

Los Angeles Regional Water Quality Control Board

October 21, 2014

Ms. Melissa Barcelo
Community Services Division
City of Walnut
21201 La Fuente Road
Walnut, CA 91789

REVIEW OF THE CITY OF WALNUT'S DRAFT WATERSHED MANAGEMENT PROGRAM, PURSUANT TO PART VI.C OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Ms. Barcelo:

The Regional Water Board has reviewed the draft Watershed Management Program (WMP) submitted on June 28, 2014 by the City of Walnut. This program was submitted pursuant to the provisions of NPDES Permit No. CAS004001 (Order No. R4-2012-0175), which authorizes discharges from the municipal separate storm sewer system (MS4) operated by 86 municipal Permittees within Los Angeles County (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) to implement permit requirements on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Development of a WMP or EWMP is voluntary and may be developed individually or collaboratively.

The purpose of a WMP or EWMP is for a Permittee to develop and implement a comprehensive and customized program to control pollutants in MS4 discharges of stormwater and non-stormwater to address the highest water quality priorities. These include complying with the required water quality outcomes of Part V.A (Receiving Water Limitations) and Part VI.E and Attachments L through R (Total Maximum Daily Load (TMDL) Provisions) of the LA County MS4 Permit. If a Permittee opts to develop a WMP or EWMP, the WMP or EWMP must meet the requirements, including conducting a Reasonable Assurance Analysis (RAA), of Part VI.C (Watershed Management Programs) of the LA County Permit and must be approved by the Regional Water Board.

As stated above, on June 28, 2014, the City of Walnut submitted a draft Watershed Management Program (WMP) to the Regional Water Board pursuant to Part VI.C.4.c of the LA County MS4 Permit.

The Regional Water Board has reviewed the draft WMP and has determined that, for the most part, the draft WMP includes the elements and analysis required in Part VI.C of the LA County MS4 Permit. However, some revisions to the City's draft WMP are necessary. The Regional

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Water Board's comments on the draft WMP, including detailed information concerning necessary revisions to the draft WMP, are found in Enclosure 1 and Enclosure 2, respectively. The specific Permit provisions cited in the enclosures refer to provisions in the LA County MS4 Permit. The LA County MS4 Permit includes a process through which necessary revisions to the draft WMP can be made (Part VI.C.4 in the LA County MS4 Permit). The process requires that a final WMP, revised to address Regional Board comments identified in the enclosures, must be submitted to the Regional Water Board not later than three months after comments are received by the Permittees on the draft program. Please make the necessary revisions to the draft WMP as identified in the enclosures to this letter and submit the revised WMP as soon as possible and no later than **January 21, 2015**.

The revised WMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised Draft Walnut WMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Chris.Lopez@waterboards.ca.gov.

If the necessary revisions are not made, the City will be subject to the baseline requirements in Part VI.D of the Order and shall demonstrate compliance with receiving water limitations pursuant to Part V.A and with applicable interim and final water quality-based effluent limitations (WQBELs) in Part VI.E and Attachment P pursuant to subparts VI.E.2.d.i.(1)-(3) and VI.E.2.e.i.(1)-(3), respectively.

Until the draft Walnut WMP is approved, the City is required to:

- (a) Continue to implement all watershed control measures in its existing storm water management programs, including actions within each of the six categories of minimum control measures consistent with Title 40, Code of Federal Regulations, section 122.26(d)(2)(iv);
- (b) Continue to implement watershed control measures to eliminate non-storm water discharges through the MS4 that are a source of pollutants to receiving waters consistent with Clean Water Act section 402(p)(3)(B)(ii); and
- (c) Target implementation of watershed control measures in (a) and (b) above to address known contributions of pollutants from MS4 discharges to receiving waters.

In addition on June 28, 2014, the City submitted a draft Integrated Monitoring Program (IMP) to the Regional Water Board pursuant to Part IV.C of Attachment E of the LA County MS4 Permit. The Regional Water Board review and comments on the draft IMP will be provided under separate cover.

If you have any questions, please contact Mr. Chris Lopez of the Storm Water Permitting Unit by electronic mail at Chris.Lopez@waterboards.ca.gov or by phone at (213) 576-6674. Alternatively, you may also contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

Enclosures:

Comments and Necessary Revisions to Draft WMP
Comments on Reasonable Assurance Analysis Report for City of Walnut

cc: Cody Howing, Assistant Engineer, RKA Consulting Group

Los Angeles Regional Water Quality Control Board

Attachment to October 21, 2014 Letter Regarding the City of Walnut's Draft Watershed Management Program Submittal Pursuant to Part VI.C of the LA County MS4 Permit (Order No. R4-2012-0175)

Comments and Necessary Revisions to Draft WMP

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Water Quality Characterization Part VI.C.5.a.i</p>	<p>The City's submittal does not include a thorough evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality, to support identification and prioritization/sequencing of management actions.</p> <p>The City should evaluate relevant monitoring data for its water quality characterization (e.g. Los Angeles County Sanitation Districts' receiving water monitoring data or mass emissions station and tributary monitoring conducted under the 2001 LA County MS4 Permit may be applicable).</p> <p>The City may be able to find examples of data sources applicable for its water quality characterization in the draft WMPs and EWMP workplans of nearby areas. Conducting representative sampling at the City's MS4 outfalls is another option to support a preliminary water quality characterization of storm water and non-storm water discharges from the City's MS4 if there is a lack of existing water quality data.</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Category 2 Pollutants – Bacteria</p> <p>Part VI.C.5.a.ii.(2)</p>	<p>The City's submittal correctly identifies coliform and indicator bacteria as 303(d) impairments and correspondingly categorizes coliform bacteria as a category 2 pollutant. However, the City incorrectly uses fecal coliform water quality objectives that no longer apply.</p> <p>The City needs to modify its WMP to be consistent with current freshwater bacteria objectives contained in the <i>Water Quality Control Plan for the Los Angeles Region</i> in which <i>E. coli</i> is used instead of fecal coliform. These objectives were amended in 2010 through Regional Water Board Resolution No. R10-005.</p> <p>The bacteria limitations listed in Table 2-5 (on page 9) should be revised to include the correct bacteria objectives expressed as <i>E. coli</i> density. Additionally, all subsequent sections of the WMP that address this pollutant (e.g. compliance schedules, reasonable assurance analysis, etc.) should address <i>E. coli</i> instead of fecal or total coliform.</p>
<p>Category 2 Pollutants – Benthic Macroinvertebrate Bioassessments</p> <p>Part VI.C.5.a.ii.(2)</p>	<p>The City's submittal incorrectly lists "benthic microinvertebrates." This should be listed as "benthic macroinvertebrates."</p>
<p>Category 3 Pollutants</p> <p>Part VI.C.5.a.ii.(3)</p>	<p>The City's submittal does not contain any discussion of Category 3 pollutants nor does it indicate that there was any type of review of existing water quality conditions to identify Category 3 pollutants.</p> <p>As the City completes its water quality characterization, the City must identify if there are any Category 3 pollutants and explicitly report its findings in its WMP and address these pollutants as appropriate in the revised draft WMP, including the City's Reasonable Assurance Analysis (RAA).</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Source Assessment and Prioritization</p> <p>Part VI.C.5.a.iii-iv</p>	<p>The City's source assessment section does not directly cite the bases for the identification of known and suspected sources of pollutants. For clarity, the City should at least cite the sources for its findings (e.g. TMDL source investigations, findings from 2001 MS4 MCM programs, etc.).</p> <p>Additionally, the City does not appear to prioritize the issues within the watershed based on the findings of its source assessment. The City may simply maintain the priorities from its water body-pollutant classification; however, the WMP should at least discuss and finalize a prioritization of watershed issues based on its source assessment findings.</p>
<p>Minimum Control Measures</p> <p>Part VI.C.5.b.iv.(1)</p>	<p>The City's submittal includes a section on MCMs (pages 12-37) that mostly incorporates and restates Parts VI.D.5 to VI.D.10 of the permit. However, it is not clear if the City did any assessment of the MCMs to identify if there are opportunities for focusing resources on high priority issues in the watershed. Furthermore, it's not clear if the City has made any modifications to MCMs.</p> <p>The City should discuss its evaluation of control measures and explicitly state if there are any modifications as it describes each program.</p>
<p>Public Agency Activities Program</p> <p>Part VI.C.5.b.iv.(1)(a)(iv)</p>	<p>In discussing its Public Agency Activities Program, the City doesn't state whether its public facility inventory will be updated at least once during the 5-year term of the Order per Part VI.D.9.c.iii.</p> <p>With respect to Landscape, Park, and Recreational Facilities Management, the City doesn't specifically state whether its landscaping maintenance program ensures no application of pesticides or fertilizers prior to rain events specified in Part VI.D.9.g.iii.(2).</p> <p>Since the draft WMP does not explicitly state whether any changes are going to be made to MCMs, it is unclear if these are just unintended omissions.</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Watershed Control Measures – Information on Structural Controls and BMPs</p> <p>Part VI.C.5.b.iv.(4)(b)</p>	<p>The City's submittal does not include sufficient information on the number, type, and location(s) and/or frequency for each structural control and non-structural best management practice.</p> <p>For example, the City does not include the locations of its four proposed Regional BMPs (on page 45), nor is there a thorough description of the type of BMP that will be installed. The City also references "a plan for the implementation of local BMPs," and states that biofilters are the type of local BMP that would be used, but provides no detail on the anticipated number and location(s) of these local BMPs.</p> <p>Regional Water Board staff recommends that the City include a separate section of the WMP to describe all control measures, and corresponding implementation schedules, in detail so that the City's plan and BMP implementation commitments are clear and explicit.</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Watershed Control Measures – Information on Pollution Prevention Measures</p> <p>Part VI.C.5.b.iv.(4)(c)</p>	<p>The City's submittal does not include sufficient information on the nature, scope, and timing of implementation for pollution prevention measures.</p> <p>For example, on page 45 the City describes that "[s]ource control BMPs proposed by the City include policies, programs, and ordinances that support practices that improve or prevent additional pollution from being deposited into the local rivers and creeks." However, there is no further information on this.</p> <p>While the City states that it will implement "enhanced street sweeping, enhanced catch basin and storm drain cleaning, enhanced commercial and food outlet inspection, enhanced pet waste controls, enhanced education and outreach, septic inspection/enforcement, and enhanced Illicit Discharge Detection Elimination (IDDE) efforts (including microbial source tracking to identify inputs of human fecal contamination into the MS4)," the draft WMP does not include specific, measurable commitments for each of these non-structural BMPs. For example, the revised draft WMP must indicate the nature of the enhancements to street sweeping (e.g., increased frequency from two times per month to four times per month, use of regenerative-air sweepers instead of mechanical [broom & conveyor belt] sweepers) and the schedule for implementing the enhancements. See comment below for more detail.</p> <p>As previously stated, Regional Water Board staff recommends that the City include a separate section of the WMP to describe all control measures in detail so that the City's plan and commitments with regard to pollution prevention measures are clear and explicit.</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Watershed Control Measures – Milestones</p> <p>Part VI.C.5.b.iv.(4)(d)</p>	<p>The City's submittal does not include sufficient interim milestones and dates for achievement for each structural control and non-structural best management practice to ensure that TMDL compliance deadlines will be met.</p> <p>The City's proposed BMP Implementation Plan (on page 45) should list interim milestones for the structural controls and non-structural BMPs that it plans to implement. Example milestones may include milestones for planning and design, beginning construction, and completing construction. The only interim milestone that is included is for "non-modeled, non-structural BMPs" with a date of December 2017 for their implementation. Greater specificity regarding the City's commitments for each non-modeled, non-structural BMP is necessary, as described above.</p> <p>Regional Water Board staff recommends that this information be included in full detail in a separate section of WMP outside of the Reasonable Assurance Analysis section.</p>
<p>Reasonable Assurance Analysis – Category 1 Pollutants</p> <p>Part VI.C.5.b.iv.(5)</p>	<p>The RAA does not consider dry weather conditions. However, the draft WMP only justifies this omission by stating that the City plans to eliminate 100% of non-exempt dry weather MS4 discharges.</p> <p>If this is the City's goal, the WMP needs to include a detailed plan of what control measures it plans to implement to ensure the elimination of non-exempt non-stormwater discharges. This plan should also include interim milestones. Additionally, the City must also justify in its WMP that these control measures will ensure compliance with the applicable compliance deadlines for selenium. Part of this justification should include an evaluation of whether any of the conditionally exempt, non-stormwater discharges may be a source of selenium that could cause or contribute to an exceedance of the selenium WQBEL.</p> <p>If the City cannot provide a feasible and measurable plan that ensures compliance, then it will need to demonstrate through its RAA that it will comply with the applicable compliance deadlines for selenium.</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Reasonable Assurance Analysis – Category 2 Pollutants</p> <p>Part VI.C.5.b.iv.(5)</p>	<p>The RAA does not address Category 2 pollutants aside from bacteria.</p> <p>As noted in a previous comment, bacteria should be modeled using <i>E. coli</i> instead of fecal coliform.</p> <p>For other Category 2 pollutants (ammonia, cyanide, pH, and TDS) the City must provide additional information to demonstrate that MS4 discharges will meet receiving water limitations.</p>
<p>Compliance Schedules for Category 1 Pollutants</p> <p>Part VI.C.5.c.iii.(1)-(2)</p>	<p>The draft WMP does not incorporate the interim and final implementation deadlines contained in the <i>Implementation Plan for Metals and Selenium in San Gabriel River and Impaired Tributaries</i>. The Basin Plan amendment (Regional Water Board Resolution No. R13-004) that incorporated this program of implementation into the Basin Plan was recently approved by the Office of Administrative Law. This plan includes an implementation schedule with interim compliance deadlines of September 30, 2017; September 30, 2020; and September 30, 2023; and a final compliance deadline of September 30, 2026.</p> <p>The City's submittal does not include any compliance deadlines occurring within the permit term for Category 1 pollutants (i.e. lead and selenium). While the City's analysis indicates that no load reductions are required to meet the lead WLA (p. 50), the September 30, 2017 compliance deadline should be included along with the corresponding structural and non-structural BMPs that will be implemented to achieve the dry weather WLA for selenium in 30% of the City's drainage area (or achieve a 30% reduction in the difference between the current loadings and the dry weather WLAs for selenium).</p> <p>Table 4-9 (on pages 50-51) only establishes a final compliance date of 2024.</p>

Issue and MS4 Permit Provision	Regional Water Board Staff Comment
<p>Compliance Schedules for Category 2 Pollutants</p> <p>Part VI.C.5.c.iii.(3)</p>	<p>The City's submittal does not include interim milestones and dates for achieving milestones for Category 2 (High Priority) pollutants— i.e. coliform bacteria, ammonia, pH, TDS, toxicity, cyanide, and benthic macroinvertebrate condition. As it does with Category 1 pollutants, Table 4-9 (on pages 50-51) only establishes a final compliance date of 2024 for bacteria load reductions. Per the LA County MS4 Permit, interim milestones and dates for their achievement must be adequate for measuring progress once every two years.</p> <p>Additionally, the City does not discuss or justify its reasoning for adopting a 10-year compliance schedule for bacteria.</p>

Los Angeles Regional Water Quality Control Board

TO: Melissa Barcelo
City of Walnut

FROM: C.P. Lai, Ph.D., P.E. and Thanhloan Nguyen
REGIONAL PROGRAMS SECTION

DATE: October 21, 2014

SUBJECT: COMMENTS ON REASONABLE ASSURANCE ANALYSIS REPORT FOR CITY OF WALNUT

This memorandum contains comments on Section 4.0 "Reasonable Assurance Analysis" of the City's draft Watershed Management Program, dated June 28, 2014, which was submitted by the City of Walnut.

- A. General comments on the draft Reasonable Assurance Analysis section of the draft Watershed Management Program.
1. Pursuant to Part VI.C.5.a.iv.(1) and VI.C.5.b.iv.(3)-(4), pages 60 and 62-63 of the LA County MS4 Permit, the City is subject to final wasteload allocations (WLA) pursuant to Attachment P, Part A "San Gabriel River and Impaired Tributaries Metals and Selenium TMDL." The LA County MS4 Permit specifies a WLA for lead during wet weather that applies to Reach 2 of the San Gabriel River and all upstream reaches and tributaries and for selenium during dry weather that applies to San Jose Creek 1 and 2, which are both applicable to the City's MS4 discharges.

The City's approach to estimate baseline loading for lead was not appropriate pursuant to Section B of the Reasonable Assurance Analysis Guidelines (see comment B.1 below for more detail).

For selenium, the City does not support its assumption that the source of selenium is natural with any available data or peer-reviewed scientific studies.

The City did not analyze a strategy to implement pollutant controls necessary to achieve applicable interim and final water quality-based effluent limitations for selenium consistent with the interim and final implementation deadlines in the Basin Plan Amendment, Resolution No. R13-004 - Implementation Plan for the TMDLs for Metals and Selenium in the San Gabriel River and Impaired Tributaries. These include:

- By September 30, 2017, for WQBELs applicable in wet weather a 10% reduction, and dry weather a 30% reduction in the difference between current pollutant loads and the WQBEL.
- By September 30, 2020, for WQBELs applicable in wet weather a 35% reduction, and in dry weather a 70% reduction in the difference between current pollutant loads and the WQBEL.

2. Target load reductions for bacteria in San Jose Creek were based on an incorrect water quality objective of 4000 MPN/100 mL. The correct water quality objective is an *E. coli* density of 235 per 100 mL as a single sample maximum, and an *E. coli* density of 126 per 100 mL as a geometric mean. (San Jose Creek has a Potential REC-1 beneficial use designation.) Similarly, target load reductions for Walnut Creek must be based on the current water quality objectives for *E. coli* contained in the Basin Plan.
3. The City's submittal does not provide adequate support or justification from peer-reviewed sources for the fecal coliform load reduction from 22 to 44 10^{12} MPN (for 25th and 75th percentile) for San Jose Creek to be achieved by non-modeled non-structural BMPs. In order to take credit for the 8% reduction from baseline loading of bacteria as a result of implementation of non-modeled non-structural BMPs, greater specificity must be provided on the enhanced watershed control measures. The City must provide details regarding how, when and to what extent these measures will be enhanced during this permit term. Additionally, the City must provide measurable milestones for implementing each one of the control measures that will allow an assessment of progress toward the final receiving water limitations every two years.

B. Modeling comments regarding analysis of total lead and bacteria for San Jose Creek and Walnut Creek Wash in San Gabriel River watershed:

1. The model predicted mass contributions of total lead and bacteria from the City shown in Table 4-2 are not consistent with those values directly from the model output. For example, the 90th percentiles of mass loads of lead presented in Figure A of this attachment are 32 lbs/day and 0.37 lbs/day respectively in San Jose Creek and in Walnut Creek Wash. In terms of 90th percentile model year, the total lead loads would be 2464 lbs/year and 28 lbs/year respectively, which are not consistent with the values presented in Table 4-2 of RAA Report. In addition, the predicted results of lead concentration in San Jose Creek obtained directly from the model output file as shown in Figure B. of this attachment are much higher than the EMC values and WQBEL value for lead. As such, the City should re-analyze baseline loading under the critical condition consistent with the expression of the WLA for lead (i.e., daily load) before concluding that the allowable lead load can be set equal to the baseline load (see p. 41). Additionally, the conclusion that no reduction for lead is required should be re-evaluated based on a daily load. Similarly, the model results presented in Table 4-2 and Table 4-3 should be presented in kg/day to be consistent with the expression of the WLA in Attachment P of the LA County MS4 Permit.

Pursuant to Section B.II.c of the RAA guideline, pollutant event mean concentrations (EMCs) should only be used when water quality data are not available. As soon as sufficient data are collected, the model should be refined/calibrated using updated data to estimate the baseline pollutant loading.

2. The expected reductions in pollutant load from baseline to be achieved by the proposed BMPs identified in Table 4-6 and Table 4-7 for bacteria need the detailed model results to support each BMP performance as shown in Table 4-6 and Table 4-7. For example, the RAA should include the time series of load reduction for bacteria over the simulation

period to demonstrate the variability of load reduction from the baseline condition for each BMP.

The report did not describe how the model was calibrated, including calibration results compared to calibration criteria in Table 3.0 of the RAA Guidelines, and no historical hydrology and water quality monitoring data were used for comparison with the model results for the baseline prediction. According to Part G, pages 12-13 of the RAA Guidelines, model calibration is necessary to ensure that the model can properly assess all the variables and conditions in a watershed system.

3. The report did not evaluate the critical condition for the modeling. For example, the input rainfall should be presented in the report and explain what the modeling periods are that are being simulated for the critical condition. Pursuant to Part B on pages 2-4 of the RAA Guidelines, a description of the process for identifying critical conditions is needed prior to the RAA modeling analysis. A summary of TMDL critical conditions relevant to MS4 discharges was provided in Appendix B of the RAA Guidelines for Permittees' reference. The report presents mass contributions of total lead and bacteria, but does not present concentration of those pollutants under the critical condition.
4. The ID for each of the 18 subwatersheds used in the model simulation must be provided and be shown in the simulation domain to present the geographic relationship of subwatersheds simulated in the LSPC model.
5. The flow and water quality time series output at the watershed outlet must be provided using the 90th percentile of modeled pollutant concentration and mass per day for wet event days consistent with the expression of the WLA over simulation periods to estimate the baseline concentration and mass. In addition, per RAA Guidelines, the model output should include storm water runoff volume at outlet for baseline and each BMP scenario as well (See Table 5. Model Output for Both Process Based BMP Models and Empirically Based BMP Models, pages 20-22 of the RAA Guidelines).
6. Model simulation under the dry weather condition for bacteria for San Jose Creek and Walnut Creek Wash was not included in the Report.
7. Per the RAA Guidelines, the required load reduction should be evaluated at the jurisdictional boundary of each subwatershed for each pollutant to demonstrate that the proposed control measures will ensure that the City's MS4 discharges achieve effluent limitations and do not cause or contribute to exceedances of receiving water limitations. The BMP performance model proposed in the RAA Guidelines should be used to predict the pollutant reduction for the proposed BMPs.

C. Modeling comments regarding lack of analysis for other Category 1 waterbody pollutant combination:

1. Model simulations, baseline loadings, and required reductions for selenium were not included in the Report.

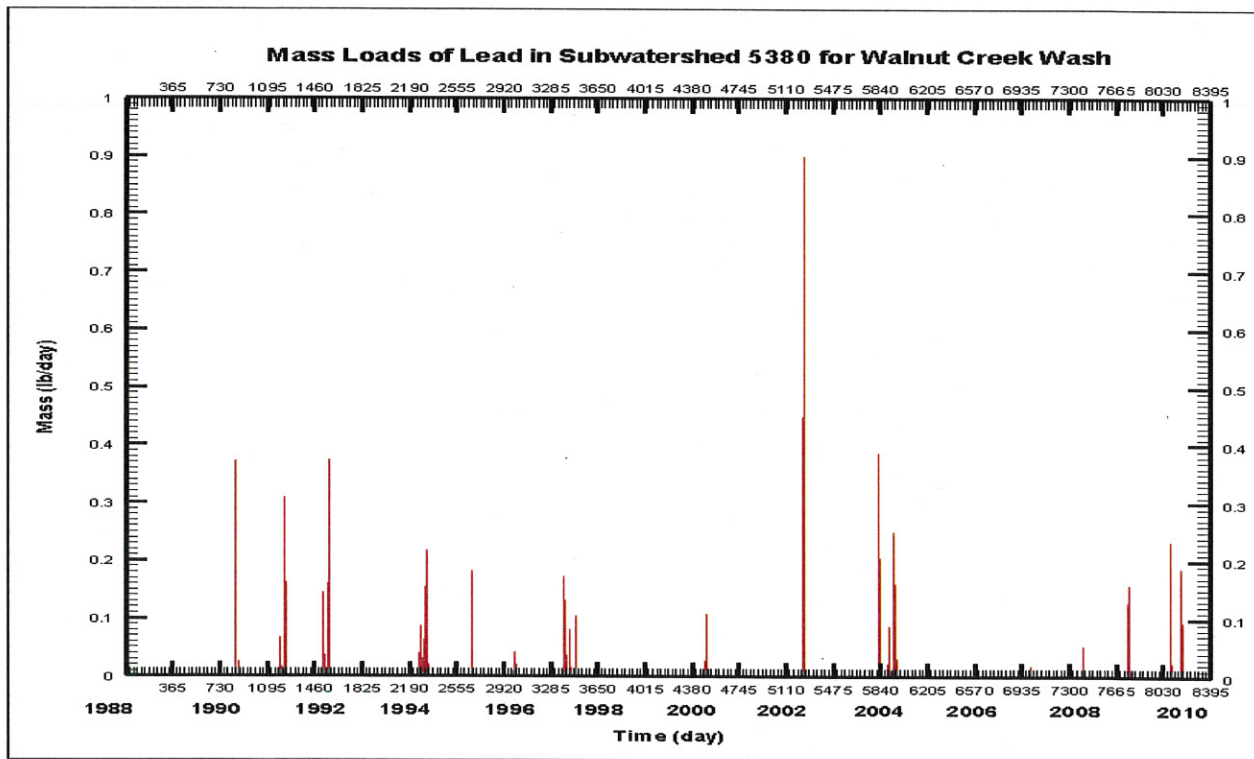
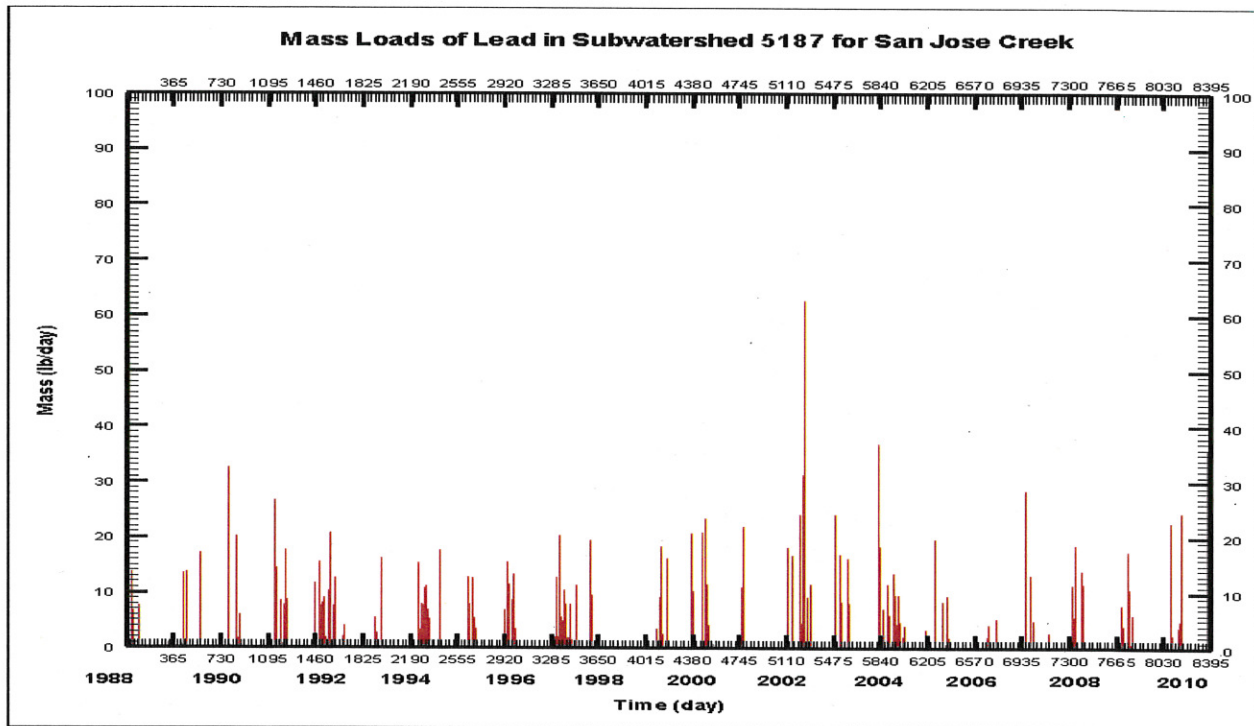


Figure A. Model predicted results for total loads of lead directly from the model output file

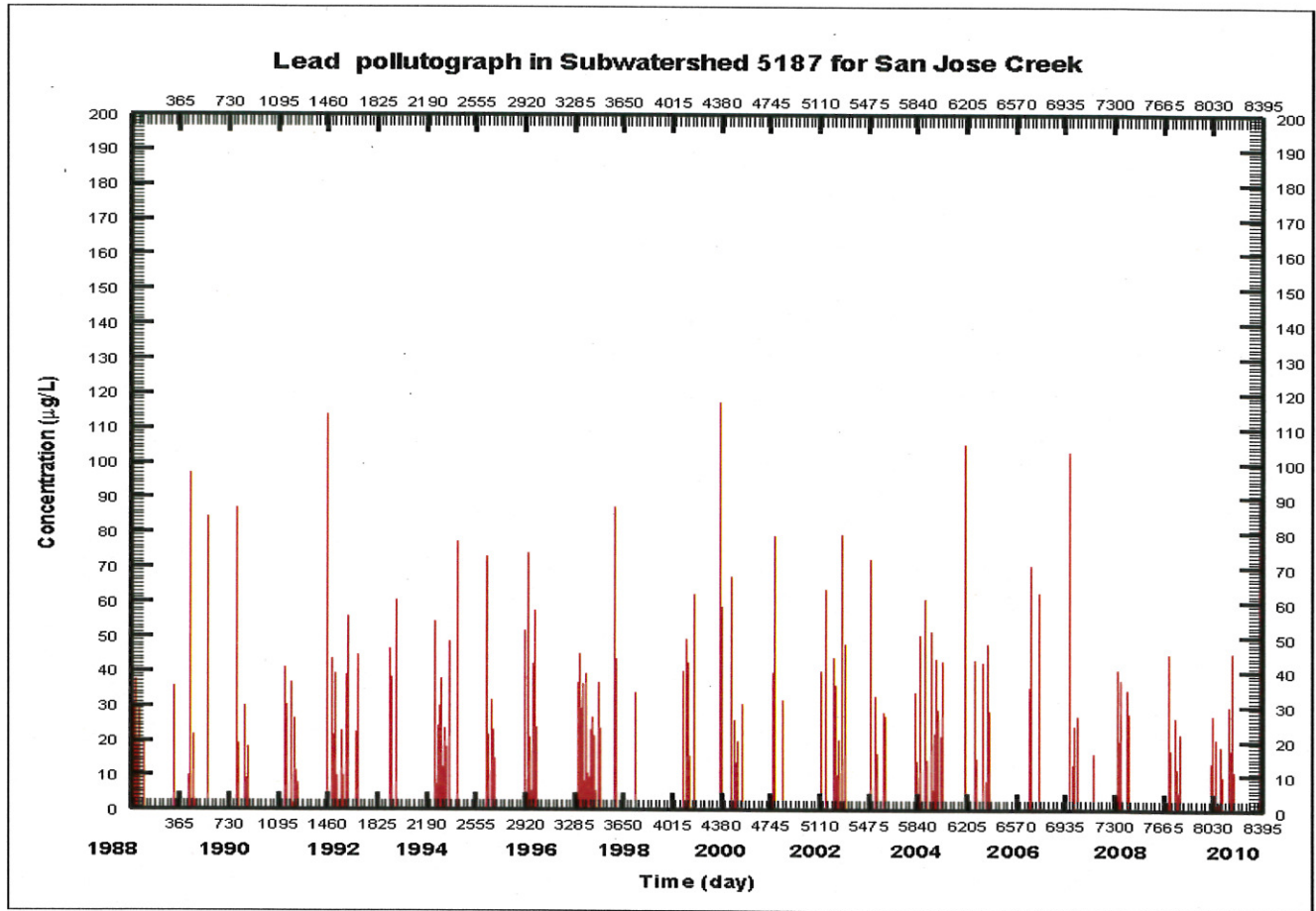


Figure B. Model predicted results of lead concentration in San Jose Creek directly from model output file