

## EWMP IMPLEMENTATION COSTS AND FINANCIAL STRATEGY

### **ES.5 EWMP Implementation Costs and Financial Strategy** states:

*The total estimated capital cost is approximately \$2.7B, over the course of six years. The costs provided here are considered to be planning level only (order of magnitude), and can be refined as EWMP implementations progresses with the use of actual BMP implementation costs. Funds have not been identified in the EWMP Implementation Plan but will be pursued. Potential funding sources and alternatives that could be evaluated by each Group Member include grants, fees and charges, legislative and policy remedies.*

*The costs to implement the EWMP will require orders of magnitude increases in stormwater program funding. **The capital costs to address Water Quality Priorities by 2021 are approximately \$2.7B, which is approximately \$9,422 per parcel, with total operations and maintenance costs exceeding \$77M per year (Table ES-1).** Expenditures for the EWMP Implementation Strategy will need to be coordinated with other regional efforts to improve habitat, promote greenways and increase access to Ballona Creek. In order to garner community support for financing the costs, it will likely be necessary to quantify the multi-benefits of the LID, green streets, and regional projects including improved aesthetics, increase recreational opportunity, water supply augmentation and climate change resiliency. The financial strategy presented in this EWMP outlines a set of multiple approaches that allows each jurisdiction to consider and select the strategies that best fit their specific preferences*

and

### **9.1 EWMP Implementation Costs**

*The costs for structural BMPs are considered to be planning level only (order of magnitude), and can be refined as EWMP implementation progresses with the use of actual BMP implementation costs. Costs for enhanced minimum control measures and other institutional BMPs have not been included because they will vary by jurisdiction and are estimated to be a small percentage of the overall program costs. **Monitoring and stormwater program costs are not included.***

## COMMENTS

There is no Financial Strategy but an intent to pursue and no projected costs for monitoring.

Regional Projects on Private Land are 52% of the implementation with no sources identified.

LID Ordinances are 2% of the implementation and the remaining LID strategies are 10%.

Green Streets are 17% of the implementation and involves the area of extensive Bioretention and Biofiltration through subwatersheds. State highways are not delineated and categories of streets are not defined. Authorities are not cited.

Public Health inspections and costs are not addressed as those costs are borne by the inspecting agency.

MILESTONE Capital Costs are \$2,723,650,000. Operation and Maintenance costs are \$764,200,000 through the 2021 compliance period. This Permit, however, expires December 28, 2017.

It is not clear how Storage Costs are addressed. The IMPERVIOUS SURFACE is: 1,100,527,170 square feet producing 358,583.447,168,496 gallons of water.

No Circulation Element facts are presented and we have no idea who has the Mineral Rights, Groundwater Rights or Pipeline Leases. The area is not adjudicated and groundwater is owned by the property owners. It is unclear as to how extraction will be achieved on properties not owned by the agencies involved.

As a sample, the City of Los Angeles CONSOLIDATED ANNUAL FINANCIAL REPORT (FY June 30, 2015) requires disclosure under NOTES TO BASIC FINANCIAL STATEMENT:

***Total Maximum Daily Loads (TMDLs)***

*The USEPA and the LARWQCB are required to develop TMDLs for impaired water bodies. Various watersheds in the Los Angeles area have water body segments that are listed as impaired due to a variety of pollutants. Although some TMDLs have already been released, additional TMDLs will be under development and compliance with both existing and new TMDLs will continue into the next decade. At this time, it is difficult to predict the full impact of TMDLs on the National Pollutant Discharge Elimination System (NPDES) effluent limits at the City's four water reclamation and wastewater treatment plants. **In addition, the proposed Greater Los Angeles County Municipal Separate Stormwater Sewer Systems (MS4) permit, adopted by the LARWQCB in November 2012, contains provisions that require compliance with all the adopted TMDLs. It is expected that significant capital improvements funded by Sewer may be required to comply with the TMDLs and their resulting impact on the City's NPDES permits.***

This statement discloses Sewer funds as the source for “significant capital improvements.” This permit goes beyond the sewer system into streets and land and the taxpayer has not been notified of the tremendous expected costs.

## ROLE OF GREEN INFRASTRUCTURE

### 5.2 What is the Role of Green Infrastructure in the EWMP states:

*To quantify the potential benefit of green streets for pollutant reduction and integrate them into the EWMP Implementation Strategy, all available streets throughout the watershed were screened to define the maximum available green street length, as shown in Figure 5-4. The RAA evaluated a series of detailed green street implementation parameters (described in detail in the RAA, Section 6.3), and determined the percent of available streets opportunities to be retrofitted with green infrastructure to meet EWMP objectives, as shown in Figures 5-5 and 5-6. While it is anticipated that the implementation of green streets will evolve over the course of adaptive management, the EWMP Implementation Strategy provides the foundation of a robust watershed-wide green streets program going forward.*

## COMMENTS

All streets were addressed regardless of agency authority including the State. Not considered are the Methane issues of the area and the Fault Zones.

## MODELING

### 6.1.1 LSPC

*The watershed model included within WMMS is the LSPC (Tetra Tech and USEPA 2002; USEPA 2003; Shen et al. 2004). LSPC is a watershed modeling system for simulating watershed hydrology, erosion, and water quality processes, as well as in-stream transport processes. LSPC also integrates a GIS, comprehensive data storage and management capabilities, and a data analysis/post-processing system into a convenient Windows-based environment. The algorithms of LSPC are identical to a subset of those in the **Hydrologic Simulation Program–FORTRAN (HSPF) model** with selected additions, such as algorithms to dynamically address land use change over time. USEPA’s Office of Research and Development (Athens, Georgia) first made LSPC available as a component of USEPA’s National TMDL Toolbox (<http://www.epa.gov/athens/wwqtsc/index.html>). LSPC has been further enhanced with expanded capabilities since its original public release*

## COMMENTS

The Modeling Systems offered in the Permit are:

- Watershed Management Modeling System (WMMS)
- Hydrologic Simulation Program-FORTRAN (HSPF)
- Structural BMP Prioritization and Analysis Tool (SBPAT)

LSPC modeling costs are not compared to the other models for the CAPITAL COST and OPERATIONS AND MAINTENANCE.

#### PEER REVIEW COMMENTS

Peer Review is not addressed.

#### RAA MODEL PARAMETERS

##### 8.2.3 Updates to the RAA Model Parameters

*Over time, the parameters in the watershed and BMP models used for the RAA may be updated based on newly available data. For example, as additional control measures are implemented in LA County, **new data may become available regarding performance of control measures for reduction pollutants.***

*In turn, the performance metrics in the RAA could be updated. Other types of data that could support RAA updates include soil infiltration data, revised catchment delineations, modified operations to impoundments/reservoirs, changes in rainfall patterns, water conservation efforts, and major changes to the quality or volume of effluent discharges from POTWs.*

#### COMMENTS

We do not understand how these updates coordinate with monitoring and pollutant reduction load identification other than outfall monitoring. Proposition O projects from the City of Los Angeles have no data that can verify load reductions. This is an NPDES permit based on Source Point discharges.

#### ADAPTIVE MANAGEMENT

##### 8.2.4 Updates to Preferences for Control Measure Implementation states:

*In Figure 8-2, the “**recipe for compliance**” is split to emphasize that the **Compliance Targets (on the left-hand side) are fixed, enforceable goals, whereas the plan (on the right-hand side) is subject to adaptive management.** The objective is for each BC EWMP Group member to meet the Compliance Target (left-hand side) and manage a certain amount of runoff in a 24-hour period with a suite of BMPs. The right-hand side represents the control*

*measures identified by the RAA based on the assumptions described in Section 6. However, over time, the EWMP Implementation Strategy will be adjusted. In some cases, it may be possible to use alternative control measures or designs in such a way that the overall constructed size (and associated cost) of the suite of BMPs is reduced.*

## COMMENTS

It is unclear if how Monitoring will be achieved for Regional Projects, LID Low Impact Development and Green Streets. They are not Source Point discharges. Managing runoff is not a Source Point issue. It is not clear how water quality improvement is attained by these adaptive management strategies.

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Attachment:  
Ballona Creek EWMP Implementation Strategy Analysis

EWMP IMPLEMENTATION STRATEGY ANALYSIS  
BALLONA CREEK  
128 SQUARE MILES

REGIONAL PROJECTS	
Public Land-Very High	11%
Public Land-High	7%
Sub-Total Public Land	18%
Private Land	<u>52%</u>
TOTAL REGIONAL PROJECTS	70%

Regional projects: these control measures are an emphasis of the Permit because they are able to capture runoff from large upstream areas. The EWMP emphasizes implementation of regional projects, particularly those that are able to retain the 85th percentile, 24-hour storm event. The BC EWMP includes 68 regional BMPs, including 4 multi-benefit regional projects that retain the stormwater volume from the 85th percentile, drainage areas 24-hour storm for the tributary to the multi-benefit regional projects. In addition, the EWMP includes regional projects on private land to assure required pollutant reductions are achieved.

LID LOW IMPACT DEVELOPMENT	
Ordinance	2%
Existing/Planned	3%
Public Retrofits	5%
Residential Program	<u>2%</u>
TOTAL LID	12%

Low impact development (LID): control measures implemented on parcels to retain stormwater runoff during rain events. For the EWMP, the Group members' LID ordinances are also incorporated. In addition, residential LID programs are incorporated to incentivize adoption of rain cisterns and other methods to reduce runoff from residential properties, while also facilitating community engagement and awareness. Group members will also investigate LID retrofits on public parcels.

GREEN STREETS	17%
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Green streets: the right-of-way along streets offer a significant opportunity to implement control measures on public land. The EWMP includes extensive green streets to retain runoff from roads and alleys, and indirectly from roofs and parking surfaces. Green streets will potentially offer many other benefits to communities in terms of aesthetics, safety and increased property values.

MILESTONES  
CAPITAL COSTS

2016	\$ 153,820,000
2021	<u>2,569,830,000</u>
TOTAL	\$ <u>2,723,650,000</u>

ANNUAL COSTS-OPERATION & MAINTENANCE

2016	\$ 13,500,000
2021	<u>150,140,000</u>
TOTAL	\$ <u>163,640,000</u>

Years

1	13,500,000
5	<u>750,700,000</u>
	\$ <u>764,200,000</u>