been announced.
Website	http://www2.epa.gov/urbanwaters/urban-waters-small-grants	http://www2.epa.gov/education/environmental-education-ee-grants	http://www.usbr.gov/WaterSMART/cwmp/index.html
Examples	➢ California Coastal Commission in Santa Cruz County (see below) ➢ Council for Watershed Health (see below)	➢ Bay Institute of San Francisco for a watershed restoration educational program ➢ San Joaquin for an Adopt-a-Watershed training for teachers ➢ Santa Monica Baykeeper for a variety of stormwater pollution prevention education	➢ Western Slope Conservation Center in Colorado (see below) ➢ Friends of Teton River, Inc. in Idaho (see below)
Comments	During the 2011/12 funding cycle, the California Coastal Commission in Santa Cruz County received funding for a project that will reduce specific urban sources of water quality impacts in two target watershed areas by implementing structural and non-structural control measures. The Council for Watershed Health also received funding to develop a Los Angeles River Watershed assessment framework and then disseminate the results to the community via multi-media outlets. RH/SGRWQG may be able to take advantage of funding through this grant depending on the requirements set forth during the application year. These funds could be used to fund various MCM programs, other institutional BMP control measures, and distributed structural BMPs.	Various environmental educational programs within California have received funding through this grant program dating back as far as 1992. RH/SGRWQG may be able to utilize this grant opportunity for funding stormwater pollution prevention educational programs, including various MCM program elements.	Five entities received funding in 2013 to establish or expand watershed groups in Colorado, Idaho, and Oregon. The Western Slope Conservation Center in Colorado was an established watershed group that will use the funding to address exceedances in *E. coli* and selenium. The Friends of Teton River, Inc. in Idaho used the grant money to expand their current watershed group to form an advisory council to prioritize and endorse various projects. The Cooperative Watershed Management Program grant is applicable to RH/SGRWQG and could be used to expand or implement projects or programs associated with the group.
RH/SGRWQG Potential Uses	➢ Stormwater Program	➢ Stormwater Program	➢ Stormwater Program ➢ Regional BMP Projects ➢ Distributed BMP Projects (as long as the group applies for the grant opposed to individual agencies)
Contact Information	Jared Vollmer USEPA Region 9 (WTR-3) 75 Hawthorne Street San Francisco, CA 94105 (415) 972-3447 Vollmer.jared@epa.gov	Adrienne Priselac USEPA Region 9 Environmental Education (CED-4) 75 Hawthorne Street San Francisco, CA 94105 Priselac.adrienne@epa.gov	Dean Marrone (303) 445-3577 www.usbr.gov/WaterSMART

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**State of California Coastal Conservancy Program**	**Wildlife Conservation Board (WCB)**	**Habitat Conservation Fund (HCF)**
Department	State of California Coastal Conservancy	State of California Wildlife Conservation Board	State of California Department of Parks and Recreation
Purpose	Projects that protect and improve coastal wetlands, streams, and watersheds; work with local communities to revitalize urban waterfronts; and helps to solve complex land use problems.	Projects that can be categorized by the following WCB programs: riparian habitat conservation, inland wetlands conservation, ecosystem restoration or agricultural lands, and habitat enhancement and restoration.	Projects that protect threatened species, address wildlife corridors, create trails, and provide nature interpretation programs.
Eligibility Requirements	Government agencies and non-profit organizations	Government agencies, state departments, federal agencies, and non-profit organizations	Cities, counties, and districts
Eligible Uses	Goals and projects that meet the objectives in the Conservancy's Strategic Plan and consistent with the purposes of the funding source (typically Proposition 84)	Projects that restore and enhance wildlife habitats	Nature interpretation programs to bring urban residents into park and wildlife areas, protection of various plant and animal species, and acquisition and development of wildlife corridors and trails.
Ineligible Uses	Not identified	Not identified	Not identified
Funding Limits	No established minimum or maximum grant amount	No established minimum or maximum grant amount	➢ $2,000,000 funded annually through 2019-2020 Fiscal Year ➢ 50 percent match required from grantees
Terms/Dates	Proposals are accepted on a continuous basis. Periodically grant rounds will be advertised and applications will be accepted for projects of a particular type or a particular location.	Proposals are accepted on a continuous basis. WCB meets four times per year, typically in February, May, August, and November.	Applications are due the first workday in October each year.
Website	http://scc.ca.gov/applying-for-grants-and-assistance/forms/	www.wcb.ca.gov/Programs.aspx	http://www.parks.ca.gov/?Page_id=21361
Examples	➢ Los Cerritos Wetlands Authority (see below) ➢ Mountains Recreation and Conservation Authority (see below) ➢ Ballona Creek Wetlands Ecological Reserve (see below)	➢ Malibu Lagoon State Park Coastal Restoration Project ➢ Moss Landing Wildlife Area Wetland Restoration Project	➢ Wilderness Park Pond Restoration in the City of Downey ➢ Wildlife Inspired Leadership Development in Los Angeles County ➢ San Jacinto River Trail in the City of Perris
Comments	Various projects within southern California have received funding through the Coastal Conservancy Grant Program. In 2011, $225,000 was provided to the Los Cerritos Wetlands Authority to prepare a comprehensive conceptual restoration plan for the Los Cerritos wetlands complex in the Cities of Long Beach and Seal Beach near the mouth of the San Gabriel River. $500,000 was awarded to the Mountains Recreation and Conservation Authority for the design and construction of the Compton Creek Nature Park and $280,000 was provided for site improvements and planning to provide for public access, community stewardship, and educational programs at the Ballona Wetlands Ecological Reserve. This grant program may be applicable to RH/SGRWQG for different types of control measures.	Various projects within California have received funding through this grant program. Projects that may be authorized as inland wetland conservation projects incorporate elements such as the construction of swales, installation of water control structures, and the establishment of upland grasslands. RH/SGRWQG may be able to benefit from the WCB Grant Program if the projects identified through the EWMP development pertain to wetlands or habitat enhancements. It may be easy to add elements to potential projects so that the project qualifies for funding while also incorporating water quality improvement elements.	The HCF has opportunities annually that the RH/SGRWQG may be able to benefit from if selected projects concern a wildlife aspect. In some cases, projects can be modified to incorporate additional elements to address water quality. Multi-use projects may qualify for funding through this grant.
RH/SGRWQG Potential Uses	➢ No projects apply at this time	➢ Regional BMP projects	➢ Regional BMP Projects
Contact Information	South Coast: Ventura County to San Diego County Joan Cardellino (510) 286-4093 jcard@scc.ca.gov	Dave Means Assistant Executive Director Dave.means@wildlife.ca.gov www.wcb.ca.gov/Programs.aspx	California State Parks Office of Grants & Local Services P.O. Box 942896 Sacramento, CA 94296 (916) 653-7423 localservices@parks.ca.gov

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Land and Water Conservation Fund (LWCF)**	**Recreational Trails Program (RTP)**	**TIGER Discretionary Grant**
Department	State of California Department of Parks and Recreation	State of California Department of Parks and Recreation	Department of Transportation (DOT)
Purpose	Projects that protect threatened species, address wildlife corridors, create trails, and provide nature interpretation programs.	Provides funding for recreational trails and trails-related projects.	Provides funding for road, rail, transit, and port projects that will deliver long-term outcomes of safety, economic competitiveness, state of good repair, livability, and environmental sustainability.
Eligibility Requirements	Cities, counties, Native American tribes, joint power authorities, and non-state agency recreation and park districts	Cities, counties, districts, state agencies, federal agencies, and non-profit organizations	State, local, and tribal governments, including United States territories, transit agencies, port authorities, metropolitan planning organizations, other political subdivisions of state or local governments, and multi-state or multi-jurisdictional groups applying through a single lead applicant.
Eligible Uses	Projects that are associated with parks which promote children play, exercise, family bonding, senior socializing, connections with nature, and cultural differences.	Non-motorized and motorized projects that involve acquisitions for trails, trail rehabilitation, and construction of new trails.	Based on the Consolidated Appropriations Act, 2014 (Public Law No. 113-76)
Ineligible Uses	Not identified	See application guidelines	Not identified
Funding Limits	➢ $2,000,000 is the maximum grant request which cannot exceed 50 percent of total project cost ➢ This is a reimbursement-only program	➢ No minimum or maximum amount specified ➢ The maximum amount of funds allowed for each project is 88 percent, requiring a minimum of 12 percent match	➢ $600 million to be awarded for National Infrastructure Investments ➢ Minimum award in urban area is $10,000,000 with a minimum construction cost of $12,500,000 ➢ Minimum award of $1,000,000 in rural areas
Terms/Dates	Applications are due February 3rd of every year	Next application deadline unknown (no earlier than January 2016).	The pre-application deadline is May 4, 2015 and the final application deadline is June 5, 2015. Additional rounds of funding are anticipated, but deadlines are not posted.
Website	http://www.parks.ca.gov/?Page_id=21360	http://www.parks.ca.gov/?Page_id=24324	http://www.dot.gov/tiger
Examples	➢ City of Covina's City Center Park ➢ Los Angeles County Cold Creek High Trail ➢ City of El Monte's Rio Hondo River Park	➢ City of Los Angeles' Peck Bandini ➢ City of El Monte Rio Hondo River Park ➢ City of Pasadena Lower Arroyo Seco Trail/Trailhead Improvements ➢ City of Glendale's San Rafael Hills "Mountain Do" Trail	➢ Crenshaw/Los Angeles Airport Light Rail Connection ➢ Port of Long Beach Rail Realignment ➢ Port of Los Angeles West Basin Rail Yard
Comments	Types of projects eligible: ➢ Athletic fields and courts ➢ Community gardens ➢ Non-motorized neighborhood and regional recreational trails ➢ Open space and natural areas ➢ Picnic areas ➢ Play grounds RH/SGRWQG may be able to take advantage of this funding opportunity if the proposed projects are related to parks, which most of the proposed regional projects are. It may be easy to add elements to potential projects so that the project qualifies for funding while also incorporating water quality improvement elements.	RH/SGRWQG may be able to take advantage of this funding opportunity if the proposed projects are related to trails, as some of the proposed regional projects are. It may be easy to add elements to potential projects so that the project qualifies for funding while also incorporating water quality improvement elements.	According to the March 24, 2014 CASQA bi-weekly newsletter, the notice for available funding provides guidance on selection criteria and application requirements for the National Infrastructure Investments. The legislation includes substantial language including funding for "addressing stormwater through natural means, "groundwater recharge in areas of water scarcity," and "stormwater mitigation," therefore stormwater projects may be eligible for funding. RH/SGRWQG may be able to receive funding from this program now or in the future in order to assist in projects that incorporate both a transportation and water quality aspect.
RH/SGRWQG Potential Uses	➢ Regional BMP Projects (with park elements)	➢ Regional BMP Projects (with trail elements)	➢ Regional BMP Projects ➢ Distributed BMP Projects (related to transportation such as green streets)
Contact Information	California State Parks Office of Grants & Local Services P.O. Box 942896 Sacramento, CA 94296 (916) 653-7423 localservices@parks.ca.gov	California State Parks Office of Grants & Local Services P.O. Box 942896 Sacramento, CA 94296 (916) 653-7423 localservices@parks.ca.gov	Office of Infrastructure Finance and Innovation -Office of the Secretary of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590 (202) 366-0301 TIGERgrants@dot.gov

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Environmental Solutions for Communities**	**Clean Water Act (CWA) §319(h) Non-Point Source (NPS)**	**2014 Water Bond**
Department	Wells Fargo and the National Fish and Wildlife Foundation	SWRCB	State of California
Purpose	Support projects that link economic development and community well-being to the stewardship and health of the environment.	Support implementation and planning projects that address water quality problems in surface and groundwater resulting from NPS. The goal is to eventually restore the impacted beneficial uses in receiving waters.	Provide funding for projects that ensure reliable water supply for future generations.
Eligibility Requirements	Community/watershed groups, cooperative associations or districts, local governments, state/territorial agencies, and non-profit groups.	The projects must be located within a watershed that has a TMDL with constituents identified in the NPS Program Preferences. The project must also be located in a watershed that has a plan or suite of plans that meet the Nine Key Elements found in Appendix A of the grant guidelines. Lastly the project cannot be located in an area subject to an NPDES Permit.	Varies by program. There are multiple programs that are funded under this bond, each having different eligibility requirements.
Eligible Uses	Funding priorities include: supporting sustainable agricultural practices and private lands stewardship; conserving critical land and water resources and improving local water quality; restoring and managing natural habitat, species, and ecosystems that are important to community livelihood; facilitating investments in green infrastructure, renewable energy and energy efficiency; and encouraging broad-based citizen participation in project implementation.	Projects that address TMDLs associated with NPS.	Provide funding for projects must address water storage capacity, recycling facilities, levee improvements, flood control facilities, water treatment plants, ecosystem restoration, and habitat improvements.
Ineligible Uses	Supporting political advocacy, fundraising, lobbying, litigation, or supporting ongoing efforts to comply with permit or settlement conditions.	Projects in areas that are under or affiliated with a NPDES Permit or address an issue in a land use included in a MS4 Permit	Unclear at this time.
Funding Limits	➢ Approximately $2,500,000 annually, between $25,000-$100,000 each ➢ 1:1 match required	➢ Funding allocation for entire program is $4,000,000 ➢ Provide the minimum match funding of 25 percent of the total cost ➢ For planning/assessment projects the minimum award is $75,000 and maximum award is $175,000 ➢ For implementation projects the minimum award is $250,000 and the maximum award is $750,000	The South Coast Region has access to $213.5 million. The match requirements are not clear at this time.
Terms/Dates	Applications accepted in December annually until 2016.	Annual solicitations (2015 solicitations were required by January 15, 2015)	Vary by category. The guidelines for each of the grant categories are in progress and will be released in 2015.
Website	http://www.nfwf.org/environmentalsolutions/Pages/home.aspx	http://www.waterboards.ca.gov/water_issues/programs/nps/grant_program.shtml#eligible	http://www.acwa.com/spotlight/2014-water-bond
Examples	➢ Newark Urban Tree and Urban Farm Project ➢ Greening Art Alley: Pedestrian Corridor/Urban Renewal Project	➢ San Diego County Nutrient Source Reduction Program in Rainbow Creek Watershed ➢ Desert Wildlife Unlimited Alamo River Treatment Wetlands at Shank Road	Not Applicable
Comments	The Urban Tree and Urban Farm Project established tree and urban farms in Newark to reduce the carbon footprint, improve stormwater management, and provide job training opportunities for the youth. The Greening Art Alley: Pedestrian Corridor/Urban Renewal Project installed rain gardens and other green infrastructure techniques in a local pedestrian facility to improve stormwater management and increase community engagement with natural habitats.	RH/SGRWQG will not be able to benefit from this grant program because the receiving waterbodies associated with the group are not identified on the NPS Program Preferences. In addition, the projects the RH/SGRWQG would be interested in implementing would be in areas covered by an NPDES Permit and therefore would not quality.	The 2014 Water Bond is the product of a comprehensive legislative package developed in 2009 by the Governor and state lawmakers to meet California's growing water challenges. The progression of this bond will be tracked in the future in order to determine if funding opportunities exist for the RH/SGRWQG. Categories that may potentially qualify include "multibenefit watershed projects," "watershed and urban river enhancements," "integrated regional water management," "water use efficiency," and "stormwater management."
RH/SGRWQG Potential Uses	➢ Regional BMP Projects ➢ Distributed BMP Projects	➢ None at this time	➢ Regional BMP Projects ➢ Distributed BMP Projects
Contact Information	National Fish and Wildlife Foundation Carrie Clingan (202) 595-2471 Carrie.Clingan@nfwf.org	For CWA §319(h) Grant Program: Division of Water Quality Matthew Freese (916) 341-5485 Matthew.Freese@waterboards.ca.gov For FAAST: Patricia Leary (916) 341-5167 Patricia.Leary@waterboards.ca.gov	Timothy Quinn Association of California Water Agencies (CWA) Executive Director (916)441-4545 Timq@acwa.com

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Metropolitan Transportation Authority (MTA) Call for Projects Program**	**Prop 1B (Local Street and Road, Congestion Relief, and Traffic Safety Account of 2006)**	**Prop 1B (Public Transportation Modernization, Improvement, and Service Enhancement Account [PTMISEA])**
Department	LACMTA	Department of Finance, administered by Caltrans	Department of Finance, administered by Caltrans
Purpose	Allocates capital transportation funds to regionally significant projects.	Provides funding for improvements to transportation facilities that will assist in reducing local traffic congestion and further deterioration, increasing traffic safety or improving traffic flows.	Provides funding for transit rehabilitation, safety or modernization improvements, capital services enhancements or expansions, new capital projects, bus rapid transit improvements, or rolling stock (buses and rails) procurements, rehabilitation, or replacement.
Eligibility Requirements	Local public agencies that provide transportation facilities or services within Los Angeles County	Local public agencies	Local public agencies
Eligible Uses	Provides funding for capital projects that fall under eight modal categories that each has its own eligibility criteria: Regional Surface Transportation Improvements (RSTI), good movement improvements, signal synchronization and bus speed improvements, transportation demand management, bicycle improvements, pedestrian improvements, and transit capital.	➢ Street and highway pavement maintenance, rehabilitation, installation, construction and reconstruction of necessary associated facilities ➢ Maintenance, rehabilitation, installation, construction, and reconstruction of facilities that expand rider ship on transit systems, safety projects to reduce fatalities, or as a local match to obtain state or federal transportation funds for similar purposes	➢ Rehabilitation, safety, or modernization: includes purchase of equipment for rehabilitation, operation, modernization, or safety ➢ New construction or capital service enhancement/expansion, such as modernization of bus shelters, transit centers, and operation and maintenance facilities, for design and/or construction phases ➢ Bus rapid transit improvements. Construction or expansion of BRT lanes or equipment
Ineligible Uses	Operation and maintenance activities; mitigation measures; demonstration projects with a limited time period, environmental studies/assessments directly related to project	Operation and maintenance activities	Environmental work
Funding Limits	➢ Minimum 20% local monetary match requirement (can include cash and/or land) ➢ Other limits vary by category	➢ Minimum $400,000 to each city funds are apportioned to ➢ Proposition 1B provided $19.925 billion in bond funds for a variety of transportation priorities, including $2 billion for cities and counties to fund the maintenance and improvement of local transportation facilities.	➢ Proposition 1B provided $19.925 billion in bond funds for a variety of transportation priorities, including $3.6 billion for PTMISEA ➢ 50% allocated to local operators based on fare-box revenue and 50% to regional entities based on population
Terms/Dates	2015 grant cycle has been closed. 2016 grant cycle dates to be determined.	Last reporting deadline: December 1, 2014. Future dates have not been announced	Call for new projects due March 31, 2015. Future dates have not been announced.
Website	http://www.metro.net/projects/call_projects/	http://www.dot.ca.gov/hq/transprog/ibond.htm	http://www.dot.ca.gov/hq/MassTrans/Proposition-1B.html
Examples	➢ Rosemead Boulevard Enhancement and Beautification Project ➢ Balboa Boulevard Widening at Devonshire Street	➢ City of Anaheim Walnut Avenue Street Improvement Project ➢ Culver City Residential Paving Program	➢ Culver City transit bus purchase ➢ Hillcrest Park and Ride Improvement Project in San Francisco
Comments	MTA does not fund stand-alone State Transportation Improvement Projects (STIPs) for environmental and engineering work and projects submitted must have a capital construction component.	➢ Funds apportioned to cities are based on total population of city in relation to all cities in the state ➢ RH/SGRWQG may be able to take advantage of this fund when rehabilitating or repaving a local street ➢ Online application: http://p1blsr.dot.ca.gov/	➢ The green streets proposed that can couple with a bus station or other modernized transit system will be able to qualify for funding ➢ Creative multi-use projects that include green streets may be required
RH/SGRWQG Potential Uses	➢ Distributed BMPs (green streets)	➢ Distributed BMPs (green streets)	➢ Distributed BMPs (green streets)
Contact Information	Rena Lum Call for Projects Information (213) 922-6963	Jamey Matalka Department of Finance (916) 322-2263 Prop1B_LSR@dof.ca.gov	Wendy King Branch Chief (916) 651-8239

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Measure R**	**Proposition A and C (Sales Tax)**	**Environmental Enhancement and Mitigation (EEM) Program**
Department	LACMTA	LACMTA	California Natural Resources Agency, administrated by the California Transportation Committee
Purpose	Finances new transportation projects and programs and accelerates current projects through a half-cent sales tax for Los Angeles County. Revenues are earmarked for the Local Return Programs to be used by cities and the County of Los Angeles in developing and/or improving local public transit, paratransit, and related transportation infrastructure.	Finances a Transit Development Program through two ½ cent sales tax measures from Los Angeles County and is used for the development and/or improvement of public transit, paratransit, and related transportation infrastructure.	Provides funding for projects that contribute to the mitigation of the environmental effects of transportation facilities.
Eligibility Requirements	Los Angeles County cities and County unincorporated areas	Los Angeles County cities and County unincorporated areas	State, Local, federal, and non-profit entities
Eligible Uses	➢ Street resurfacing ➢ Rehabilitation and reconstruction ➢ Pothole repair ➢ Left-turn signals ➢ Bikeways ➢ Pedestrian improvements ➢ Streetscapes ➢ Signal synchronization ➢ Transit service improvements ➢ Transportation engineering/study	➢ Public transit purposes that sustain or improve the quality and safety of and/or access to public transit services by the general public or those requiring special transit assistance ➢ Operating public transit services, bus stop improvements and maintenance, public transit (capital), transportation systems management, transit security, fare subsidy, transportation planning, transit marketing, park and ride lots, and transit facilities/ transportation enhancements	➢ Urban forestry projects designed to offset vehicular emissions of carbon dioxide through the planting of trees and other suitable plants ➢ Resource lands projects for the acquisition, restoration, or enhancement of resource lands to mitigate the loss of or detriment to such lands within or near the right of way ➢ Mitigation projects beyond the scope of the California Natural Resources Agency responsible for assessing the environmental impact of transportation improvements
Ineligible Uses	System/signal timing alterations that was implemented under a traffic forum project/grant; supplementing existing local revenues being used for transportation purposes and non-transportation related projects	➢ Standalone projects (lighting, landscaping, traffic signals, storm drains, or transportation planning projects) unrelated to an eligible project ➢ Prop A: bikeway and bike lanes, congestion management activities, and pavement management systems	Maintenance and replacement construction projects (i.e. pavement resurfacing); bicycle lanes; and sound barriers
Funding Limits	➢ Expected to generate $40 billion in new local sales tax revenues over 30 years, but only 15% of all sales tax revenue will be distributed for local needs	➢ 25% of Prop A tax and 20% of Prop C tax is to be used by cities and the County for local return funds based on population ➢ Prop A requires funds be used exclusively to benefit public transit and funds can be traded to other jurisdictions in exchange for general or other funds ➢ Prop C funds cannot be traded for general or other funds	Projects limited to $500,000 each.
Terms/Dates	➢ Each agency must submit an Expenditure Plan annually by August 1st of each year; an Expenditure Report annually by October 15th; and a recreational transit form for recreational transit services only by October 15th (annually) ➢ Funds are distributed monthly on a per capita basis	➢ Jurisdictions can submit a Project Description Form (Form A) any time during the year; must submit an Annual Project Update (Form B) before or on August 1st of each year; and must submit an Annual Expenditure Report (Form C) on or before October 15th of each year.	Call for new projects due July 13, 2015. Future dates have not been announced
Website	http://www.metro.net/projects/local_return_pgm/ and http://www.metro.net/projects/measure r/	http://media.metro.net/projects_studies/local_return/default.htm	http://resources.ca.gov/bonds_and_grants/eemp/
Examples	➢ Gold Line Foothill Extension ➢ City of Santa Monica sidewalk widening ➢ City of Agoura Hills Agoura Road Widening	➢ City of Bell – Florence Avenue Street Resurfacing ➢ City of Temple City Rosemead Boulevard Project	➢ City of South Gate Urban Greening ➢ North East Trees La Brea Greenbelt Urban Forestry Project ➢ Amigos de los Rios Emerald Necklace Expanded Multi-Benefit Park and Greenway
Comments	➢ RH/SGRWQG can use these funds for green street implementation ➢ Cities will have to evaluate what these funds are currently being used for to determine how to optimize the money available	➢ RH/SGRWQG may be able to take advantage of this fund when rehabilitating or repaving a local street ➢ MTA disburses funds on a monthly basis and disbursements are based on the jurisdiction's population-based share of actual net receipts for the month	➢ RH/SGRWQG may be able to take advantage of this fund if a project is proposed near the public right-of-way ➢ An argument may be made that green streets mitigate some of the negative impacts of roads ➢ Capital improvement projects could incorporate trees to qualify
RH/SGRWQG Potential Uses	➢ Distributed BMPs (green streets)	➢ Distributed BMPs (green streets)	➢ Distributed BMPs (green streets) ➢ Regional BMP Projects
Contact Information	Brian Boudreau Program Management Office (PMO) (213) 922-2474 boudreaub@metro.net	Brian Boudreau Program Management Office (PMO) (213) 922-2474 boudreaub@metro.net	California Natural Resources Agency (916) 653-2812 eemcoordinator@resources.ca.gov

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)			
Grant Program	**Highway Safety Improvement Program (HSIP)**	**Active Transportation Program (ATP)**	**Drought Resiliency**
Department	Caltrans	Caltrans, administered by the Division of Local Assistance, Office of Active Transportation and Special Programs	US Department of the Interior, Bureau of Reclamation
Purpose	Under the Moving Ahead for Progress in the 21st Century Act (MAP-21), the HSIP is a core federal-aid program that provides funds to reduce traffic fatalities and serious injuries on all public roads.	Provides funds to increase use of active modes of transportation, such as biking and walking, by increasing the proportion of trips accomplished by biking and walking; increasing safety and mobility for non-motorized users; advancing the efforts to achieve greenhouse gas reduction goals; enhancing public health; ensuring disadvantaged communities full share the benefits of the program; and providing a variety of projects to benefit all types of active transportation users.	Improve the ability to prepare and address drought in advance of a crisis. Supports projects that will build long-term resiliency to drought and reduce the need for emergency response actions.
Eligibility Requirements	City, County, or tribal government federally recognized within the State of California	Local, regional, or state agencies, transit agencies, natural resource or public land agencies, federally recognized tribal governments, public schools or school districts, and private nonprofit tax-exempt organizations	States, Indian tribes, irrigation districts, water districts, or other organizations with water or power delivery authority in the western United States
Eligible Uses	➢ Work on public roads or publicly owned bicycle or pedestrian pathway or trail that improves safety for its users ➢ Non-infrastructure elements (education, enforcement, and Emergency Medical Services)	➢ Capital improvements that further the goals of the program ➢ Development of community wide bicycle, pedestrian, safe routes to school, or active transportation plan in a disadvantaged community ➢ Education, encouragement, and enforcement, activities	➢ Increase reliability of water supply and sustainability ➢ Improve water management and increase operational flexibility ➢ Implement systems to facilitate voluntary sale, transfer, or exchange of water ➢ Provide benefits for fish and wildlife and the environment ➢ Mitigate poor water quality caused by drought
Ineligible Uses	➢ Projects focused mainly on street maintenance, landscaping, highway beautification, etc.	Roadway rehabilitation, construction, or re-pavement; bus or transit facility installation or repairs; median landscaping; lighting not specific to pedestrian or bicycle facilities; and general recreation and park facilities	➢ Scientific research, water hauling, education and outreach, land fallow, cover cropping, and reimbursement for economic losses resulting from drought ➢ Operation and maintenance projects ➢ Water conservation projects ➢ Water purchases ➢ Pilot projects
Funding Limits	➢ For Cycle 7, the maximum reimbursement amount for any single project is $10 million and the maximum funding an agency can receive is $10 million ➢ Non-safety related construction items (landscaping, highway beautification, and preventative maintenance) shall not exceed 10% of the project construction costs	➢ Minimum request for funds is $250,000 for Statewide and Small Urban and Rural solicitations	➢ $2 to $3 million available, up to $300,000 per applicant ➢ Cost sharing of 50 percent or more of the project cost is required
Terms/Dates	Call for new projects for Cycle 7 due July 31, 2015. Future dates have not been announced.	Call for new projects due June 1, 2015. Future dates have not been announced	Application due June 25, 2015. Future dates have not been announced
Website	http://dot.ca.gov/hq/LocalPrograms/hsip.html	http://www.dot.ca.gov/hq/LocalPrograms/atp/index.html	http://www.usbr.gov/drought/ or http://www.grants.gov/web/grants/view-opportunity.html?oppId=276505
Examples	➢ City of Azusa raised medians along Arrow Highway between Citrus Avenue and Azusa Avenue ➢ City of Downey raised medians, left turn lanes, signs and striping on Firestone Boulevard between Westerly City Limits and Old River School Road	➢ City of Duarte Gold Line Station Pedestrian and Bike Improvements ➢ City of Compton Wilmington Avenue Safe Streets Pedestrian/Bike Improvements ➢ City of Lancaster 5th Street East Corridor Improvements	No projects have been awarded
Comments	➢ RH/SGRWQG may be able to take advantage of this fund for green streets if the new street will be improved compared to the existing street in terms of safety ➢ To make a project eligible, a specific safety problem must be identified and the proposed countermeasure(s) must address the problem	➢ The RH/SGRWQG may be able to use this funding for green streets if the streets can increase use of active transportation, for example, if a bike lane is added, or sidewalks are made more accessible ➢ Funds may also be available for the Royal Oak Trails projects if they enhance trails and enhance pedestrian and bike access	➢ The proposed regional projects involve augmented water supply, which recharges the local aquifers and can be used during times of drought
RH/SGRWQG Potential Uses	➢ Distributed BMPs (green streets)	➢ Distributed BMPs (green streets) ➢ Regional BMP Projects	➢ Regional BMP Projects
Contact Information	Steve Novotny Caltrans District 7 – Local Assistance (213) 897-0784 Steve.Novotny@dot.ca.gov	Dale Benson Caltrans District 7 – Active Transportation Program (213) 897-2934 Dale.benson@dot.ca.gov	Irene Hoiby US Department of Interior Grants Officer (303) 445-2025 ihoiby@usbr.gov

Table AA-1 Potential Grant Programs to Fund RH/SGRWQG EWMP Implementation (cont.)	
Grant Program	**Proposition 1 – Stormwater Grant Program (SWGP)**
Department	SWRCB
Purpose	Proposition 1 (Assembly Bill 1471, Rendon) authorizes monies in general obligation bonds for water projects including surface and groundwater storage, ecosystem/watershed protection, restoration, and drinking water protection. Water Code Section 79747 identifies funds available for multi-benefit stormwater management projects which may include, but are not limited to, green infrastructure, rainwater and stormwater capture projects, and stormwater treatment facilities. Stormwater Resource Plans, or functionally equivalent plan(s), are required to obtain grant funds for stormwater and dry-weather capture projects.
Eligibility Requirements	Public agencies, 501(c)(3) nonprofit organizations, public utilities, federally recognized Indian tribes, state Indian tribes listed on the Native American Heritage Commission's Tribal Consultation List, and mutual water companies
Eligible Uses	➢ Green Infrastructure (LID) ➢ Rainwater, stormwater, and dry-weather runoff capture and use ➢ Stormwater treatment train facilities ➢ Planning – development of Stormwater Resource Plan or equivalent
Ineligible Uses	➢ Projects that must seek eminent domain as part of their project implementation timeline ➢ Projects that do not meet the requirements of these Prop 1 SWGP Guidelines, the Storm Water Resource Plan Guidelines, Water Code, and Prop 1 ➢ Projects that consist of only education and outreach activities
Funding Limits	➢ Planning type projects can receive grants ranging from $100,000 to $500,00 ➢ Implementation type projects can receive grants ranging from $500,000 to $5,000,000 ➢ The applicant is required to provide a funding match. The match requirement is fifty percent (50%) of the total project cost. Match is not based solely on the size of the grant request. Other State grant funds (regardless of issuing State agencies) cannot be used for the required match. The funding match may include, but is not limited to: federal loans, local and private funding, or donated and volunteer ("in-kind") services. Repayable financing received through the CWSRF or a federal sponsored loan program may be used for match. The SWRCB reserves the discretion to review and approve funding match expenditures.
Terms/Dates	Round 1 will award projects in spring 2016 and construction must be completed by October 2019. Round 2 will award projects in spring 2018 and construction must be completed by October 2021.
Website	http://www.waterboards.ca.gov/swgp
Examples	No projects have been awarded
Comments	The EWMP will be able to be used (at least in part) to fulfill the requirement of having a Stormwater Resource Plan.
RH/SGRWQG Potential Uses	➢ Regional BMP Projects ➢ Distributed BMP Projects
Contact Information	Sean Maguire, Program Manager (916) 341-5877 Sean.Maguire@waterboards.ca.gov Ruben Mora, SWGP (916) 341-5387 Ruben.Mora@waterboards.ca.gov Division of Financial Assistance Storm Water Grant Program State Water Resources Control Board P.O. Box 944212 Sacramento, CA 94244-2120

Table AA-2 Potential Loan Programs to Fund RH/SGRWQG EWMP Implementation		
Loan Program	**Clean Water State Revolving Fund (CWSRF)**	**Infrastructure State Revolving Fund (ISRF)**
Department	USEPA	California Infrastructure and Economic Development Bank
Purpose	Provide funding for publically-owned facilities. Funding programs include, but are not limited to, nonpoint source, watershed protection, wet-weather projects, water conservation and reuse, sustainability and smart growth, and green infrastructure.	Provide financing for public infrastructure projects.
Eligibility Requirements	Public agencies and nonprofit organizations	Applicant must be a local municipal entity. Project must promote economic development and attract, create, and sustain long-term employment opportunities
Eligible Uses	Stormwater treatment and diversions, sediment and erosion control, stream restoration, green infrastructure, and land acquisitions. Eligible uses vary by different programs/categories.	Construct or modify public infrastructure, purchase and install pollution control or noise abatement equipment, or acquire land. Project must meet tax-exempt financing criteria.
Ineligible Uses	Operation and maintenance activities, legal fees	Privately owned facilities or debt refinancing
Funding Limits	No maximum funding limit.	➢ $2,000,000 maximum per environmental mitigation project per fiscal year ➢ $10,000,000 maximum per project for all other purposes per fiscal year ➢ $20,000,000 per jurisdiction per fiscal year
Terms/Dates	➢ Interest rate is one-half general obligation bond rate. ➢ Repayment term of twenty years ➢ Applications accepted continuously	➢ Maximum 30 year term and open application process ➢ Preliminary application available at www.ibank.ca.gov
Website	http://water.epa.gov/grants_funding/cwsrf/cwsrf_index.cfm	http://ibank.ca.gov/infrastructure_loans.htm
Examples	➢ City of Anaheim Sewer Reconstruction Project ➢ Eastern Municipal Water District Recycled Water Pond Expansion and Optimization Project	➢ City of Paramount Water Well #15 Construction Project ➢ City of Monterey Park Water Main Replacement Project ➢ Lawndale Redevelopment Agency Hawthorne Boulevard Revitalization Project ➢ City of Lawndale Charles B. Hopper Park Project
Comments	Other project types that are considered under this financing program include: ➢ Construction of publicly-owned facilities: ▪ Wastewater treatment ▪ Local sewers ▪ Sewer interceptors ▪ Water reclamation facilities ▪ Stormwater treatment ➢ Expanded use projects include, but are not limited to: ▪ Implementation of nonpoint source projects or programs ▪ Development and implementation of estuary comprehensive conservation and management plan Expanded use project include, but are not limited to NPS projects/programs and estuary comprehensive conservation and management plan.	This program provides low-cost, long-term financing to local governments for a variety of public infrastructure projects. A lot of the eligible project categories are not applicable to the RH/SGRWQG in terms of using this funding to implement stormwater compliance measures, but the following project categories would be applicable to RH/SGRWQG: ➢ Drainage, water supply, and flood control ➢ Environmental mitigation measures ➢ Parks and recreation facilities. It may be easy to add water quality elements to potential infrastructure projects so that the project qualifies for funding while also incorporating water quality improvement elements.
RH/SGRWQG Potential Uses	➢ Regional BMP Projects ➢ Distributed BMP Projects	➢ Regional BMP Projects ➢ Distributed BMP Projects
Contact Information	(916) 327-9978 CleanWaterSRF@waterboards.ca.gov	Tad Thomas, Program Manager 1325 J Street, 18th Floor Sacramento, CA 95814 (916) 322-3506 Tad.Thomas@ibank.ca.gov

Table AA-3 Funding Opportunities by EWMP Implementation Effort

Funding Opportunity X = program applicable, P = potentially applicable	Stormwater Program						Regional BMPs										Distributed BMPs
	Public Information and Participation Program	Industrial/Commercial Facilities Program	Planning and Land Development Program	Development Construction Program	Public Agency Activities Program	IC/ID Elimination Program	Recreation Park	Arboretum of Los Angeles County	Sierra Vista Park	Royal Oaks Trail (LAR)	L. Garcia Park	Eisenhower Park	LADWP Easement	Encanto Park	Memorial Park (Azusa)	Royal Oaks Trail (SGR)	Green Streets
General Funds	X	X	X	X	X	X											
Additional taxes	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Stormwater Utility Fee	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
General Fees	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Grant Opportunities																	
Proposition 84 Stormwater Program							X	X	X	X	X	X	X	X	X	X	X
Proposition 84 (Chapter 2 §75026) Integrated Regional Water Management (IRWM)							X	X	X	X	X	X	X	X	X	X	X
Proposition 84 Urban Streams Restoration																	
Community Action for a Renewed Environment (CARE)	X	X	X	X	X	X											
Pollution Prevention (P2)	X	X	X	X	X	X											
Clean Beaches Initiative (CBI)																	
Urban Waters Small Grant	X	X	X	X	X	X											
Environmental Education Grant and SubGrant	X	X	X	X	X	X											
Cooperative Watershed Management Plan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
State of California Coastal Conservancy Program	P																
Wildlife Conservation Board (WCB)																	
Habitat Conservation Fund (HCF)								X		P						P	
Land and Water Conservation Fund (LWCF)								X		X						X	
Recreational Trails Program (RTP)										X						X	
TIGER Discretionary Grant							P	P	P	P	P	P	P	P	P	P	X
Environmental Solutions for Communities	P						X	X	X	X	X	X	X	X	X	X	X
Clean Water Act (CWA) §319(h) Non-Point Source (NPS)																	
Potential 2014 Water Bond	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MTA Call for Projects Program																	X
Prop 1B (Local Street and Road, Congestion Relief, and Traffic Safety Account of 2006)																	X
Prop 1B (Public Transportation Modernization, Improvement, and Service Enhancement Account [PTMISEA])																	X
Proposition 1 Stormwater Grant Program (SWGP)							X	X	X	X	X	X	X	X	X	X	X
Loan Opportunities																	
Clean Water State Revolving Fund (CWSRF)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Infrastructure State Revolving Fund (ISRF)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Attachment AB

USEPA's Financial Capabilities Framework for Municipal Clean Water Act Requirements

This attachment includes the United States Environmental Protection Agency's (USEPA's) memorandum, Financial Capability Assessment Framework for Municipal Clean Water Act Requirements from Ken Kopocis dated November 24, 2014. This letter will be considered when assessing legislative and policy related financial strategies to support the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP), as discussed in **Section 6.5.3**.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 24 2014

MEMORANDUM

SUBJECT: Financial Capability Assessment Framework for Municipal Clean Water Act Requirements

FROM: Ken Kopocis
Deputy Assistant Administrator
Office of Water (OW)

Cynthia Giles
Assistant Administrator
Office of Enforcement and Compliance Assurance (OECA)

TO: Regional Administrators
Regional Water Division Directors
Regional Enforcement Division Directors

In May of 2012, we distributed the Integrated Municipal Stormwater and Wastewater Planning Approach Framework (Integrated Planning Framework). Since that time, we have made solid progress in promoting integrated approaches to meet Clean Water Act (CWA) obligations. Thanks to the hard work of regional and headquarters staff, and the active engagement of cities, many of our enforcement settlements now embody integrated planning principles in the structure and schedule for injunctive relief or explicitly include integrated planning as part of the settlement. We have also seen an increasing number of municipalities and local authorities moving towards developing integrated plans to support the development of their NPDES permits. We have been working with EPA Regions and States to assist in that process.

As the implementation of the Integrated Planning Framework has progressed and evolved, we have been actively engaged with stakeholders on ways to build on our efforts. Those discussions found a natural focus on issues related to the financial capability of permittees working toward our shared goals of clean water. One consistent theme that emerged was the benefit of more clearly articulating the flexibility available under the existing guidance. EPA continues to be guided by the 1997 "Combined Sewer Overflows – Guidance for Financial Capability Assessment

and Schedule Development" (FCA Guidance) that provides an aid for assessing financial capability as part of negotiating schedules for implementing CWA requirements for municipalities and local authorities. The FCA Guidance also encourages permittees "to submit any additional documentation that would create a more accurate and complete picture of their financial capability" that may "affect the conclusion" of the analysis described in the guidance.

As part of EPA's commitment to implementing CWA objectives in a sustainable manner, we have developed the attached "Financial Capability Assessment Framework" (FCA Framework). The FCA Framework has been greatly informed by the comments and experiences of a variety of stakeholders and financial experts. The FCA Framework identifies the key elements EPA uses in working with permittees to evaluate how their financial capability should influence schedules. In addition, the FCA Framework provides examples of additional information that may help some communities provide a "more accurate and complete picture" of their financial capability as is envisioned in the FCA guidance. We will be posting the FCA Framework to our website as an important next step in the pursuit of integrated planning approaches and in our ongoing work with municipalities and local authorities to achieve our shared goals of protecting our nation's waters. While this memorandum releases the FCA Framework, we know that we will continue to learn and refine our understanding of the issues surrounding financial capability assessments as we use it moving forward. We will continue to look for ways to improve the Framework as we gain new insights and additional information.

We look forward to continue working with the Regions on these important issues and encourage you to contact Deborah Nagle, Director, Water Permits Division (nagle.deborah@epa.gov) and Mark Pollins, Director, Water Enforcement Division (pollins.mark@epa.gov) with any questions you might have.

Attachment

cc: Regional Permit and Enforcement Liaisons

FINANCIAL CAPABILITY ASSESSMENT FRAMEWORK

November 24, 2014

Purpose

The Environmental Protection Agency (EPA) is committed to working with state and local government partners to assist local municipalities and local authorities to meet Clean Water Act (CWA) obligations in a manner that recognizes the unique financial challenges that local jurisdictions face. This financial capability assessment framework is intended to provide additional examples and greater clarity on the flexibilities built into existing guidance that local governments or authorities can use in assessing their financial capability, and the relationship between that assessment and consideration of schedules for permit and consent decree implementation. This framework builds on the progress already made in the May 2012 "Integrated Municipal Stormwater and Wastewater Planning Approach Framework," and the experience gained from talking with communities about their financial capability in actual, on the ground circumstances. Integrated Planning has been helping in identifying a permittee's relative priorities for projects based on the relative importance of adverse impacts on human health and water quality and the municipality's financial capability.

Background

Local governments and authorities want to provide clean water for their communities, and they play an essential role in providing wastewater and stormwater infrastructure and services for their citizens, businesses and institutions. These municipal functions have been an important part of implementing the CWA to protect public health and improve water quality in streams, lakes, bays, and other waters nationwide. However, significant water quality challenges remain. Public officials remain strong supporters of the CWA goals and objectives by directing the public investments that are necessary to comply with the Act and to provide clean water for their citizens. Many local governments face complex water quality issues that are heightened by the need to address population growth or decline, increases in impervious surfaces, source water supply needs, and aging infrastructure. In recent years, many local governments and authorities have increased investments in their wastewater and stormwater infrastructure through capital projects to rehabilitate existing systems, improve operation and maintenance, and address additional regulatory requirements. As programs are implemented to improve water quality and attain CWA objectives, many state and local government partners find themselves facing difficult economic challenges with limited resources and financial capability. We recognize these challenging conditions and are working with states and local governments to develop and implement new approaches that will achieve water quality goals at lower costs and in a manner that addresses the most pressing problems first.

Long-term approaches to meeting CWA objectives should be sustainable and within a local government or authority's financial capability. The financial capability of these entities and other relevant factors are important to consider when developing appropriate schedules for infrastructure projects in permits or enforcement actions to help protect human health and the environment. EPA's financial capability assessment guidance, "Combined Sewer Overflows:

Guidance for Financial Capability Assessment and Schedule Development" (FCA Guidance) (EPA 832-B-97-004) provides a reference point to aid all parties in negotiating reasonable and effective schedules for implementing CWA requirements, and the flexibility to take into account local considerations that may not be fully captured by the approach detailed in the guidance. As described in more detail in this Framework, the guidance provides for consideration of the impact on residential rate payers and the financial capability of the permittee using a suite of indicators, as well as allowing schedules to be responsive to circumstances unique to that community, while advancing the mutual goal to protect clean water. The FCA Guidance encourages permittees to provide any additional information that would be useful in understanding those unique or atypical circumstances and how they may affect CWA schedules, so that all relevant information presented by a community can be taken into account to ensure that a full understanding of financial capability guides the development of schedules.

Financial Capability Assessment

The following are key elements of EPA's approach to the evaluation of the financial capability of municipalities to inform implementation schedules, both in permits and enforcement actions. The elements are fully compatible with the FCA Guidance, integrated planning approaches, and the flexibility embodied in both.

1. **The 1997 FCA Guidance identifies a valuable assessment that provides a common basis for financial burden discussions between the permittee, EPA and state NPDES authorities. Permittees have the option of submitting additional information that would create a more accurate and complete picture of their financial conditions.** The financial capability assessment described in the 1997 FCA Guidance identifies information that provides a basis for a general comparison of financial conditions between communities across the country and provides a consistent assessment of basic financial indicators as part of the overall analysis. Additional information that the community provides on its unique financial circumstances will be considered so that schedules take local considerations into account. Where appropriate, this information can result in schedules that are different than the schedules suggested by the baseline analysis suggested in the 1997 FCA Guidance.

2. **Financial capability is on a continuum.** Although the FCA Guidance approach categorizes financial burden as "high, medium, or low," this does not mean that schedules will be rigidly set according to the break points between the categories. For example, two communities whose total residential share of costs are 1.1% and 1.9% of median household income (MHI) are both categorized in the FCA Guidance as having a "medium" burden for the Residential Indicator (RI). All other things being equal, the appropriate schedules for those communities are likely to be different. Similarly, all other things being equal, two communities whose residential share of costs are 1.9% and 2.1% of MHI would be more likely to have similar overall compliance timeframes, even though one community is ranked as having a "medium" burden and the other as having a "high" burden. Finally, additional information submitted by the community may affect the length of the schedule regardless of where the community is on the "high, medium, and low" continuum.

3. **EPA will consider all CWA costs presented in the analysis described in the FCA Guidance**. EPA originally published the FCA Guidance to assist in negotiating schedules for communities with combined sewer systems, as these typically represent the most expensive CWA compliance issues. The FCA Guidance has since been recognized as equally suitable for considering other municipal CWA obligations as well, such as those related to separate sanitary sewer systems. With the release of EPA's 2012 Integrated Planning Framework, the Agency clarified that the financial capability analysis could include costs of: stormwater and wastewater; ongoing asset management or system rehabilitation programs; existing, CWA related capital improvement programs; collection systems and treatment facilities; and other CWA obligations required by state or other regulators. Where the costs of multiple CWA obligations are included in an FCA, each of those costs should be enumerated separately, so as to provide an understanding of how each contributes to the overall analysis.

4. **When presented, Safe Drinking Water Act (SDWA) obligations will be considered, primarily as additional information about a permittee's financial capability.** EPA believes that the SDWA obligations of a community can be an important consideration in establishing schedules for implementing integrated plans. EPA recognizes that both clean water and drinking water costs are often covered through charges on a single rate base. One component of a financial capability assessment includes an evaluation of the residential indicator that is based on only CWA costs as this best reflects the intended use of the metric and allows for comparisons with other communities. Drinking water costs may be reflected in other components of a financial capability assessment. For example, the financial capability indicator includes consideration of bond rating of the entity that issues debt to fund the permittee's capital project, which can be impacted by both wastewater and drinking water obligations for a permittee that provides both services. If a community has incurred general obligation debt associated with the SDWA, these obligations would be considered in the indicator "overall net debt as a percent of full market property value." In addition, as discussed below, additional information, including information regarding drinking water obligations, may be submitted for consideration in analyzing financial capability. To the extent that drinking water costs are not fully addressed by these other components, communities are encouraged to provide additional information about these costs.

5. **Communities should demonstrate how the CWA work included as costs in the financial capability assessment will be implemented, including appropriate assurances that those expenditures will be made.**

The Financial Capability Assessment Guidance and Examples of Additional Information that are Relevant to a Consideration of Financial Capability

The specific approaches laid out in the FCA Guidance provide a good foundation for the assessment of financial capability. As stated in the guidance and outlined in this Framework, communities can build on that foundation to include additional relevant information. The FCA Guidance presents a two-phased approach to assessing overall financial capability. The first phase assesses the impact on residential customers, and the first step is to calculate the portion of

the annual costs that would be borne by residential households for both current and projected Clean Water Act related expenses. The residential share of the annual costs of CWA obligations is then compared to the MHI of the service area. MHI is calculated using current census data and may be adjusted based on the current Consumer Price Index. Finally, the CWA compliance costs per household are divided by the adjusted MHI to calculate the residential indicator (RI). The FCA Guidance then identifies various ranges of RI scores as "low, mid-range or high" levels of burden. In situations where there are unique circumstances that would affect the conclusion of the first phase of the assessment, additional information documenting unique financial conditions may be submitted.

The second phase of the financial capability analysis assesses the financial strength of the permittee. Six indicators are used to evaluate the debt, socioeconomic and financial conditions that affect a permittee's financial capability to implement CWA controls necessary for compliance with the Act. These include bond ratings, overall net debt as a percent of full market property value, unemployment rate, median household income, property tax revenue collection rate, and property taxes as a percent of full market property value. In the Guidance, EPA has established benchmarks for each of the six indicators showing whether the indicator reflects a "weak", "mid-range", or "strong" financial capability. These benchmarks are used to generate an overall score of a permittee's financial capability.

The residential indicator calculated in phase one and the permittee capability indicators analyzed in phase two are evaluated together in a Financial Capability Matrix to assess the level of financial burden. The level of burden is then used to inform discussions to establish an appropriate schedule for meeting CWA obligations in permits and enforcement actions. EPA uses these indicators, including the annualized costs as a percent of MHI, to help assess when costs are reaching levels that may represent a high burden on ratepayers and that longer compliance timeframes are likely to be appropriate to spread the cost over a longer period. EPA does not view or use the Financial Capability Matrix as a rigid metric that points to a given schedule length or threshold over which the costs are unaffordable.

Permittees have suggested and the FCA Guidance recognizes that the two step analysis may not provide a complete representation of financial capability. As noted above, other relevant financial or demographic information presented that illustrates the unique or atypical circumstances faced by a permittee will also be considered in evaluating financial capability. The presentation of additional information can be very valuable in analyzing financial capability, and the submission of this type of information has become fairly common practice. For example, in many consent decree negotiations, additional information has resulted in the establishment of schedules that differ from the ones suggested by the baseline analysis described in the FCA Guidance.

Some examples of information that may be relevant in negotiating schedules to be included in permits and consent decrees are given below. In order for such information to adequately illustrate that a permittee's situation is atypical, EPA encourages permittees to compare any additional information on their circumstances to national averages or to that of other permittees.

The examples given below are not intended to be a complete list, nor a list of factors that will be relevant in every community. Rather it provides an illustration of information that may prove useful in some instances.

Examples of Information Related to Residential Impacts:

1. Income distribution by quintile, geography or other breakdown, illustrating how income distribution in the service area differs from comparable data on the national level or for similar cities.

2. Where cities have adopted differential rates for low income customers, the income distribution that led to that rate structure.

3. Information about service area poverty rates and trends.

4. Projected, current and historical sewer, and stormwater fees as a percentage of household income, quintile, geography or other breakdown.

5. Information on sewer and water usage for various classes of ratepayers or by type of dwelling unit.

6. Information on the percent of households who own versus rent.

Examples of Information Related to Financial Strength:

1. Historical population trends or population projections.

2. Service area unemployment data and trends, or other labor market indicators, including unemployment on an absolute basis.

3. Rate or revenue models, including dynamic financial planning models showing the projections of impacts over the program period. All revenue sources tied to CWA obligations may be included as appropriate.

4. Rate determination studies used to develop and support recent rate increases.

5. Data and trends on late payments, disconnection notices, service terminations, uncollectable accounts, or revenue collection rates.

6. Historical increases in rates or other dedicated revenue streams.

7. State or local legal restrictions or limitations on property taxes, other revenue streams or debt levels.

8. Other costs or financial obligations, such as those that relate to drinking water or other infrastructure, that significantly affect a permittee's ability to raise revenue.

9. Circumstances that may affect a permittee's bond rating. For instance, incurring debt beyond certain thresholds may negatively impact the permittee's bond rating, thus reducing the ability to raise capital.

10. Financial plans that show the implications of incurring additional debt for a permittee's ability to secure financing, including projections of metrics such as debt ratios, debt service coverage, debt per customer, days of cash on hand, days

of working capital and other metrics used by rating agencies. Such data should be benchmarked to metrics such as rating agency medians and relative to similar entities. This will be especially relevant where the permittee does not have a bond rating.

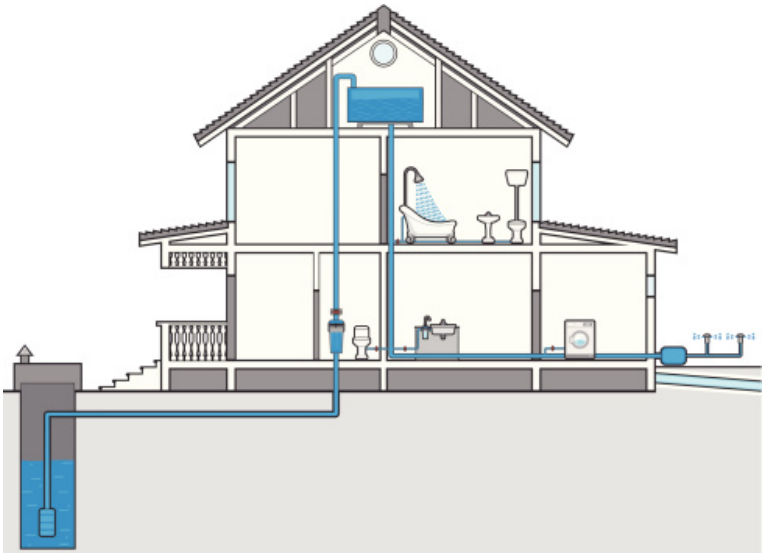
11. Extraordinary stressors such as those from natural disasters, municipal bankruptcies, unusual capital market conditions, or other situations which impact a permittee's ability to raise revenue or acquire needed financing. When such stressors occur, they may also provide support for making changes to existing schedules.

Attachment AC

Public Water Cost per Household: Assessing Financial Impacts of EPA Affordability Criteria in California Cities

This attachment includes the United States Conference of Mayors report, Public Water Cost Per Household: Assessing Financial Impacts of EPA Affordability Criteria in California Cities dated November 2014. This report will be considered when assessing legislative and policy related financial strategies to support the Rio Hondo/San Gabriel River Water Quality Group (RH/SGRWQG) Enhanced Watershed Management Program (EWMP), as discussed in **Section 6.5.3**.

THE UNITED STATES CONFERENCE OF MAYORS



Public Water Cost Per Household: Assessing Financial Impacts of EPA Affordability Criteria in California Cities

NOVEMBER 2014

The United States Conference of Mayors

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Mayor of Sacramento
President

Stephanie Rawlings-Blake
Mayor of Baltimore
Vice President

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Mayor of Oklahoma City
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MAYOR'S BRIEFING

The demand for public water infrastructure investments persists even though local government continues to substantially increase investments nearly every year for the last five decades. Cities are facing dual responsibilities to reinvest in an aging infrastructure to sustain services and public health, and to comply with long term obligations under water mandates. Sometimes these needs compete for scarce resources in a city.

Cities have expressed concern over costly consent agreements regarding sewer overflows and long term control plans, and nutrients impacting water quality that are regulated as total maximum daily loadings (TMDLs) into receiving water bodies. The United States Conference of Mayors (USCM) and its Mayors Water Council (MWC) has urged EPA to exercise greater flexibility when imposing compliance mandates to lessen the financial burdens on customers; and also because sewer overflow and TMDL consent agreements are so costly that they compete with reinvestment in current water infrastructure and other essential public services such as public safety, road repairs and maintenance programs and other local priorities.

Cities in this study exhibit already high levels of cost per household for public water services. Measured by actual household income rather than MHI, this study underscores the fact that many of the communities are experiencing both widespread and substantial (and sustained over time) financial impacts in below median income households.

Growth in regulatory compliance requirements that continue to emerge from EPA in silo fashion ignores the cumulative and distributive costs to households. Household costs are largely irrelevant under the water laws; and especially due to the way EPA assesses affordability at the local level (i.e., indexing the affordability threshold to the more affluent median income household, and then expecting below median income households to bear a disproportionate financial burden in rate setting).

California cities were asked to provide information on the average annual cost per household for water, sewer and flood control. The cost per household involves only the residential customers. Current cost levels represent the cumulative costs over time to the present, but do not reflect future costs, particularly anticipated rate increases required to address emerging TMDL compliance standards.

We compared actual cost per household in over 30 California cities, 28 of them clustered in Los Angeles County, to EPA's affordability criteria under the Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) regulatory programs, both indexed to Median Household Income (MHI) (2.0% MHI under CWA; 2.5% MHI under the SDWA). For the purposes of this research 4.5% MHI is used as a combined affordability measure. These criteria have become our focus because their intended purposes are set to measures against which EPA might find economic burdens that do not relieve cities of their obligations, but could be used to justify greater flexibility over the terms and timeframes for compliance.

When EPA affordability criteria regarding stormwater and sewer overflow costs exceed 2% of MHI in a community, the Agency will consider greater flexibility. Generally speaking, EPA affordability criteria are seldom reached when estimates are based on MHI, a relatively poor measure of burden on below median income households.

There are different levels of financial distress based on where a household is on the income distribution: if a median income household experiences financial distress when water and sewer costs exceed 4.5% of their income, the severity of that distress for a below median income household is substantial and should trigger greater flexibility. Cities in this study exhibit already high levels of cost per household for public water services. Measured by actual household income rather than MHI, this study underscores the fact that many of the communities are experiencing both widespread and substantial (and sustained over time) financial impacts in below median income households.

Major Findings

Public Water Cost per Household in the Surveyed Cities is Already High

- Total public water cost per household ranges from $366 to $2,640/yr, (Table A).
- Median total cost per household is $1,172/yr.

  ◊ Annual median water costs at $902/yr are four times sewer costs.
  ◊ Sewer cost per household is $199/yr (median).
  ◊ Flood Control cost per household is $41/yr (median).

- Cost per household in 4 cities exceed one standard deviation above average:

  ◊ La Canada Flintridge $ 2,640
  ◊ Sierra Madre $ 2,040
  ◊ La Verne $ 1,936
  ◊ Escondido $ 1,730

Substantial Economic Burdens on Below Median Households

- As expected, households with high income spend a lesser percentage of annual income on public water.
- When EPA applies the MHI as the economic burden indicator it masks the distributional cost impacts on below median income households (Table C). The severity of economic burden is found in the lower income decile groups which are virtually hidden by using the MHI indicator.
- The difference between 4.5% of actual income and 4.5% of MHI can be considerable:

  ◊ Sacramento has a relatively large population coupled with high public water costs and therefore the lower median income households are paying roughly $29 million/yr over 4.5% of actual income.

- This financial impact is masked by using just MHI as the affordability threshold.
- Over a 10-year period the lower median income households are carrying a $293 million financial burden.

  ◊ Escondido has 34% of its households in a 148,738 population city with spending that exceeds 4.5% of actual income:

- Annually, these households spend a combined $12.1 million in excess of 4.5% of their actual income.
- Over a 10-year period the financial burden is $122 million.

  ◊ Eleven of the study area communities have 10-year period financial burdens above $10 million borne by the lowest income households.

- More than half of the cities in the study exhibit excessive public water spending based on actual income, and the dollar amount of excessive spending is substantial, (Table C).

Widespread Economic Burdens on Households

- Comparing Actual Cost per Household to MHI Criteria provides a way to calculate how widespread the substantial economic burden is- measured by the percent of a city's households that carry a substantial economic burden.
- Total public water cost per household ranges from slightly to substantially greater than 4.5% of actual household income across the household income distribution deciles as described below:

  ◊ Eleven cities report combined water, sewer and flood control costs per household in excess of 4.5% of annual income for 20% or more of households.

  ◊ Paramount, La Verne and Escondido households exceed the 4.5% of actual income by 39%, 35% and 34%, respectively.

- Thirteen cities exceed spending 4.5% of actual income for 10 to 18% of their households.
- Six cities exceed spending 4.5% of actual income for 4 to 9% of their households.
- Three cities have less than 4% of households not spending in excess of 4.5% of their actual annual income on public water.

Introduction and Statement of Purpose

Lower income households spend a greater percentage of their annual income on public water services than households with median or higher income, and the disparate financial impact is not adequately taken into account by EPA when setting compliance levels and timeframes.

The United States Conference of Mayors (USCM) and its member cities have been engaged with the US Environmental Protection Agency (EPA) concerning the affordability of local public water services and federal/state mandates associated with current water laws. USCM member cities have expressed concern over costly consent agreements regarding sewer overflows and long term control plans, and nutrients impacting water quality that are regulated as total maximum daily loadings (TMDLs) into receiving water bodies. The USCM and its Mayors Water Council (MWC) has urged EPA to exercise greater flexibility when imposing compliance mandates to lessen the financial burdens on customers; and also because sewer overflow and TMDL consent agreements are so costly that they compete with reinvestment in the aging current water infrastructure and other essential public services such as public safety, road repairs and maintenance programs and other local priorities. During the course of these discussions it became clear from focusing on how EPA assesses local affordability that the current cost per household for public water services impacts households differently from a financial perspective based on actual household income. Lower income households spend a greater percentage of their annual income on public water services than households with median or higher income, and the disparate financial impact is not adequately taken into account by EPA when setting compliance levels and timeframes.

EPA developed affordability guidelines for certain regulations under the CWA[1] and SDWA[2]. The guidelines include an algorithm for estimating whether marginal (additional) expenditures necessary to achieve compliance would exact a substantial and widespread economic burden on the community. Regulations under the SDWA are based on national cost estimates, but EPA has stated that a new drinking water regulation can be implemented if the cost to household customers does not exceed 2.5 percent of median household income (MHI)[3]. Guidelines developed by EPA for use in CWA enforcement efforts regarding stormwater and sewer overflows considers a long term control plan to be affordable if the cost to household customers does not exceed 2.0 percent of MHI. MHI, the one common characteristic of the 2 guidelines, may be intended to stretch national and local efforts to achieve the goals of the CWA and SDWA, but its unintended consequence is a disparate financial burden on below median income households as a regressive tax. Households under the poverty level and under MHI pay a disproportionate share of their annual incomes for public water compared to the

1. U.S. EPA. 1997. Guidance for Financial Capability Assessment and Schedule Development
2. U.S. EPA. 2002. Affordability Criteria for Small Drinking Water Systems: An EPA Science Advisory Board Report. EPA-SAB-EEAC-03-004. U.S. Environmental Protection Agency, Washington, DC.
3. Affordability criteria considered by EPA under the SDWA pertains to setting national drinking water standards on a national basis. Using 2.5% of MHI to assess affordability for small community drinking water systems is intended to determine if a variance is appropriate.

affluent households (median and above median income households) in a community. EPA's insistence on using affordability criteria indexed to MHI creates a class-based environmental injustice. While there are good arguments for wanting and expecting greater levels of water quality and safe drinking water, there are limited resources in below median income households, and limits to overall local government resources. The clearly disproportionate and unfair financial impact on below median income households is a problem that EPA and Congress should be aware of and do something about.

EPA's insistence on using affordability criteria indexed to MHI creates a class-based environmental injustice.

This report has four purposes: first, it is intended to generate information on the current cost per household for public water services (sewer, water, flood control/stormwater). This is accomplished via a multi-community survey that collects and reports the current average annual cost per household in dollars and as a percent of annual household income according to different household income levels. The second purpose of the report is to compare current cost per household to EPA affordability criteria, taking into account the cost per household on all income levels. Third, this information is important to cities because it provides a profile of where current costs are, and how future investments, whether for system renewal or for regulatory compliance, or both, will impact the cost per household. It also makes a compelling argument for greater federal financial support for local governments, which has been reduced in a time where regulatory requirements have been increasing. Fourth, the study provides a framework for permit writers to consider the affordability of permit programs when considering compliance levels and deadlines.

Community Survey Information and Analysis

The data used in this report are gathered from participating communities regarding water costs, and from Census data at census.gov[4]. The USCM's Mayors Water Council collaborated with a number of California and Los Angeles County cities via an on-line survey. We choose Los Angeles County since it is one of the first areas in the nation to be regulated under a federal TMDL Consent Decree for stormwater. Additional California communities participated in the survey from outside of Los Angeles County.

Cities were asked to provide information on the average annual cost per household for water, sewer and flood control. The cost per household involves only the residential customers. Current cost levels represent the cumulative costs over time to the present.

Census information was collected for each participating city, and includes data on population, poverty rate, median household income (MHI), and the number of households per income category. The Census reports income for 10 income level categories (deciles)[5].

Current public water cost per household information provides the city with an accurate measure of how much households spend across the income distribution. Any additional costs for renewal, expansion or increased compliance requirements can be compared to the 2014 cost as a benchmark. Current costs are not static, and public water rates are rising in many cities around the nation. Cities in the survey are facing substantial new financial responsibilities related to compliance with Total Maximum Daily Loads, and there will likely be additional CWA/SDWA mandates as EPA continues to develop regulations in silo fashion over time.

The key findings are presented in the next section. Appendix A includes information on the distribution of cost per household across the income spectrum for each survey city. Appendix B provides comments on bias, estimation and uncertainty identified and considered in the survey and presentation of data.

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4. See Table A
5. The ten categories of household income are: $10,000 or less; 10,001 to 14,999; 15,000 to 24,999; 25,000 to 34,999; 35,000 to 49,999; 50,000 to 74,999; 75,000 to 99,999; 100,000 to 149,999; 150,000 to 199,999; and, 200,000 plus. For analytical purposes these categories are represented by the mid-point of income, except for the lowest income decile which is set at $10,000.00, and highest income decile which is set at $200,000.00.

Results

I: The Current Cost per Household for Public Water Services in the Survey Cities: (See Tables A & B)

A. Average Annual Water Cost per Household All Water Services (sewer, water and flood control)

- Total public water cost per household ranges from $366 to $2,640/yr
- Median total cost per household is $1,172/yr
  - ◊ Annual median water costs at $902/yr are four times sewer costs.
  - ◊ Sewer cost per household is $199/yr (median).
  - ◊ Flood Control cost per household is $41/yr (median).

- Cost per household in 4 cities exceed one standard deviation above average for total public water costs
  - ◊ La Canada Flintridge $ 2,640
  - ◊ Sierra Madre $ 2,040
  - ◊ La Verne $ 1,936
  - ◊ Escondido $ 1,730

- There is a wide range of current cost per household for all public water services
  - ◊ San Marino has the lowest at $366 annual average cost
  - ◊ La Canada Flintridge has the highest at $2,640/yr

B. Drinking Water Cost per Household

- Drinking water cost per households ranges from
  - ◊ Low $115/yr in San Marino
  - ◊ High of $2,245/yr in La Canada Flintridge

- The median Drinking Water cost per household is $902, and it is four times greater than the median Sewer cost per household at $199.

C. Sewer

- Sewer cost per household ranges from
  - ◊ $12/yr a year in Monterey Park
  - ◊ $738/yr in Sierra Madre

- The median cost per household is $199/yr

D. Flood Control

- Flood control cost per household ranges from
  - ◊ $0 in Azusa
  - ◊ $351/yr in South Gate

- The median cost per household is $41/yr

II: EPA Affordability Criteria Indexed to MHI Masks Substantial and Widespread Financial Impact (See Table B)

When EPA affordability criteria regarding stormwater and sewer overflow costs exceed 2% of MHI in a community, the Agency will consider greater flexibility. Generally speaking, EPA affordability criteria are seldom reached when estimates are based on MHI, a relatively poor measure of burden on below median income households.

For example, in the study area the median 2% of MHI for the cities is $1,352, but the median cost for sewer and flood control (CWA) is only $240. Similarly, the median combined water, sewer and flood control cost per household in the study cities is $1,171, and does not come close to the median 4.5% of MHI of cities at $3,042. Consent decrees involving local investment, from this mathematical vantage point, appear affordable with ample unused margin and no perceived substantial or widespread economic burden on the community.

When actual household income levels are considered in the affordability determination it becomes clear that MHI, as the presumptive critical criteria, masks the financial impact on lower income households.

Estimating affordability based on MHI results in financial burdens on below median income households because they pay a disproportionate share of their annual incomes. Drilling down into the cost per household as a percent of actual income reveals the disparate financial impact on below median income households.

City of Sierra Madre

- 2% MHI in the City of Sierra Madre is $1,806; and average annual sewer costs are $738, or about 40% of the 2% MHI affordability criteria. The affordability of a project does not appear to be an economic burden when the MHI serves as the critical metric.
- 18% of households are estimated to be paying in excess of 2% of their actual annual income on sewer.
    - ◊ The excess sewer payments are felt by households earning up to $35,000/yr.
- Another 8% of households, 26% in all, exceed 2% of actual income when adding flood control to sewer cost per household.
- Potential affordability obligation of EPA criteria
    - ◊ 2% MHI in Sierra Madre is equal to 18% of actual income for households with in come of $10,000/yr.
    - ◊ 4.5% MHI ($4,064) is equal to 40% of actual income in $10,000/yr households.

City of Sacramento

- 2% MHI in the City of Sacramento is $1,013; and average annual sewer costs are $617, or about 61% of the 2% MHI affordability criteria.
- 36% of households pay in excess of 2% of annual income for sewer
    - ◊ The excess sewer payments are felt by households earning up to $35,000/yr.
- Potential affordability obligation of EPA criteria
    - ◊ 2% MHI in Sacramento is equal to 10% of actual income for households with income of $10,000/yr.
    - ◊ 4.5% MHI ($2,279) is equal to 23% of actual income in $10,000/yr households.

If EPA triggers consideration of regulatory flexibility when the median income household experiences a substantial economic burden, then the same trigger should apply when water and sewer costs impose a substantial economic burden on the below median income household.

III: Substantial Economic Burdens on Below Median Households

If EPA triggers consideration of regulatory flexibility when the median income household experiences a substantial economic burden, then the same trigger should apply when water and sewer costs impose a substantial economic burden on the below median income household. It is possible to quantify the regressive nature, and amount, of economic burden to determine if it is substantial. This study uses 4.5% of MHI and 4.5% of actual annual income to measure the severity of economic burden (or, excessive spending by households) that results from using MHI as the critical metric.

A spectrum from mild to severe financial distress was found in households in most cities in the study. As expected, households with high income spend a lesser percentage of annual income on public water.

The severity of economic burden depends on where a household is on the income distribution. The study area communities exhibit substantial financial burdens that are sustained over time due to the recurring need for water and sewer services and the growing cost per household.

Estimates are generated of how much money a household spends in excess of 4.5% of actual income to gauge the severity of economic burden. The excess cost per household can then be multiplied by the number of households in each income category to estimate the magnitude of sustained economic burden.

- As expected, as income increases excessive spending decreases. (Table C).
- Lower median income households can experience a substantial financial burden (spending in excess of 4.5% of actual income).

Regulations developed under the separate silos of CWA and SDWA do not adequately consider the economic burden associated with overall public water and wastewater costs. Consideration of total public water costs are a more accurate depiction of the true household and community affordability, and of potential economic burdens and how widespread those burdens are.

◊ Sacramento has a relatively large population coupled with high public water costs and therefore the lower median income households are paying an estimated $29 million/yr over 4.5% of actual income

» This financial impact is masked by using just MHI as the affordability threshold.
» Over a 10-year period the lower median income households are carrying a $293 million financial burden when using actual income versus MHI.

◊ Escondido has 34% of its households in a 148,738 population city with spending that exceeds 4.5% of actual income.

» Annually, these households spend a combined $12.1 million in excess of their 4.5% of actual income
» Over a 10-year period the financial burden is $122 million

- Seventeen of the study area communities have 10-year period financial burdens above $10 million

- Two cities (Monterey Park, San Marino) have sewer, water and flood control costs below $500/year; and do not currently have households paying in excess of 4.5% of their actual annual incomes.

IV: Widespread Economic Burdens on Below Median Households

Water costs are on average four times higher than sewer costs in the survey communities. It is common for communities in arid regions to have this relationship between sewer and water services. Looking at combined water, sewer and flood control costs per household serves to demonstrate that different combinations of water costs and their associated mandates can vary considerably by community. Regulations developed under the separate silos of CWA and SDWA do not adequately consider the economic burden associated with overall public water and wastewater costs. Consideration of total public water costs are a more accurate depiction of the true household and community affordability, and of potential economic burdens and how widespread those burdens are.

- Eleven cities report combined water, sewer and flood control costs greater than 20% of households pay in excess of 4.5% of annual income.

Paramount	39.4%
La Verne	35.3%
Escondido	34.4%
Lomita	29.6%
Santa Barbara	27.9%
South Gate	26.4%
Sierra Madre	26.2%
Sacramento	24.3%
Arcadia	23.8%
Alhambra	22.1%
Claremont	21.1%

- Thirteen cities report combined water, sewer and flood control costs per household exceeding 4.5% of actual income for 10 to 20% of their households.

Downey	18.2%
Redondo Beach	17.6%
South Pasadena	17.3%
Norwalk	17.0%
La Canada Flintridge	14.7%
Bell Gardens	14.5%
La Mirada	14.0%
Glendora	12.6%
Signal Hill	11.6%
Pomona	11.5%
Bellflower	11.1%
Manhattan Beach	10.9%
Azusa	10.1%

- Six cities report combined water, sewer and flood control costs per household exceeding 4.5% of actual income for 4 to 8% of their households.

San Gabriel	8.0%
Torrance	8.0%
Diamond Bar	7.9%
San Dimas	7.7%
Lakewood	5.4%
Monrovia	4.4%

- Two cities (Monterey Park and San Marino) did not report any households paying over 4.5% of their annual income on combined water, sewer and flood control services.

- Three cities do not have data available to calculate excess cost per household, (Bradbury, Inglewood and Vernon).

V: EPA Affordability Criteria Exposure for Below Median Income Households (See Table C)

Public water customers (households) may be required to spend more money to address mandates imposed by EPA under the CWA and the SDWA, as well as assume responsibility to cover normal cost of service and any upgrades required to provide service. The affordability index of 2% MHI is used by EPA to assess the appropriateness of CWA requirements, but only some of them. Similarly, the SDWA use of 2.5% of MHI does not address all public drinking water systems, and it is likely that new mandates or new interpretations of what is required under existing mandates puts the rate payer household at a long-term financial disadvantage.

- The median of 2% MHI for the study cities is $1,352
- The median of 4.5% MHI for the study cities is $3,042

- Two cities currently have public water costs per household that nearly reach 4.5% of MHI, and experience both substantial and widespread economic burdens

	Combined Water Cost per Household	4.5% MHI	Households Impacted	10-Year Impact
• Paramount	$1,439	$1,987	39.4%	$27 mill
• South Gate	$1,171	$1,883	26.4%	$29.8 mill

- Three cities have statistically high exposure to higher public water costs because they are wealthy communities measured by MHI

	2% MHI	4.5% MHI
• La Canada Flintridge	$3,099	$6,972
• Manhattan Beach	$2,688	$6,050
• San Marino	$2,782	$6,260

Table A: Summary of Public Water Cost By Component

	Average Annual Public Water Cost (1) Per Household ($)	*Sewer Cost ($)*	*Water Cost ($)*	*Flood Control Cost ($)*
Alhambra	1,323.89	178.26	1,110.00	35.63
Arcadia	1,493.78	354.52	1,089.26	50.00
Azusa	730.18	134.30	595.88	0.00
Bellflower	836.75	197.50	613.00	26.25
Bell Gardens	878.63	150.00	627.28	101.35
Bradbury	1,549.98	155.00	1,145.06	249.92
Claremont	1,498.78	113.23	1,344.00	41.55
Diamond Bar	1,137.38	198.79	902.26	36.33
Downey	1,142.54	216.18	891.72	34.64
Escondido	1,730.00	202.00	1,460.00	50.00
Glendora	1,172.11	152.00	967.50	52.61
Inglewood	1,008.00	90.00	860.00	58.00
La Canada Flintridge	2,640.00	330.00	2,245.00	65.00
La Mirada	1,213.64	189.50	995.75	28.39
La Verne	1,936.08	245.00	1,661.12	29.96
Lakewood	743.46	201.50	491.73	50.23
Lomita	1,295.21	258.20	1,000.56	36.45
Manhattan Beach	1,429.12	284.00	1,126.00	19.12
Monrovia	502.00	60.00	400.00	42.00
Monterey Park	412.00	12.00	360.00	40.00
Norwalk	1,290.48	240.48	1,000.00	50.00
Paramount	1,439.19	197.50	1,218.26	23.43
Pomona	741.80	158.90	580.50	2.40
Redondo Beach	1,474.21	331.00	1,110.66	32.57
Sacramento	1,302.00	617.00	549.00	136.00
San Dimas	896.20	199.50	631.19	65.51
San Gabriel	679.00	267.00	412.00	NA
San Marino	366.91	211.00	115.91	40.00
Santa Barbara	1,480.33	516.00	941.52	22.81
Sierra Madre	2,040.00	738.00	1,189.00	113.00
Signal Hill	796.69	407.70	331.50	57.49
South Gate	1,171.00	210.00	610.00	351.00
South Pasadena	1,384.98	154.98	1,320.00	0.00
Torrance	695.64	52.08	643.56	NA
Vernon	580.00	158.00	422.00	NA

(1) Includes payment for sewer, water and flood control

Table B: Average/Median Cost per Household for Survey Cities

Water Cost Characteristic	*Total Water Cost*	*Sewer Cost*	*Water Cost*	*Flood Control*
Median	$1,172.11	$199.50	$902.26	$40.78
Average	$1,172.80	$235.29	$882.03	$60.68
1 Standard Deviation	$488.43	$151.96	$429.22	$47.10

Table C: Comparison of Public Water Cost and EPA Affordability Criteria

	Public Water Cost Per Household (1) ($)	*2% of MHI (2) ($)*	*4.5% of MHI (3) ($)*	*Excess of 4.5% of Actual Income (4) (%)*	*10-YR Excess Payments ($ Mill)*
Alhambra	1,323.89	1,078	2,426	22.1	40.0
Arcadia	1,493.78	1,546	3,480	23.8	29.3
Azusa	730.18	1,016	2,387	10.1	2.8
Bellflower	836.75	1,015	2,284	11.1	8.5
Bell Gardens	878.63	765	1,722	14.5	5.2
Bradbury	1,549.98	NA	NA	NA	NA
Claremont	1,498.78	1,615	3,663	21.1	15.0
Diamond Bar	1,137.38	1,803	4,058	7.9	5.8
Downey	1,142.54	1,202	2,705	18.2	24.6
Escondido	1,730.00	995	2,240	34.4	121.9
Glendora	1,172.11	1,492	3,357	12.6	10.0
Inglewood	1,008.00	891	2,005	NA	NA
La Canada Flintridge	2,640.00	3,099	6,972	14.7	13.0
La Mirada	1,213.64	1,626	3,659	14.0	9.2
La Verne	1,936.08	1,530	3,443	35.3	25.6
Lakewood	743.46	1,577	3,549	5.4	3.4
Lomita	1,295.21	1,257	2,830	29.6	10.8
Manhattan Beach	1,429.12	2,688	6,050	10.9	7.6
Monrovia	502.00	1,389	3,125	4.4	0.3
Monterey Park	372.00	1,116	2,511	0.0	0.0
Norwalk	1,290.48	1,209	2,721	17.0	27.7
Paramount	1,439.19	883	1,987	39.4	27.0
Pomona	741.80	977	2,198	11.5	10.4
Redondo Beach	1,474.21	1,976	4,446	17.6	29.5
Sacramento	1,302.00	1,013	2,279	24.3	293.7
San Dimas	822.78	1,529	3,440	7.7	3.0
San Gabriel	679.00	1,125	2,531	8.0	1.7
San Marino	366.91	2,782	6,260	0.0	0.0
Santa Barbara	1,480.33	1,275	2,869	27.9	55.0
Sierra Madre	2,040.00	1,806	4,064	26.2	10.0
Signal Hill	796.69	1,315	2,958	11.6	13.6
South Gate	1,171.00	837	1,883	26.4	29.8
South Pasadena	1,384.98	1,683	3,788	17.3	11.3
Torrance	695.64	1,521	3,423	8.0	8.6
Vernon	580.00	NA	NA	NA	NA

(1) Includes spending on sewer, water and flood control.
(2) EPA affordability criteria under the CWA and the 1997 Financial Guidance (2% MHI).
(3) EPA affordability criteria under the SDWA (2.5% MHI).
(4) Comparing the percent of actual income spent to 4.5% MHI (2.5% MHI plus 2.0% MHI from CWA guidelines)..

Appendix A *Public Water Cost per Household and EPA Affordability Criteria for California Cities*

Alhambra, CA

Population 2013: 84,577

Poverty Rate 2012: 13.4%

Median Household Income (MHI), 2012: 59,917

EPA Affordability Criteria
2% of MHI: $1,078.34
4.5% of MHI: $2,426.27

Current Average Cost per Household

Sewer	$ 178.26
Water	$1,110.00
Flood Control	$ 35.63
Total	$1,323.89

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 29,103*	*Percent of Households*	*CWA 2% MHI $1,078.34 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,426.27 as Percent of Actual Income*
Less than $10,000	10,000	1,591	5.5%	10.8	24.26
$10,000 to $14,999	12,500	1,688	5.8%	8.6	19.41
$15,000 to $24,999	20,000	3,138	10.8%	5.4	12.13
$25,000 to $34,999	30,000	3,201	11.0%	3.6	8.09
$35,000 to $49,999	42,500	3,978	13.7%	2.5	5.71
$50,000 to $74,999	62,500	5,019	17.2%	1.7	3.88
$75,000 to $99,999	87,500	4,003	13.8%	1.2	2.77
$100,000 to $149,999	125,000	3,759	12.9%	0.9	1.94
$150,000 to $199,999	175,000	1,661	5.7%	0.6	1.39
$200,000 or more	200,000	1,065	3.7%	0.5	1.21

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 29,103*	*Percent of Households*	*2% MHI $1,078.34 Percent of Actual Income*	*Sewer Bill $178.26 Percent of Actual Income*	*Water Bill $1,110.00 Percent of Actual Income*	*Flood Control Bill $35.63 Percent of Actual Income*	*Sewer & Water Bill $1,323.89 Percent of Actual Income*
Less than $10,000	10,000	1,591	5.5%	10.8	1.8	11.1	0.36	13.24
$10,000 to $14,999	12,500	1,688	5.8%	8.6	1.4	8.9	0.29	10.59
$15,000 to $24,999	20,000	3,138	10.8%	5.4	0.9	5.6	0.18	6.62
$25,000 to $34,999	30,000	3,201	11.0%	3.6	0.6	3.7	0.12	4.41
$35,000 to $49,999	42,500	3,978	13.7%	2.5	0.4	2.6	0.08	3.12
$50,000 to $74,999	62,500	5,019	17.2%	1.7	0.3	1.8	0.06	2.12
$75,000 to $99,999	87,500	4,003	13.8%	1.2	0.2	1.3	0.04	1.51
$100,000 to $149,999	125,000	3,759	12.9%	0.9	0.1	0.9	0.03	1.06
$150,000 to $199,999	175,000	1,661	5.7%	0.6	0.1	0.6	0.02	0.76
$200,000 or more	200,000	1,065	3.7%	0.5	0.1	0.6	0.02	0.66

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 29,103*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,591	13.24	873.89	1,390,359	13,903,590
$10,000 to $14,999	12,500	1,688	10.59	761.39	1,285,226	12,852,263
$15,000 to $24,999	20,000	3,138	6.62	423.89	1,330,167	13,301,668
$25,000 to $34,999	30,000	3,201	4.41			
$35,000 to $49,999	42,500	3,978	3.12			
$50,000 to $74,999	62,500	5,019	2.12			
$75,000 to $99,999	87,500	4,003	1.51			
$100,000 to $149,999	125,000	3,759	1.06			
$150,000 to $199,999	175,000	1,661	0.76			
$200,000 or more	200,000	1,065	0.66			

Arcadia, CA

Population 2013: 57,639

Poverty Rate 2012: 9.9%

Median Household Income (MHI), 2012: $77,342

EPA Affordability Criteria
2% of MHI: $1,546.84
4.5% of MHI: $3,480.39

Current Average Cost per Household

Sewer	$ 354.52
Water	$ 1,089.26
Flood Control	$ 50.00
Total	$ 1,493.78

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 19,409*	*Percent of Households*	*CWA 2% MHI $1,546.84 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,480.39 as Percent of Actual Income*
Less than $10,000	10,000	1,248	6.4%	15.6	34.8
$10,000 to $14,999	12,500	826	4.3%	12.5	27.8
$15,000 to $24,999	20,000	1,167	6.0%	7.8	17.4
$25,000 to $34,999	30,000	1,369	7.1%	5.2	11.6
$35,000 to $49,999	42,500	1,825	9.4%	3.7	8.2
$50,000 to $74,999	62,500	3,084	15.9%	2.5	5.6
$75,000 to $99,999	87,500	2,128	11.0%	1.8	4.0
$100,000 to $149,999	125,000	3,372	17.4%	1.3	2.8
$150,000 to $199,999	175,000	1857	9.6%	0.9	2.0
$200,000 or more	200,000	2533	13.1%	0.8	1.7

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 19,409*	*Percent of Households*	*2% MHI $1,546.84 Percent of Actual Income*	*Sewer Bill $354.52 Percent of Actual Income*	*Water Bill $1,089.26 Percent of Actual Income*	*Flood Control Bill $50.00 Percent of Actual Income*	*Sewer & Water Bill $1,493.78 Percent of Actual Income*
Less than $10,000	10,000	1,248	6.4%	15.6	3.55	10.89	0.500	14.94
$10,000 to $14,999	12,500	826	4.3%	12.5	2.84	8.71	0.400	11.95
$15,000 to $24,999	20,000	1,167	6.0%	7.8	1.77	5.45	0.250	7.47
$25,000 to $34,999	30,000	1,369	7.1%	5.2	1.18	3.63	0.167	4.98
$35,000 to $49,999	42,500	1,825	9.4%	3.7	0.83	2.56	0.118	3.51
$50,000 to $74,999	62,500	3,084	15.9%	2.5	0.57	1.74	0.080	2.39
$75,000 to $99,999	87,500	2,128	11.0%	1.8	0.41	1.24	0.057	1.71
$100,000 to $149,999	125,000	3,372	17.4%	1.3	0.28	0.87	0.040	1.20
$150,000 to $199,999	175,000	1857	9.6%	0.9	0.20	0.62	0.029	0.85
$200,000 or more	200,000	2533	13.1%	0.8	0.18	0.54	0.025	0.75

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 19,409*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,248	14.94	1,043.78	1,302,637	13,026,374
$10,000 to $14,999	12,500	826	11.95	931.28	769,237	7,692,373
$15,000 to $24,999	20,000	1,167	7.47	593.78	692,941	6,929,413
$25,000 to $34,999	30,000	1,369	4.98	143.78	196,835	1,968,35
$35,000 to $49,999	42,500	1,825	3.51	-418.72		
$50,000 to $74,999	62,500	3,084	2.39	-1,318.72		
$75,000 to $99,999	87,500	2,128	1.71	-2,443.72		
$100,000 to $149,999	125,000	3,372	1.20	-4,131.22		
$150,000 to $199,999	175,000	1857	0.85	-6,381.22		
$200,000 or more	200,000	2533	0.75	-7,506.22		

Azusa, CA

Population 2013: 47,842

Poverty Rate 2012: 19.2%

Median Household Income (MHI), 2012: $53,063

EPA Affordability Criteria
2% of MHI: $1,061.26
4.5% of MHI: $ 2,387.84

Current Average Cost per Household

Sewer	$ 134.30
Water	$ 595.88
Flood Control	$
Total	$ 730.18

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 12,137*	*Percent of Households*	*CWA 2% MHI $1,061.26 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,387.84 as Percent of Actual Income*
Less than $10,000	10,000	650	5.3%	10.6	23.88
$10,000 to $14,999	12,500	584	4.8%	8.5	19.10
$15,000 to $24,999	20,000	1,466	12.0%	5.3	11.94
$25,000 to $34,999	30,000	1,137	9.3%	3.5	7.96
$35,000 to $49,999	42,500	1,863	15.3%	2.5	5.62
$50,000 to $74,999	62,500	2,475	20.3%	1.7	3.82
$75,000 to $99,999	87,500	1,705	14.0%	1.2	2.73
$100,000 to $149,999	125,000	1,458	12.0%	0.8	1.91
$150,000 to $199,999	175,000	590	4.8%	0.6	1.36
$200,000 or more	200,000	209	1.7%	0.5	1.19

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 12,137*	*Percent of Households*	*2% MHI $1,061.26 Percent of Actual Income*	*Sewer Bill $134.30 Percent of Actual Income*	*Water Bill $595.88 Percent of Actual Income*	*Flood Control Bill Percent of Actual Income*	*Sewer & Water Bill $730.18 Percent of Actual Income*
Less than $10,000	10,000	650	5.3%	10.6	1.34	5.96		7.30
$10,000 to $14,999	12,500	584	4.8%	8.5	1.07	4.77		5.84
$15,000 to $24,999	20,000	1,466	12.0%	5.3	0.67	2.98		3.65
$25,000 to $34,999	30,000	1,137	9.3%	3.5	0.45	1.99		2.43
$35,000 to $49,999	42,500	1,863	15.3%	2.5	0.32	1.40		1.72
$50,000 to $74,999	62,500	2,475	20.3%	1.7	0.21	0.95		1.17
$75,000 to $99,999	87,500	1,705	14.0%	1.2	0.15	0.68		0.83
$100,000 to $149,999	125,000	1,458	12.0%	0.8	0.11	0.48		0.58
$150,000 to $199,999	175,000	590	4.8%	0.6	0.08	0.34		0.42
$200,000 or more	200,000	209	1.7%	0.5	0.07	0.30		0.37

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 12,137*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	650	7.30	280.18	182,117	1,821,170
$10,000 to $14,999	12,500	584	5.84	167.68	97,925	979,251
$15,000 to $24,999	20,000	1,466	3.65	-169.82		
$25,000 to $34,999	30,000	1,137	2.43	-619.82		
$35,000 to $49,999	42,500	1,863	1.72	-1,182.32		
$50,000 to $74,999	62,500	2,475	1.17	-2,082.32		
$75,000 to $99,999	87,500	1,705	0.83	-3,207.32		
$100,000 to $149,999	125,000	1,458	0.58	-4,894.82		
$150,000 to $199,999	175,000	590	0.42	-7,144.82		
$200,000 or more	200,000	209	0.37	-8,269.82		

Bellflower, CA

Population: 77,593

Poverty Rate, 2012: 15.9%

Median Household Income (MHI), 2012: $50,765

EPA Affordability Criteria
2% of MHI: $1,015.30
4.5% of MHI: $2,284.43

Current Average Cost per Household

Sewer	$ 197.50
Water	$ 613.00
Flood Control	$ 26.25
Total	$ 836.75

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 23,257*	*Percent of Households*	*CWA 2% MHI $1,015.30 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,284.43 as Percent of Actual Income*
Less than $10,000	10,000	1,259	5.4%	10.2	22.8
$10,000 to $14,999	12,500	1,336	5.7%	8.1	18.3
$15,000 to $24,999	20,000	2,887	12.4%	5.1	11.4
$25,000 to $34,999	30,000	2,361	10.2%	3.4	7.6
$35,000 to $49,999	42,500	3,579	15.4%	2.4	5.4
$50,000 to $74,999	62,500	4,900	21.1%	1.6	3.7
$75,000 to $99,999	87,500	2,717	11.7%	1.2	2.6
$100,000 to $149,999	125,000	3,113	13.4%	0.8	1.8
$150,000 to $199,999	175,000	733	3.2%	0.6	1.3
$200,000 or more	200,000	372	1.6%	0.5	1.1

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 23,257*	*Percent of Households*	*2% MHI $1,015.30 Percent of Actual Income*	*Sewer Bill $197.50 Percent of Actual Income*	*Water Bill $613.00 Percent of Actual Income*	*Flood Control Bill $26.25 Percent of Actual Income*	*Sewer & Water Bill $836.75 Percent of Actual Income*
Less than $10,000	10,000	1,259	5.4%	10.2	1.98	6.13	0.263	8.37
$10,000 to $14,999	12,500	1,336	5.7%	8.1	1.58	4.90	0.210	6.69
$15,000 to $24,999	20,000	2,887	12.4%	5.1	0.99	3.07	0.131	4.18
$25,000 to $34,999	30,000	2,361	10.2%	3.4	0.66	2.04	0.088	2.79
$35,000 to $49,999	42,500	3,579	15.4%	2.4	0.46	1.44	0.062	1.97
$50,000 to $74,999	62,500	4,900	21.1%	1.6	0.32	0.98	0.042	1.34
$75,000 to $99,999	87,500	2,717	11.7%	1.2	0.23	0.70	0.030	0.96
$100,000 to $149,999	125,000	3,113	13.4%	0.8	0.16	0.49	0.021	0.67
$150,000 to $199,999	175,000	733	3.2%	0.6	0.11	0.35	0.015	0.48
$200,000 or more	200,000	372	1.6%	0.5	0.10	0.31	0.013	0.42

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 23,257*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,259	8.37	386.75	486,918	4,869,183
$10,000 to $14,999	12,500	1,336	6.69	274.25	366,398	3,663,980
$15,000 to $24,999	20,000	2,887	4.18	-63.25		
$25,000 to $34,999	30,000	2,361	2.79	-513.25		
$35,000 to $49,999	42,500	3,579	1.97	-1,075.75		
$50,000 to $74,999	62,500	4,900	1.34	-1,975.75		
$75,000 to $99,999	87,500	2,717	0.96	-3,100.75		
$100,000 to $149,999	125,000	3,113	0.67	-4,788.25		
$150,000 to $199,999	175,000	733	0.48	-7,038.25		
$200,000 or more	200,000	372	0.42	-8,163.25		

Bell Gardens, CA

Population, 2013:42,889

Poverty Rate, 2012: 26.9%

Median Household Income (MHI), 2012:$38,272

EPA Affordability Criteria
2% of MHI: $ 765.44
4.5% of MHI: $1,722.24

Current Average Cost per Household

Sewer	$627.28
Water	$150.00
Flood Control	$101.35
Total	$878.63

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 9,928*	*Percent of Households*	*CWA 2% MHI $765.44 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $1,722.24 as Percent of Actual Income*
Less than $10,000	10,000	643	6.48	7.65	17.22
$10,000 to $14,999	12,500	795	8.01	6.12	13.78
$15,000 to $24,999	20,000	1,538	15.49	3.83	8.61
$25,000 to $34,999	30,000	1,611	16.23	2.55	5.74
$35,000 to $49,999	42,500	1,741	17.54	1.80	4.05
$50,000 to $74,999	62,500	1,922	19.36	1.22	2.76
$75,000 to $99,999	87,500	1,048	10.56	0.87	1.97
$100,000 to $149,999	125,000	457	4.60	0.61	1.38
$150,000 to $199,999	175,000	135	1.36	0.44	0.98
$200,000 or more	200,000	38	0.38	0.38	0.86

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 9,928*	*Percent of Households*	*2% MHI $765.44 Percent of Actual Income*	*Sewer Bill $150.00 Percent of Actual Income*	*Water Bill $627.28 Percent of Actual Income*	*Flood Control Bill $101.35 Percent of Actual Income*	*Sewer & Water Bill $878.63 Percent of Actual Income*
Less than $10,000	10,000	643	6.48	7.65	1.50	6.27	1.01	8.79
$10,000 to $14,999	12,500	795	8.01	6.12	1.20	5.02	0.81	7.03
$15,000 to $24,999	20,000	1,538	15.49	3.83	0.75	3.14	0.51	4.39
$25,000 to $34,999	30,000	1,611	16.23	2.55	0.50	2.09	0.34	2.93
$35,000 to $49,999	42,500	1,741	17.54	1.80	0.35	1.48	0.24	2.07
$50,000 to $74,999	62,500	1,922	19.36	1.22	0.24	1.00	0.16	1.41
$75,000 to $99,999	87,500	1,048	10.56	0.87	0.17	0.72	0.12	1.00
$100,000 to $149,999	125,000	457	4.60	0.61	0.12	0.50	0.08	0.70
$150,000 to $199,999	175,000	135	1.36	0.44	0.09	0.36	0.06	0.50
$200,000 or more	200,000	38	0.38	0.38	0.08	0.31	0.05	0.44

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 9,928*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	643	8.79	428.63	275,609	2,756,091
$10,000 to $14,999	12,500	795	7.03	316.13	251,323	2,513,234
$15,000 to $24,999	20,000	1,538	4.39	-21.37		
$25,000 to $34,999	30,000	1,611	2.93	-471.37		
$35,000 to $49,999	42,500	1,741	2.07	-1,033.87		
$50,000 to $74,999	62,500	1,922	1.41	-1,933.87		
$75,000 to $99,999	87,500	1,048	1.00	-3,058.87		
$100,000 to $149,999	125,000	457	0.70	-4,746.37		
$150,000 to $199,999	175,000	135	0.50	-6,996.37		
$200,000 or more	200,000	38	0.44	-8,121.37		

Bradbury, CA

Population 2013: 57,639

Poverty Rate 2012: 9.9%

Median Household Income (MHI), 2012: $77,342

EPA Affordability Criteria
2% of MHI: $1,546.84
4.5% of MHI: $3,480.39

Current Average Cost per Household

Sewer	$ 354.52
Water	$ 1,089.26
Flood Control	$ 50.00
Total	$ 1,493.78

Claremont, CA

Population, 2013: 35,824

Poverty Rate, 2012: 8.6%

Median Household Income (MHI), 2012: $80,754

EPA Affordability Criteria
2% of MHI: $1,615.08
4.5% of MHI: $3,663.93

Current Average Cost per Household

Sewer	$ 113.23
Water	$1,344.00
Flood Control	$ 41.55
Total	$1,498.78

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 11,651*	*Percent of Households*	*CWA 2% MHI $1,615.08 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,663.93 as Percent of Actual Income*
Less than $10,000	10,000	610	5.2%	16.2	36.6
$10,000 to $14,999	12,500	340	2.9%	12.9	29.3
$15,000 to $24,999	20,000	774	6.6%	8.1	18.3
$25,000 to $34,999	30,000	740	6.4%	5.4	12.2
$35,000 to $49,999	42,500	1,221	10.5%	3.8	8.6
$50,000 to $74,999	62,500	1,771	15.2%	2.6	5.9
$75,000 to $99,999	87,500	1,329	11.4%	1.8	4.2
$100,000 to $149,999	125,000	1,873	16.1%	1.3	2.9
$150,000 to $199,999	175,000	1,574	13.5%	0.9	2.1
$200,000 or more	200,000	1,419	12.2%	0.8	1.8

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 11,651*	*Percent of Households*	*2% MHI $1,615.08 Percent of Actual Income*	*Sewer Bill $113.23 Percent of Actual Income*	*Water Bill $1,344.00 Percent of Actual Income*	*Flood Control Bill $41.55 Percent of Actual Income*	*Sewer & Water Bill $1,498.78 Percent of Actual Income*
Less than $10,000	10,000	610	5.2%	16.2	1.13	13.44	0.416	14.99
$10,000 to $14,999	12,500	340	2.9%	12.9	0.91	10.75	0.332	11.99
$15,000 to $24,999	20,000	774	6.6%	8.1	0.57	6.72	0.208	7.49
$25,000 to $34,999	30,000	740	6.4%	5.4	0.38	4.48	0.139	5.00
$35,000 to $49,999	42,500	1,221	10.5%	3.8	0.27	3.16	0.098	3.53
$50,000 to $74,999	62,500	1,771	15.2%	2.6	0.18	2.15	0.066	2.40
$75,000 to $99,999	87,500	1,329	11.4%	1.8	0.13	1.54	0.047	1.71
$100,000 to $149,999	125,000	1,873	16.1%	1.3	0.09	1.08	0.033	1.20
$150,000 to $199,999	175,000	1,574	13.5%	0.9	0.06	0.77	0.024	0.86
$200,000 or more	200,000	1,419	12.2%	0.8	0.06	0.67	0.021	0.75

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 11,651*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	610	14.99	1,048.78	639,756	6,397,558
$10,000 to $14,999	12,500	340	11.99	936.28	318,335	3,183,352
$15,000 to $24,999	20,000	774	7.49	598.78	463,456	4,634,557
$25,000 to $34,999	30,000	740	5.00	148.78	110,097	1,100,972
$35,000 to $49,999	42,500	1,221	3.53	-413.72		
$50,000 to $74,999	62,500	1,771	2.40	-1,313.72		
$75,000 to $99,999	87,500	1,329	1.71	-2,438.72		
$100,000 to $149,999	125,000	1,873	1.20	-4,126.22		
$150,000 to $199,999	175,000	1,574	0.86	-6,376.22		
$200,000 or more	200,000	1,419	0.75	-7,501.22		

Diamond Bar, CA

Population, 2013: 56,449

Poverty Rate, 2012: 5.2%

Median Household Income (MHI), 2012: $90,181

EPA Affordability Criteria
2% of MHI: $1,803.62
4.5% of MHI: $4,058.15

Current Average Cost per Household

Sewer	$ 198.79
Water	$ 902.26
Flood Control	$ 36.33
Total	$ 1,137.38

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 17,550*	*Percent of Households*	*CWA 2% MHI $1,803.62 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $4,058.15 as Percent of Actual Income*
Less than $10,000	10,000	395	2.3%	18.0	40.6
$10,000 to $14,999	12,500	243	1.4%	14.4	32.5
$15,000 to $24,999	20,000	730	4.2%	9.0	20.3
$25,000 to $34,999	30,000	1,093	6.2%	6.0	13.5
$35,000 to $49,999	42,500	1,684	9.6%	4.2	9.5
$50,000 to $74,999	62,500	3,246	18.5%	2.9	6.5
$75,000 to $99,999	87,500	2,373	13.5%	2.1	4.6
$100,000 to $149,999	125,000	3,779	21.5%	1.4	3.2
$150,000 to $199,999	175,000	2,081	11.9%	1.0	2.3
$200,000 or more	200,000	1,926	11.0%	0.9	2.0

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 17,550*	*Percent of Households*	*2% MHI $1,803.62 Percent of Actual Income*	*Sewer Bill $198.79 Percent of Actual Income*	*Water Bill $902.26 Percent of Actual Income*	*Flood Control Bill $36.33 Percent of Actual Income*	*Sewer & Water Bill $1,137.38 Percent of Actual Income*
Less than $10,000	10,000	395	2.3%	18.0	1.99	9.02	0.363	11.37
$10,000 to $14,999	12,500	243	1.4%	14.4	1.59	7.22	0.291	9.10
$15,000 to $24,999	20,000	730	4.2%	9.0	0.99	4.51	0.182	5.69
$25,000 to $34,999	30,000	1,093	6.2%	6.0	0.66	3.01	0.121	3.79
$35,000 to $49,999	42,500	1,684	9.6%	4.2	0.47	2.12	0.085	2.68
$50,000 to $74,999	62,500	3,246	18.5%	2.9	0.32	1.44	0.058	1.82
$75,000 to $99,999	87,500	2,373	13.5%	2.1	0.23	1.03	0.042	1.30
$100,000 to $149,999	125,000	3,779	21.5%	1.4	0.16	0.72	0.029	0.91
$150,000 to $199,999	175,000	2,081	11.9%	1.0	0.11	0.52	0.021	0.65
$200,000 or more	200,000	1,926	11.0%	0.9	0.10	0.45	0.018	0.57

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 17,550*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	395	11.37	687.38	271,515	2,715,151
$10,000 to $14,999	12,500	243	9.10	574.88	139,696	1,396,958
$15,000 to $24,999	20,000	730	5.69	237.38	173,287	1,732,874
$25,000 to $34,999	30,000	1,093	3.79	-212.62		
$35,000 to $49,999	42,500	1,684	2.68	-775.12		
$50,000 to $74,999	62,500	3,246	1.82	-1,675.12		
$75,000 to $99,999	87,500	2,373	1.30	-2,800.12		
$100,000 to $149,999	125,000	3,779	0.91	-4,487.62		
$150,000 to $199,999	175,000	2,081	0.65	-6,737.62		
$200,000 or more	200,000	1,926	0.57	-7,862.62		

Downey, CA

Population, 2013: 113,242

Poverty Rate, 2012: 12.1%

Median Household Income (MHI), 2012: $60,132

EPA Affordability Criteria
2% of MHI: $1,202.64
4.5% of MHI: $2,705.94

Current Average Cost per Household

Sewer	$ 216.18
Water	$ 891.72
Flood Control	$ 34.64
Total	$ 1,142.54

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 32,867*	*Percent of Households*	*CWA 2% MHI $1,202.64 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,705.94 as Percent of Actual Income*
Less than $10,000	10,000	1,248	3.8%	12.0	27.1
$10,000 to $14,999	12,500	1,328	4.0%	9.6	21.6
$15,000 to $24,999	20,000	3,403	10.4%	6.0	13.5
$25,000 to $34,999	30,000	3,435	10.5%	4.0	9.0
$35,000 to $49,999	42,500	4,192	12.8%	2.8	6.4
$50,000 to $74,999	62,500	7,060	21.5%	1.9	4.3
$75,000 to $99,999	87,500	4,483	13.6%	1.4	3.1
$100,000 to $149,999	125,000	4,806	14.6%	1.0	2.2
$150,000 to $199,999	175,000	1,865	5.7%	0.7	1.5
$200,000 or more	200,000	1,047	3.2%	0.6	1.4

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 32,867*	*Percent of Households*	*2% MHI $1,202.64 Percent of Actual Income*	*Sewer Bill $216.18 Percent of Actual Income*	*Water Bill $891.72 Percent of Actual Income*	*Flood Control Bill $34.64 Percent of Actual Income*	*Sewer & Water Bill $1,142.54 Percent of Actual Income*
Less than $10,000	10,000	1,248	3.8%	12.0	2.16	8.92	0.346	11.43
$10,000 to $14,999	12,500	1,328	4.0%	9.6	1.73	7.13	0.277	9.14
$15,000 to $24,999	20,000	3,403	10.4%	6.0	1.08	4.46	0.173	5.71
$25,000 to $34,999	30,000	3,435	10.5%	4.0	0.72	2.97	0.115	3.81
$35,000 to $49,999	42,500	4,192	12.8%	2.8	0.51	2.10	0.082	2.69
$50,000 to $74,999	62,500	7,060	21.5%	1.9	0.35	1.43	0.055	1.83
$75,000 to $99,999	87,500	4,483	13.6%	1.4	0.25	1.02	0.040	1.31
$100,000 to $149,999	125,000	4,806	14.6%	1.0	0.17	0.71	0.028	0.91
$150,000 to $199,999	175,000	1,865	5.7%	0.7	0.12	0.51	0.020	0.65
$200,000 or more	200,000	1,047	3.2%	0.6	0.11	0.45	0.017	0.57

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 32,867*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,248	11.43	692.54	864,290	8,642,899
$10,000 to $14,999	12,500	1,328	9.14	580.04	770,293	7,702,931
$15,000 to $24,999	20,000	3,403	5.71	242.54	825,364	8,253,636
$25,000 to $34,999	30,000	3,435	3.81	-207.46		
$35,000 to $49,999	42,500	4,192	2.69	-769.96		
$50,000 to $74,999	62,500	7,060	1.83	-1,669.96		
$75,000 to $99,999	87,500	4,483	1.31	-2,794.96		
$100,000 to $149,999	125,000	4,806	0.91	-4,482.46		
$150,000 to $199,999	175,000	1,865	0.65	-6,732.46		
$200,000 or more	200,000	1,047	0.57	-7,857.46		

Escondido, CA

Population, 2013: 148,738

Poverty Rate, 2012: 18.3%

Median Household Income (MHI), 2012: $49,787

EPA Affordability Criteria
2% of MHI: $995.74
4.5% of MHI: $2,240.22

Current Average Cost per Household

Sewer	$ 220.00
Water	$ 1,460.00
Flood Control	$ 50.00
Total	$ 1,730.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 44,474*	*Percent of Households*	*CWA 2% MHI $995.74 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,240.42 as Percent of Actual Income*
Less than $10,000	10,000	2,959	6.7%	10.0	22.4
$10,000 to $14,999	12,500	1,917	4.3%	8.0	17.9
$15,000 to $24,999	20,000	4,904	11.0%	5.0	11.2
$25,000 to $34,999	30,000	5,536	12.4%	3.3	7.5
$35,000 to $49,999	42,500	7,031	15.8%	2.3	5.3
$50,000 to $74,999	62,500	7,949	17.9%	1.6	3.6
$75,000 to $99,999	87,500	4,888	11.0%	1.1	2.6
$100,000 to $149,999	125,000	5,447	12.2%	0.8	1.8
$150,000 to $199,999	175,000	2,189	4.9%	0.6	1.3
$200,000 or more	200,000	1,654	3.7%	0.5	1.1

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 44,474*	*Percent of Households*	*2% MHI $995.74 Percent of Actual Income*	*Sewer Bill $220.00 Percent of Actual Income*	*Water Bill $1,460.00 Percent of Actual Income*	*Flood Control Bill $50.00 Percent of Actual Income*	*Sewer & Water Bill $1,730.00 Percent of Actual Income*
Less than $10,000	10,000	2,959	6.7%	10.0	2.20	14.60	0.500	17.30
$10,000 to $14,999	12,500	1,917	4.3%	8.0	1.76	11.68	0.400	13.84
$15,000 to $24,999	20,000	4,904	11.0%	5.0	1.10	7.30	0.250	8.65
$25,000 to $34,999	30,000	5,536	12.4%	3.3	0.73	4.87	0.167	5.77
$35,000 to $49,999	42,500	7,031	15.8%	2.3	0.52	3.44	0.118	4.07
$50,000 to $74,999	62,500	7,949	17.9%	1.6	0.35	2.34	0.080	2.77
$75,000 to $99,999	87,500	4,888	11.0%	1.1	0.25	1.67	0.057	1.98
$100,000 to $149,999	125,000	5,447	12.2%	0.8	0.18	1.17	0.040	1.38
$150,000 to $199,999	175,000	2,189	4.9%	0.6	0.13	0.83	0.029	0.99
$200,000 or more	200,000	1,654	3.7%	0.5	0.11	0.73	0.025	0.87

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 44,474*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	2,959	3.15	1,280	3,787,520	37,875,200
$10,000 to $14,999	12,500	1,917	2.52	1,168	2,238,098	22,380,975
$15,000 to $24,999	20,000	4,904	1.58	830	4,070,320	40,703,200
$25,000 to $34,999	30,000	5,536	1.05	380	2,103,680	21,036,800
$35,000 to $49,999	42,500	7,031	0.74	-183		
$50,000 to $74,999	62,500	7,949	0.50	-1,083		
$75,000 to $99,999	87,500	4,888	0.36	-2,208		
$100,000 to $149,999	125,000	5,447	0.25	-3,895		
$150,000 to $199,999	175,000	2,189	0.18	-6,145		
$200,000 or more	200,000	1,654	0.16	-7,270		

Glendora, CA

Population, 2013: 51,074

Poverty Rate, 2012: 7.9%

Median Household Income (MHI), 2012: $74,619

EPA Affordability Criteria
2% of MHI: $1,492.38
4.5% of MHI: $3,357.86

Current Average Cost per Household

Sewer	$ 152.00
Water	$ 967.50
Flood Control	$ 52.61
Total	$1,172.11

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 16,403*	*Percent of Households*	*CWA 2% MHI $1,492.38 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,357.86 as Percent of Actual Income*
Less than $10,000	10,000	599	3.7%	14.9	33.58
$10,000 to $14,999	12,500	504	3.1%	11.9	26.86
$15,000 to $24,999	20,000	958	5.8%	7.5	16.79
$25,000 to $34,999	30,000	1,272	7.8%	5.0	11.19
$35,000 to $49,999	42,500	1,869	11.4%	3.5	7.90
$50,000 to $74,999	62,500	3,049	18.6%	2.4	5.37
$75,000 to $99,999	87,500	2,490	15.2%	1.7	3.84
$100,000 to $149,999	125,000	3,092	18.9%	1.2	2.69
$150,000 to $199,999	175,000	1,294	7.9%	0.9	1.92
$200,000 or more	200,000	1,276	7.8%	0.7	1.68

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 16,403*	*Percent of Households*	*2% MHI $1,492.38 Percent of Actual Income*	*Sewer Bill $152.00 Percent of Actual Income*	*Water Bill $967.50 Percent of Actual Income*	*Flood Control Bill $52.61 Percent of Actual Income*	*Sewer & Water Bill $1,172.11 Percent of Actual Income*
Less than $10,000	10,000	599	3.7%	14.9	1.52	9.68	0.526	11.72
$10,000 to $14,999	12,500	504	3.1%	11.9	1.22	7.74	0.421	9.38
$15,000 to $24,999	20,000	958	5.8%	7.5	0.76	4.84	0.263	5.86
$25,000 to $34,999	30,000	1,272	7.8%	5.0	0.51	3.23	0.175	3.91
$35,000 to $49,999	42,500	1,869	11.4%	3.5	0.36	2.28	0.124	2.76
$50,000 to $74,999	62,500	3,049	18.6%	2.4	0.24	1.55	0.084	1.88
$75,000 to $99,999	87,500	2,490	15.2%	1.7	0.17	1.11	0.060	1.34
$100,000 to $149,999	125,000	3,092	18.9%	1.2	0.12	0.77	0.042	0.94
$150,000 to $199,999	175,000	1,294	7.9%	0.9	0.09	0.55	0.030	0.67
$200,000 or more	200,000	1,276	7.8%	0.7	0.08	0.48	0.026	0.59

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 16,403*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	599	11.72	722.11	432,544	4,325,439
$10,000 to $14,999	12,500	504	9.38	609.61	307,243	3,072,434
$15,000 to $24,999	20,000	958	5.86	272.11	260,681	2,606,814
$25,000 to $34,999	30,000	1,272	3.91	-177.89		
$35,000 to $49,999	42,500	1,869	2.76	-740.39		
$50,000 to $74,999	62,500	3,049	1.88	-1,640.39		
$75,000 to $99,999	87,500	2,490	1.34	-2,765.39		
$100,000 to $149,999	125,000	3,092	0.94	-4,452.89		
$150,000 to $199,999	175,000	1,294	0.67	-6,702.89		
$200,000 or more	200,000	1,276	0.59	-7,827.89		

Inglewood, CA

Population, 2013: 111,542

Poverty Rate, 2012: 20.1

Median Household Income (MHI), 2012: $44,558

EPA Affordability Criteria
2% of MHI: $891.16
4.5% of MHI:$2,005.11

Current Average Cost per Household

Sewer	$ 90.00
Water	$ 860.00
Flood Control	$ 58.00
Total	$1,008.00[1]

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Arcadia Household Income Distribution	*Household Income*	*Number of Households 36,681*	*Percent of Households*	*CWA 2% MHI $891.16 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,005.11 as Percent of Actual Income*
Less than $10,000	10,000	2,393	6.5%	8.91	20.05
$10,000 to $14,999	12,500	2,600	7.1%	7.13	16.04
$15,000 to $24,999	20,000	4,932	13.4%	4.46	10.03
$25,000 to $34,999	30,000	5,012	13.7%	2.97	6.68
$35,000 to $49,999	42,500	5,138	14.0%	2.10	4.72
$50,000 to $74,999	62,500	6,908	18.8%	1.43	3.21
$75,000 to $99,999	87,500	4,363	11.9%	1.02	2.29
$100,000 to $149,999	125,000	3,680	10.0%	0.71	1.60
$150,000 to $199,999	175,000	986	2.7%	0.51	1.15
$200,000 or more	200,000	669	1.8%	0.45	1.00

1. Water and sewer averages are based on 14 units of consumption which may be high for lower income households, (Ray Yeghyayan, City if Inglewood, CA., September 2014); due to the limited number of hook-ups in Inglewood that are serviced by the city it is too complex to match cost per household to hook-ups that represent the entire city, which is why Tables 2 and 3 were not done.

La Canada Flintridge, CA

Population, 2013: 20,553

Poverty Rate, 2012: 2.1%

Median Household Income (MHI), 2012: $154,947

EPA Affordability Criteria
2% of MHI: $3,098.04
4.5% of MHI: $6,972.62

Current Average Cost per Household

Sewer	$ 330.00
Water	$ 2,245.00
Flood Control	$ 65.00
Total	$ 2,640.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 6,751*	*Percent of Households*	*CWA 2% MHI $3,098.04 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $6,972.62 as Percent of Actual Income*
Less than $10,000	10,000	81	1.2%	31.0	69.7
$10,000 to $14,999	12,500	69	1.0%	24.8	55.8
$15,000 to $24,999	20,000	227	3.4%	15.5	34.9
$25,000 to $34,999	30,000	264	3.9%	10.3	23.2
$35,000 to $49,999	42,500	352	5.2%	7.3	16.4
$50,000 to $74,999	62,500	537	8.0%	5.0	11.2
$75,000 to $99,999	87,500	462	6.8%	3.5	8.0
$100,000 to $149,999	125,000	1,294	19.2%	2.5	5.6
$150,000 to $199,999	175,000	857	12.7%	1.8	4.0
$200,000 or more	200,000	2,608	38.6%	1.5	3.5

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 6,751*	*Percent of Households*	*2% MHI $3,098.04 Percent of Actual Income*	*Sewer Bill $330 Percent of Actual Income*	*Water Bill $2,245 Percent of Actual Income*	*Flood Control Bill $65 Percent of Actual Income*	*Sewer & Water Bill $2,640 Percent of Actual Income*
Less than $10,000	10,000	81	1.2%	31.0	3.30	22.45	0.650	26.40
$10,000 to $14,999	12,500	69	1.0%	24.8	2.64	17.96	0.520	21.12
$15,000 to $24,999	20,000	227	3.4%	15.5	1.65	11.23	0.325	13.20
$25,000 to $34,999	30,000	264	3.9%	10.3	1.10	7.48	0.217	8.80
$35,000 to $49,999	42,500	352	5.2%	7.3	0.78	5.28	0.153	6.21
$50,000 to $74,999	62,500	537	8.0%	5.0	0.53	3.59	0.104	4.22
$75,000 to $99,999	87,500	462	6.8%	3.5	0.38	2.57	0.074	3.02
$100,000 to $149,999	125,000	1,294	19.2%	2.5	0.26	1.80	0.052	2.11
$150,000 to $199,999	175,000	857	12.7%	1.8	0.19	1.28	0.037	1.51
$200,000 or more	200,000	2,608	38.6%	1.5	0.17	1.12	0.033	1.32

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 6,751*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	81	26.40	2,190.00	177,390	1,773,900
$10,000 to $14,999	12,500	69	21.12	2,077.50	143,348	1,433,475
$15,000 to $24,999	20,000	227	13.20	1,740.00	394,980	3,949,800
$25,000 to $34,999	30,000	264	8.80	1,290.00	340,560	3,405,600
$35,000 to $49,999	42,500	352	6.21	727.50	256,080	2,560,800
$50,000 to $74,999	62,500	537	4.22	-172.50		
$75,000 to $99,999	87,500	462	3.02	-1,297.50		
$100,000 to $149,999	125,000	1,294	2.11	-2,985.00		
$150,000 to $199,999	175,000	857	1.51	-5,235.00		
$200,000 or more	200,000	2,608	1.32	-6,360.00		

La Mirada, CA

Population, 2013: 49,133

Poverty Rate, 2012: 6.2%

Median Household Income (MHI), 2012: $81,319

EPA Affordability Criteria
2% of MHI: $1,626.38
4.5% of MHI: $3,659.36

Current Average Cost per Household

Sewer	$ 189.50
Water	$ 995.75
Flood Control	$ 28.39
Total	$ 1,213.64

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 14,152*	*Percent of Households*	*CWA 2% MHI $1,626.38 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,659.36 as Percent of Actual Income*
Less than $10,000	10,000	373	2.64	16.26	36.59
$10,000 to $14,999	12,500	418	2.95	13.01	29.27
$15,000 to $24,999	20,000	1,194	8.44	8.13	18.30
$25,000 to $34,999	30,000	1,120	7.91	5.42	12.20
$35,000 to $49,999	42,500	1,378	9.74	3.83	8.61
$50,000 to $74,999	62,500	2,047	14.46	2.60	5.85
$75,000 to $99,999	87,500	2,142	15.14	1.86	4.18
$100,000 to $149,999	125,000	3,286	23.22	1.30	2.93
$150,000 to $199,999	175,000	1,445	10.21	0.93	2.09
$200,000 or more	200,000	749	5.29	0.81	1.83

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 14,152*	*Percent of Households*	*2% MHI $1,626.38 Percent of Actual Income*	*Sewer Bill $354.52 Percent of Actual Income*	*Water Bill $1,089.26 Percent of Actual Income*	*Flood Control Bill $50.00 Percent of Actual Income*	*Sewer & Water Bill $1,213.64 Percent of Actual Income*
Less than $10,000	10,000	373	2.64	16.26	1.90	9.96	0.28	12.14
$10,000 to $14,999	12,500	418	2.95	13.01	1.52	7.97	0.23	9.71
$15,000 to $24,999	20,000	1,194	8.44	8.13	0.95	4.98	0.14	6.07
$25,000 to $34,999	30,000	1,120	7.91	5.42	0.63	3.32	0.09	4.05
$35,000 to $49,999	42,500	1,378	9.74	3.83	0.45	2.34	0.07	2.86
$50,000 to $74,999	62,500	2,047	14.46	2.60	0.30	1.59	0.05	1.94
$75,000 to $99,999	87,500	2,142	15.14	1.86	0.22	1.14	0.03	1.39
$100,000 to $149,999	125,000	3,286	23.22	1.30	0.15	0.80	0.02	0.97
$150,000 to $199,999	175,000	1,445	10.21	0.93	0.11	0.57	0.02	0.69
$200,000 or more	200,000	749	5.29	0.81	0.09	0.50	0.01	0.61

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 14,152*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	373	12.14	763.64	284,838	2,848,377
$10,000 to $14,999	12,500	418	9.71	651.14	272,177	2,721,765
$15,000 to $24,999	20,000	1,194	6.07	313.64	374,486	3,744,862
$25,000 to $34,999	30,000	1,120	4.05	-136.36		
$35,000 to $49,999	42,500	1,378	2.86	-698.86		
$50,000 to $74,999	62,500	2,047	1.94	-1,598.86		
$75,000 to $99,999	87,500	2,142	1.39	-2,723.86		
$100,000 to $149,999	125,000	3,286	0.97	-4,411.36		
$150,000 to $199,999	175,000	1,445	0.69	-6,661.36		
$200,000 or more	200,000	749	0.61	-7,786.36		

La Verne, CA

Population, 2013: 31,868

Poverty Rate, 2012: 7.3%

Median Household Income (MHI), 2012: $76,519

EPA Affordability Criteria
2% of MHI: $1,530
4.5% of MHI: $3,443

Current Average Cost per Household

Sewer	$ 245.00
Water	$ 1,661.12
Flood Control	$ 29.96
Total	$ 1,936.08

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 10,854*	*Percent of Households*	*CWA 2% MHI $1,530 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,443 as Percent of Actual Income*
Less than $10,000	10,000	390	3.6%	15.3	34.43
$10,000 to $14,999	12,500	431	4.0%	12.2	27.55
$15,000 to $24,999	20,000	934	8.6%	7.7	17.22
$25,000 to $34,999	30,000	664	6.1%	5.1	11.48
$35,000 to $49,999	42,500	1,411	13.0%	3.6	8.10
$50,000 to $74,999	62,500	1,549	14.3%	2.4	5.51
$75,000 to $99,999	87,500	1,489	13.7%	1.7	3.94
$100,000 to $149,999	125,000	2,053	18.9%	1.2	2.75
$150,000 to $199,999	175,000	1,127	10.4%	0.9	1.97
$200,000 or more	200,000	806	7.4%	0.8	1.72

Table 2: Cost per Household for Current Water Service Components

Arcadia Household Income Distribution	*Household Income*	*Number of Households 10,854*	*Percent of Households*	*2% MHI $1,530.38 Percent of Actual Income*	*Sewer Bill $245.00 Percent of Actual Income*	*Water Bill $1,661.12 Percent of Actual Income*	*Flood Control Bill $29.96 Percent of Actual Income*	*Sewer & Water Bill $1,936.08 Percent of Actual Income*
Less than $10,000	10,000	390	3.6%	15.3	2.45	16.61	0.300	19.36
$10,000 to $14,999	12,500	431	4.0%	12.2	1.96	13.29	0.240	15.49
$15,000 to $24,999	20,000	934	8.6%	7.7	1.23	8.31	0.150	9.68
$25,000 to $34,999	30,000	664	6.1%	5.1	0.82	5.54	0.100	6.45
$35,000 to $49,999	42,500	1,411	13.0%	3.6	0.58	3.91	0.070	4.56
$50,000 to $74,999	62,500	1,549	14.3%	2.4	0.39	2.66	0.048	3.10
$75,000 to $99,999	87,500	1,489	13.7%	1.7	0.28	1.90	0.034	2.21
$100,000 to $149,999	125,000	2,053	18.9%	1.2	0.20	1.33	0.024	1.55
$150,000 to $199,999	175,000	1,127	10.4%	0.9	0.14	0.95	0.017	1.11
$200,000 or more	200,000	806	7.4%	0.8	0.12	0.83	0.015	0.97

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 10,854*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	390	19.36	1,486.08	579,571	5,795,712
$10,000 to $14,999	12,500	431	15.49	1,373.58	592,013	5,920,130
$15,000 to $24,999	20,000	934	9.68	1,036.08	967,699	9,676,987
$25,000 to $34,999	30,000	664	6.45	586.08	389,157	3,891,571
$35,000 to $49,999	42,500	1,411	4.56	23.58	33,271	332,714
$50,000 to $74,999	62,500	1,549	3.10			
$75,000 to $99,999	87,500	1,489	2.21			
$100,000 to $149,999	125,000	2,053	1.55			
$150,000 to $199,999	175,000	1,127	1.11			
$200,000 or more	200,000	806	0.97			

Lakewood, CA

Population, 2013: 81,121

Poverty Rate, 2012: 7.6%

Median Household Income (MHI), 2012: $78,876

EPA Affordability Criteria
2% of MHI: $1,577.42
4.5% of MHI: $3,549.42

Current Average Cost per Household

Sewer	$ 201.50
Water	$ 491.73
Flood Control	$ 50.23
Total	$ 743.46

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 26,172*	*Percent of Households*	*CWA 2% MHI $1,577.42 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,549.42 as Percent of Actual Income*
Less than $10,000	10,000	816	3.1%	15.8	35.5
$10,000 to $14,999	12,500	593	2.3%	12.6	28.4
$15,000 to $24,999	20,000	1,377	5.3%	7.9	17.7
$25,000 to $34,999	30,000	1,802	6.9%	5.3	11.8
$35,000 to $49,999	42,500	2,936	11.2%	3.7	8.4
$50,000 to $74,999	62,500	4,954	18.9%	2.5	5.7
$75,000 to $99,999	87,500	4,320	16.5%	1.8	4.1
$100,000 to $149,999	125,000	6,008	23.0%	1.3	2.8
$150,000 to $199,999	175,000	2,415	9.2%	0.9	2.0
$200,000 or more	200,000	951	3.6%	0.8	1.8

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 26,172*	*Percent of Households*	*2% MHI $1,577.42 Percent of Actual Income*	*Sewer Bill $201.50 Percent of Actual Income*	*Water Bill $491.73 Percent of Actual Income*	*Flood Control Bill $50.23 Percent of Actual Income*	*Sewer & Water Bill $743.46 Percent of Actual Income*
Less than $10,000	10,000	816	3.1%	15.8	2.02	4.92	0.502	7.43
$10,000 to $14,999	12,500	593	2.3%	12.6	1.61	3.93	0.402	5.95
$15,000 to $24,999	20,000	1,377	5.3%	7.9	1.01	2.46	0.251	3.72
$25,000 to $34,999	30,000	1,802	6.9%	5.3	0.67	1.64	0.167	2.48
$35,000 to $49,999	42,500	2,936	11.2%	3.7	0.47	1.16	0.118	1.75
$50,000 to $74,999	62,500	4,954	18.9%	2.5	0.32	0.79	0.080	1.19
$75,000 to $99,999	87,500	4,320	16.5%	1.8	0.23	0.56	0.057	0.85
$100,000 to $149,999	125,000	6,008	23.0%	1.3	0.16	0.39	0.040	0.59
$150,000 to $199,999	175,000	2,415	9.2%	0.9	0.12	0.28	0.029	0.42
$200,000 or more	200,000	951	3.6%	0.8	0.10	0.25	0.025	0.37

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 26,172*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	816	7.43	293.46	239,463	2,394,634
$10,000 to $14,999	12,500	593	5.95	180.96	107,309	1,073,093
$15,000 to $24,999	20,000	1,377	3.72	-156.54		
$25,000 to $34,999	30,000	1,802	2.48	-606.54		
$35,000 to $49,999	42,500	2,936	1.75	-1,169.04		
$50,000 to $74,999	62,500	4,954	1.19	-2,069.04		
$75,000 to $99,999	87,500	4,320	0.85	-3,194.04		
$100,000 to $149,999	125,000	6,008	0.59	-4,881.54		
$150,000 to $199,999	175,000	2,415	0.42	-7,131.54		
$200,000 or more	200,000	951	0.37	-8,256.54		

Lomita, CA

Population, 2013: 20,596

Poverty Rate, 2012: 11.3%

Median Household Income (MHI), 2012: $62,899

EPA Affordability Criteria
2% of MHI: $1,257.98
4.5% of MHI: $2,830.46

Current Average Cost per Household

Sewer	$ 258.20
Water	$ 1,000.56
Flood Control	$ 36.45
Total	$ 1,295.21

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 7,894*	*Percent of Households*	*CWA 2% MHI $1,257.98 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,830.46 as Percent of Actual Income*
Less than $10,000	10,000	464	12.95	12.6	28.3
$10,000 to $14,999	12,500	520	10.36	10.1	22.6
$15,000 to $24,999	20,000	784	6.48	6.3	14.2
$25,000 to $34,999	30,000	594	4.32	4.2	9.4
$35,000 to $49,999	42,500	885	3.05	3.0	6.7
$50,000 to $74,999	62,500	1,644	2.07	2.0	4.5
$75,000 to $99,999	87,500	878	1.48	1.4	3.2
$100,000 to $149,999	125,000	1,284	1.04	1.0	2.3
$150,000 to $199,999	175,000	506	0.74	0.7	1.6
$200,000 or more	200,000	335	0.65	0.6	1.4

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 7,894*	*Percent of Households*	*2% MHI $1,257.98 Percent of Actual Income*	*Sewer Bill $258.20 Percent of Actual Income*	*Water Bill $1,000.56 Percent of Actual Income*	*Flood Control Bill $36.45 Percent of Actual Income*	*Sewer & Water Bill $1,295.21 Percent of Actual Income*
Less than $10,000	10,000	464	12.95	12.6	2.58	10.01	0.365	12.95
$10,000 to $14,999	12,500	520	10.36	10.1	2.07	8.00	0.292	10.36
$15,000 to $24,999	20,000	784	6.48	6.3	1.29	5.00	0.182	6.48
$25,000 to $34,999	30,000	594	4.32	4.2	0.86	3.34	0.122	4.32
$35,000 to $49,999	42,500	885	3.05	3.0	0.61	2.35	0.086	3.05
$50,000 to $74,999	62,500	1,644	2.07	2.0	0.41	1.60	0.058	2.07
$75,000 to $99,999	87,500	878	1.48	1.4	0.30	1.14	0.042	1.48
$100,000 to $149,999	125,000	1,284	1.04	1.0	0.21	0.80	0.029	1.04
$150,000 to $199,999	175,000	506	0.74	0.7	0.15	0.57	0.021	0.74
$200,000 or more	200,000	335	0.65	0.6	0.13	0.50	0.018	0.65

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 7,894*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	464	12.95	845.98	392,535	3,925,347
$10,000 to $14,999	12,500	520	10.36	733.48	381,410	3,814,096
$15,000 to $24,999	20,000	784	6.48	395.98	310,448	3,104,483
$25,000 to $34,999	30,000	594	4.32	-54.02		
$35,000 to $49,999	42,500	885	3.05	-616.52		
$50,000 to $74,999	62,500	1,644	2.07	-1,516.52		
$75,000 to $99,999	87,500	878	1.48	-2,641.52		
$100,000 to $149,999	125,000	1,284	1.04	-4,329.02		
$150,000 to $199,999	175,000	506	0.74	-6,579.02		
$200,000 or more	200,000	335	0.65	-7,704.02		

Manhattan Beach, CA

Population, 2013: 35,726

Poverty Rate, 2012: 2.9%

Median Household Income (MHI), 2012: $134,445

EPA Affordability Criteria
2% of MHI: $2,688.90
4.5% of MHI: $6,050.03

Current Average Cost per Household

Sewer	$ 284.00
Water	$ 1,126.00
Flood Control	$ 19.12
Total	$ 1,429.12

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 14,089*	*Percent of Households*	*CWA 2% MHI $2,688.90 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $6,050.03 as Percent of Actual Income*
Less than $10,000	10,000	286	2.0%	26.7	60.5
$10,000 to $14,999	12,500	265	1.9%	21.4	48.4
$15,000 to $24,999	20,000	403	2.9%	13.3	30.3
$25,000 to $34,999	30,000	582	4.1%	8.9	20.2
$35,000 to $49,999	42,500	756	5.4%	6.3	14.2
$50,000 to $74,999	62,500	1,549	11.0%	4.3	9.7
$75,000 to $99,999	87,500	1,220	8.7%	3.1	6.9
$100,000 to $149,999	125,000	2,803	19.9%	2.1	4.8
$150,000 to $199,999	175,000	1,886	13.4%	1.5	3.5
$200,000 or more	200,000	4,339	30.8%	1.3	3.0

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 14,089*	*Percent of Households*	*2% MHI $2,688.03 Percent of Actual Income*	*Sewer Bill $284 Percent of Actual Income*	*Water Bill $1,126 Percent of Actual Income*	*Flood Control Bill $19.12 Percent of Actual Income*	*Sewer & Water Bill $1,429.12 Percent of Actual Income*
Less than $10,000	10,000	286	2.0%	26.7	2.84	11.26	0.191	14.29
$10,000 to $14,999	12,500	265	1.9%	21.4	2.27	9.01	0.153	11.43
$15,000 to $24,999	20,000	403	2.9%	13.3	1.42	5.63	0.096	7.15
$25,000 to $34,999	30,000	582	4.1%	8.9	0.95	3.75	0.064	4.76
$35,000 to $49,999	42,500	756	5.4%	6.3	0.67	2.65	0.045	3.36
$50,000 to $74,999	62,500	1,549	11.0%	4.3	0.45	1.80	0.031	2.29
$75,000 to $99,999	87,500	1,220	8.7%	3.1	0.32	1.29	0.022	1.63
$100,000 to $149,999	125,000	2,803	19.9%	2.1	0.23	0.90	0.015	1.14
$150,000 to $199,999	175,000	1,886	13.4%	1.5	0.16	0.64	0.011	0.82
$200,000 or more	200,000	4,339	30.8%	1.3	0.14	0.56	0.010	0.71

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 14,089*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	286	14.29	979.12	280,028	2,800,283
$10,000 to $14,999	12,500	265	11.43	866.62	229,654	2,296,543
$15,000 to $24,999	20,000	403	7.15	529.12	213,235	2,132,354
$25,000 to $34,999	30,000	582	4.76	79.12	46,048	460,478
$35,000 to $49,999	42,500	756	3.36	-483.38		
$50,000 to $74,999	62,500	1,549	2.29	-1,383.38		
$75,000 to $99,999	87,500	1,220	1.63	-2,508.38		
$100,000 to $149,999	125,000	2,803	1.14	-4,195.88		
$150,000 to $199,999	175,000	1,886	0.82	-6,445.88		
$200,000 or more	200,000	4,339	0.71	-7,570.88		

Monrovia, CA

Population, 2013: 37,101

Poverty Rate, 2012: 9.6%

Median Household Income (MHI), 2012: $69,449

EPA Affordability Criteria
2% of MHI: $1,388.98
4.5% of MHI: $3,125.21

Current Average Cost per Household

Sewer	$ 60.00
Water	$ 400.00
Flood Control	$ 42.00
Total	$ 502.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 13,428*	*Percent of Households*	*CWA 2% MHI $1,388.98 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,125.21 as Percent of Actual Income*
Less than $10,000	10,000	641	4.77	13.89	31.25
$10,000 to $14,999	12,500	621	4.62	11.11	25.00
$15,000 to $24,999	20,000	1,204	8.97	6.94	15.63
$25,000 to $34,999	30,000	968	7.21	4.63	10.42
$35,000 to $49,999	42,500	1,352	10.07	3.27	7.35
$50,000 to $74,999	62,500	2,503	18.64	2.22	5.00
$75,000 to $99,999	87,500	1,666	12.41	1.59	3.57
$100,000 to $149,999	125,000	2,557	19.04	1.11	2.50
$150,000 to $199,999	175,000	1,141	8.50	0.79	1.79
$200,000 or more	200,000	775	5.77	0.69	1.56

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 13,428*	*Percent of Households*	*2% MHI $1,388.98 Percent of Actual Income*	*Sewer Bill $60.00 Percent of Actual Income*	*Water Bill $400.00 Percent of Actual Income*	*Flood Control Bill $42.00 Percent of Actual Income*	*Sewer & Water Bill $502.00 Percent of Actual Income*
Less than $10,000	10,000	641	4.77	13.89	0.600	4.00	0.420	5.020
$10,000 to $14,999	12,500	621	4.62	11.11	0.480	3.20	0.336	4.016
$15,000 to $24,999	20,000	1,204	8.97	6.94	0.300	2.00	0.210	2.510
$25,000 to $34,999	30,000	968	7.21	4.63	0.200	1.33	0.140	1.673
$35,000 to $49,999	42,500	1,352	10.07	3.27	0.141	0.94	0.099	1.181
$50,000 to $74,999	62,500	2,503	18.64	2.22	0.096	0.64	0.067	0.803
$75,000 to $99,999	87,500	1,666	12.41	1.59	0.069	0.46	0.048	0.574
$100,000 to $149,999	125,000	2,557	19.04	1.11	0.048	0.32	0.034	0.402
$150,000 to $199,999	175,000	1,141	8.50	0.79	0.034	0.23	0.024	0.287
$200,000 or more	200,000	775	5.77	0.69	0.030	0.20	0.021	0.251

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 13,428*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	641	5.020	52.00	33,332	333,320
$10,000 to $14,999	12,500	621	4.016			
$15,000 to $24,999	20,000	1,204	2.510			
$25,000 to $34,999	30,000	968	1.673			
$35,000 to $49,999	42,500	1,352	1.181			
$50,000 to $74,999	62,500	2,503	0.803			
$75,000 to $99,999	87,500	1,666	0.574			
$100,000 to $149,999	125,000	2,557	0.402			
$150,000 to $199,999	175,000	1,141	0.287			
$200,000 or more	200,000	775	0.251			

Monterey Park, CA

Population, 2013: 61,085

Poverty Rate, 2012: 14.5%

Median Household Income (MHI), 2012: $55,800

EPA Affordability Criteria
2% of MHI: $1,116
4.5% of MHI: $2,511

Current Average Cost per Household

Sewer	$ 12.00
Water	$ 360.00
Flood Control	$ 40.00
Total	$ 412.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 18,735*	*Percent of Households*	*CWA 2% MHI $1,116 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,511 as Percent of Actual Income*
Less than $10,000	10,000	1,022	5.5%	11.2	25.1
$10,000 to $14,999	12,500	1,263	6.7%	8.9	20.1
$15,000 to $24,999	20,000	2,157	11.5%	5.6	12.6
$25,000 to $34,999	30,000	1,709	9.1%	3.7	8.4
$35,000 to $49,999	42,500	2,407	12.8%	2.6	5.9
$50,000 to $74,999	62,500	3,096	16.5%	1.8	4.0
$75,000 to $99,999	87,500	2,437	13.0%	1.3	2.9
$100,000 to $149,999	125,000	2,453	13.1%	0.9	2.0
$150,000 to $199,999	175,000	1,428	7.6%	0.6	1.4
$200,000 or more	200,000	763	4.1%	0.6	1.3

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 18,735*	*Percent of Households*	*2% MHI $1,116 Percent of Actual Income*	*Sewer Bill $12 Percent of Actual Income*	*Water Bill $360 Percent of Actual Income*	*Flood Control Bill $40 Percent of Actual Income*	*Sewer & Water Bill $412 Percent of Actual Income*
Less than $10,000	10,000	1,022	5.5%	11.2	0.12	3.60	0.400	4.12
$10,000 to $14,999	12,500	1,263	6.7%	8.9	0.10	2.88	0.320	3.30
$15,000 to $24,999	20,000	2,157	11.5%	5.6	0.06	1.80	0.200	2.06
$25,000 to $34,999	30,000	1,709	9.1%	3.7	0.04	1.20	0.133	1.37
$35,000 to $49,999	42,500	2,407	12.8%	2.6	0.03	0.85	0.094	0.97
$50,000 to $74,999	62,500	3,096	16.5%	1.8	0.02	0.58	0.064	0.66
$75,000 to $99,999	87,500	2,437	13.0%	1.3	0.01	0.41	0.046	0.47
$100,000 to $149,999	125,000	2,453	13.1%	0.9	0.01	0.29	0.032	0.33
$150,000 to $199,999	175,000	1,428	7.6%	0.6	0.01	0.21	0.023	0.24
$200,000 or more	200,000	763	4.1%	0.6	0.01	0.18	0.020	0.21

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 18,735*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,022	4.12	0	0	0
$10,000 to $14,999	12,500	1,263	3.30			
$15,000 to $24,999	20,000	2,157	2.06			
$25,000 to $34,999	30,000	1,709	1.37			
$35,000 to $49,999	42,500	2,407	0.97			
$50,000 to $74,999	62,500	3,096	0.66			
$75,000 to $99,999	87,500	2,437	0.47			
$100,000 to $149,999	125,000	2,453	0.33			
$150,000 to $199,999	175,000	1,428	0.24			
$200,000 or more	200,000	763	0.21			

Norwalk, CA

Population, 2013: 106,589

Poverty Rate, 2012: 12.3%

Median Household Income (MHI), 2012: $60,485

EPA Affordability Criteria
2% of MHI: $1,209.70
4.5% of MHI: $2,721.83

Current Average Cost per Household

Sewer	$ 240.48
Water	$ 1,000.00
Flood Control	$ 50.00
Total	$ 1,290.48

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 26,972*	*Percent of Households*	*CWA 2% MHI $1,209.70 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,721.83 as Percent of Actual Income*
Less than $10,000	10,000	1,306	4.8%	12.1	27.2
$10,000 to $14,999	12,500	1,204	4.5%	9.7	21.8
$15,000 to $24,999	20,000	2,084	7.7%	6.0	13.6
$25,000 to $34,999	30,000	2,135	7.9%	4.0	9.1
$35,000 to $49,999	42,500	3,713	13.8%	2.8	6.4
$50,000 to $74,999	62,500	6,119	22.7%	1.9	4.4
$75,000 to $99,999	87,500	4,218	15.6%	1.4	3.1
$100,000 to $149,999	125,000	4,562	16.9%	1.0	2.2
$150,000 to $199,999	175,000	1,151	4.3%	0.7	1.6
$200,000 or more	200,000	480	1.8%	0.6	1.4

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 26,972*	*Percent of Households*	*2% MHI $1,209.70 Percent of Actual Income*	*Sewer Bill $240.48 Percent of Actual Income*	*Water Bill $1,000.00 Percent of Actual Income*	*Flood Control Bill $50.00 Percent of Actual Income*	*Sewer & Water Bill $1,290.48 Percent of Actual Income*
Less than $10,000	10,000	1,306	4.8%	12.1	2.40	10.00	0.500	12.90
$10,000 to $14,999	12,500	1,204	4.5%	9.7	1.92	8.00	0.400	10.32
$15,000 to $24,999	20,000	2,084	7.7%	6.0	1.20	5.00	0.250	6.45
$25,000 to $34,999	30,000	2,135	7.9%	4.0	0.80	3.33	0.167	4.30
$35,000 to $49,999	42,500	3,713	13.8%	2.8	0.57	2.35	0.118	3.04
$50,000 to $74,999	62,500	6,119	22.7%	1.9	0.38	1.60	0.080	2.06
$75,000 to $99,999	87,500	4,218	15.6%	1.4	0.27	1.14	0.057	1.47
$100,000 to $149,999	125,000	4,562	16.9%	1.0	0.19	0.80	0.040	1.03
$150,000 to $199,999	175,000	1,151	4.3%	0.7	0.14	0.57	0.029	0.74
$200,000 or more	200,000	480	1.8%	0.6	0.12	0.50	0.025	0.65

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 26,972*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,306	12.90	840.48	1,097,667	10,976,669
$10,000 to $14,999	12,500	1,204	10.32	727.98	876,488	8,764,879
$15,000 to $24,999	20,000	2,084	6.45	390.48	813,760	8,137,603
$25,000 to $34,999	30,000	2,135	4.30	-59.52		
$35,000 to $49,999	42,500	3,713	3.04	-622.02		
$50,000 to $74,999	62,500	6,119	2.06	-1,522.02		
$75,000 to $99,999	87,500	4,218	1.47	-2,647.02		
$100,000 to $149,999	125,000	4,562	1.03	-4,334.52		
$150,000 to $199,999	175,000	1,151	0.74	-6,584.52		
$200,000 or more	200,000	480	0.65	-7,709.52		

Paramount, CA

Population, 2013: 54,980

Poverty Rate, 2012: 21.9%

Median Household Income (MHI), 2012: $44,167

EPA Affordability Criteria
2% of MHI: $883.34
4.5% of MHI: $1,987.52

Current Average Cost per Household

Sewer	$ 197.50
Water	$ 1,218.26
Flood Control	$ 23.43
Total	$ 1,439.19

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 13,669*	*Percent of Households*	*CWA 2% MHI $883.34 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $1,987.52 as Percent of Actual Income*
Less than $10,000	10,000	901	6.6%	8.8	19.9
$10,000 to $14,999	12,500	689	5.0%	7.1	15.9
$15,000 to $24,999	20,000	1,959	14.3%	4.4	9.9
$25,000 to $34,999	30,000	1,839	13.5%	2.9	6.6
$35,000 to $49,999	42,500	2,228	16.3%	2.1	4.7
$50,000 to $74,999	62,500	2,796	20.5%	1.4	3.2
$75,000 to $99,999	87,500	1,723	12.6%	1.0	2.3
$100,000 to $149,999	125,000	1,234	9.0%	0.7	1.6
$150,000 to $199,999	175,000	219	1.6%	0.5	1.1
$200,000 or more	200,000	81	0.6%	0.4	1.0

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 13,669*	*Percent of Households*	*2% MHI $883.34 Percent of Actual Income*	*Sewer Bill $197.50 Percent of Actual Income*	*Water Bill $1,218.26 Percent of Actual Income*	*Flood Control Bill $23.43 Percent of Actual Income*	*Sewer & Water Bill $1,439.19 Percent of Actual Income*
Less than $10,000	10,000	901	6.6%	8.8	1.98	12.18	0.234	14.39
$10,000 to $14,999	12,500	689	5.0%	7.1	1.58	9.75	0.187	11.51
$15,000 to $24,999	20,000	1,959	14.3%	4.4	0.99	6.09	0.117	7.20
$25,000 to $34,999	30,000	1,839	13.5%	2.9	0.66	4.06	0.078	4.80
$35,000 to $49,999	42,500	2,228	16.3%	2.1	0.46	2.87	0.055	3.39
$50,000 to $74,999	62,500	2,796	20.5%	1.4	0.32	1.95	0.037	2.30
$75,000 to $99,999	87,500	1,723	12.6%	1.0	0.23	1.39	0.027	1.64
$100,000 to $149,999	125,000	1,234	9.0%	0.7	0.16	0.97	0.019	1.15
$150,000 to $199,999	175,000	219	1.6%	0.5	0.11	0.70	0.013	0.82
$200,000 or more	200,000	81	0.6%	0.4	0.10	0.61	0.012	0.72

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 13,669*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	901	14.39	989.19	891,260	8,912,602
$10,000 to $14,999	12,500	689	11.51	876.69	604,039	6,040,394
$15,000 to $24,999	20,000	1,959	7.20	539.19	1,056,273	10,562,732
$25,000 to $34,999	30,000	1,839	4.80	89.19	164,020	1,640,204
$35,000 to $49,999	42,500	2,228	3.39	-473.31		
$50,000 to $74,999	62,500	2,796	2.30	-1,373.31		
$75,000 to $99,999	87,500	1,723	1.64	-2,498.31		
$100,000 to $149,999	125,000	1,234	1.15	-4,185.81		
$150,000 to $199,999	175,000	219	0.82	-6,435.81		
$200,000 or more	200,000	81	0.72	-7,560.81		

Pomona, CA

Population, 2013: 151,348

Poverty Rate, 2012: 20.4%

Median Household Income (MHI), 2012: $48,864

EPA Affordability Criteria
2% of MHI: $977.28
4.5% of MHI: $2,198.88

Current Average Cost per Household

Sewer	$ 158.90
Water	$ 580.50
Flood Control	$ 2.40
Total	$ 741.80

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 38,474*	*Percent of Households*	*CWA 2% MHI $977.28 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,198.88 as Percent of Actual Income*
Less than $10,000	10,000	2,235	5.8%	9.8	21.99
$10,000 to $14,999	12,500	2,194	5.7%	7.8	17.59
$15,000 to $24,999	20,000	4,762	12.4%	4.9	10.99
$25,000 to $34,999	30,000	4,485	11.7%	3.3	7.33
$35,000 to $49,999	42,500	5,973	15.5%	2.3	5.17
$50,000 to $74,999	62,500	7,472	19.4%	1.6	3.52
$75,000 to $99,999	87,500	5,058	13.1%	1.1	2.51
$100,000 to $149,999	125,000	4,368	11.4%	0.8	1.76
$150,000 to $199,999	175,000	1,206	3.1%	0.6	1.26
$200,000 or more	200,000	721	1.9%	0.5	1.10

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 38,474*	*Percent of Households*	*2% MHI $977.28 Percent of Actual Income*	*Sewer Bill $158.90 Percent of Actual Income*	*Water Bill $580.50 Percent of Actual Income*	*Flood Control Bill $2.40 Percent of Actual Income*	*Sewer & Water Bill $741.80 Percent of Actual Income*
Less than $10,000	10,000	2,235	5.8%	9.8	1.59	5.81	0.024	7.42
$10,000 to $14,999	12,500	2,194	5.7%	7.8	1.27	4.64	0.019	5.93
$15,000 to $24,999	20,000	4,762	12.4%	4.9	0.79	2.90	0.012	3.71
$25,000 to $34,999	30,000	4,485	11.7%	3.3	0.53	1.94	0.008	2.47
$35,000 to $49,999	42,500	5,973	15.5%	2.3	0.37	1.37	0.006	1.75
$50,000 to $74,999	62,500	7,472	19.4%	1.6	0.25	0.93	0.004	1.19
$75,000 to $99,999	87,500	5,058	13.1%	1.1	0.18	0.66	0.003	0.85
$100,000 to $149,999	125,000	4,368	11.4%	0.8	0.13	0.46	0.002	0.59
$150,000 to $199,999	175,000	1,206	3.1%	0.6	0.09	0.33	0.001	0.42
$200,000 or more	200,000	721	1.9%	0.5	0.08	0.29	0.001	0.37

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 38,474*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	2,235	7.42	291.80	652,173	6,521,730
$10,000 to $14,999	12,500	2,194	5.93	179.30	393,384	3,933,842
$15,000 to $24,999	20,000	4,762	3.71	-158.20		
$25,000 to $34,999	30,000	4,485	2.47	-608.20		
$35,000 to $49,999	42,500	5,973	1.75	-1,170.70		
$50,000 to $74,999	62,500	7,472	1.19	-2,070.70		
$75,000 to $99,999	87,500	5,058	0.85	-3,195.70		
$100,000 to $149,999	125,000	4,368	0.59	-4,883.20		
$150,000 to $199,999	175,000	1,206	0.42	-7,133.20		
$200,000 or more	200,000	721	0.37	-8,258.20		

Redondo Beach, CA

Population, 2013: 67,815

Poverty Rate, 2012: 5.9%

Median Household Income (MHI), 2012: $98,816

EPA Affordability Criteria
2% of MHI: $1,976.32
4.5% of MHI: $4,446.72

Current Average Cost per Household

Sewer	$ 331.00
Water	$ 1,110.66
Flood Control	$ 32.55
Total	$ 1,474.21

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 28,769*	*Percent of Households*	*CWA 2% MHI $1,976.32 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $4,446.72 as Percent of Actual Income*
Less than $10,000	10,000	876	3.0%	19.8	44.47
$10,000 to $14,999	12,500	888	3.1%	15.8	35.57
$15,000 to $24,999	20,000	1,933	6.7%	9.9	22.23
$25,000 to $34,999	30,000	1,365	4.7%	6.6	14.82
$35,000 to $49,999	42,500	2,311	8.0%	4.7	10.46
$50,000 to $74,999	62,500	3,952	13.7%	3.2	7.11
$75,000 to $99,999	87,500	3,167	11.0%	2.3	5.08
$100,000 to $149,999	125,000	5,712	19.9%	1.6	3.56
$150,000 to $199,999	175,000	3,920	13.6%	1.1	2.54
$200,000 or more	200,000	4,645	16.1%	1.0	2.22

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 28,769*	*Percent of Households*	*2% MHI $1,976.32 Percent of Actual Income*	*Sewer Bill $331.00 Percent of Actual Income*	*Water Bill $1,110.66 Percent of Actual Income*	*Flood Control Bill $32.55 Percent of Actual Income*	*Sewer & Water Bill $1,474.21 Percent of Actual Income*
Less than $10,000	10,000	876	3.0%	19.8	3.31	11.11	0.326	14.74
$10,000 to $14,999	12,500	888	3.1%	15.8	2.65	8.89	0.260	11.79
$15,000 to $24,999	20,000	1,933	6.7%	9.9	1.66	5.55	0.163	7.37
$25,000 to $34,999	30,000	1,365	4.7%	6.6	1.10	3.70	0.109	4.91
$35,000 to $49,999	42,500	2,311	8.0%	4.7	0.78	2.61	0.077	3.47
$50,000 to $74,999	62,500	3,952	13.7%	3.2	0.53	1.78	0.052	2.36
$75,000 to $99,999	87,500	3,167	11.0%	2.3	0.38	1.27	0.037	1.68
$100,000 to $149,999	125,000	5,712	19.9%	1.6	0.26	0.89	0.026	1.18
$150,000 to $199,999	175,000	3,920	13.6%	1.1	0.19	0.63	0.019	0.84
$200,000 or more	200,000	4,645	16.1%	1.0	0.17	0.56	0.016	0.74

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 28,769*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	876	14.74	1,024.21	897,208	8,972,080
$10,000 to $14,999	12,500	888	11.79	911.71	809,598	8,095,985
$15,000 to $24,999	20,000	1,933	7.37	574.21	1,109,948	11,099,479
$25,000 to $34,999	30,000	1,365	4.91	124.21	169,547	1,695,467
$35,000 to $49,999	42,500	2,311	3.47			
$50,000 to $74,999	62,500	3,952	2.36			
$75,000 to $99,999	87,500	3,167	1.68			
$100,000 to $149,999	125,000	5,712	1.18			
$150,000 to $199,999	175,000	3,920	0.84			
$200,000 or more	200,000	4,645	0.74			

Sacramento, CA

Population, 2013: 479,686

Poverty Rate, 2012: 20.2%

Median Household Income (MHI), 2012: $50,661

EPA Affordability Criteria
2% of MHI: $1,013.22
4.5% of MHI: $2,279.75

Current Average Cost per Household

Sewer	$ 653.00
Water	$ 549.00
Flood Control	$ 136.00
Total	$ 1,338.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 176,061*	*Percent of Households*	*CWA 2% MHI $1,013.22 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,279.75 as Percent of Actual Income*
Less than $10,000	10,000	11,869	6.7%	10.1	22.8
$10,000 to $14,999	12,500	13,358	7.6%	8.1	18.2
$15,000 to $24,999	20,000	19,345	11.0%	5.1	11.4
$25,000 to $34,999	30,000	18,711	10.6%	3.4	7.6
$35,000 to $49,999	42,500	23,707	13.5%	2.4	5.4
$50,000 to $74,999	62,500	33,710	19.1%	1.6	3.6
$75,000 to $99,999	87,500	20,509	11.6%	1.2	2.6
$100,000 to $149,999	125,000	21,175	12.0%	0.8	1.8
$150,000 to $199,999	175,000	7,893	4.5%	0.6	1.3
$200,000 or more	200,000	5,784	3.3%	0.5	1.1

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 176,061*	*Percent of Households*	*2% MHI $1,013.22 Percent of Actual Income*	*Sewer Bill $653.00 Percent of Actual Income*	*Water Bill $549.00 Percent of Actual Income*	*Flood Control Bill $136.00 Percent of Actual Income*	*Sewer & Water Bill $1,338.00 Percent of Actual Income*
Less than $10,000	10,000	11,869	6.7%	10.1	6.53	5.49	1.360	13.38
$10,000 to $14,999	12,500	13,358	7.6%	8.1	5.22	4.39	1.088	10.70
$15,000 to $24,999	20,000	19,345	11.0%	5.1	3.27	2.75	0.680	6.69
$25,000 to $34,999	30,000	18,711	10.6%	3.4	2.18	1.83	0.453	4.46
$35,000 to $49,999	42,500	23,707	13.5%	2.4	1.54	1.29	0.320	3.15
$50,000 to $74,999	62,500	33,710	19.1%	1.6	1.04	0.88	0.218	2.14
$75,000 to $99,999	87,500	20,509	11.6%	1.2	0.75	0.63	0.155	1.53
$100,000 to $149,999	125,000	21,175	12.0%	0.8	0.52	0.44	0.109	1.07
$150,000 to $199,999	175,000	7,893	4.5%	0.6	0.37	0.31	0.078	0.76
$200,000 or more	200,000	5,784	3.3%	0.5	0.33	0.27	0.068	0.67

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 176,061*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	11,869	13.38	888.00	10,539,672	105,396,720
$10,000 to $14,999	12,500	13,358	10.70	775.50	10,359,129	103,591,290
$15,000 to $24,999	20,000	19,345	6.69	438.00	8,473,110	84,731,100
$25,000 to $34,999	30,000	18,711	4.46	-12.00		
$35,000 to $49,999	42,500	23,707	3.15	-574.50		
$50,000 to $74,999	62,500	33,710	2.14	-1,474.50		
$75,000 to $99,999	87,500	20,509	1.53	-2,599.50		
$100,000 to $149,999	125,000	21,175	1.07	-4,287.00		
$150,000 to $199,999	175,000	7,893	0.76	-6,537.00		
$200,000 or more	200,000	5,784	0.67	-7,662.00		

San Dimas, CA

Population, 2013: 33,840

Poverty Rate, 2012: 7.0%

Median Household Income (MHI), 2012: $ 76,454

EPA Affordability Criteria
2% of MHI: $ 1,529.08
4.5% of MHI: $3,440.43

Current Average Cost per Household

Sewer	$ 199.50
Water	$ 631.19
Flood Control	$ 65.51
Total	$ 896.20

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 11,663*	*Percent of Households*	*CWA 2% MHI $1,529.08 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,440.43 as Percent of Actual Income*
Less than $10,000	10,000	612	5.2%	15.3	34.40
$10,000 to $14,999	12,500	286	2.5%	12.2	27.52
$15,000 to $24,999	20,000	816	7.0%	7.6	17.20
$25,000 to $34,999	30,000	794	6.8%	5.1	11.47
$35,000 to $49,999	42,500	1,082	9.3%	3.6	8.10
$50,000 to $74,999	62,500	2,099	18.0%	2.4	5.50
$75,000 to $99,999	87,500	1,729	14.8%	1.7	3.93
$100,000 to $149,999	125,000	2,186	18.7%	1.2	2.75
$150,000 to $199,999	175,000	978	8.4%	0.9	1.97
$200,000 or more	200,000	1,081	9.3%	0.8	1.72

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 11,663*	*Percent of Households*	*2% MHI $1,529.08 Percent of Actual Income*	*Sewer Bill $199.50 Percent of Actual Income*	*Water Bill $631.19 Percent of Actual Income*	*Flood Control Bill $65.51 Percent of Actual Income*	*Sewer & Water Bill $896.20 Percent of Actual Income*
Less than $10,000	10,000	612	5.2%	15.3	2.00	6.31	0.655	8.96
$10,000 to $14,999	12,500	286	2.5%	12.2	1.60	5.05	0.524	7.17
$15,000 to $24,999	20,000	816	7.0%	7.6	1.00	3.16	0.328	4.48
$25,000 to $34,999	30,000	794	6.8%	5.1	0.67	2.10	0.218	2.99
$35,000 to $49,999	42,500	1,082	9.3%	3.6	0.47	1.49	0.154	2.11
$50,000 to $74,999	62,500	2,099	18.0%	2.4	0.32	1.01	0.105	1.43
$75,000 to $99,999	87,500	1,729	14.8%	1.7	0.23	0.72	0.075	1.02
$100,000 to $149,999	125,000	2,186	18.7%	1.2	0.16	0.50	0.052	0.72
$150,000 to $199,999	175,000	978	8.4%	0.9	0.11	0.36	0.037	0.51
$200,000 or more	200,000	1,081	9.3%	0.8	0.10	0.32	0.033	0.45

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 11,663*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	612	5.2%	446.20	273,074	2,730,744
$10,000 to $14,999	12,500	286	2.5%	333.70	95,438	954,382
$15,000 to $24,999	20,000	816	7.0%	-3.80		
$25,000 to $34,999	30,000	794	6.8%	-453.80		
$35,000 to $49,999	42,500	1,082	9.3%	-1,016.30		
$50,000 to $74,999	62,500	2,099	18.0%	-1,916.30		
$75,000 to $99,999	87,500	1,729	14.8%	-3,041.30		
$100,000 to $149,999	125,000	2,186	18.7%	-4,728.80		
$150,000 to $199,999	175,000	978	8.4%	-6,978.80		
$200,000 or more	200,000	1,081	9.3%	-8,103.80		

San Gabriel, CA

Population, 2013: 40,275

Poverty Rate, 2012: 12.4%

Median Household Income (MHI), 2012: $ 56,260

EPA Affordability Criteria
2% of MHI: $ 1,125.20
4.5% of MHI: $ 2,531.70

Current Average Cost per Household

Sewer	$ 267.00
Water	$ 412.00
Flood Control	$
Total	$ 679.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 12,276*	*Percent of Households*	*CWA 2% MHI $1,125.20 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,531.70 as Percent of Actual Income*
Less than $10,000	10,000	488	4.0%	11.3	25.32
$10,000 to $14,999	12,500	485	4.0%	9.0	20.25
$15,000 to $24,999	20,000	1,532	12.5%	5.6	12.66
$25,000 to $34,999	30,000	1,182	9.6%	3.8	8.44
$35,000 to $49,999	42,500	1,895	15.4%	2.6	5.96
$50,000 to $74,999	62,500	2,105	17.1%	1.8	4.05
$75,000 to $99,999	87,500	1,417	11.5%	1.3	2.89
$100,000 to $149,999	125,000	1,826	14.9%	0.9	2.03
$150,000 to $199,999	175,000	754	6.1%	0.6	1.45
$200,000 or more	200,000	592	4.8%	0.6	1.27

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 12,276*	*Percent of Households*	*2% MHI $1,125.20 Percent of Actual Income*	*Sewer Bill $267 Percent of Actual Income*	*Water Bill $412 Percent of Actual Income*	*Flood Control Bill NA Percent of Actual Income*	*Sewer & Water Bill $679 Percent of Actual Income*
Less than $10,000	10,000	488	4.0%	11.3	2.67	4.12		6.79
$10,000 to $14,999	12,500	485	4.0%	9.0	2.14	3.30		5.43
$15,000 to $24,999	20,000	1,532	12.5%	5.6	1.34	2.06		3.40
$25,000 to $34,999	30,000	1,182	9.6%	3.8	0.89	1.37		2.26
$35,000 to $49,999	42,500	1,895	15.4%	2.6	0.63	0.97		1.60
$50,000 to $74,999	62,500	2,105	17.1%	1.8	0.43	0.66		1.09
$75,000 to $99,999	87,500	1,417	11.5%	1.3	0.31	0.47		0.78
$100,000 to $149,999	125,000	1,826	14.9%	0.9	0.21	0.33		0.54
$150,000 to $199,999	175,000	754	6.1%	0.6	0.15	0.24		0.39
$200,000 or more	200,000	592	4.8%	0.6	0.13	0.21		0.34

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 12,276*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	488	6.79	229.00	111,752	1,117,520
$10,000 to $14,999	12,500	485	5.43	116.50	56,503	565,025
$15,000 to $24,999	20,000	1,532	3.40	-221.00		
$25,000 to $34,999	30,000	1,182	2.26	-671.00		
$35,000 to $49,999	42,500	1,895	1.60	-1,233.50		
$50,000 to $74,999	62,500	2,105	1.09	-2,133.50		
$75,000 to $99,999	87,500	1,417	0.78	-3,258.50		
$100,000 to $149,999	125,000	1,826	0.54	-4,946.00		
$150,000 to $199,999	175,000	754	0.39	-7,196.00		
$200,000 or more	200,000	592	0.34	-8,321.00		

San Marino, CA

Population, 2013: 13,327

Poverty Rate, 2012: 4.6%

Median Household Income (MHI), 2012: $ 139,122

EPA Affordability Criteria
2% of MHI: $ 2,782.44
4.5% of MHI: $ 6,260.49

Current Average Cost per Household

Sewer	$ 211.00
Water	$ 115.91
Flood Control	$ 40.00
Total	$ 366.91

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 4,396*	*Percent of Households*	*CWA 2% MHI $2,782.44 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $6,260.49 as Percent of Actual Income*
Less than $10,000	10,000	178	4.0%	27.8	62.60
$10,000 to $14,999	12,500	58	1.3%	22.3	50.08
$15,000 to $24,999	20,000	151	3.4%	13.9	31.30
$25,000 to $34,999	30,000	175	4.0%	9.3	20.87
$35,000 to $49,999	42,500	188	4.3%	6.5	14.73
$50,000 to $74,999	62,500	314	7.1%	4.5	10.02
$75,000 to $99,999	87,500	504	11.5%	3.2	7.15
$100,000 to $149,999	125,000	699	15.9%	2.2	5.01
$150,000 to $199,999	175,000	605	13.8%	1.6	3.58
$200,000 or more	200,000	1,524	34.7%	1.4	3.13

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 4,396*	*Percent of Households*	*2% MHI $2,782.44 Percent of Actual Income*	*Sewer Bill $211.00 Percent of Actual Income*	*Water Bill $115.91 Percent of Actual Income*	*Flood Control Bill $40.00 Percent of Actual Income*	*Sewer & Water Bill $366.91 Percent of Actual Income*
Less than $10,000	10,000	178	4.0%	27.8	2.11	1.16	0.400	3.67
$10,000 to $14,999	12,500	58	1.3%	22.3	1.69	0.93	0.320	2.94
$15,000 to $24,999	20,000	151	3.4%	13.9	1.06	0.58	0.200	1.83
$25,000 to $34,999	30,000	175	4.0%	9.3	0.70	0.39	0.133	1.22
$35,000 to $49,999	42,500	188	4.3%	6.5	0.50	0.27	0.094	0.86
$50,000 to $74,999	62,500	314	7.1%	4.5	0.34	0.19	0.064	0.59
$75,000 to $99,999	87,500	504	11.5%	3.2	0.24	0.13	0.046	0.42
$100,000 to $149,999	125,000	699	15.9%	2.2	0.17	0.09	0.032	0.29
$150,000 to $199,999	175,000	605	13.8%	1.6	0.12	0.07	0.023	0.21
$200,000 or more	200,000	1,524	34.7%	1.4	0.11	0.06	0.020	0.18

Santa Barbara, CA

Population, 2013: 90,412

Poverty Rate, 2012:14.7%

Median Household Income (MHI), 2012; $63,758

EPA Affordability Criteria
2% of MHI: $1,275.16
4.5% of MHI: $2,869.11

Current Average Cost per Household

Sewer	$ 516.00
Water	$ 941.52
Flood Control	$ 22.81
Total	$ 1,480.33

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 34,900*	*Percent of Households*	*CWA 2% MHI $1,275.16 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,869.11 as Percent of Actual Income*
Less than $10,000	10,000	1,578	4.5%	12.8	28.7
$10,000 to $14,999	12,500	1,697	4.9%	10.2	23.0
$15,000 to $24,999	20,000	3,302	9.5%	6.4	14.3
$25,000 to $34,999	30,000	3,173	9.1%	4.3	9.6
$35,000 to $49,999	42,500	4,264	12.2%	3.0	6.8
$50,000 to $74,999	62,500	6,053	17.3%	2.0	4.6
$75,000 to $99,999	87,500	4,154	11.9%	1.5	3.3
$100,000 to $149,999	125,000	4,866	13.9%	1.0	2.3
$150,000 to $199,999	175,000	2,885	8.3%	0.7	1.6
$200,000 or more	200,000	2,928	8.4%	0.6	1.4

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 34,900*	*Percent of Households*	*2% MHI $1,275.16 Percent of Actual Income*	*Sewer Bill $516.00 Percent of Actual Income*	*Water Bill $941.52 Percent of Actual Income*	*Flood Control Bill $22.81 Percent of Actual Income*	*Sewer & Water Bill $1,480.33 Percent of Actual Income*
Less than $10,000	10,000	1,578	4.5%	12.8	5.16	9.42	0.228	14.80
$10,000 to $14,999	12,500	1,697	4.9%	10.2	4.13	7.53	0.182	11.84
$15,000 to $24,999	20,000	3,302	9.5%	6.4	2.58	4.71	0.114	7.40
$25,000 to $34,999	30,000	3,173	9.1%	4.3	1.72	3.14	0.076	4.93
$35,000 to $49,999	42,500	4,264	12.2%	3.0	1.21	2.22	0.054	3.48
$50,000 to $74,999	62,500	6,053	17.3%	2.0	0.83	1.51	0.036	2.37
$75,000 to $99,999	87,500	4,154	11.9%	1.5	0.59	1.08	0.026	1.69
$100,000 to $149,999	125,000	4,866	13.9%	1.0	0.41	0.75	0.018	1.18
$150,000 to $199,999	175,000	2,885	8.3%	0.7	0.29	0.54	0.013	0.85
$200,000 or more	200,000	2,928	8.4%	0.6	0.26	0.47	0.011	0.74

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 34,900*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,578	14.80	1,030.33	1,625,861	16,258,607
$10,000 to $14,999	12,500	1,697	11.84	917.83	1,557,558	15,575,575
$15,000 to $24,999	20,000	3,302	7.40	580.33	1,916,250	19,162,497
$25,000 to $34,999	30,000	3,173	4.93	130.33	413,537	4,135,371
$35,000 to $49,999	42,500	4,264	3.48	-432.17		
$50,000 to $74,999	62,500	6,053	2.37	-1,332.17		
$75,000 to $99,999	87,500	4,154	1.69	-2,457.17		
$100,000 to $149,999	125,000	4,866	1.18	-4,144.67		
$150,000 to $199,999	175,000	2,885	0.85	-6,394.67		
$200,000 or more	200,000	2,928	0.74	-7,519.67		

Sierra Madre, CA

Population, 2013: 11,056

Poverty Rate, 2012: 9.6%

Median Household Income (MHI), 2012: $90,321

EPA Affordability Criteria
2% of MHI: $ 1,806.42
4.5% of MHI: $ 4,064.45

Current Average Cost per Household

Sewer	$ 738.00
Water	$ 1,189.00
Flood Control	$ 113.00
Total	$ 2,040.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 4,569*	*Percent of Households*	*CWA 2% MHI $1,806.42 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $4,064.45 as Percent of Actual Income*
Less than $10,000	10,000	145	3.2%	18.1	40.64
$10,000 to $14,999	12,500	190	4.2%	14.5	32.52
$15,000 to $24,999	20,000	251	5.5%	9.0	20.32
$25,000 to $34,999	30,000	246	5.4%	6.0	13.55
$35,000 to $49,999	42,500	359	7.9%	4.3	9.56
$50,000 to $74,999	62,500	677	14.8%	2.9	6.50
$75,000 to $99,999	87,500	782	17.1%	2.1	4.65
$100,000 to $149,999	125,000	929	20.3%	1.4	3.25
$150,000 to $199,999	175,000	392	8.6%	1.0	2.32
$200,000 or more	200,000	598	13.1%	0.9	2.03

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 4,569*	*Percent of Households*	*2% MHI $1,806.42 Percent of Actual Income*	*Sewer Bill $738 Percent of Actual Income*	*Water Bill $1,189 Percent of Actual Income*	*Flood Control Bill $113 Percent of Actual Income*	*Sewer & Water Bill $2,040 Percent of Actual Income*
Less than $10,000	10,000	145	3.2%	18.1	7.38	11.89	1.13	20.40
$10,000 to $14,999	12,500	190	4.2%	14.5	5.90	9.51	0.90	16.32
$15,000 to $24,999	20,000	251	5.5%	9.0	3.69	5.95	0.57	10.20
$25,000 to $34,999	30,000	246	5.4%	6.0	2.46	3.96	0.38	6.80
$35,000 to $49,999	42,500	359	7.9%	4.3	1.74	2.80	0.27	4.80
$50,000 to $74,999	62,500	677	14.8%	2.9	1.18	1.90	0.18	3.26
$75,000 to $99,999	87,500	782	17.1%	2.1	0.84	1.36	0.13	2.33
$100,000 to $149,999	125,000	929	20.3%	1.4	0.59	0.95	0.09	1.63
$150,000 to $199,999	175,000	392	8.6%	1.0	0.42	0.68	0.06	1.17
$200,000 or more	200,000	598	13.1%	0.9	0.37	0.59	0.06	1.02

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 4,569*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	145	20.40	1,590.00	230,550	2,305,500
$10,000 to $14,999	12,500	190	16.32	1,477.50	280,725	2,807,250
$15,000 to $24,999	20,000	251	10.20	1,140.00	286,140	2,861,400
$25,000 to $34,999	30,000	246	6.80	690.00	169,740	1,697,400
$35,000 to $49,999	42,500	359	4.80	127.50	45,773	457,725
$50,000 to $74,999	62,500	677	3.26	-772.50	-522,983	
$75,000 to $99,999	87,500	782	2.33	-1,897.50	-1,483,845	
$100,000 to $149,999	125,000	929	1.63	-3,585.00	-3,330,465	
$150,000 to $199,999	175,000	392	1.17	-5,835.00	-2,287,320	
$200,000 or more	200,000	598	1.02	-6,960.00	-4,162,080	

Signal Hill, CA

Population, 2013: 11,332

Poverty Rate, 2012: 14.0%

Median Household Income (MHI), 2012: $ 65,741

EPA Affordability Criteria
2% of MHI: $ 1,314.82
4.5% of MHI: $ 2,958.35

Current Average Cost per Household

Sewer	$ 407.70
Water	$ 331.50
Flood Control	$ 57.49
Total	$ 769.69

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 4,106*	*Percent of Households*	*CWA 2% MHI $1,314.82 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $2,958.35 as Percent of Actual Income*
Less than $10,000	10,000	241	5.87	13.15	29.58
$10,000 to $14,999	12,500	228	5.55	10.52	23.67
$15,000 to $24,999	20,000	455	11.08	6.57	14.79
$25,000 to $34,999	30,000	153	3.73	4.38	9.86
$35,000 to $49,999	42,500	415	10.11	3.09	6.96
$50,000 to $74,999	62,500	782	19.05	2.10	4.73
$75,000 to $99,999	87,500	692	16.85	1.50	3.38
$100,000 to $149,999	125,000	529	12.88	1.05	2.37
$150,000 to $199,999	175,000	363	8.84	0.75	1.69
$200,000 or more	200,000	248	6.04	0.66	1.48

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 4,106*	*Percent of Households*	*2% MHI $1,314.82 Percent of Actual Income*	*Sewer Bill $407.70 Percent of Actual Income*	*Water Bill $331.50 Percent of Actual Income*	*Flood Control Bill $57.49 Percent of Actual Income*	*Sewer & Water Bill $769.69 Percent of Actual Income*
Less than $10,000	10,000	241	5.87	13.15	4.08	3.32	0.57	7.97
$10,000 to $14,999	12,500	228	5.55	10.52	3.26	2.65	0.46	6.37
$15,000 to $24,999	20,000	455	11.08	6.57	2.04	1.66	0.29	3.98
$25,000 to $34,999	30,000	153	3.73	4.38	1.36	1.11	0.19	2.66
$35,000 to $49,999	42,500	415	10.11	3.09	0.96	0.78	0.14	1.87
$50,000 to $74,999	62,500	782	19.05	2.10	0.65	0.53	0.09	1.27
$75,000 to $99,999	87,500	692	16.85	1.50	0.47	0.38	0.07	0.91
$100,000 to $149,999	125,000	529	12.88	1.05	0.33	0.27	0.05	0.64
$150,000 to $199,999	175,000	363	8.84	0.75	0.23	0.19	0.03	0.46
$200,000 or more	200,000	248	6.04	0.66	0.20	0.17	0.03	0.40

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 4,106*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	241	7.97	346.69	83,552.29	835,522.90
$10,000 to $14,999	12,500	228	6.37	234.19	53,395.32	533,953.20
$15,000 to $24,999	20,000	455	3.98	-103.31		
$25,000 to $34,999	30,000	153	2.66	-553.31		
$35,000 to $49,999	42,500	415	1.87	-1,115.81		
$50,000 to $74,999	62,500	782	1.27	-2,015.81		
$75,000 to $99,999	87,500	692	0.91	-3,140.81		
$100,000 to $149,999	125,000	529	0.64	-4,828.31		
$150,000 to $199,999	175,000	363	0.46	-7,078.31		
$200,000 or more	200,000	248	0.40	-8,203.31		

South Gate, CA

Population, 2013: 95,677

Poverty Rate, 2012: 20.6

Median Household Income (MHI), 2012: $41,851

EPA Affordability Criteria
2% of MHI: $837.02
4.5% of MHI: $1,883.30

Current Average Cost per Household

Sewer	$ 210.00
Water	$ 610.00
Flood Control	$ 351.00
Total	$ 1,171.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 23,925*	*Percent of Households*	*CWA 2% MHI $837.02 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $1,883.30 as Percent of Actual Income*
Less than $10,000	10,000	1,419	5.9%	8.4	18.8
$10,000 to $14,999	12,500	1,867	7.8%	6.7	15.1
$15,000 to $24,999	20,000	3,033	12.7%	4.2	9.4
$25,000 to $34,999	30,000	3,237	13.5%	2.8	6.3
$35,000 to $49,999	42,500	4,277	17.9%	2.0	4.4
$50,000 to $74,999	62,500	4,540	19.0%	1.3	3.0
$75,000 to $99,999	87,500	2,642	11.0%	1.0	2.2
$100,000 to $149,999	125,000	2,298	9.6%	0.7	1.5
$150,000 to $199,999	175,000	402	1.7%	0.5	1.1
$200,000 or more	200,000	210	0.9%	0.4	0.9

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 23,925*	*Percent of Households*	*2% MHI $837.02 Percent of Actual Income*	*Sewer Bill $210.00 Percent of Actual Income*	*Water Bill $610.00 Percent of Actual Income*	*Flood Control Bill $351.00 Percent of Actual Income*	*Sewer & Water Bill $1,171.00 Percent of Actual Income*
Less than $10,000	10,000	1,419	5.9%	8.4	2.10	6.10	3.51	11.71
$10,000 to $14,999	12,500	1,867	7.8%	6.7	1.68	4.88	2.81	9.37
$15,000 to $24,999	20,000	3,033	12.7%	4.2	1.05	3.05	1.76	5.86
$25,000 to $34,999	30,000	3,237	13.5%	2.8	0.70	2.03	1.17	3.90
$35,000 to $49,999	42,500	4,277	17.9%	2.0	0.49	1.44	0.83	2.76
$50,000 to $74,999	62,500	4,540	19.0%	1.3	0.34	0.98	0.56	1.87
$75,000 to $99,999	87,500	2,642	11.0%	1.0	0.24	0.70	0.40	1.34
$100,000 to $149,999	125,000	2,298	9.6%	0.7	0.17	0.49	0.28	0.94
$150,000 to $199,999	175,000	402	1.7%	0.5	0.12	0.35	0.20	0.67
$200,000 or more	200,000	210	0.9%	0.4	0.11	0.31	0.18	0.59

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 23,925*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	1,419	11.71	721.00	1,023,099	10,230,990
$10,000 to $14,999	12,500	1,867	9.37	608.50	1,136,070	11,360,695
$15,000 to $24,999	20,000	3,033	5.86	271.00	821,943	8,219,430
$25,000 to $34,999	30,000	3,237	3.90	-179.00		
$35,000 to $49,999	42,500	4,277	2.76	-741.50		
$50,000 to $74,999	62,500	4,540	1.87	-1,641.50		
$75,000 to $99,999	87,500	2,642	1.34	-2,766.50		
$100,000 to $149,999	125,000	2,298	0.94	-4,454.00		
$150,000 to $199,999	175,000	402	0.67	-6,704.00		
$200,000 or more	200,000	210	0.59	-7,829.00		

South Pasadena, CA

Population, 2013: 25,959

Poverty Rate, 2012: 7.6%

Median Household Income (MHI), 2012: $84,185

EPA Affordability Criteria
2% of MHI: $1,683.70
4.5% of MHI: $3,788.33

Current Average Cost per Household

Sewer	$ 154.98
Water	$ 1,230.00
Flood Control	$ 0.00
Total	$ 1,385.00

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 10,354*	*Percent of Households*	*CWA 2% MHI $1,683.70 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,788.33 as Percent of Actual Income*
Less than $10,000	10,000	479	4.6%	16.8	37.9
$10,000 to $14,999	12,500	291	2.8%	13.5	30.3
$15,000 to $24,999	20,000	515	5.0%	8.4	18.9
$25,000 to $34,999	30,000	504	4.9%	5.6	12.6
$35,000 to $49,999	42,500	898	8.7%	4.0	8.9
$50,000 to $74,999	62,500	1,857	17.9%	2.7	6.1
$75,000 to $99,999	87,500	1,412	13.6%	1.9	4.3
$100,000 to $149,999	125,000	1,790	17.3%	1.3	3.0
$150,000 to $199,999	175,000	1,078	10.4%	1.0	2.2
$200,000 or more	200,000	1,530	14.8%	0.8	1.9

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 10,354*	*Percent of Households*	*2% MHI $1,683.70 Percent of Actual Income*	*Sewer Bill $154.98 Percent of Actual Income*	*Water Bill $1,230.00 Percent of Actual Income*	*Flood Control Bill NA Percent of Actual Income*	*Sewer & Water Bill $1,385.00 Percent of Actual Income*
Less than $10,000	10,000	479	4.6%	16.8	2.55	12.30		13.85
$10,000 to $14,999	12,500	291	2.8%	13.5	2.04	9.84		11.08
$15,000 to $24,999	20,000	515	5.0%	8.4	1.27	6.15		6.92
$25,000 to $34,999	30,000	504	4.9%	5.6	0.85	4.10		4.62
$35,000 to $49,999	42,500	898	8.7%	4.0	0.60	2.89		3.26
$50,000 to $74,999	62,500	1,857	17.9%	2.7	0.41	1.97		2.22
$75,000 to $99,999	87,500	1,412	13.6%	1.9	0.29	1.41		1.58
$100,000 to $149,999	125,000	1,790	17.3%	1.3	0.20	0.98		1.11
$150,000 to $199,999	175,000	1,078	10.4%	1.0	0.15	0.70		0.79
$200,000 or more	200,000	1,530	14.8%	0.8	0.13	0.62		0.69

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 10,354*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	479	13.85	1,034.98	495,755	4,957,554
$10,000 to $14,999	12,500	291	11.08	922.48	268,442	2,684,417
$15,000 to $24,999	20,000	515	6.92	584.98	301,265	3,012,647
$25,000 to $34,999	30,000	504	4.62	134.98	68,030	680,299
$35,000 to $49,999	42,500	898	3.26	-427.52		
$50,000 to $74,999	62,500	1,857	2.22	-1,327.52		
$75,000 to $99,999	87,500	1,412	1.58	-2,452.52		
$100,000 to $149,999	125,000	1,790	1.11	-4,140.02		
$150,000 to $199,999	175,000	1,078	0.79	-6,390.02		
$200,000 or more	200,000	1,530	0.69	-7,515.02		

Torrance, CA

Population, 2013: 147,478

Poverty Rate, 2012: 7.4%

Median Household Income (MHI), 2012: $ 76,082

EPA Affordability Criteria
2% of MHI: $ 1,521.64
4.5% of MHI: $ 3,423.69

Current Average Cost per Household

Sewer (collection only)	$ 52.08
Water	$ 643.56
Flood Control	$
Total	$ 695.64

Table 1: EPA Water & Sewer Affordability Thresholds as a Percent of Actual Household Income

Household Income Distribution	*Household Income*	*Number of Households 55,340*	*Percent of Households*	*CWA 2% MHI $1,521.64 as Percent of Actual Income*	*CWA & SDWA 4.5% MHI $3,423.69 as Percent of Actual Income*
Less than $10,000	10,000	2,484	4.5%	15.2	34.2
$10,000 to $14,999	12,500	1,939	3.5%	12.2	27.4
$15,000 to $24,999	20,000	3,978	7.2%	7.6	17.1
$25,000 to $34,999	30,000	3,491	6.3%	5.1	11.4
$35,000 to $49,999	42,500	5,584	10.1%	3.6	8.1
$50,000 to $74,999	62,500	9,763	17.6%	2.4	5.5
$75,000 to $99,999	87,500	8,046	14.5%	1.7	3.9
$100,000 to $149,999	125,000	10,975	19.8%	1.2	2.7
$150,000 to $199,999	175,000	4,974	9.0%	0.9	2.0
$200,000 or more	200,000	4,106	7.4%	0.8	1.7

Table 2: Cost per Household for Current Water Service Components

Household Income Distribution	*Household Income*	*Number of Households 55,340*	*Percent of Households*	*2% MHI $1,521.64 Percent of Actual Income*	*Sewer Bill $52.08 Percent of Actual Income*	*Water Bill $643.56 Percent of Actual Income*	*Flood Control Bill NA Percent of Actual Income*	*Sewer & Water Bill $695.64 Percent of Actual Income*
Less than $10,000	10,000	2,484	4.5%	15.2	0.52	6.44		6.96
$10,000 to $14,999	12,500	1,939	3.5%	12.2	0.42	5.15		5.57
$15,000 to $24,999	20,000	3,978	7.2%	7.6	0.26	3.22		3.48
$25,000 to $34,999	30,000	3,491	6.3%	5.1	0.17	2.15		2.32
$35,000 to $49,999	42,500	5,584	10.1%	3.6	0.12	1.51		1.64
$50,000 to $74,999	62,500	9,763	17.6%	2.4	0.08	1.03		1.11
$75,000 to $99,999	87,500	8,046	14.5%	1.7	0.06	0.74		0.80
$100,000 to $149,999	125,000	10,975	19.8%	1.2	0.04	0.51		0.56
$150,000 to $199,999	175,000	4,974	9.0%	0.9	0.03	0.37		0.40
$200,000 or more	200,000	4,106	7.4%	0.8	0.03	0.32		0.35

Table 3: Cost per Household and Household Income Category in Excess of 4.5% of Actual Income

Household Income Distribution	*Household Income*	*Number of Households 55,340*	*2014 Average Total Water Cost per Household As % of Actual Income*	*2014 Average Total Water Cost per Household in Excess of 4.5% of Actual Income*	*Cost per Household Income Category in Excess of 4.5% of Actual Income $*	*10-Year Impact $*
Less than $10,000	10,000	2,484	6.96	245.64	610,170	6,101,698
$10,000 to $14,999	12,500	1,939	5.57	133.14	258,158	2,581,585
$15,000 to $24,999	20,000	3,978	3.48	-204.36		
$25,000 to $34,999	30,000	3,491	2.32	-654.36		
$35,000 to $49,999	42,500	5,584	1.64	-1,216.86		
$50,000 to $74,999	62,500	9,763	1.11	-2,116.86		
$75,000 to $99,999	87,500	8,046	0.80	-3,241.86		
$100,000 to $149,999	125,000	10,975	0.56	-4,929.36		
$150,000 to $199,999	175,000	4,974	0.40	-7,179.36		
$200,000 or more	200,000	4,106	0.35	-8,304.36		

Vernon, CA

Population, 2013: 112

Poverty Rate, 2012: NA

Median Household Income (MHI), 2012: NA

EPA Affordability Criteria
2% of MHI: NA
4.5% of MHI: NA

Current Average Cost per Household	
Sewer	$ 158.00
Water	$ 422.00
Flood Control	$
Total	$ 580.00

Appendix B *Bias, Estimation and Uncertainty*

Generally speaking, the estimates developed in this study are accurate and reliable. All studies, however, are subject to several forms of error and uncertainty. This Appendix is intended to address some of the potential for estimation error regarding this study method and application.

Data Bias:

- Data on population, Median Household Income and number of households for income deciles is taken directly from the latest Census reports at Census.Gov. These data enjoy the accuracy achieved by the Census survey data techniques; and they suffer the same deficiencies of such.
- Cities participating in the survey are self-selected for whatever reason they chose to participate. This introduces an element of bias because not all cities are included. Therefore, the findings may be somewhat indicative of all California cities but are best seen as representing the survey cities involved rather than all California cities.

Estimation:

- Estimating the dollar amount of Median Household Income at 2.0% and at 4.5% is straightforward arithmetic and not subject to estimation error, other than the inherent error involved with the Census' calculation of estimated Median Household Income for each city involved.

- Estimating the percent of households impacted by cost per household and comparisons to current costs and affordability criteria is also straightforward arithmetic, but has several factors that are identified as possibly introducing estimation error.

  ◊ In order to estimate the percentage of households that spend in excess of 4.5% of their actual income on public water the analysis applied relies on some assumptions

- This research relies on city expertise to provide cost per household data for sewer, water and flood control. Cities have a practical advantage in knowing these residential costs by virtue of their recurring experience with water and sewer billing over time, and an intimate knowledge of their customer base.

- Local expertise is involved in matching number of households to local service hook-ups. These figures often do not match, primarily because in multi-household dwellings a single hook up may service a small to large number of households that reside in the units. Again, local expertise is relied on to confirm the accuracy of the estimates.

- In one city, Inglewood, the local expertise of a city official intimate with system operations asserted that the difference between household number and hook-ups could not be easily resolved. This is the case because many households in Inglewood are served by another regional system. Therefore, the data for Inglewood exhibited in the results are limited to the cost per household provided by the city, and the estimation of 2.0% and 4.5% of Median Household Income. That same Inglewood representative also cautioned that the consumption rates for the poorer households might be overestimated.

Error:

Systemic error may affect the calculation of estimates when using number of households, but there are countervailing factors that may minimize the importance of error in this instance. For example, the lowest and highest income deciles are, respectively, $10,000 or less a year, and $200,000 or more a year. The convention used for the purposes of this study was to assign all households in this category to an assumed income of $10,000, when some households in this category might make less. Similarly, for the highest income category $200,000 annual income was used although these households might make more than that.

The other income deciles were utilized by specifying the mid-point of income for each category. Thus, the second lowest income decile $10,000 to $14,999 is represented for purposes of calculation as $12,500.

An additional error concern is the fact that some cities could not determine cost per household when their households were served by multiple water or sewer systems. Cities were asked to apply local expertise in these cases.

The Mayors Water Council (MWC) provides a forum for Mayors to discuss issues impacting how they provide safe, adequate and affordable water and wastewater services and infrastructure in America's Principal Cities in the 21st Century. It is open to all Mayors, focusing on water resource issues, including: watershed management; water supply planning; surface and sub-surface water infrastructure financing and rehabilitation; water conservation, Public-Private Partnerships; and asset management.

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