



City of
SANTA CLARITA

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March 28, 2017

Dr. Jun Zhu
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles CA 90013

Dear Dr. Zhu:

Subject: Comment Letter – Revisions to the Los Angeles Region 303(d) List

This letter is regarding the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) public hearing on May 4, 2017, to consider revisions to the Clean Water Act Section 303(d) list of impaired water bodies. At this meeting, the Regional Board is expected to hear information and take formal action on the proposed revisions to water quality assessments in the Los Angeles Region.

The City of Santa Clarita (City), County of Los Angeles, and the Los Angeles County Flood Control District worked collaboratively to develop the Enhanced Watershed Management Program (EWMP) for the Upper Santa Clara River Watershed to comply with requirements of the Municipal National Pollutant Discharge Elimination System (NPDES) Permit (R4-2012-0175). The EWMP was developed to meet the Permit requirements and also address pollutants specific to the Upper Santa Clara River watershed.

In developing the EWMP for the Upper Santa Clara River, an extensive pollutant prioritization process was performed based on all available data. The characterization process consisted of the following steps:

1. Data from multiple sources, including the 303(d) list, Water Quality Based Effluent Limitations (WQBELs), Receiving Water Limitations (RWLs), the Surface Water Ambient Monitoring Program (SWAMP), annual reports, established Total Maximum Daily Loads (TMDLs), the Los Angeles Department of Public Works, and Los Angeles County Sanitation Districts;
2. Identifying water bodies affected by discharges from the EWMP area;
3. Data analysis to identify constituents with exceedances of water quality objectives;
4. Water body-pollutant combinations identified;
5. Compiling 303(d) listings from the 2010 303(d) List; and



6. Comparing the data analysis to the State of California's (State) Listing Policy.

A wide-ranging watershed model analysis was performed for the entire Upper Santa Clara River Watershed Valley area taking into account pollutant loading, unique characteristics of the area, and control measure performance. The EWMP proposed a detailed path to implementing the stormwater program through programmatic and structural best management practices (BMPs) to effectively address pollutants in the storm drain system and the receiving waters. The EWMP plan prescribes long term strategies, such as regional BMPs, green streets, and other types of infiltration BMPs. After years of studies, modeling, and review, the Regional Board-approved EWMP demonstrates that the selected water quality control measures will result in compliance with applicable WQBELs and RWLs. The City, County of Los Angeles, and the Los Angeles County Flood Control District are just now beginning to implement the EWMP.

Change All Listings to "Being Addressed by Action Other Than a TMDL"

Due to the extensive studies and long term implementation efforts contained in the EWMP, the City requests all pollutants remaining on the 303(d) list without a developed TMDL should be changed to the Category 4B for the Clean Water Act as "Being Addressed by Action Other Than a TMDL." More specifically, the pollutants will be addressed through the long-term implementation of the EWMP. In addition, the City requests a focus be placed on "Delisting" pollutants by the Regional Board so that limited resources can be better applied to applying long-term strategies of the approved EWMP.

The City requests the following amendments for the 2017 303(d) List. The affected water quality objectives are listed below.

Affected Waterbodies, Water Quality Objectives, and Suggested Revisions

Santa Clara River Reach 5 (Blue Cut Gauging Station to West Pier Highway 99 Bridge)

Ammonia should be revised to "Being Addressed by Completed TMDL." The Nitrogen and Effects TMDL for the Santa Clara River was completed in 2004. The Los Angeles County Sanitation Districts revised their operations at the Saugus Water Reclamation Plant and the Valencia Water Reclamation Plant and installed a Nitrification-Denitrification (NDN) process in 2004. The applicable water quality standards for nitrate, nitrite, and ammonia are not being exceeded. Decision ID 34352 states that no discharges exceeded limits.

Benthic Community Effects should be revised to "Being Addressed by Action Other Than a TMDL." Decision ID 44468 states that the water body is impaired with multiple pollutants,

including zinc, iron, bacteria, and chloride. However, Line of Evidence 88732 states that 0 out of 153 samples had any exceedance for zinc. Although iron is naturally occurring in the Santa Clara River watershed, Line of Evidence 88656 found 6 of 81 samples exceeded and Line of Evidence 88648 found 0 of 2 samples exceeding water quality limits. There were no samples taken for coliform bacteria, and therefore, no exceedances recorded as per Line of Evidence 4156. Line of Evidence 88792 states that none of the two samples taken exceeded the criterion for chloride. Further, the listing was based on the Southern Coastal California Index of Biotic Integrity (SCIBI). However, the SCIBI-based analysis is inadequate for use in low-gradient and low-elevation waters, such as the Upper Santa Clara River. Through the implementation of the EWMP, the benthic community should rebound to its natural populations as the EWMP addresses toxicity, metals, pesticides, and other metrics that affect benthic communities.

Chloride should be revised to "Being Addressed by Completed TMDL." The Santa Clara River chloride TMDL was approved by the United States Environmental Protection Agency (USEPA) on April 28, 2005. The site-specific water quality objective for Santa Clara River Reach 5 is 100 mg/L. The primary source of chloride was determined to be potable water derived from a blend of the State Water Project and local groundwater. Santa Clarita Valley residents have relinquished over 8,200 salt-based water softeners that had previously contributed to excessive chloride levels found in the Santa Clara River. The Los Angeles County Sanitation Districts has proposed to install reverse-osmosis technology at their Valencia Water Reclamation Plant and Saugus Water Reclamation Plant, as part of an overall chloride reduction plan.

Indicator bacteria should be revised to "Being Addressed by Action Other Than a TMDL." Through the implementation of the EWMP, indicator bacteria should fall to levels found in ambient waters.

Iron should be revised to "Being Addressed by Action Other Than a TMDL." Iron was modeled and will be addressed by the implementation of the EWMP for the Upper Santa Clara River.

Nitrate and nitrite should be revised to "Being Addressed by Completed TMDL." The Nitrogen and Effects TMDL for the Santa Clara River was approved by the USEPA in 2004. The original listing was made in 1998. Since then, the Los Angeles County Sanitation Districts underwent significant upgrades to their operations including incorporation of nitrification/de-nitrification treatment at the Valencia Water Reclamation Plant in 2003, specifically aimed at addressing nitrogen in the Upper Santa Clara River. Decision ID 32484 states that the decision to delist from 303(d) list was previously approved by the State Water Resources Control Board and the USEPA. Toxicity should be revised to "Being Addressed by Action Other Than a TMDL."

Toxicity was modeled and will be addressed by the implementation of the EWMP for the Upper Santa Clara River.

Santa Clara River Reach 6 (West Pier Highway 99 to Bouquet Canyon Road)

Ammonia should be revised to “Being Addressed by Completed TMDL” or “Delist from 303(d) list.” The Nitrogen and Effects TMDL for the Santa Clara River was approved by the USEPA in 2004. The original listing was made in 1998. Since then, the Los Angeles County Sanitation Districts underwent significant upgrades to their operations, including incorporation of nitrification/de-nitrification treatment at the Valencia Water Reclamation Plant in 2003, specifically aimed at addressing nitrogen in the Upper Santa Clara River. Decision ID 32462 states that the decision to delist from 303(d) list was previously approved by the State Water Resources Control Board and the USEPA.

Chloride should be revised to “Being Addressed by Completed TMDL” or “Delist from 303(d) list.” The Santa Clara River chloride TMDL was approved by the USEPA on April 28, 2005. The site-specific water quality objective for Santa Clara River Reach 5 is 100 mg/L. The primary source of chloride was determined to be potable water derived from a blend of the State Water Project and local groundwater. Santa Clarita Valley residents have relinquished over 8,200 salt-based water softeners that had previously contributed to excessive chloride levels found in the Santa Clara River. The Los Angeles County Sanitation Districts has proposed to install reverse-osmosis technology at their Valencia Water Reclamation Plant and Saugus Water Reclamation Plant, as part of an overall chloride reduction plan.

For chlorpyrifos, Decision ID 33024 states samples were collected from August 2002 through April 2003. It should be noted that USEPA phased out all residential use of chlorpyrifos products since 2004. Since the samples were taken prior to being phased out and no further positive results are presented, this information is no longer relevant. Due to the long term implementation efforts contained in the EWMP, this pollutant should be changed to “Being Addressed by Action Other Than a TMDL.”

Copper was modeled for and will be addressed by the implementation of the EWMP for the Upper Santa Clara River. Copper should be revised to “Being Addressed by Action Other Than a TMDL.”

Decision ID 44805 states samples for diazinon were collected from August 2002 through April 2003. It should be noted that USEPA phased out all residential use of diazinon products since 2004. Only data generated from after the ban should be considered. For a sample size of 28-36, Table 4.1 of the State’s Listing Policy recommends delisting a previously listed pollutant if the

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numbers of exceedances are less than two. Since no other samples show an exceedance, diazinon should be delisted. In addition, due to the implementation of the EWMP, this pollutant could also be changed to "Being Addressed by Action Other Than a TMDL."

Iron is abundant in the natural soils in the Santa Clarita Valley. In addition, iron was modeled for and will be addressed by the implementation of the EWMP for the Upper Santa Clara River. Iron should be revised to "Being Addressed by Action Other Than a TMDL."

According to the National Weather Service, ambient air temperature for Santa Clarita during the summer months regularly exceeds 100 degrees Fahrenheit due to a semi-arid climate. The Santa Clara River is an ephemeral stream with water flow quickly subsiding into the natural sandy, soft-bottom riverbed. It is noted that all samples registering over 80 degrees Fahrenheit occurred between the months of May and August. It is reasonable that hot and dry air temperatures correlate to warmer water temperatures in shallow, sandy soils. Receiving waters in the Santa Clara River registering above 80 degrees Fahrenheit are the result of natural, ambient conditions and should not be considered as a result of storm drain or treatment discharge.

In Line of Evidence 88683, it is noted that toxicity data was not reported with a control, and therefore anything reported as <100% (chronic) or <100% survival (acute) was considered an exceedance. In addition, toxicity was modeled for and will be addressed by the implementation of the EWMP for the Upper Santa Clara River. Toxicity should be revised to "Being Addressed by Action Other Than a TMDL."

The attached supporting information is the section of the Upper Santa Clara River EWMP that includes a Water Quality Priorities section that summarized the pollutants and findings included in the approved Upper Santa Clara River EWMP. Please contact me if you have any questions about the information provided at (661) 255-4337 or by e-mail at tlange@santa-clarita.com.

Sincerely,



Travis Lange
Environmental Services Manager

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Enclosure

cc: Darren Hernández, Deputy City Manager

4.3 WATER BODY POLLUTANT CLASSIFICATION

The classification process categorizes the WBPCs to focus subsequent EWMP components including the Source Assessment, Prioritization, and the selection of Watershed Control Measures. Based on the water quality characterization, water body-pollutant combinations were classified in one of the three Permit categories as presented in **Table 4-4**.

Table 4-4. Water Body-Pollutant Classification Categories

| Category | Water Body-Pollutant Combinations (WBPCs) Included |
|--------------------------|---|
| 1 Highest Priority | WBPCs for which TMDL WQBELs and/or RWLs are established in Part VI.E and Attachments L and O 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 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 receiving water limitations contained in the MS4 Permit and for which MS4 discharges may be causing or contributing to the exceedance. |

The categories were further subdivided to provide more support for the prioritization and sequencing in the EWMP. Additionally the subcategorization was utilized to provide a better link to the methods for demonstrating compliance with RWL exceedances as outlined in Parts VI.C.2-C.3. The water body-pollutant combination subcategories are shown in **Table 4-5**.

Table 4-5. Categorization for Water Body Pollutant Combinations

| Category | Water Body-Pollutant Combinations (WBPCs) |
|----------|---|
| 1 | Category 1A: WBPCs with past due or current Permit term TMDL deadlines with exceedances in the past 5 years. |
| | Category 1B: WBPCs with TMDL deadlines beyond the Permit term and with exceedances in the past 5 years. |
| | Category 1C: WBPCs addressed in USEPA TMDL without a Regional Board Adopted Implementation Plan. |
| | Category 1D: WBPCs with past due, current, or future Permit term TMDL deadlines without exceedances in the past 5 years. |
| | Category 1E: WBPCs with TMDLs for which MS4 discharges are not causing or contributing. ² |
| 2 | Category 2A: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements with exceedances in the past 5 years. |
| | Category 2B: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements that are not a "pollutant" ¹ (i.e., toxicity). |
| | Category 2C: 303(d) Listed WBPCs or WBPCs that meet 303(d) Listing requirements without exceedances in past 5 years or that could be delisted. |
| | Category 2D: 303(d) Listed WBPCs for which MS4 discharges are not causing or contributing. ³ |
| 3 | Category 3A: All other WBPCs with exceedances in the past 5 years. |
| | Category 3B: All other WBPCs that are not a "pollutant" ¹ (i.e., toxicity). |
| | Category 3C: All other WBPCs that have exceeded in the past 10 years, but not in past 5 years. |
| | Category 3D: WBPCs identified by the USCR EWMP Group Members. |

1. While pollutants may be contributing to the impairment, it currently is not possible to identify the specific pollutant/stressor.
2. The Permit requires prioritization of all constituents with established WQBELs or RWLs, regardless of source. WBPCs in this category are for reaches without MS4 discharges. While urban areas may be within the drainage area, no point source MS4 discharges to the waterbody.
3. The Permit does not require prioritization of constituents for which data indicate water quality impairment in the receiving water, but where MS4 discharges are not causing or contributing to the impairment. Pollutants in this category are in reaches within the EWMP area that do not receive MS4 discharges.

In addition to defining the categories for the WBPCs identified, the constituents were assigned a class. As defined in the permit, 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 Watershed Management Program for the TMDL. The classes assigned as part of the analysis were utilized in developing the scheduling and milestones for the EWMP.

The categorization of WBPCs developed based on the receiving water data characterization is shown in **Table 4-6**. The Santa Clara River reaches are shown in **Figure 4-1**.

Table 4-6. WBPC Categorization

| Class ⁽¹⁾ | Constituent | Santa Clara River Reach | | | | Bouquet Canyon | Lake Elizabeth | Mint Canyon | Piru Creek | Munz Lake | Lake Hughes | Castaic Lake | Pyramid Lake | Los Angeles River |
|---|---|-------------------------|---|-----|---|----------------|-------------------|-------------|------------|-----------|-------------|--------------|--------------|-------------------|
| | | 4B ² | 5 | 6 | 7 | | | | | | | | | |
| Category 1A: WBPCs with past due or current term TMDL deadlines <u>with</u> exceedances in the past 5 years. | | | | | | | | | | | | | | |
| Bacteria | <i>E. Coli</i> (dry) ³ | I | I | | I | | | | | | | | | |
| Salts | Chloride | F | F | F | | | | | | | | | | |
| Category 1B: WBPCs with TMDL deadlines beyond the current Permit term and <u>with</u> exceedances in the past 5 years. | | | | | | | | | | | | | | |
| Bacteria | <i>E. Coli</i> (wet and dry) ³ | F | F | | F | | | | | | | | | |
| Category 1D: WBPCs with past due, current term, or future deadlines <u>without</u> exceedances in the past 5 years. | | | | | | | | | | | | | | |
| Nutrients | Ammonia | F | F | | | | | | | | | | | |
| | Nitrate and Nitrite | F | F | | | | | | | | | | | |
| Trash | Trash | | | | | F | | | | | | | | |
| Bacteria | <i>E. Coli</i> (wet and dry) ³ | | | I/F | | | | | | | | | | |
| Category 1E: WBPCs with TMDLs for which MS4 discharges are not causing or contributing | | | | | | | | | | | | | | |
| Trash | Trash | | | | | | | | TMDL | TMDL | | | | F |
| Nutrients | Ammonia | | | | | | | | | | | | | F |
| Nutrients | Nitrate and Nitrite | | | | | | TMDL ⁴ | | | | | | | F |
| Bacteria | <i>E. Coli</i> | | | | | | | | | | | | | I |
| Metals | Cadmium | | | | | | | | | | | | | I |
| Metals | Copper | | | | | | | | | | | | | I |
| Metals | Lead | | | | | | | | | | | | | I |
| Selenium | Selenium | | | | | | | | | | | | | I |
| Metals | Zinc | | | | | | | | | | | | | I |

| Class ⁽¹⁾ | Constituent | Santa Clara River Reach | | | | Bouquet Canyon | Lake Elizabeth | Mint Canyon | Piru Creek | Munz Lake | Lake Hughes | Castaic Lake | Pyramid Lake | Los Angeles River |
|--|---------------------------|-------------------------|---|---------|---|----------------|----------------|-------------|------------|-----------|-------------|--------------|--------------|-------------------|
| | | 4B ² | 5 | 6 | 7 | | | | | | | | | |
| Category 2A: 303(d) Listed WBPCs with exceedances in the past 5 years. | | | | | | | | | | | | | | |
| Metals | Copper | | | 303 (d) | | | | | | | | | | |
| | Iron | | D | 303 (d) | | | | | | | | | | |
| Cyanide | Cyanide | | | L | | | | | | | | | | |
| Category 2B: 303(d) Listed WBPCs that are not a "pollutant" (i.e., toxicity). | | | | | | | | | | | | | | |
| Toxicity | Toxicity | | | 303 (d) | | | | | | | | | | |
| Other | pH | | | | L | | 303(d) | | | | | | | |
| Other | Eutrophic | | | | | | 303(d) | | | | | | | |
| Other | Organic Enrichment/Low DO | | | | | | 303(d) | | | | | | | |
| Category 2C: 303(d) Listed WBPCs without exceedances in past 5 years or that could be delisted. | | | | | | | | | | | | | | |
| Pesticides | Chlorpyrifos | | | D | | | | | | | | | | |
| Pesticides | Diazinon | | | D | | | | | | | | | | |
| Category 2D: 303(d) Listed WBPCs for which MS4 discharges are not causing or contributing. | | | | | | | | | | | | | | |
| Metals | Mercury | | | | | | | | | | 303(d) | 303(d) | | |
| Other | Eutrophic | | | | | | | | 303(d) | 303(d) | | | | |
| Other | Fish Kills | | | | | | | | | 303(d) | | | | |
| Other | Odor | | | | | | | | | 303(d) | | | | |
| Other | Algae | | | | | | | | | 303(d) | | | | |
| Other | pH | | | | | | | 303(d) | | | | | | |
| Salts | Chloride | | | | | | | 303(d) | | | | | | |

| Class ⁽¹⁾ | Constituent | Santa Clara River Reach | | | | Bouquet Canyon | Lake Elizabeth | Mint Canyon | Piru Creek | Munz Lake | Lake Hughes | Castaic Lake | Pyramid Lake | Los Angeles River |
|---|----------------------------|-------------------------|---|---|---|----------------|----------------|-------------|------------|-----------|-------------|--------------|--------------|-------------------|
| | | 4B ² | 5 | 6 | 7 | | | | | | | | | |
| Category 3A: All other WBPCs with exceedances in the past 5 years. | | | | | | | | | | | | | | |
| Metals | Copper | | X | | X | | | | | | | | | |
| | Mercury | | X | X | X | | | | | | | | | |
| | Selenium | | | X | | | | | | | | | | |
| | Zinc | | | X | | | | | | | | | | |
| Cyanide | Cyanide | | | | X | | | | | | | | | |
| Salts | TDS | | X | | | | | | | | | | | |
| Category 3C: All other WBPCs with exceedances in the past 10 years, but without exceedances in past 5 years. | | | | | | | | | | | | | | |
| Phthalates | Bis-2 Ethylhexyl phthalate | | | X | | | | | | | | | | |
| Category 3D: Other EWMP Priorities | | | | | | | | | | | | | | |
| Pesticides | Pyrethroids | | | | | X | | | | | | | | |

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 Watershed Management Program for the TMDL.
 2. Reach 4B is located in Ventura County but was considered for the purposes of understanding downstream water quality
 3. Interim limits for dry *E. Coli* during permit term, interim limits for wet *E. Coli* past permit term, final limits for dry and wet past permit term.
 4. Mint Canyon is included in the Nutrients TMDL, but no WLAs for MS4 discharges are assigned for the reach in the TMDL.
- I=Interim TMDL WQBEL or Receiving Water Limit
F=Final TMDL WQBEL or Receiving Water Limit
D=303(d) listing that could now be delisted
303(d)=Confirmed 303(d) Listing
L=WBPC that meets the listing criteria, but is not currently on the 303(d) list
TMDL=TMDL that does not contain MS4 allocations for the reach
Other= Used for conditions (pH and dissolved oxygen) that are not pollutants, per se, or constituents where the linkage to another type of constituent will be further investigated.

4.4 SOURCE ASSESSMENT

To complement the water quality prioritization process, permittees must identify known and suspected storm water and non-storm water sources influencing MS4 discharges by utilizing existing information for the water body-pollutant combinations in Categories 1-3. The intent of the Source Assessment is to identify potential sources within the watershed for the water body-pollutant combinations and to support prioritization and sequencing of management actions.

In order to identify potential sources for water quality priorities from MS4 discharges, a review of available data and information was conducted, including the following sources:

1. Findings from Illicit Connections and Illicit Discharge Eliminations Programs;
2. Findings from Industrial/Commercial Facilities Programs;
3. Findings from Development Construction Programs;
4. Findings from Public Agency Activities Programs;
5. TMDL source investigations;
6. Watershed model results;
7. Findings from the Permittees' monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and
8. Any other pertinent data, information, or studies related to constituent sources and conditions that contribute to the highest water quality priorities.

The City, County, and County Flood Control District submit Individual Annual Report Forms (Annual Report) to the Regional Board for each fiscal year. The submitted Annual Reports contain details pertaining to their activities under the Industrial/Commercial Facilities Program, Development Construction Program, Public Agency Activities Program and Illicit Connection and Illicit Discharge (IC/ID) Elimination program (items 1-4 in the list above), as well as other MS4 permit requirements. The annual reports include details on inspections and enforcement activities, as well as findings on BMP implementation. As part of the IC/ID program, the City of Santa Clara produces annual maps showing the locations and type of illicit connections and illicit discharges found during the fiscal year. Available Annual Reports and IC/ID maps were reviewed for the source assessment.

Four TMDLs are pertinent to MS4s in the Upper Santa Clara River watershed: The Upper Santa Clara River Chloride TMDL, Santa Clara River Nitrogen Compounds TMDL, Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL, and Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL. Findings from source assessments from each TMDL were incorporated into the source assessment.

Data from the Permittee's monitoring programs mostly consist of receiving water monitoring, and little data is available to characterize MS4 discharges. However, these data were used to evaluate the location and timing of exceedances to inform the source assessment. Additional information and data reviewed included POTW effluent data, other TMDL source assessments from watersheds in the Los Angeles Region, and other studies and reports pertaining to the EWMP area or water quality priorities.

Finally, information from the model developed for the Reasonable Assurance Analysis (RAA) was utilized as part of the source assessment. Summaries of the relative loading estimated from the model for sediment, total zinc, total copper, total lead, and bacteria by land use are provided in Appendix A-1.

The results of source assessments for WBPCs in Categories 1-3 are shown below in **Table 4-7** and described in detail in Appendix A-1. Given the lack of watershed specific information, the source assessment provides a list of potential MS4 sources that are likely to be present in the USCR EWMP area and could be contributing to any exceedances observed in the receiving waters. A source assessment for category 2B constituents, 303(d) Listed WBPCs that are not a “pollutant”, could not be developed because the constituents contributing to the condition have not yet been identified. However, source assessments have been provided for other constituents that are potentially contributing to the condition. For example, eutrophic conditions, low dissolved oxygen and changes in pH are all potentially the result of excess algae growth which could be influenced by elevated nutrient levels and pesticides may contribute to toxicity.

Table 4-7. MS4 Sources of Water Quality Priorities

| Class | Constituent | Reaches/ Waterbodies | MS4 Potential Sources |
|---------------------------------------|------------------------------|---------------------------|--|
| Bacteria^{1,5} | <i>E. coli</i> | 4B ² , 5, 6, 7 | <ul style="list-style-type: none"> - Dry- and wet- weather urban runoff - Animal wastes, including those from pets, wildlife and birds - Trash - Direct human discharges - Sanitary sewer overflows - Leaking septic systems - Illicit discharge of sewage and wastewater |
| Nitrogen Compounds⁵ | Ammonia, Nitrate/ Nitrite | 4B ² , 5, 6, 7 | <ul style="list-style-type: none"> - Atmospheric deposition - Leaf litter and debris - Runoff from over-fertilized landscaping - Improper storage or disposal of fertilizers and ammonia - Soil concentrations - Leaking septic systems - Groundwater concentrations - Industrial and commercial sources including: <ul style="list-style-type: none"> - Landscaping businesses - Nurseries |
| Salts | Chloride, TDS | 4B ² , 5, 6, 7 | <ul style="list-style-type: none"> - Naturally occurring salts in water supply - Saltwater swimming pool discharges |
| Pesticides | Pyrethroids | Bouquet Canyon | - Residential and professional use of pyrethroids as an insecticide, often to control Argentine ants ³ |
| | Diazinon and chlopyrifos | 6 | - Professional pesticide applications |

| Class | Constituent | Reaches/ Waterbodies | MS4 Potential Sources |
|-----------------------------|---|-------------------------|--|
| Metals^{2,5} | All (Copper, Iron, Mercury, Selenium, Zinc) | 5,6,7 | <ul style="list-style-type: none"> - Atmospheric deposition¹ - Water supply - Commercial and municipal vehicle sources <ul style="list-style-type: none"> - Gas stations, service stations and car washes - Dealerships - Municipal maintenance and storage yards - Soil concentrations, release of sediment during: <ul style="list-style-type: none"> - Construction activities - Gravel mining |
| | Copper | 5,6,7 | <ul style="list-style-type: none"> - Automotive sources <ul style="list-style-type: none"> - Brake pad debris - Vehicle fluids - Wear on vehicle exterior and engine - Tailpipe emissions - Architectural copper - Corrosion of copper pipes - Runoff of atmospheric deposition - Copper-containing pesticides and algaecides - Industrial uses including electroplating, metal finishing and semiconductor manufacturing |
| | Mercury | 5,6,7 | <ul style="list-style-type: none"> - Runoff of atmospheric deposition - Mercury containing products including batteries, dental amalgam, fluorescent lamps, jewelry, paint, thermometers and thermostats - Vehicle sources such as mercury switches and emissions that contribute to atmospheric deposition - Industrial uses including semiconductor manufacturing |
| | Selenium | 6 | <ul style="list-style-type: none"> - Nursery runoff - Groundwater concentrations - Mining and oil extraction |
| | Zinc | 6 | <ul style="list-style-type: none"> - Galvanized metal⁴ - Vehicle sources such as tires |
| Other | Cyanide ⁶ | 7 | <ul style="list-style-type: none"> - Industrial uses including metal finishing, electroplating, plastics manufacturing, animal control and fumigation |
| Trash | Trash | Lake Elizabeth | <ul style="list-style-type: none"> - Litter from adjacent areas and roadways - Direct dumping |

1. Los Angeles Regional Water Quality Control Board (RWQCB), 2010. Los Angeles River Watershed Bacterial TMDL. Adopted by the RWQCB on July 9, 2010.
2. Reach 4B is located in Ventura County but was considered for the purposes of understanding downstream water quality.
3. Castaic Lake Water Agency (CWLA), 2013. The Santa Clarita Valley 2013 Water Quality Report.
4. Larry Walker Associates (LWA), 2009. Urban Water Quality Management Plan for Copper, Mercury, Nickel, and Selenium in Calleguas Creek Watershed. March 25, 2009.
5. California Stormwater Quality Association (CASQA), 2014. Draft Effectiveness Assessment Guidance. May 2014.
6. California Regional Water Quality Control Board, San Francisco Bay Region, 2006. Staff Report on Proposed Site-Specific Water Quality Objectives for Cyanide for San Francisco Bay. December 4, 2006.

The Appendix A-1 includes a map of the major MS4 outfalls as part of the source assessment. No major structural controls were identified in the EWMP area.

The source assessment also identified that MS4s are not the primary source of several of the water quality priorities. As noted in both the Chloride and Nitrogen TMDLs, the primary sources of these constituents in the USCR are the wastewater treatment plants. Additionally, cyanide can be a laboratory contaminant and not many potential MS4 sources exist in the USCR EWMP area.

4.5 PRIORITIZATION

Based on the WBPC categorization and the source analysis, water quality priorities were identified. The prioritization was used to structure the process of identifying watershed control measures, conducting the RAA, and defining the adaptive management process for the EWMP.

Section VI.C.5.a.iv of the Permit identifies the minimum priorities to be considered for the first permit term (2012 to 2017) covered by the EWMP. The minimum priorities are:

- **Priority 1 (TMDLs):** TMDLs for which there are WQBELs and/or RWLs with interim or final compliance deadlines within the Permit term, or TMDL compliance deadlines that have already passed and limitations have not been achieved. This priority corresponds to WBPC categories 1A.
- **Priority 2 (Other Receiving Water Considerations):** WBPCs where data indicate impairment or exceedances of RWLs in the receiving water and the findings from the source assessment implicate discharges from the MS4. This priority corresponds to WBPC categories 2A and 3A.

In addition to the two priorities identified in the permit, Category 1B, TMDLs with deadlines beyond the current permit term were determined to be a priority for the USCR EWMP group and are considered Priority 1. The prioritized WBPCs are shown in **Table 4-8**. The prioritized constituents were utilized to direct the development of the EWMP towards the constituents of highest concern. The prioritized constituents were used to define the RAA approach and analysis and are the drivers for identification of control measures. Further discussion of how the prioritized constituents were utilized in the RAA is described in Section 6.

Table 4-8. Prioritized WBPCs

| Class | Constituent | Santa Clara River Reach | | | | Lake Elizabeth |
|---|------------------------------|-------------------------|----------------|----------------|----------------|----------------|
| | | 4B ¹ | 5 | 6 | 7 | |
| Priority 1: TMDLs² | | | | | | |
| Bacteria | <i>E. Coli</i> (wet and dry) | X | X | X | X | |
| Salts | Chloride | X | X | X | | |
| Trash | Trash | | | | | X |
| Priority 2: Other Receiving Water Considerations^{2,3} | | | | | | |
| Metals | Copper | | X ⁴ | X | X ⁶ | |
| | Iron | | X | X | | |
| | Mercury | | X ⁴ | X ⁵ | X ⁶ | |
| | Zinc | | | X ⁵ | | |
| Selenium | Selenium | | | X ⁵ | | |
| Cyanide | Cyanide | | | X ⁵ | X ⁶ | |
| Salts | TDS | | X ⁴ | | | |

1. Reach 4B is in Ventura County but was considered for the purposes of understanding downstream water quality.
2. Constituents with no exceedances within the past 5 years and WBPCs located in areas where MS4s are not a source contributing to the exceedances (categories 1D, 1E, 2C, 2D, 3C) are not considered to be priorities for the EWMP. Nitrogen compounds for SCR Reach 5, and chlorpyrifos and diazinon for Reach 6 are not prioritized for this reason.
3. Constituents contributing to impairments in Category 2B (e.g. toxicity, organic enrichment, etc.) are not yet identified and therefore cannot be specifically evaluated in the RAA analysis, and are not prioritized at this time.
4. Copper, mercury and TDS have been observed as exceeding applicable water quality objectives in Reach 5, and are prioritized as "other receiving water considerations" per Permit Provision 5.a.iv.2.a.
5. Mercury, zinc, selenium and cyanide have been observed as exceeding applicable water quality objectives in Reach 6, and are prioritized as "other receiving water considerations" per Permit Provision 5.a.iv.2.a.
6. Copper, mercury and cyanide have been observed as exceeding applicable water quality objectives in Reach 7, and are prioritized as "other receiving water considerations" per Permit Provision 5.a.iv.2.a.

Categories without recent exceedances and WBPCs located in areas where MS4s are not a source contributing to the exceedances (categories 1D, 1E, 2C, 2D, 3C) are not considered to be priorities for the EWMP. Constituents within these categories have not had exceedances within the past 5 years, and are considered to be no longer exceeding water quality objectives, or MS4s were determined to not be the source because the exceedances occur in areas where there is no MS4 infrastructure. However, the RAA analysis addresses all of the WBPCs for which MS4s are contributing (1D, 2C, 3C and 3D) and demonstrates they will likely be addressed by the control measures identified for the prioritized constituents. Additionally, the constituents contributing to the impairments in Category 2B (e.g. toxicity, organic enrichment, etc.) are not yet identified and therefore cannot be specifically evaluated in the RAA analysis. As noted in the source assessment, controlling constituents identified as water quality priorities, such as pesticides and nutrients, may also contribute to reducing the Category 2B impairments and the EWMP is focused on addressing the constituents identified in the other categories. If the impairments continue after the other water quality priorities are addressed, further investigation will be conducted to identify control measures to address the remaining impairment(s).