ATTACHMENT A: DRAFT LID ORDINANCE

ORDINANCE NO.______________________

An ordinance amending MUNICIPAL CODE Chapter 13.20 of the City of El Monte Municipal Code to expand the applicability of the existing Stormwater and Urban Runoff Pollution Control Section 13.20.150 – Post-Construction Pollution reduction requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

A. The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

B. The City 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 State's water quality.

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 has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

E. The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, 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 needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization.

H. LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge.

I. It is the intent of the City 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 Chapter 13.20 of the City of El Monte Municipal Code is amended in its entirety to read as follows:

13.20.010 Definitions.

Except as specifically provided herein, any term used in this Section13.20 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 in effect at the City at the time of development application, 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, City 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.

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.

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.

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. 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.

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.

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.

City means the City of El Monte.

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.

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance. Construction activity also covers any activity that requires coverage under the State General Construction Permit by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities.

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities.

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.

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.

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.

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.

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.

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.

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.

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.

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.

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff.

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))

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".

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.

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater.

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.

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.

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).

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.

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged.

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.

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).

Retail Gasoline Outlet means any retail gasoline outlet per SIC 5541.

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.

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.

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.

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 El Monte.

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 project.

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.

13.20.020. SHORT TITLE

(A) The ordinance codified in this chapter shall be known as the "Low Impact Development (LID) Ordinance of the City of El Monte" and may be so cited.

13.20.020. 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 City of El Monte's Municipal NPDES permit (Permit) currently in effect at the time of development application submittal, to 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.

(B) Scope. This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of El Monte 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 currently in effect at the time of development application, and collect fees from projects granted exceptions. Except as otherwise provided herein, the City of El Monte shall administer, implement and enforce the provisions of this Section. Any guidance documents supporting implementation of the Municipal NPDES permit requirements, currently in effect at the time of development application submittal, meeting application in this Ordinance, are hereby incorporated by reference.

(C) Applicability. This Section is applicable to projects as defined below:

1) All Development and Redevelopment projects, termed "Planning Priority Projects," as defined in the Municipal NPDES Permit currently in effect at the time of the development application, shall comply with subsection E of Section 13.20.020.

2) Street and Road Construction projects of ten thousand (10,000) square feet or more of impervious surface, in addition to complying with all other applicable provisions of Section 13.20.020, shall follow USEPA guidance regarding "Managing West Weather with Green Infrastructure: Green Streets" (December 2008, EPA-833-F-08-009) to the maximum extent practicable. This subsection applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects, including Capital Improvement Projects (CIPs).

3) Single Family Hillside Homes (as defined in City Code section), in addition to complying with all other applicable provisions of Section 13.20.020, shall implement the following measures:

   i. Conserve natural areas

   ii. Protect slopes and channels

   iii. Provide storm drain stenciling and signage

   iv. Divert roof runoff to vegetated areas before discharge unless the diversion would results in slope instability

   v. Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

4) Any other project, as deemed appropriate by the Department, submitted for complete discretionary or non-discretionary permit application filed with the Department after December 31, 2012.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective 30 Days from the adoption of this Ordinance. This includes all applicable projects listed in subsection C of Section 13.20.020 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 30 days of adoption of this Ordinance. Projects that have been deemed complete within 30 days of adoption of this Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. All applicable projects listed in subsection C of Section 13.20.020 shall be designed to control pollutants, pollutant loads, and runoff volumes 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. All applicable projects shall prepare a LID Plan that is submitted to and approved by the Department. All LID plans shall comply with the following:

a. Low Impact Development Standards and BMP Implementation hierarchy: All project Applicants shall:
    i. Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function and avoid breeding of vectors.
    ii. Prioritize the selection of BMPs to remove Stormwater pollutants, reduce Stormwater runoff volume, and beneficially use Stormwater to support an integrated approach to protecting water quality and managing water resources in the following order:
        1. On-site infiltration, bioretention and/or rainfall harvest and use; then
        2. On-site biofiltration, offsite groundwater replenishment, and/or off-site retrofit.
b. Retain onsite the Stormwater Quality Design Volume (SWQDv) as required per the Permit currently in effect at the time of development application submittal.
c. When 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan and approved by the Department. 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 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. Projects that have successfully demonstrated technical infeasibility for full retention of the SWQDv to the Department, shall implement alternate compliance measures (alternate mitigation options) as designated in the Permit currently in effect at the time of development application submittal.
e. Additional alternative compliance options, such as offsite infiltration, may be

available to the project. The project applicant should contact the Department to determine eligibility. Alternative compliance options are as further specified in the Permit currently in effect at the time of development application submittal.

f. A Multi-Phased Project shall comply with the standards and requirements of this section for all of its phases by:

    i. Designing a system acceptable to the Department to satisfy these standards and requirements for the entire Site during the first phase; and/or

    ii. Implementing these standards and requirements for each phase of Development or Redevelopment of the project 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.

    iii. For purposes of this subsection, "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.

g. Minimize hydromodification impacts by maintaining the project's pre-development storm water runoff volumes, flow rates, and durations by maintaining the erosion potential (Ep) in streams at 1, or implementing hydromodification control BMPs and/or LID strategies, or other restoration measures to meet Hydromodification Control Criteria as designated in the Permit currently in effect at the time of development application submittal.

h. Department may exempt certain applicable projects listed in subsection C of Section 13.20.020 from hydromodification control requirements where assessments of downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to beneficial uses of natural drainage systems are unlikely:

    i. The replacement, maintenance or repair of existing, publicly-maintained flood control facilities, storm drains, or transportation networks.

    ii. Redevelopment of a previously developed site in an urbanized area that does not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.

    iii. Projects that have any increased discharge directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has an estimated 100-year peak flow of 25,000 cubic feet per second or more, or other receiving water that is not susceptible to hydromodification impacts.

    iv. Projects that discharge directly or through a storm drain into concrete or other engineered (not natural) channels (e.g. channelized or armored rip rap, shotcrete, etc.) which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.

v. Single family homes that incorporate LID BMPs.

(F) LID Plan Review. The applicant for any development project shall submit a LID plan to the Department for review and approval that provides a comprehensive, technical discussion of how the development project will comply with this Section 13.20.020. A deposit and fee to recover associated review costs shall be required. Timing for obtaining LID plan approval shall be as follows:

a. For subdivisions, the LID Plan shall be approved prior to the tentative map.

b. For any development project requiring a Conditional Use Permit (CUP) or other discretionary entitlement required under (City Code), the LID plan shall be approved prior to the issuance of any such CUP or other discretionary entitlement.

c. For all development projects, the LID plan shall be approved prior to issuance of a grading permit for the development project, or when no grading permit is required, prior to the issuance of a building permit. When no grading or building permit is required, LID plan approval shall be prior to the commencement of any development activity or as otherwise indicated in the non-discretionary land use approval.

(G) Ongoing Maintenance.

a. All project's LID and hydromodification control features shall be maintained and shall remain operable at all times and shall not be removed from the project unless and until such features have been replaced with other LID and/or hydromodification control features in accordance with this Section.

b. Unless excused by the Department, all LID plans shall include an operation and maintenance plan and monitoring plan for all LID practices, LID BMPs and hydromodification control features incorporated into the project.

c. The owner of the subject development project site shall record a covenant or agreement, approved by the Department, in the office of the Los Angeles County Registrar-Recorder/County Clerk indicating that the owner of the subject development project site is aware of and agrees to the requirements in this subsection. The covenant or agreement shall also include a diagram of the development project site indicating the location and type of each LID and hydromodification control feature incorporated into the development project. The time to record such convenient or agreement shall be as follows:

i. For any subdivision, prior to final map approval.

ii. For any other development project, prior to issuance of a grading plan approval for the development project, and when no grading plan approval is required, prior to issuance of building plan approval for the development project.

(H) Other Agencies of the City of El Monte. All City of El Monte departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Ordinance on all applicable projects, as listed in subsection C of Section

13.20.020, and report their activities annually to the Department.

(I) 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 that are declared to be severable.

(J) 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 El Monte, at its meeting of ______________________.

Jonathan Hawes, City Clerk

By ____________________________________
Deputy

Approved __________________________

____
Andre Quintero, Mayor

Approved as to Form and Legality
Rick Olivarez, City Attorney

By _______________________________________
Richard Padilla
Deputy City Attorney

Date ____________________________

File No. ___________________________

City of El Monte Green Streets Policy

Purpose

The City of El Monte (City) Department of Public Works (Department) shall implement Green Streets' Best Management Practices (BMPs) for the addition of new streets, redevelopment projects, and roadway improvement projects, including Capital Improvement Projects (CIPs).

Green Streets provide many benefits including water quality improvements, groundwater replenishment, and attractive streetscapes by optimizing public space to integrate green techniques into transportation design. Green Streets is defined as public right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff.

Policy

A. Application:

Department shall require all new developments, redevelopment projects, roadway construction projects, and CIP projects conducted within the public right-of-way, that create, add or replace 10,000 square feet or more of impervious surface, to incorporate Green Streets' BMPs and techniques to the maximum extent practicable. Roadway construction projects apply to standalone streets, roads, highways and freeway projects, and also applies to streets within larger projects.

Routine maintenance or repair, emergency repair projects, 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. Additional exclusions may apply based on specific project constraints, such as those shown below, based on documented findings. In these cases, the Department shall determine if implementation of Green Streets' BMPs and techniques are infeasible after review of those findings:

a. Site distance limitations

b. Traffic and pedestrian safety

c. Median improvement projects that do not increase the overall median imperviousness

d. Project characteristics or constraints that may reduce the ability to incorporate Green Streets' BMPs and techniques. Examples include, but are not limited to, right-of-way constraints, utility constraints, existing soil types, and elevated groundwater. Any characteristics or constraints that may affect Green Streets' BMPs and technique implementation shall be documented by the Project

Proponent and submitted to the Department for determination of implementation infeasibility.

B. Amenities:

Department 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 construction projects and CIPs.

C. Guidance Documents:

Department shall use USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1] or develop an equivalent guidance for use in public and private developments. Any Department developed guidance shall be reviewed by the Department every two years and updated accordingly.

D. Retrofit Scope:

Department shall use the City's Watershed Management Program to identify opportunities for Green Streets' BMP retrofits. Final decisions regarding implementation will be determined by the Director of Public Works, or designee, based on the availability of adequate funding.

E. Training:

Department shall incorporate aspects of Green Streets' BMPs into internal annual staff trainings.

[1] US Environmental Protection Agency, EPA-833-F-08-009, December 2008.

Notice of Intent I. Individual Watershed Management Plan

1. *Rationale for I-WMP*

The **City of El Monte** has chosen the I-WMP, albeit with reservation, to meet TMDL and non-water quality standards (referred to collectively as "WQSs") for several reasons including but not limited to the following:

i. The I-WMP allows the City to determine to what extent its existing stormwater quality management program (SQMP), which has been in effect since 2002, is meeting TMDLs and non-TMDL WQSs, based on outfall monitoring against ambient WQSs. It is possible that the City has been meeting some or even most WQSs. If outfall monitoring shows persistent exceedances the I-WMP will contain a mechanism for addressing it.

ii. The City cannot justify an Enhanced Watershed Management Plan (E-WMP) at this time because: (1) there are no water quality monitoring data that would justify this extreme and costly option; (2) neither the County of Los Angeles (which wrote the E-WMP provision in the current MS4 permit) nor the City of Los Angeles has indicated what multi-benefit projects it is proposing to provide the "safe harbor"[1] that would enable participating permittees to achieve compliance even if exceedances of TMDLs and non-TMDL WQSs occur[2]; (3) there is no guarantee that participating in an E-WMP could assure compliance with WQSs; (4) there is no current funding mechanism for the E-WMP[3]; and (5) were the City to commit to an E-WMP, it would be required to enter into an MOU that could bind it to its requirements even if funding is not available.

iii. The City has chosen the I-WMP, even though it still ties it to having to comply with strict waste load allocations (WLAs) at the outfall and apparently in the receiving water as well. The City would have preferred to meet WQSs through the implementation of its stormwater management plan (SWMP) as is provided

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[1]Neither the County nor City of Los Angeles, which are encouraging permittees to participate in "regional multi-benefit" projects that would provide the safe harbor, has yet to disclose what those projects are.

[2]The MS4 permit asserts that the E-WMP provides compliance with WQSs and even with some minimum control measures (viz., the 6 core programs that form the stormwater management program required under federal law). There is reason to believe that this provision is extra-legal and could be voided either under administrative or judicial challenge. For one thing, an E-WMP is not a water quality based effluent limitation (WQBEL) which would translate a WQS into a compliance action. Perhaps it could have been one had the MS4 permit made clear that the E-WMP contains BMPs capable of meeting all the numeric WQSs over time. Instead, the MS4 permit incorrectly uses WQBEL to mean the same thing as a waste load allocation. Further, the EWMP's regional multi-benefit project requirement cannot guarantee compliance with WLAs measured at the outfall if the project is located outside of permittee's MS4. Even if the MS4 permit survives challenge, there is no guarantee that the E-WMP and its safe harbor provision will carry-over to the next MS4 permit. MS4 permits are five years in duration and the next Regional Board has the authority change permit requirements. It could not be argued that the anti-backsliding provision of Clean Water Action Section 402(o) would compel the next Regional Board to continue the E-WMP. This is because anti-backsliding only applies to WQSs, not to the means of achieving them. Further, 402(o) contains other anti-backsliding exemptions.

[3]The Los Angeles County Board of Supervisors indicated at its March 12, 2013 public hearing on the Clean Beaches, Clean Water Fee Initiative that it does not intend to re-try this proposition as a 218 parcel fee. Instead, they suggested that if another fee measure is attempted it would be through a regular tax vote.

under the Receiving Water Limitation (RWL) section of the MS4 permit. The RWL can be interpreted to mean that if a permittee implements its SWMP in a timely and complete manner it will be in compliance with WQSs. If persistent exceedances of WQSs are detected from outfall discharges the permittee shall report them to the Regional Board along with a plan for improving BMPs to address the exceedances. This constitutes an "iterative process." However, the MS4 permit appears to over-ride the RWL-iterative provision by requiring permittees to meet the WQSs by any means necessary by interim TMDL deadlines. Nevertheless, just to err on the side of caution, the City has chosen the I-WMP because it will provide more time for compliance with interim WLAs. It is expected that by the time compliance with interim TMDLs is due, the administrative petition and state-wide RWL language (expected to be decided by the State Water Resources Control Board some time in February of 2014), will have been resolved. Although El Monte is opting for an I-WMP and CIMP, it shall work in cooperation with the following permittees on a watershed basis.

Watershed/Sub-watershed	Participating MS4s
• Reach 2, Rio Hondo (tributary to Los Angeles River)	• El Monte • South El Monte • Irwindale

Watershed/Sub-watershed	Participating MS4s
• San Gabriel River[4]	• El Monte (Reach 3) • South El Monte (Reach 3) • Glendora (Reach 5 and Walnut Creek) • Irwindale (Reach 4 and 5) • West Covina (Walnut Creek and San Jose Creek, Reach 1)

Each participating MS4 will be responsible for preparing its own individual WMPs and conducting its own monitoring. However, because each of these permittees shares the same consultant, cost-sharing of I-WMP and CIMP development shall be achieved. The I-WMP and CIMP shall be submitted to the Regional Board on or before June 28, 2014.

2. *Water Quality Based Effluent Limitations and Receiving Water Limitations*

Dry and wet weather interim and final water quality based effluent limitations (WQBELs) and receiving water limitations (RWLs) are discussed below. There is a definitional problem with these terms, however. Neither the MS4 permit nor state and federal law define or refer to an interim or final WQBEL or RWL. Nor is there a

[4]Note: The TMDLs for reaches and segments within the San Gabriel River Metals TMDL (currently a USEPA TMDL) extends metals TMDLs (copper, lead, zinc, and selenium) to all permittees that drain into this watershed, regardless of whether a permittee is located within the impaired reach as determined by the State's 303(d) list. For example, El Monte, which drains to Reach 3 of the San Gabriel River, which is not impaired, is nevertheless subject to TMDLs for zinc, copper, and lead according to the MS4.

definition of a dry or wet weather WQBEL and RWL. However, based on conversations with Regional Board staff it appears that a dry and wet weather WQBEL is synonymous with a dry and wet weather waste load allocation in a TMDL, but applied to outfalls. And, it appears that a dry and wet weather RWL are TMDL WLAs applied to a receiving water. The use of the term RWL is confusing because it does not square with its use under the Receiving Water Limitation section of the MS4 permit. Further, the MS4 permit defines a RWL to mean:

> *Any applicable numeric or narrative water quality objective or criterion, or limitation to implement the applicable water quality objective or criterion, for the receiving water as contained in Chapter 3 or 7 of the Water Quality Control Plan for the Los Angeles Region (Basin Plan), water quality control plans or policies adopted by the State Water Board, or federal regulations, including but not limited to, 40 CFR § 131.38.*

Nevertheless, the foregoing definition is deficient to the extent that is limited only to water quality objectives (WQOs), which are State standards. The definition should only have referenced WQSs, which are federal standards and according to the Los Angeles Region Basin Plan also includes WQOs. Or it should have just added WQSs in the sentence, thereby making it clear that WQSs and WQOs are RWLs. This is an important distinction because a WQO cannot be interpreted to mean or apply to a TMDL.

Beyond this, if the Regional Board intended interim and final RWLs to mean WLAs that require compliance in receiving waters, based on in-stream monitoring, it is mistaken. As RWL language in the Order at V.A.1 explains: *Discharges from the MS4 that cause or contribute to the violation of receiving water limitations are prohibited.* From this, it would be unreasonable to conclude that an RWL can be expressed in interim or final terms. It has been suggested that the RWL is merely a compliance standard, expressed as a WLA, applied to the receiving water that must be complied through in-stream measurements. However, it is clear from Order section V.A.1 that determining violations of RWLs can only be determined by measuring discharges from the MS4 (viz., an outfall or end-of-pipe).

i. *Dry and Wet Weather Interim and Final WQBELs for Los Angeles River TMDLs (includes Reach 2 of the Rio Hondo and Legg Lake)*

Wet Weather WLAs				
Water Body	Copper	Lead	Zinc	Trash
Reach 2 Rio Hondo[5]	17 ug/l	62 ug/l	159 ug/l	See Attachment #1
Water Body	Bacteria	-	-	-

[5]The State's 303(d) list does not show Reach 2 of the Rio Hondo as being impaired by any metal or for trash.

Reach 2 Rio Hondo	235 MPN/100 ml	-	-	-
Water Body	Nutrients[6]	-	-	-
Reach 2 Rio Hondo	7.2 mg/l	-	-	-
Water Body[7]	Nutrients[8] Total Nitrogen	Nutrients Total Phosphate	-	-
Legg Lake	1394.8 lb/yr	498.7 lb/yr	-	See Attachment #1
Dry Weather WLAs				
Water Body[9]	Copper	Lead	Zinc	Trash
Reach 2 Rio Hondo[10]	N/A	N/A	N/A	Same As Wet Weather
Water Body	Bacteria (Interim)	Bacteria (Final)	-	-
Reach 2 Rio Hondo	2 MPN/day	235 MPN/100 ml	-	-
Water Body	Nutrients Total Nitrogen	Nutrients Total Phosphate	-	-
Legg Lake	1394.8 lb/yr	498.7 lb/yr		See Attachment #1

ii. *Dry and Wet Weather Interim and Final RWLs for Los Angeles River TMDLs (includes Reach 2 of the Rio Hondo and Legg Lake)*

Same as above under (i).

iii. *Dry and Wet Weather Interim and Final WQBELs for San Gabriel River-Related TMDLs*

As mentioned above, the City cannot identify wet weather interim and final WQBELs because of the uncertainty of what a WQBEL means. There is no definition of a wet weather or dry weather WQBEL anywhere in federal law or USEPA guidance. There is also no definition in Attachment A of the Order. It only explains it as acronym, which stands for a "water quality based effluent limitation." It has been suggested that a WQBEL is the same as a WLA. The City disagrees

[6]This TMDL does not apply because it is not valid. It is a "reconsideration" of the Los Angeles River Nitrogen and Related Effects TMDL to Incorporate Site-Specific Objectives for Ammonia that was adopted by the Los Angeles Regional Board on December 6, 2012. It has not been approved by the State Water Resources Control Board. Further, this proposed TMDL appears to apply only to waste water treatment facilities, not MS4s.

[7]According to the 2010 303(d) list, the source of the nutrients-related impairment to Legg Lake is non-point.

[8]According to the 2010 303(d) list, Legg Lake is designated as a non-point source for nutrients. MS4 permittees are only obligated to address TMDLs that are designated as point sources.

[9]According to the 2010 303(d) list Reach 2 of the Rio Hondo is not listed for metals.

[10]According to Regional Board TMDL staff there is no dry weather allocation for any metal for Rio Hondo, Reach 2 (letter from Jenny Newman to Darrell George, City Manager, City of Duarte, dated June 8, 2009).

with this interpretation. A WQBEL is a means of attaining a WLA, generally expressed as BMPs. Complicating matters is that the SGR M-TMDL is a USEPA TMDL, which only requires WQBEL-BMPs to achieve compliance with TMDL WLAs. WQBELs, within the context of this TMDL, translate WLAs into BMPs, rendering a clear definition that does not exist in the Order.

Further complicating matters is that USEPA TMDLs do not define WQBELs to mean the same as WLAs. Instead, as noted in the current MS4 permit, USEPA TMDLs interpret WQBELs to mean BMPs. Until the SGR M-TMDL is adopted as State TMDL, which must go through a basin plan amendment process, the City will rely on USEPA's definition of a WQBEL. In any case, dry and wet WLAs are numeric targets established for USEPA's SGR M-TMDLs. They are listed in the table below.

San Gabriel River Watershed TMDLs

Wet Weather WLA			
Water Body	**Copper**	**Lead**	**Zinc**
San Gabriel River Reach 2[11]	N/A	81.34 mg/l x daily storm volume (L)	N/A
Coyote Creek[12]	24.71 mg/l x daily storm volume (L)	96.99 mg/l x daily storm volume (L)	144.57 mg/l x daily storm volume (L)
Dry Weather			
Water Body	**Copper**	**Selenium**	
Coyote Creek	20 mg/l	N/A	N/A
San Gabriel Estuary[13]	3.7 mg/l	N/A	N/A
San Jose Creek Reach 1	NA	5 mg/l	N/A

According to the San Gabriel River Metals TMDL (SGR-MTMDL), which is currently a USEPA TMDL, all permittees located in the San Gabriel River watershed are subject to waste load allocations (WLAs) for copper, zinc, lead, and selenium as following excerpt from it indicates:

> *Wet-weather allocations will be developed for all upstream reaches and tributaries in the watershed that drain to impaired reaches during wet weather.*[14] *Discharges to these upstream reaches can cause or contribute*

[11]The City does not drain into Reach 2 of the San Gabriel River.
[12]According to the 2010 303(d) list relating to Coyote Creek: (1) the source of dissolved copper is "unknown;" (2) the source of lead is "point source municipal waste water; and (3) zinc has been delisted.
[13]According to the 2010 303(d) list, the source of dissolved copper for the San Gabriel River Estuary is unknown.
[14]This assertion contradicts State Board Water Quality Order 2001-15, which held: *There is no provision in state or federal law that mandates the adoption of separate water quality standards for wet weather conditions (see page 10).*

to exceedances of water quality standards in San Gabriel River Reach 2 and Coyote Creek and thus contribute to impairments.

However, the City is of the view that it should not be subject to any of the SGR M-TMDLs. Table 7-1 of the TMDL lists **El Monte** as being located in Reach 3 of the SGR, which is not impaired.

In spite of this, Regional Board staff has concluded that the City is subject to all of the M-TMDLs because of the tributary rule. The tributary rule does not apply here, however. It only operates to extend a beneficial use within a reach to an unidentified water body such as a stream or a lake. It cannot extend a beneficial use to an outside reach for which that same use does not exist. For example, the beneficial use of Reach 2 of the Rio Hondo is ground water recharge. It obviously cannot apply the same use to an upstream or downstream reach, even though the reaches are tributary to it. And, in any case, a beneficial use and a water quality standard are two separate issues. A water quality standard is intended to protect a beneficial use. If that standard is not sufficient, based on monitoring, then a TMDL would be required.

iv. *Dry and Wet Weather Interim and Final Receiving Water Limitations for San Gabriel River-Related TMDLs*

See paragraph (ii) above.

3. *Watershed Control Measures*

It is not clear if the MS4 permit requires watershed control measures for the I-WMP option non-TMDL pollutants. Nevertheless, the City's I-WMP shall identify watershed controls measures (WCMs) to be considered for implementation based on monitoring data generated from the CIMP. If persistent exceedances are detected, the I-WMP will be amended to include BMPs tailored to address the exceedances for TMDL or non-TMDL pollutants. The BMPs will be implemented to include one or more of the 6 minimum control measures mandated for MS4s under the Clean Water Act that will be specific to the TMDL.

Should additional WCMs be required, based on monitoring data indicating persistent exceedances detected at the outfall against ambient standards, the City will rely on implementation plans already developed for TMDLs by a number of permittees, including the County of Los Angeles Watershed Management Division. Specifically, it will review both structural and non-structural BMPs in the various implementation plans. The BMPs will undergo a reasonable assurance analysis using an appropriate performance-predicting model. Selection of the final BMP or suite of final BMPs will be based on the extent of the pollution problem (viz., the frequency and level of exceedances) and their individual or combined efficacy in addressing the exceeded WLAs.

4. *Demonstration of a Low Impact Development Ordinance*

The City has begun development of the LID ordinance to the extent that: (1) it has reviewed the City and County of Los Angeles' versions; and (2) is considering a more abbreviated ordinance of its own. The City's experience with the Standard Urban Stormwater Management Program (SUSMP) ordinance is that the more requirements specified in a code can result in less flexibility that could, as a result, pose a problem to enforcement. The City, therefore, is leaning towards code language that will be brief and will defer to LID guidelines that the City plans to develop at a later date, just as was the case for the SUSMP ordinance. It was the stormwater quality management plan (SQMP) development planning/SUSMP guidelines under the previous Order that actually determined how compliance was to be specifically achieved. Further, guidelines can be easily amended as opposed to amending the code.

5. *Demonstration of Green Street Policy Development*

The Green Street Policy shall be based on the requirements of the Order which applies to the **Land Use Development Program** and its subject new development and redevelopment projects:

> *Street and road construction of 10,000 square feet or more of impervious surface area 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. Street and road construction applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects*.

This provision clearly directs permittees to follow USEPA guidance to the maximum extent practicable[15] and is applicable to 10,000 square feet or more of impervious surface. The City shall apply it to new transportation corridors in areas of new development which are defined as *standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects*. It shall not, as specified in the Order, apply to routine maintenance for subject redevelopment projects necessary 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*

The City's commitment to this policy shall be expressed through: (1) the Land Use Development element of its Stormwater Management Program ("SWMP"), which

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[15]MEP will be based on, among other factors, cost and infiltration rates and shall allow for infiltration of street runoff through other media such as porous concrete.

includes this and five other minimum control measures; and through (2) its General Plan Transportation Element at the time of its next update. The policy shall be effectuated as a type of infiltration best management practice (BMP) permittees have been incorporating into new and redevelopment projects under the previous Order's SUSMP since 2006.

The City sees no necessity in placing or implementing its green street program in its I-WMP. This is because green infrastructure is associated with the Land Use Development Program which is a mandatory core SWMP component that would be implemented even if a permittee only chose to rely on its minimum control measures ("MCMs") to achieve compliance with TMDLs and other water quality standards.

6. *Technical Advisory Committee*

The MS4 permit specifies a technical advisory committee ("TAC") that will "advise and participate" in the development of WMPs and E-WMPs. It is not clear if the MS4 permit intended the TAC to also include I-WMPs. Further, although the TAC is to be comprised of representatives of watershed management areas ("WMAs") it does not specify a procedural mechanism for choosing them. The previous MS4 permit specified watershed management committees which were structured to make decisions based on majority rule. These committees were not carried over to this MS4 permit. A similar decision-making mechanism will need to be developed for selecting the TAC.

END SECTION I

Notice of Intent II. Coordinated Integrated Monitoring Plan

The City declares its preference for participation in a Coordinated Integrated Monitoring Plan ("CIMP"). The CIMP will include participation with other MS4 permittees according to watersheds as mentioned above. The CIMP will address all of the monitoring requirements specified in the MS4 permit's Monitoring and Reporting Program ("MRP") element. The purpose of the CIMP is to: (1) characterize watersheds/sub-watersheds relative to WQSs; (2) determine to what extent MS4 permittees are meeting or not meeting WQSs; and (3) achieve monitoring cost savings through collective participation with other permittees sharing common watershed location.

The City takes the position that a comparison of outfalls discharges against ambient referents is the only legally valid monitoring requirement for determining compliance. To this end, the City shall collect outfall samples in accordance with the MRP and measure them against ambient standards.[16] Ambient standards have been used by the Los Angeles Regional Water Quality Control Board's Surface Water Ambient Program (SWAMP) for Dominguez Channel, Los Angeles River, and Machado Lake. It should be noted, however, that the Regional Board has not adhered to a consistent definition of ambient water quality monitoring. Although it references ambient in the Los Angeles River metals and bacteria TMDLs, it has not done so for the Dominguez Channel Harbors Toxics TMDL and for the Machado Lake Nutrients and Toxics TMDLs.

Ambient water quality monitoring is generally understood to mean collecting water quality samples during dry weather either during the dry season or during the wet season following a storm event. This has been confirmed by the Regional Board's SWAMP. SWAMP indicated that initially it performed ambient monitoring between 48 and 72 hours after a storm event. It later chose to conduct ambient during the spring and summer because there was no significant difference between the two sampling periods.

Measuring outfall discharges against wet weather WLAs is not required under federal or state law.[17] This argument is also reflected in the City's administrative petition challenging the MS4 permit. Nevertheless, the City shall compare outfall discharges against wet weather WLAs and data generated from existing in-stream stations relative to applicable TMDLs as well as against ambient discharges for purposes of reference and comparison rather than compliance.

END SECTION II

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[16]It is well established that water quality standards, including California Toxics Rule standards, are ambient standards.
[17]See State Water Resources Control Board Order WQ 2001-15, page 10-11.

Jesus M. Gomez
Acting City Manager

CITY OF EL MONTE
CITY MANAGER'S OFFICE

June 26, 2013

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2013 JUN 28 AM 10 16

Mr. Samuel Unger, P.E., Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

RE: LETTER OF INTENT – CITY OF EL MONTE WATERSHED MANAGEMENT PROGRAM AND COORDINATED INTEGRATED MONITORING PROGRAM

Dear Mr. Unger:

The City of El Monte submits this Letter of Intent to notify the Los Angeles Regional Water Quality Control Board of our commitment to develop a Watershed Management Program (WMP) and a Coordinated Integrated Monitoring Program (CIMP) for the tributary San Gabriel River and Los Angeles River Watersheds. This Letter of Intent serves to satisfy the notification requirements of Section VI.C.4.b of Order No. R4-2012-0175 (Municipal Separate Storm Sewer System Permit).

The City of El Monte meets the LID and Green Street conditions and will submit the draft WMP and CIMP within 18 months of the effective date of the Order (June 28, 2014).

The following table lists Total Maximum Daily Loads (TMDLs) for the tributary receiving waters in the Los Angeles and San Gabriel River Watersheds. Other than the Los Angeles River Watershed Water Quality-Based Effluent Limitations (WQBELs) listed, there are no interim and/or final WQBEL deadlines occurring prior to the anticipated approval date of the WMP in the San Gabriel River Watershed.

If you have any questions, please contact Michelle Marquez-Riley, P.E., Contract City Engineer, at (626) 580-2051.

Very truly yours,

JESUS M. GOMEZ
Acting City Manager

ATTACHMENT 1

11333 VALLEY BOULEVARD, EL MONTE, CALIFORNIA 91731-3293 / (626) 580-2001 / FAX (626) 453-3612
EMAIL: CityManager@ci.el-monte.ca.us WEBSITE: www.ci.el-monte.ca.us

TMDL	WQBELs	Interim/Final
Los Angeles River Watershed - Trash	20% of baseline by 2013 10% of baseline by 2014	Interim
Los Angeles River Watershed – Nitrogen Compounds and related Effects	NH_3-N 8.7 mg/L 1-hour avg 2.4 mg/L 30-day avg NO_3-N = 8 mg/L 30-day avg NO_2-N = 1 mg/L 30-day avg NO_3-N+NO_2-N = 8 mg/L 30-day avg	Final
Los Angeles River Reach 2 - Metals	Copper 50% of WERx0.13 (kg/day)[1] , dry weather 25% of WERx1.5x10^{-8}x daily volume (L) - 9.5 (kg/day), wet weather Lead 50% of WERx0.07 (kg/day)1 ' dry weather 25% of WERx5.6x10^{-8}x daily volume (L) – 3.85 (kg/day), wet weather Cadmium 25% of WERx2.8x10^{-8}x daily volume (L) – 1.8 (kg/day), wet weather Zinc 25% of WERx1.4x10^{-7}x daily volume (L) – 83 (kg/day), wet weather	Interim
Los Angeles River Watershed - Bacteria	E coli Load = 2 (10^9MPN/Day)	Interim
Legg Lake - Trash	March 6, 2013 = 40% March 6, 2014 = 60% Drainage Area covered by Full Capture Systems	Interim
San Gabriel River and Impaired Tributaries – Metals and Selenium	N/A	N/A

[1] Alternative concentration-based water quality-based effluent limitations available

Table 6. Los Angeles River Trash TMDL: Implementation Schedule.[45]
(Required percent reductions based on initial baseline wasteload allocation of each city)

Year	Implementation	Waste Load Allocation	Compliance Point
1 Sept 2008	Implementation: Year 1	60% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 60% of the baseline load
2 Sept 2009	Implementation: Year 2	50% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 55% of the baseline load calculated as a 2-year annual average
3 Sept 2010	***Implementation: Year 3***[46]	40% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 50% of the baseline load calculated as a rolling 3-year annual average
4 Sept 2011	***Implementation: Year 4***	30% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 40% of the baseline load calculated as a rolling 3-year annual average
5 Sept 2012	***Implementation: Year 5***	20% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 30% of the baseline load calculated as a rolling 3-year annual average
6 Sept 2013	Implementation: Year 6	10% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 20% of the baseline load calculated as a rolling 3-year annual average
7 Sept 2014	Implementation: Year 7	0% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 10% of the baseline load calculated as a rolling 3-year annual average
8 Sept 2015	Implementation: Year 8	0% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 3.3% of the baseline load calculated as a rolling 3-year annual average
9 Sept 2016	Implementation: Year 9	0% of Baseline Waste Load Allocations for the Municipal permittees; and Caltrans	Compliance is 0% of the baseline load calculated as a rolling 3-year annual average

Attachment #3: Legg Lake Trash TMDL

Task	Impacted Permittees	Deadline
Installation of Full Capture Systems to achieve 20% reduction of trash from Baseline WLA*.	Los Angeles County, Los Angeles County Flood Control Districts, the Cities of El Monte and South El Monte, and Caltrans	March 6, 2012
Installation of Full Capture Systems to achieve 40% reduction of trash from Baseline WLA*.	Los Angeles County, Los Angeles County Flood Control Districts, the Cities of El Monte and South El Monte, and Caltrans	March 6, 2013
Evaluate the effectiveness of Full Capture Systems, and reconsider the WLA.	Regional Board	March 6, 2013
Installation of Full Capture Systems to achieve 60% reduction of trash from Baseline WLA*.	Los Angeles County, Los Angeles County Flood Control Districts, the Cities of El Monte and South El Monte, and Caltrans	March 6, 2014
Installation of Full Capture Systems to achieve 80% reduction of trash from Baseline WLA*.	Los Angeles County, Los Angeles County Flood Control Districts, the Cities of El Monte and South El Monte, and Caltrans	March 6, 2015
Installation of Full Capture Systems to achieve 100% reduction of trash from Baseline WLA*.	Los Angeles County, Los Angeles County Flood Control Districts, the Cities of El Monte and South El Monte, and Caltrans	March 6th, 2016

* Compliance with percent reductions from the Baseline WLA will be assumed wherever full capture systems are installed in corresponding percentages of the conveyance discharging to the water body. Installation will be prioritized based on the greatest point source loadings.

DRAFT

WATERSHED MANAGEMENT PROGRAM

City of El Monte, California

June 2014

City of El Monte

Department of Public Works

City Hall West – 2nd Floor

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RB-AR4643

TABLES

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APPENDIX A

APPENDIX B

ACRONYMS AND ABBREVIATIONS

Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BMP	Best Management Practices
CCR	California Code of Regulations
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of El Monte
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles County MS4 Permittee
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
EWMP	Enhanced Watershed Management Program
GIS	Geographical Information System
gpd	gallons per day
HUC	Hydrologic Unit Code
IC/ID	Illicit Connection and Illicit Discharge Elimination
LA	Load Allocations
LACDPW	Los Angeles County Department of Public Works
LID	Low Impact Development
µg/L	micrograms per Liter
MCM	Minimum Control Measure
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MRP	Monitoring and Reporting Program

MS4	Municipal Separate Storm Sewer System
ND	Not Detected
NPDES	National Pollutant Discharge Elimination System
NTR	National Toxics Rule
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
Order	Order R4-2012-0175 (“the Los Angeles County MS4 Permit”)
Permittee	Agency named in Order as being responsible for permit conditions within its jurisdiction
PIPP	Public Information and Participation Program
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
SIC	Standard Industrial Classification
State Water Board	California State Water Resources Control Board
SWQDv	Storm Water Quality Design Volume
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WDID	Waste Discharge Identification
WLA	Waste Load Allocations
WMA	Watershed Management Area
WMMS	Watershed Management Modeling System
WMP	Watershed Management Program
WQBELs	Water Quality-Based Effluent Limitations
WQO	Water Quality Objective
WQS	Water Quality Standards

EXECUTIVE SUMMARY

The National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Order R4-2012-0175 (Order) became effective on December 28, 2012. The Order ensures that the MS4s are not causing or contributing to exceedances of water quality objectives (WQOs) and that the beneficial uses of receiving waters are supported. The Order gives Permittees some flexibility on how to meet the requirements of the Order and its accompanying Monitoring and Reporting Program (MRP).

The City is located in two watersheds which are the Los Angeles River Watershed and the San Gabriel River Watershed. Water quality in these two watersheds has been identified as impaired by:

- Bacteria
- Copper
- Lead
- Zinc
- Cyanide
- Trash

The City of El Monte (City) has chosen to exercise the option of developing a Watershed Management Program (WMP) and accompanying Integrated Monitoring Program (IMP) to meet the requirements of the Order.

This WMP outlines the process for complying with the requirements of the Order for each of the City's Watershed Management Areas (WMA) and includes the following:

- Identification of water quality priorities
- Water quality characterization
- Pollutant classification
- Source assessment
- Prioritization and sequencing of control efforts based on impairments
- Selection of watershed control measures
- Reasonable Assurance Analysis (RAA) including pollutant modeling and load reduction

The WMP also includes details of the following:

- Implementation schedules for structural and nonstructural BMPs
- Integrated watershed monitoring and assessment
- Stakeholder involvement
- Adaptive management process and elements

The program set forth in the WMP will be implemented over time. Adaptive management processes will be implemented as part of the WMP to evaluate the success of the WMP in achieving its objectives, and based on the outcome of the evaluations, the WMP will be adjusted.

The near-term critical elements of the WMP include the requirements for the City to address the pollutants with Total Daily Maximum Loads (TMDLs) and State listed impairments as well as other exceedances. The long-term requirements of the City will be to monitor receiving waters and outfalls to receiving waters to ensure that it is not causing or contributing to exceedances of WQOs or affecting beneficial uses. The modeled results indicate that the City is in compliance with metals and nitrogen compounds TMDLs but will need to implement BMPs to achieve reductions for nutrients and trash. A Load Reduction Strategy will be developed to address the bacteria TMDL.

As part of the early actions and consistent with the Order, the City drafted a Low Impact Development (LID) Ordinance and Green Streets policy. The LID Ordinance outlines strategies for the incorporation of infiltration devices as a shift from storm water treatment to the use of devices and policies that promote the capture, re-use, and infiltration of stormwater. The draft LID Ordinance was reviewed by Board staff and all staff comments (including those comments issued in a Memo to all Permittees on April 16, 2014) were incorporated into the LID Ordinance which was then adopted by the El Monte City Council on June 10, 2014. Board comments were also incorporated into the City's final Green Streets Policy and the policy has been put into effect. New Development and Redevelopment Projects are being conditioned by the LID Ordinance and Green Street elements are being incorporated into applicable municipal and private projects. A certified copy of the LID Ordinance and a copy of the Green Streets Policy are included in Appendix A

The City is dedicated to informing their citizens, municipal staff, and developers of the importance or water quality as evidenced by the City's continued distribution of educational materials at community activities and special events and distribution of free devices to encourage recycling of used oil and waste products. The City has provided every citizen and business with a DVD of information entitled "Green Street Scene" to further inform residents and businesses regarding water use and water quality. The City is also active with local stakeholder groups to improve water quality through education and the modification of areas within the City (parks, trails, etc.) in order to promote storm water infiltration, capture, and re-use.

SECTION 1 - WATERSHED MANAGEMENT PROGRAM DEVELOPMENT

Storm water and non-storm water discharges within the Coastal Watersheds of Los Angeles County consist of surface runoff from various land uses. This runoff enters the Municipal Separate Storm Sewer System (MS4), commonly referred to as the storm drain system, which then conveys the discharges to receiving waters throughout the region. Discharges of storm water and non-storm water can carry pollutants which can have a damaging effect on both human and aquatic health. The Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) Program to regulate MS4 discharges. The Los Angeles Regional Water Quality Control Board (Regional Water Board) issued Order Number R4-2012-0175 to address MS4 discharges within the Coastal Watershed of Los Angeles County. The Order was adopted by the Regional Water Board on November 8, 2012 and became effective December 28, 2012. The Order allows Permittees the flexibility to develop a Watershed Management Program (WMP) to implement the requirements of the Order through customized strategies, control measure, and Best Management Practices (BMPs). This document describes the steps, processes, implementation, and timelines associated with the City of El Monte's Watershed Management Program (WMP).

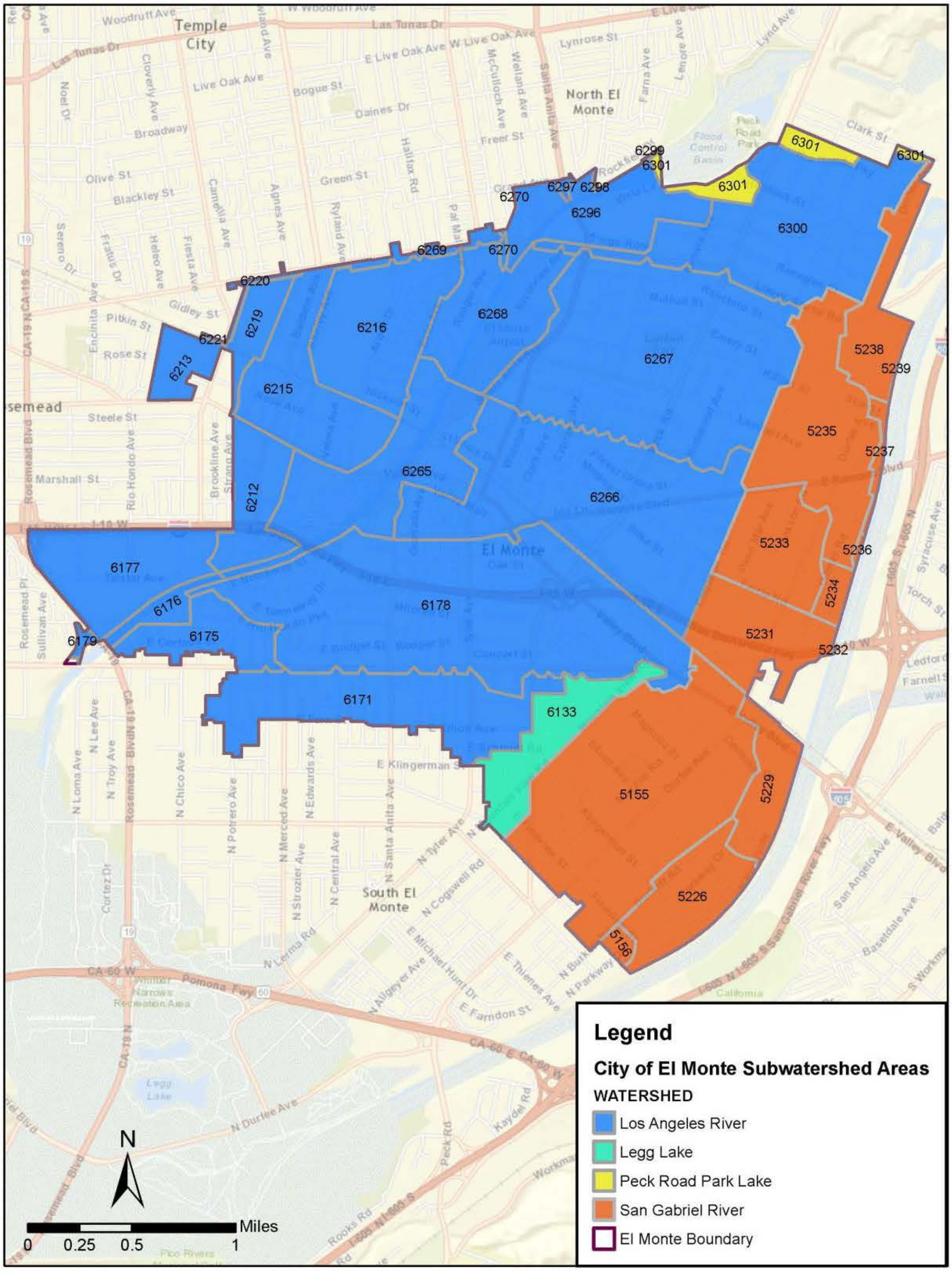
1.1. IDENTIFICATION OF WATER QUALITY PRIORITIES

The Order requires Permittees to identify water quality priorities within each Watershed Management Area (WMA). The Order redefines WMAs consistent with the delineations used in the Regional Water Board's Watershed Management Initiative. A map depicting El Monte's WMAs is shown in Figure 1-1. The subwatersheds and drainage areas to each WMA (Los Angeles River or San Gabriel River) are shown in Figure 1-2. The process for identifying the water quality priorities within each WMA is broken into Water Quality Characterization, Water Body Pollutant Classification, Source Assessment, and Prioritization. Each category is explained in detail in the sections below.

Figure 1-1: Watershed Management Areas

RB-AR4651

Figure 1-2: Subwatersheds



The four digit number represents the identification number for the particular subwatershed.

List of Subwatersheds within City of El Monte

Subwatershed ID	Area (ac)	Water Body
5155	584.99	San Gabriel River
5156	8.91	San Gabriel River
5226	150.69	San Gabriel River
5229	91.05	San Gabriel River
5231	155.87	San Gabriel River
5233	150.81	San Gabriel River
5234	24.97	San Gabriel River
5235	283.21	San Gabriel River
5236	2.66	San Gabriel River
5237	16.3	San Gabriel River
5238	112.38	San Gabriel River
5239	0.33	San Gabriel River
6133	129.58	Legg Lake
6171	287.93	Los Angeles River
6174	0.16	Los Angeles River
6175	101.04	Los Angeles River
6176	34.88	Los Angeles River
6177	208.19	Los Angeles River
6178	778.58	Los Angeles River
6179	5.82	Los Angeles River
6212	111.43	Los Angeles River
6213	51.23	Los Angeles River
6215	215.27	Los Angeles River
6216	231.36	Los Angeles River
6219	52.71	Los Angeles River
6220	3.51	Los Angeles River
6221	1.3	Los Angeles River
6265	277.08	Los Angeles River
6266	579.69	Los Angeles River
6267	655.75	Los Angeles River
6268	197.11	Los Angeles River
6269	15.81	Los Angeles River
6270	1.65	Los Angeles River
6296	170.88	Los Angeles River
6297	1.47	Los Angeles River
6299	0.23	Los Angeles River
6300	397.06	Los Angeles River
6301	39.34	Peck Road Park Lake

The total acreage for the subwatersheds within the City's jurisdiction is approximately 6,131 acres.

1.2. RECEIVING WATER QUALITY CHARACTERIZATION

In order to support identification and prioritization of management actions, the Order requires Permittees to provide an evaluation of existing water quality conditions within each WMA. Monitoring data for sites within the Los Angeles River and San Gabriel River WMAs were reviewed. The sources of the data researched included monitoring data from:

- Council for Watershed Health (CWH)
- California Environmental Data Exchange Network (CEDEN)
- Los Angeles County Sanitation District (LACSD)
- Los Angeles County Department of Public Works (LACDPW) Annual StormWater Monitoring Report.

The CWH monitoring had limited data for sites within the Los Angeles and San Gabriel River WMAs. A search of CEDEN revealed no monitoring data within the two WMAs. The 2012-2013 LACDPW Annual Stormwater Monitoring Report provided the most recent and relevant data for the receiving water conditions in both WMAs. Also reviewed were the 2010 303(d) Listing, the State's Listing Policy, and documents for TMDLs for which the City is listed as a responsible party.

The pollutants detected in the various monitoring programs and databases were used to characterize the receiving waters within each WMA.

Monitoring data for each receiving water is summarized in the following subsections:

1.2.1 LOS ANGELES RIVER

Mass Emissions Site S10 monitoring summary: E.coli concentrations were above the water quality objective (WQO) of 235 MPN/100ml during all seven storm events monitored for bacteria. E.coli concentrations ranged from 8,310 to 57,300 MPN/100mL. pH was not within the WQO range of 6.5- 8.5 pH units for one of the eight wet weather samples. Dissolved copper concentrations were above the hardness-based WQO for all eight wet weather samples collected. Dissolved copper concentrations ranged from 19.4 to 77.2 ug/L. Hardness values ranged from 40 to 200 mg/L. Dissolved lead was above the hardness-based WQO for one of the eight wet weather samples collected. Dissolved lead concentrations ranged from 7.75 to 70.0 ug/L. Dissolved zinc concentrations were above the hardness-based WQO for all but one of the samples collected. Dissolved zinc concentrations ranged from 117 to 665 ug/L. E.coli did not meet the applicable WQO for one of the two monitored dry weather events. E.coli concentrations ranged from 46 to 959 MPN/100mL. Cyanide was above the WQO of 0.022mg/L during one of the two dry weather events. Cyanide concentrations ranged from 0.015 to 0.026 mg/L. pH was not within the QWO range of 6.5-8.5 pH units during one of the two dry weather events[1].

The pollutants of concern for the Los Angeles River are:

- E.coli
- Copper
- Lead
- Zinc
- Cyanide
- Trash

1.2.2 SAN GABRIEL RIVER

Mass Emissions Site S14 monitoring summary: E.coli concentrations were above the water quality objective (WQO) of 235 MPN/100ml during all five storm events monitored for bacteria. E.coli concentrations ranged from 1,842 to 127,400 MPN/100mL. pH was not within the WQO range of 6.5-8.5 pH units for one of the five wet weather samples. Dissolved copper concentrations were above the hardness-based WQO for two of the five wet weather samples collected. Dissolved copper concentrations ranged from 8.53 to 32.7 ug/L. Hardness values ranged from 90 to 210 mg/L. Dissolved zinc concentrations were above the hardness-based WQO for one of the five samples collected. Dissolved zinc concentrations ranged from 69.9 to 286 ug/L. Cyanide was above the WQO of 0.022mg/L for one storm event. Cyanide concentrations ranged from non-detect to 0.031 mg/L. No dry weather samples were collected due to dry conditions (no flow).

The pollutants of concern for the San Gabriel River are:

- E.coli
- Copper
- Zinc
- Cyanide

[1] (Source: Los Angeles County Department of Public Works (LACDPW) Annual Stormwater Monitoring Report, 2012-2013)

1.2.3 LEGG LAKE

Legg Lake data summary: according to the 2010 303(d) list, Legg Lake is impaired for Ammonia, Copper, Lead, Odor, pH, and Trash. There is also a Nutrient TMDL for Legg Lake. According to the TMDL document, there was one ammonia exceedance in 50 samples. Therefore, Legg Lake meets ammonia water quality standards and the USEPA concludes that preparing a TMDL for ammonia is unwarranted at this time. The U.S. EPA recommends that Legg Lake not be identified as impaired for ammonia in California's next 303 (d) listing[2].

The pollutants of concern for Legg Lake are:

- Ammonia
- Copper
- Lead
- Nutrients (Nitrogen and Phosphorus)
- Trash

1.2.4 PECK ROAD PARK LAKE

Peck Road Park Lake data summary: The Peck Road Park Lake Chlordane impairment is primarily due to historical loading and storing within the lake sediments, with some ongoing contribution by watershed wet weather loads. Elevated fish tissue concentrations of Chlordane is primarily due to the storage of historic loads of Chlordane in the lake sediments. Watershed loads of Chlordane may arise from past pesticide applications, improper disposal, and atmospheric deposition (and possible erosion of Chlordane contaminated soils). There is no definitive information on specific sources within the watershed at this time. Chlordane is no longer in use and fish tissue concentrations are likely to decline. Total Chlordane concentrations in water flowing into Peck Road Park Lake are below detection limits, and most Chlordane load is expected to move in association with sediment[3].

The Dichlorodiphenyltrichloroethane (DDT) impairment present 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. Watershed loads of DDT may arise from past pesticide applications, improper disposal, and atmospheric deposition. There is no definitive information on specific sources of elevated DDT within the watershed at this time. Incoming loads of DDT will mainly be absorbed to

[2] Source: U.S. EPA Los Angeles Area Lakes TMDLs, March 2012.
[3] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012.

sediment particles conveyed by stormwater runoff (eroded from legacy contaminations sites or from atmospheric conditions). DDT in water flowing into Peck Road Park Lake are below detection limits, and most DDT load is expected to move in association with sediment. The legacy DDT stored in lake sediment is the major cause of exposure to aquatic organisms and sport fish. DDT, like PCBs and Chlordane is an organochlorine compound that is strongly sorbed to sediments and lipids and is no longer in production[4].

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. There is no definitive information on specific sources of Dieldrin within the watershed at this time. Dieldrin is a chlorinated insecticide originally developed as an alternative to DDT and was in use from the 1950s to the 1970s. Dieldrin in the environment arises from the use of the insecticide Aldrin. The use of both Dieldrin and Aldrin was discontinued in the 1970s. Dieldrin, like PCBs, Chlordane and DDT is an organochlorine compound that is strongly sorbed to sediments and lipids (fats) and is no longer in production. Most Dieldrin load is expected to move in association with sediment. Stormwater loads from the watershed could not be directly estimated because all sediment and water sample results were below detection limits. The manufacture and use of Dieldrin is currently banned[5].

Trash is an impairment at Peck Road Park Lake and is comprised of plastic bags, plastic pieces, paper items, plastic and glass bottles, Styrofoam, bottle caps, and cigarette butts. Uncovered trash cans at the lake can be a source of trash and the trash can be transported by wind and animals. The largest accumulations of trash were observed near picnic areas, near industrial facilities, and near the ends of storm drain outfalls discharging to the lake. The major source of trash in Peck Road Park Lake is due to littering, either intentional or accidental.

The pollutants of concern for Peck Road Park Lake are:

- Nutrients (Nitrogen and Phosphorus)
- PCBs
- DDT
- Dieldrin
- Trash

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[4] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012
[5] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012

1.3. DISCHARGE WATER QUALITY CHARACTERIZATION

Two outfalls in the City were selected for characterizing discharge water quality from the City. The two outfalls were sampled during dry weather in December 2013 and again during a rain event (wet weather) in February 2014. The results of these two sampling events provide information on the current characteristics of dry weather and wet weather discharges from the City's jurisdiction.

A map showing the locations of the two outfalls and their corresponding drainage areas are shown in Figure 1-3. Analytical results are provided in Tables 1-1 and 1-2. Copies of the Chain of Custody Records and Laboratory Reports for the discharge characterization sampling are included in Appendix B.

Figure 1-3: Dry and Wet Weather Outfall Monitoring Locations

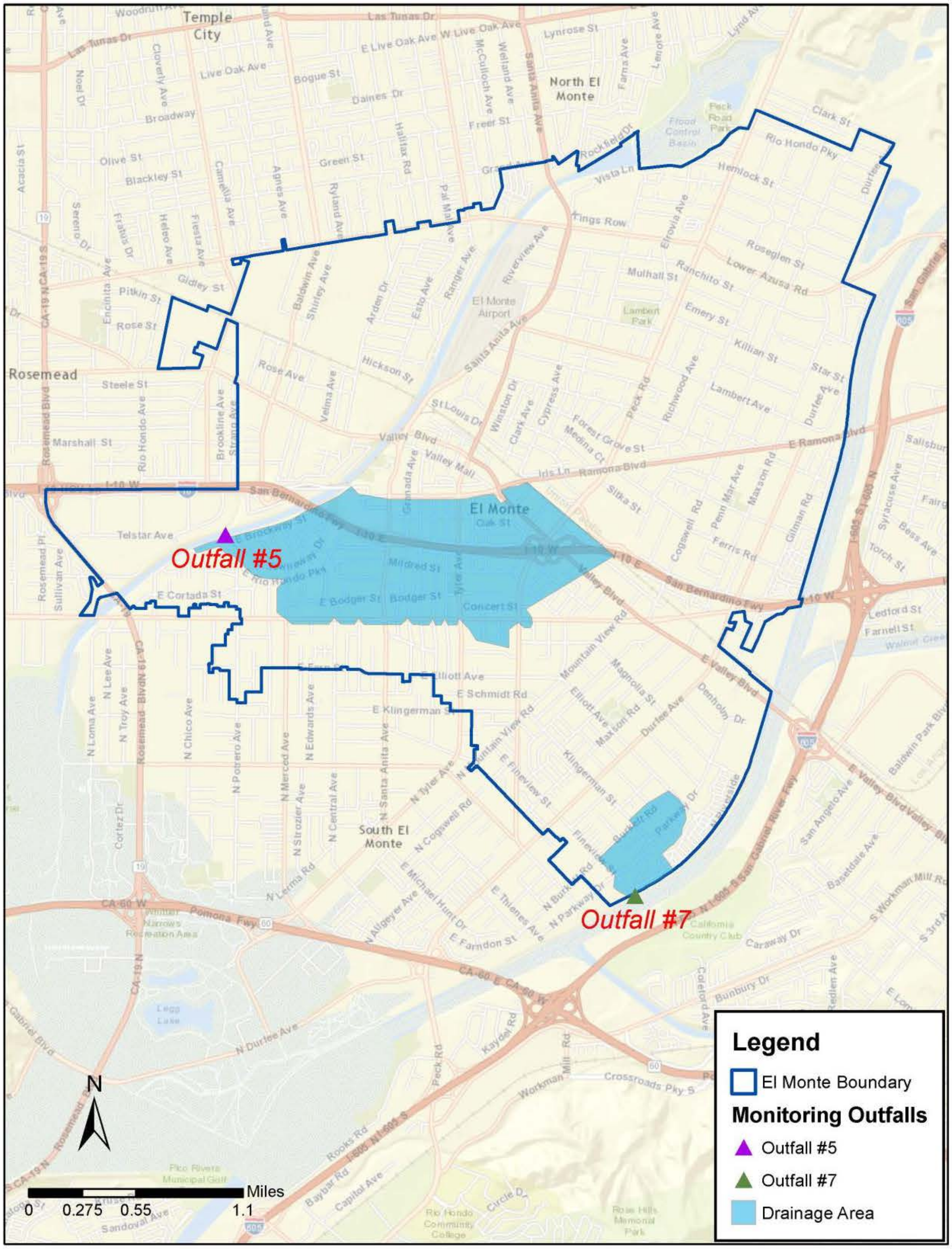


Table 1-1: Outfall No. 5 - Dry and Wet Weather Sampling Results

Outfall #	Constituent	Dry Weather Results	Wet Weather Results	Outfall Receiving Waterbody:
5	Oil & Grease	ND	ND	Rio Hondo
5	TKN	0.32 mg/L	0.91 mg/L	Rio Hondo
5	NO2 +NO3 as N	180 ug/L	590 ug/L	Rio Hondo
5	Total Phosphorus as P	0.052 mg/L	0.076 mg/L	Rio Hondo
5	Total Dissolved Solids	180 mg/L	190 mg/L	Rio Hondo
5	Total Suspended Solids	ND	ND	Rio Hondo
5	Total Nitrogen	0.50 mg/L	1.50 mg/L	Rio Hondo
5	Total Copper	0.010 mg/L	0.016 mg/L	Rio Hondo
5	Total Lead	ND	ND	Rio Hondo
5	Total Selenium	ND	ND	Rio Hondo
5	Total Zinc	ND	ND	Rio Hondo
5	Total Coliform	20 MPN/100 ml	10,000 MPN/100 ml	Rio Hondo
5	Fecal Coliform	1,700 MPN/100 ml	260 MPN/100 ml	Rio Hondo
5	E. coli	20 MPN/100 ml	260 MPN/100 ml	Rio Hondo
5	1-Methylnaphthalene	ND	ND	Rio Hondo
5	2-Methylnaphthalene	ND	ND	Rio Hondo
5	Acenaphthene	ND	ND	Rio Hondo
5	Acenaphthyene	ND	ND	Rio Hondo
5	Anthracene	ND	ND	Rio Hondo
5	Benzo (a) anthracene	ND	ND	Rio Hondo
5	Benzo (b) pyrene	ND	ND	Rio Hondo
5	Benzo (b) fluoranthene	ND	ND	Rio Hondo
5	Benzo (g, h, i) perylene	ND	ND	Rio Hondo
5	Benzo (k) fluoranthene	ND	ND	Rio Hondo
5	Chrysene	ND	ND	Rio Hondo
5	Dibenzo (a, h) anthracene	ND	ND	Rio Hondo
5	Fluoranthene	ND	ND	Rio Hondo
5	Fluorene	ND	ND	Rio Hondo
5	Indeno (1,2,3-cd) pyrene	ND	ND	Rio Hondo
5	Naphthalene	ND	ND	Rio Hondo
5	Phenanthrene	ND	ND	Rio Hondo
5	Pyrene	ND	ND	Rio Hondo

Table 1-2: Outfall No. 7 - Dry and Wet Weather Sampling Results

Outfall #	Constituent	Dry Weather Results	Wet Weather Results	Outfall Receiving Waterbody:
7	Oil & Grease	ND	ND	San Gabriel River
7	TKN	2.6 mg/L	4.6 mg/L	San Gabriel River
7	NO2 +NO3 as N	4,000 ug/L	2,000 ug/L	San Gabriel River
7	Total Phosphorus as P	0.63 mg/L	1.2 mg/L	San Gabriel River
7	Total Dissolved Solids	460 mg/L	130 mg/L	San Gabriel River
7	Total Suspended Solids	21 mg/L	230 mg/L	San Gabriel River
7	Total Nitrogen	6.6 mg/L	6.6 mg/L	San Gabriel River
7	Total Copper	0.034 mg/L	0.72 mg/L	San Gabriel River
7	Total Lead	0.0056 mg/L	0.32 mg/L	San Gabriel River
7	Total Selenium	ND	ND	San Gabriel River
7	Total Zinc	0.084 mg/L	0.29 mg/L	San Gabriel River
7	Total Coliform	14,000 MPN/100 ml	28,000 MPN/100 ml	San Gabriel River
7	Fecal Coliform	90,000 MPN/100 ml	1,400 MPN/100 ml	San Gabriel River
7	E. coli	14,000 MPN/100 ml	1,400 MPN/100 ml	San Gabriel River
7	1-Methylnaphthalene	ND	ND	San Gabriel River
7	2-Methylnaphthalene	ND	ND	San Gabriel River
7	Acenaphthene	ND	ND	San Gabriel River
7	Acenaphthyene	ND	ND	San Gabriel River
7	Anthracene	ND	ND	San Gabriel River
7	Benzo (a) anthracene	ND	ND	San Gabriel River
7	Benzo (b) pyrene	ND	ND	San Gabriel River
7	Benzo (b) fluoranthene	ND	ND	San Gabriel River
7	Benzo (g, h, i) perylene	ND	ND	San Gabriel River
7	Benzo (k) fluoranthene	ND	ND	San Gabriel River
7	Chrysene	ND	0.14 ug/L	San Gabriel River
7	Dibenzo (a, h) anthracene	ND	ND	San Gabriel River
7	Fluoranthene	ND	0.19 ug/L	San Gabriel River
7	Fluorene	ND	ND	San Gabriel River
7	Indeno (1,2,3-cd) pyrene	ND	ND	San Gabriel River
7	Naphthalene	ND	ND	San Gabriel River
7	Phenanthrene	ND	0.12 ug/L	San Gabriel River
7	Pyrene	ND	0.15 ug/L	San Gabriel River

In summary, the discharge water quality characterization supports:

- Pollutant identification
- Modeled pollutant concentration correlation

1.4. WATERSHED CHARACTERISTICS

The City discharges primarily into two major watersheds, the San Gabriel River Watershed on the East and the Los Angeles River Watershed on the West. A small section (approximately 130 acres) in the south part of the City drains to Legg Lake.

1.4.1 GEOGRAPHIC SETTING

Located approximately 12 miles east of downtown Los Angeles, El Monte has a population of approximately 120,000. The City, located below the mountains, is relatively flat, and is between two majors drainage features, the San Gabriel River and the Rio Hondo. The Rio Hondo is a tributary of the Los Angeles River. The Rio Hondo also links the double watersheds of the Los Angeles and San Gabriel Rivers. Although it is now a major tributary of the Los Angeles River, the Rio Hondo once formed the main bed of the San Gabriel River. The six major tributaries of the Rio Hondo are the Alhambra, Rubio, Eaton, Arcadia, Santa Anita, and Sawpit Washes. (Source: "Rio Hondo Watershed Management Plan") http://www.rmc.ca.gov/plans/rio_hondo/Rio%20Hondo%20Water%20Management%20Plan_small.pdf

The San Gabriel River watershed is divided into three sections: upper watershed, lower watershed, and mainstem. The watershed drains into the San Gabriel River from the San Gabriel Mountains flowing 58 miles south until its confluence with the Pacific Ocean. Major tributaries to the San Gabriel River include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains entering from the 19 cities along the San Gabriel River. Channel flows pass through different sections in the San Gabriel River, diverting from the riverbed into four different spreading grounds, held behind several rubber dams for controlled flow and ground water recharge and controlled through 10 miles of concrete channel bottom from below Whittier Narrows Dam to past Coyote Creek. (Source: LA Department of Public Works – San Gabriel Watershed http://ladpw.org/wmd/watershed/sg/

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake.

Legg Lake is south of the City and receives runoff from a small portion of the City (approximately 134 acres).

1.4.2 GEOLOGIC SETTING

In the northwestern half of the City, subsurface and surficial deposits tend to consist of varying amounts of sand, gravel, and silt layers that are incorporated within large, composite alluvial fans associated with the Alhambra, Rubio, Eaton, Arcadia, Santa Anita, and Sawpit washes. In the southeastern part of the City, flood plain and overbank deposits associated with the San Gabriel River make up most of the subsurface and surficial deposits.

1.4.3 CLIMATE

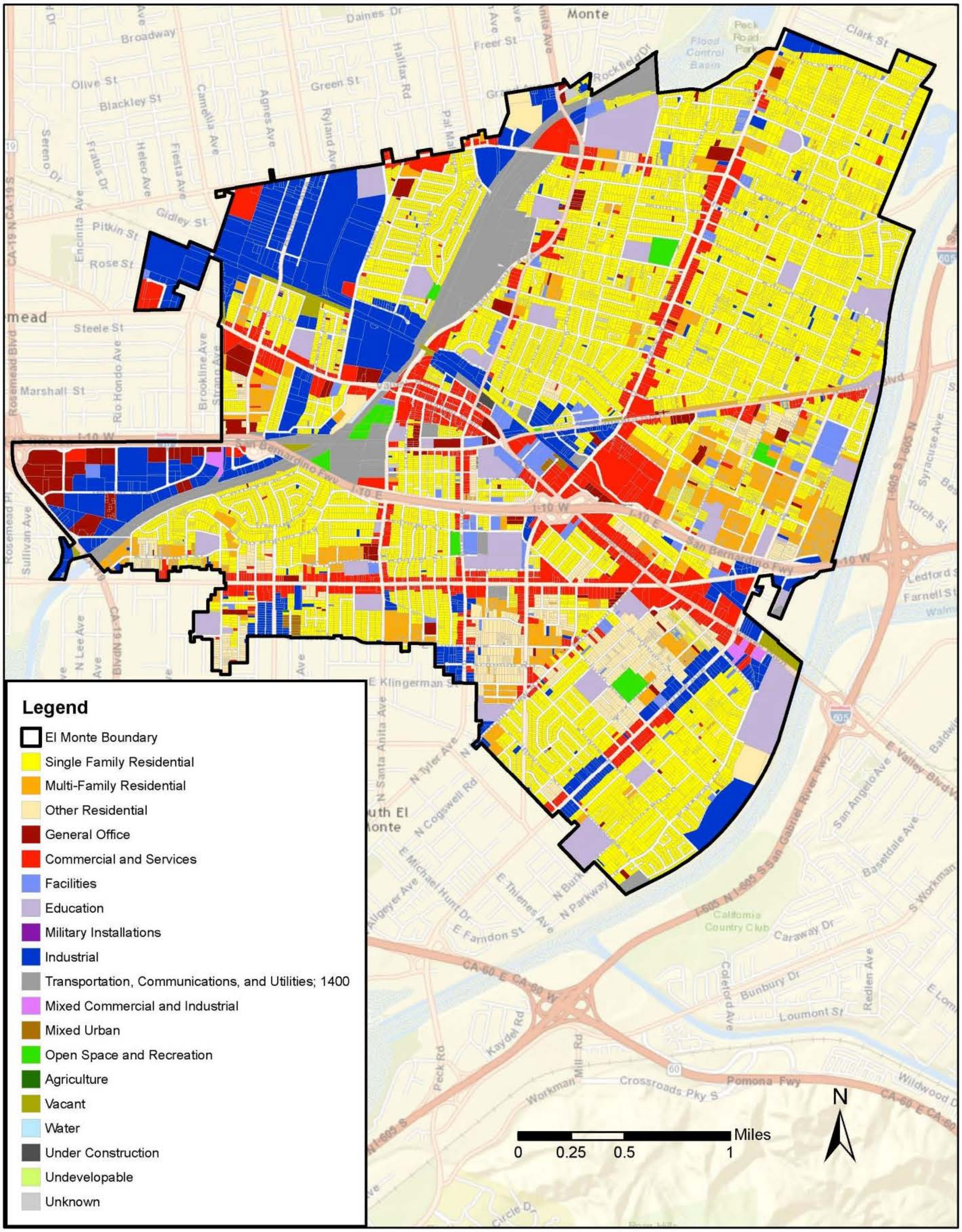
The El Monte climate is warm during summer when temperatures tend to be in the 70's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is August with an average maximum temperature of 90.20 degrees Fahrenheit, while the coldest month of the year is December with an average minimum temperature of 41.90 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 27 degrees Fahrenheit, and moderate during winter with an average difference of 27 degrees Fahrenheit. The annual average precipitation at El Monte is 18.56 Inches. Winter months tend to be wetter than summer months. The wettest month of the year is February with an average rainfall of 4.66 Inches. (Source: www.idcide.com/**weather/ca/el-monte**.htm)

1.4.4 LAND USE

The land uses within the City's approximate 10 square mile area are comprised of 58 percent residential, 11 percent retail, 10 percent industrial, 7 percent office/retail, and 14 percent other of amenities[6]. See Figure 1-4 for a map of land use.

[6] Source: City of El Monte website- General Description.

Figure 1-4: Land Use Map



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1.5. WATER BODY POLLUTANT CLASSIFICATION

On the basis of the evaluation of existing water quality conditions, Water Body-Pollutant Combinations (WBPCs) will be classified into one of the following three categories:

- Category 1 (Highest Priority) Pollutants for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E TMDL Provisions and Attachments L through R of the MS4 Permit.
- Category 2 (High Priority) Pollutants for which data indicate water quality impairment in the receiving water according to the State Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State's Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.
- Category 3 (Medium Priority) Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.

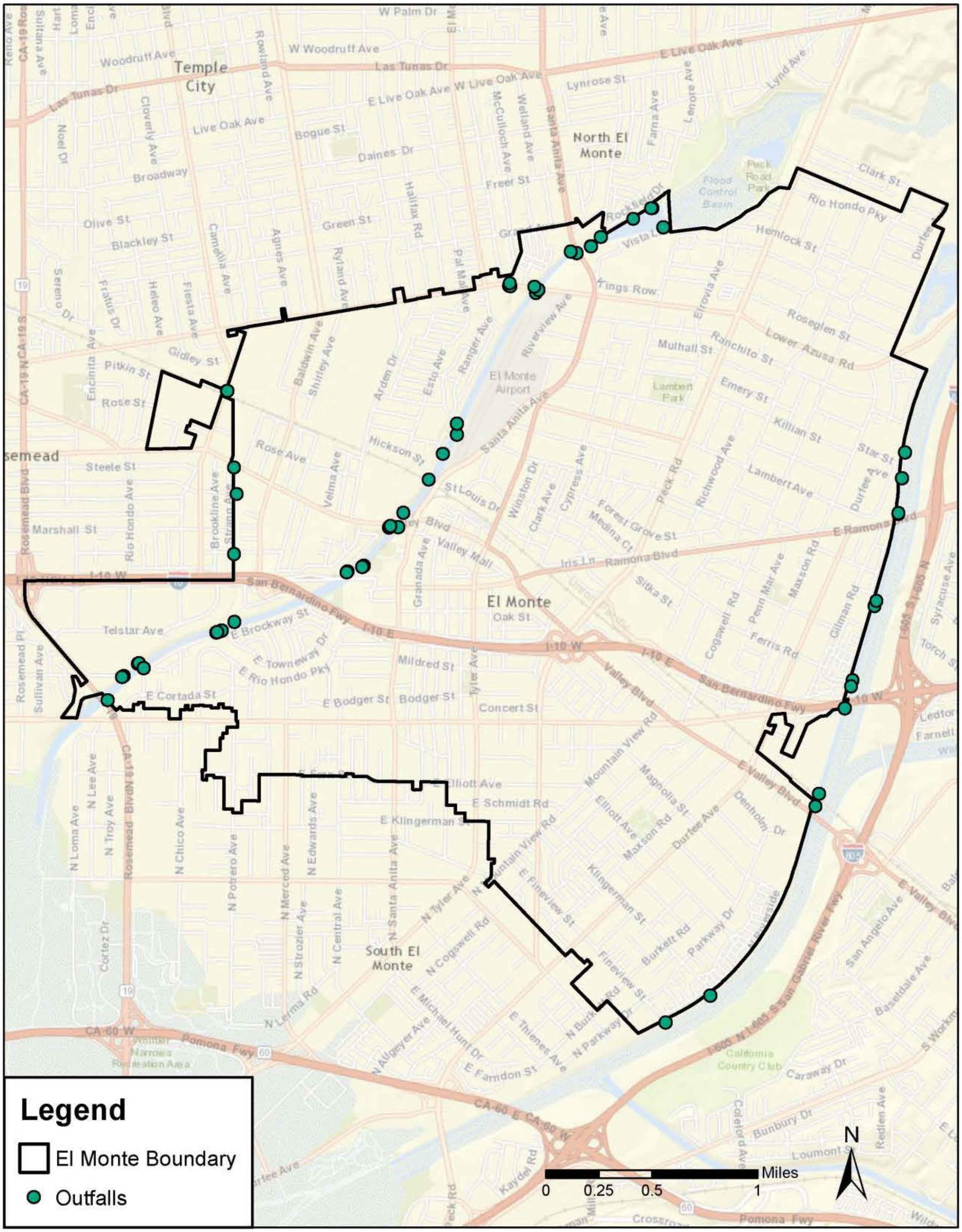
1.6. POLLUTANT SOURCE ASSESSMENT

In order to identify potential stormwater and non-storm water pollutant sources in discharges to the MS4 in each WMA, the City reviewed data from the following:

- Findings from the IC/ID Elimination Program
- Findings from the Industrial/Commercial Facilities Inspections Program
- Findings from the Development Construction Program
- Findings from the Public Activities Program
- Findings from US EPA TMDL Documentation
- Watershed Model Results and Regional Monitoring Programs Results
- Findings from exceedances from facilities with coverage under the Industrial General Permit (from SMARTS)
- Results from review of Los Angeles River Metals TMDL Coordinated Monitoring Plan
- Los Angeles Area Lakes TMDLs document
- San Gabriel River and Impaired tributaries TMDL document
- Findings from review of the State's Listing Policy (potential exceedances of WQ objectives)
- Results from dry weather and wet weather outfall sampling conducted by the City

The pollutants associated with the above findings are prioritized in Section 1.7. The major outfalls from the City are shown in Figure 1-5.

Figure 1-5: Major Outfalls



1.7. PRIORITIZATION

Based on findings of the source assessment, the water quality issues will be prioritized and sequenced in the same order as the Pollutant Classification.

- Category 1 will be WBPCs with TMDLs
- Category 2 will be WBPCs listed on the 303(d) list
- Category 3 will be WBPCs with other exceedances.

1.7.1 WBPCS WITH TMDLS

WBPCs with TMDLs from Attachments O and P of the Order are summarized in Table 1-3.

Table 1-3: WBPCs with TMDLs

TMDL Pollutant	Water Body
Copper, Zinc, Lead	Los Angeles River
E. coli (Bacteria)	Los Angeles River
Trash	Los Angeles River
Nitrogen Compounds	Los Angeles River
Lead	San Gabriel River
Selenium	San Gabriel River
Trash	Legg Lake
Nutrients	Legg Lake
Trash	Peck Road Park Lake
Nutrients	Peck Road Park Lake
PCBs	Peck Road Park Lake
Chlordane	Peck Road Park Lake
DDT	Peck Road Park Lake
Dieldrin	Peck Road Park Lake

1.7.2 WBPCS FROM 303(D) LISTED WATER BODIES

The following table contains the pollutants and water bodies as listed on the 2010 303(d) list. Impairment or exceedances of RWLs.

Table 1-4: WBPCs on 2010 303(d) List

Impairment	Water body
Ammonia*	Legg Lake
Copper	Legg Lake
Lead	Legg Lake
Odor	Legg Lake
pH	Legg Lake
Trash	Legg Lake and Peck Rd Park Lake

* Recommended for removal by EPA due to lack of sample results testing positive for ammonia.

1.7.3 WBPCS WITH EXCEEDANCES OF WATER QUALITY OBJECTIVES

Data from Annual Reports, IC/ID reports, SWAMP, Industrial/ Commercial Facility baseline exceedances information from SMARTS, Mass Emissions Stations sampling, dry weather and wet weather outfall sampling conducted by the City, etc.

Table 1-5: WBPCs with exceedances

Constituent	Water Body
Copper	LA River
Zinc	LA River
Cyanide	LA River
Copper	San Gabriel
Lead	San Gabriel
Zinc	San Gabriel
E. coli	San Gabriel

1.8. SELECTION OF WATERSHED CONTROL MEASURES

The City will identify strategies, control measures, and BMPs to implement through storm water management programs and on a watershed scale (for both WMAs) with the goal of creating an efficient program to focus individual/collective resources on watershed priorities.

The objectives of the Watershed Control Measures are:

- To implement pollutant controls necessary to achieve all applicable interim and final WQBELs and /or RWLs pursuant to compliance schedules.
- To ensure that discharges from the MS4 do not cause or contribute to exceedances of RWLs.
- To prevent or eliminate non-stormwater discharges to MS4 that are a source of pollutants form the MS4 to receiving waters.

The Watershed Control Measures will include combinations of:

- Structural and/or non-structural controls and operation and maintenance of procedures designed to achieve applicable WQBELs and/or RWLs;
- Retrofitting areas of existing development known or suspected to contribute to the highest water quality priorities with regional controls or management measures; and
- Stream and/or habitat rehabilitation or restoration projects where necessary.

The City will implement Watershed Control Measures based on the results of its watershed modeling and the necessary pollutant reductions.

1.8.1 MINIMUM CONTROL MEASURES (MCMS)

Until the WMP is approved, the City will continue to implement their existing storm water management programs , including those actions within each of the minimum control measures consistent with 40 CFR 122.26(d)(2)(iv)(A)-(D). The MCMs are listed below, with a sub bullet emphasizing the major

- Development Construction Program
- Industrial Commercial Program
- IC/ID Detection and Elimination Program
- Public Agency Activities Program
    - Install trash excluders in catch basins (to comply with WQBEL of zero trash by September 30, 2016)
    - Develop an inventory of facilities and BMPs for retrofitting opportunities
- Public Information and Participation Program
- Planning and Land Development Program
    - Low Impact Development Strategies (LID Ordinance adopted June 10, 2014)
    - New Development/Redevelopment Effectiveness Tracking

The City will assess the MCMs to identify opportunities for focusing on high priority issues and identify potential modifications for each of the MCMs. Currently, the City does not anticipate customizing any of the MCMs. If the City elects to eliminate a control measure because that specific control measure is not applicable to the City, the City will provide justification for its elimination. The City understands that the Planning and Land Development Program is not eligible for elimination.

1.8.2 NON-STORM WATER DISCHARGE MEASURES

Where the City identifies non-storm water dischargers from the MS4 as a source of pollutants that cause or contribute to exceedances of RWLs, drainage area control measures, and /or BMPs will be implemented to effectively eliminate the source of pollutants. These measures may include prohibiting additional non-storm water discharges to the MS4, adding BMPs to reduce the pollutants, diversion of the runoff to a sanitary sewer.

1.8.3 TMDL CONTROL MEASURES

The City will implement control measures that have been identified in TMDLs and corresponding implementation plans. The City will also evaluate and identify control measures as follows:

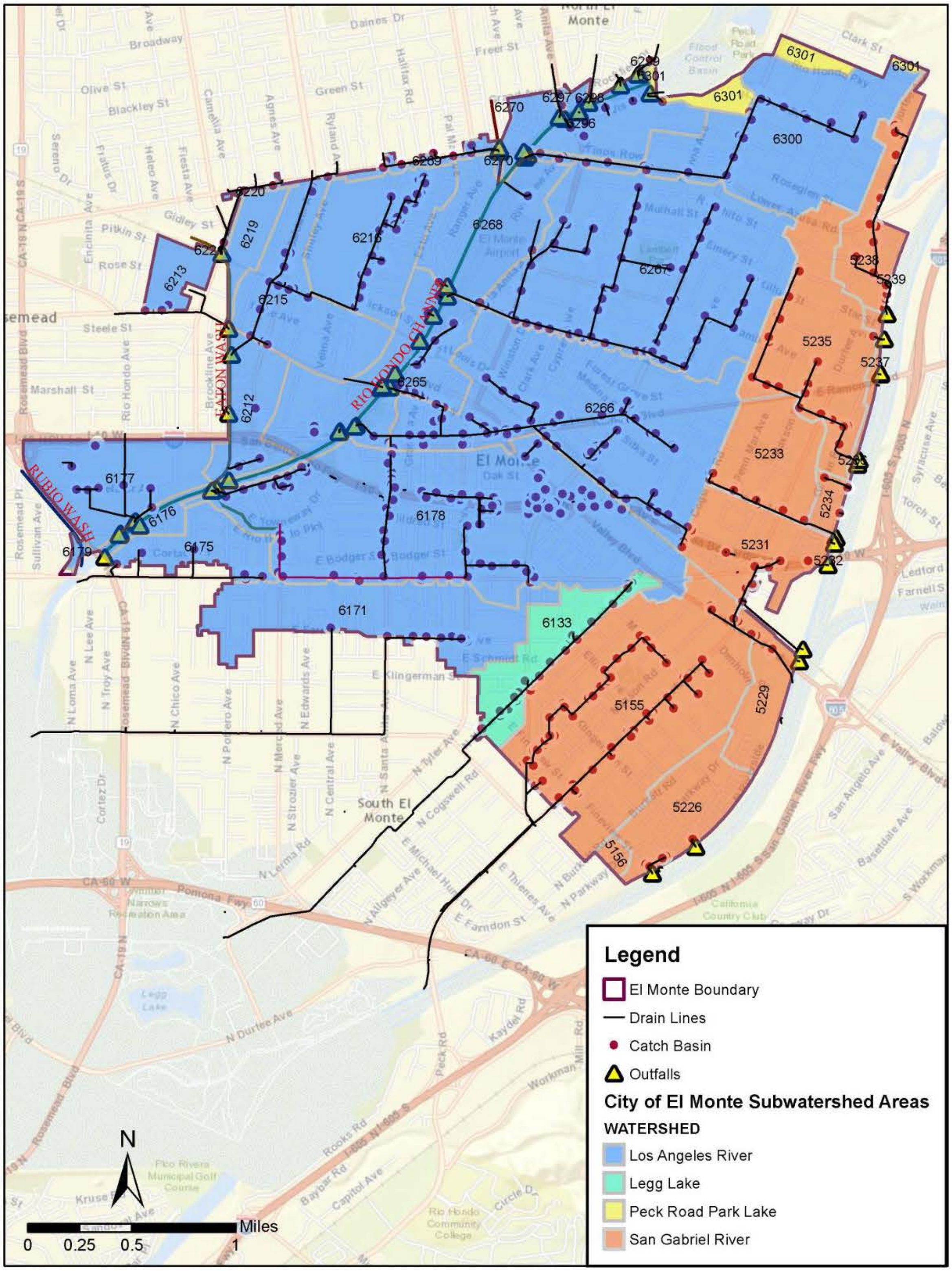
- Where necessary, TMDL measures shall include control measure to address both storm water and non-storm water discharges from the MS4.
- TMDL control measures may include baseline or customized activities covered under the general MCM categories as well as BMPs and control measures covered under non-storm water discharge provisions.
- The WMP includes actions that will be implemented during the permit term to achieve interim and/or final WQBELs and/or RWLs with compliance deadlines within the permit term.

Los Angeles River

A total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts (FBIs) account for 20 of the retrofitted catch basins and the remaining are Automatic Retractable Screens (ARSs). Two Modular Wetland Systems have also been installed and three additional modular Wetland Systems are planned for a housing and retail development currently being constructed.

A map showing the location of catch basins and drain lines within the City's jurisdiction is shown in Figure 1-6 below. The existing and planned control measures are shown in Figure 1-7.

Figure 1-6: Catch Basins and Drain Lines



RB-AR4672

Legg Lake

El Monte's point source area for the Trash TMDL is approximately 0.10 square miles. LACFCD storm drain line BI 0529-Line B drains catch basins within that approximate 0.10 square mile portion of the City. The catch basins feeding the storm drain line are along Mountain View Road from approximately Garvey Avenue to the city limit boundary on south near Weaver Avenue. The storm drain line has a single outlet at North Lake. Six catch basins along Mtn. View Road have been retrofitted with trash exclusion devices. The devices consist of a combination of ARSs and FBIs at the highest traffic areas along this route.

The City is committed to trash reduction to the Legg Lake system and plans to retrofit more catch basins with trash excluders along this route as funding becomes available. The City will also explore increased frequency of sweeping along Mountain View Road, sweeping of alleyways, and increased frequency of sweeping of public parking lots.

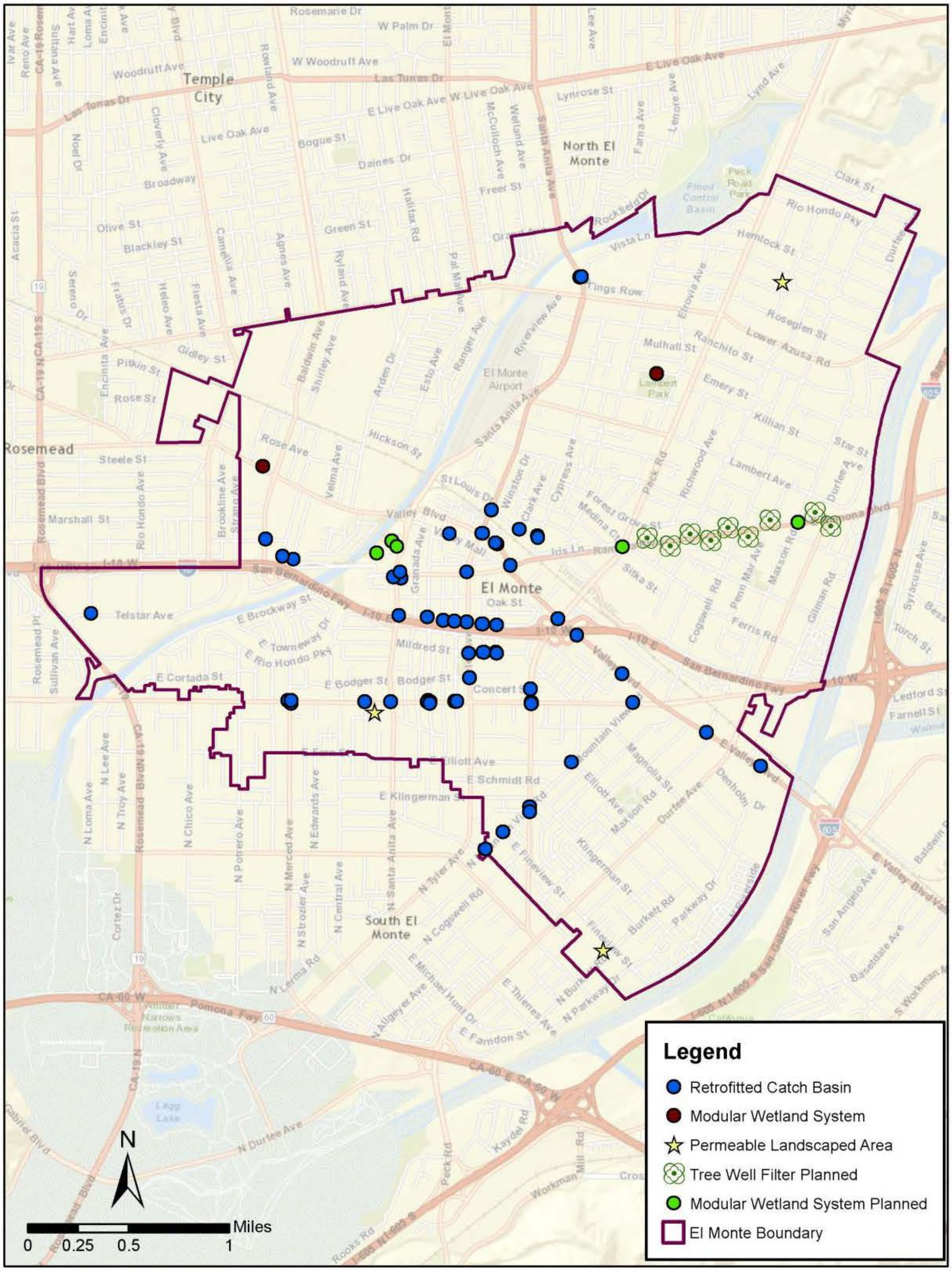
Peck Road Park Lake

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake.

1.8.4 EXISTING AND PLANNED STRUCTURAL CONTROL MEASURES

There are approximately 300 catch basins in the City's jurisdiction. Of the 300, a total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts account for 20 of the retrofitted catch basins and the remaining are Automatic Retractable Screens. Two Modular Wetland Systems have also been installed and three additional modular Wetland Systems are planned for a housing and retail development currently being constructed. The locations of the devices are shown on Figure 1-6.

Figure 1-7: Existing and Planned Control Measures



RB-AR4674

1.9. REASONABLE ASSURANCE ANALYSIS (RAA)

Permittees electing to develop a watershed management program (WMP) or enhanced watershed management program (EWMP) are required to submit a Reasonable Assurance Analysis (RAA) as part of their draft WMP to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of the watershed control measures proposed in WMP. The City will conduct a RAA for each water body pollutant combination (WBPC) addressed by its WMP. The RAA will be quantitative and performed using a peer-reviewed model in the public domain. The RAA will commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of QA/QC criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data shall only be drawn from peer-reviewed sources and statistically analyzed to determine the best estimate for the performance and confidence limits on that estimate for the pollutants to be evaluated. The Regional Board has prepared a guidance document to provide information and guidance to assist permittees in development of the RAA. The document provides clarification of the regulatory requirements of the RAA along with recommended criteria for the permittees to follow to prepare an appropriate RAA for Regional Board approval.

The objective of the RAA shall be to demonstrate the ability of the WMP to ensure that Permittees MS4 discharges achieve applicable WQBELS and do not cause or contribute to exceedances of RWLs.

1.9.1 MODELING REQUIREMENTS FOR RAA

The WMMS meets the model requirements of the Reasonable Assurance Guidelines and is appropriate for conducting the required RAA.

Model input files: the model input/output files will be uploaded with this WMP.

The City has chosen to use the Watershed Management Modeling System (WMMS) to support/demonstrate/conduct the RAA. The WMMS was developed by the Los Angeles County Flood Control District and the U.S. EPA. The WMMS meets the requirements of Section G. of the RAA Guidelines and is appropriate for conducting the required Reasonable Assurance Analysis. WMMS

modeled 38 subwatershed within City's jurisdiction. GIS "intersect" methods were used to include those portions of subwatersheds within the City's jurisdiction.

This RAA (using WMMS) and the associated IMP uses the Los Angeles County's HUC-12 equivalent boundaries. The City has verified with neighboring groups and cities that there are no gaps in the geographic areas addressed in the RAA or IMP.

The year highlighted in yellow represents the 90th percentile wet year calculated from LA County Department of Public Works Rain Gage D108 data, located at El Monte Fire Station on Santa Anita Ave, between Valley Mall and Ramona Blvd. Data from 1986-2012 was used to establish the 90th percentile rainfall. The 90th percentile rainfall value is 26.66 inches which most closely corresponds to the 2004-2005 wet year (the "representative wet year" within the last ten years of data, per the RAA Guidelines[7]).

90th Percentile Wet Year Selection

Wet Year Start	Wet Year End	Average Rainfall (in/yr)
2001	2002	19.47
2002	2003	9.09
2003	2004	9.09
2004	2005	27.22
2005	2006	12.86
2006	2007	4.07
2007	2008	14.44
2008	2009	11.01
2009	2010	28.04
2010	2011	21.3
	90th Percentile Year	

The 2004-2005 wet year was used for modeling.

The model estimates sediment (TSS), metals, nutrients, and bacteria. For Nitrogen compounds, TSS was used as surrogate pollutant to indirectly model the Nitrogen compounds. Cadmium is not modeled by WMMS.

[7] GUIDELINES FOR CONDUCTING REASONABLE ASSURANCE ANALYSIS IN A WATERSHED MANAGEMENT PROGRAM, INCLUDING AN ENHANCED WATERSHED MANAGEMENT PROGRAM, Prepared by Thanhloan Nguyen, Dr. C. P. Lai, Ivar Ridgeway, Dr. Jun Zhu, Los Angeles Regional Water Quality Control Board, March 25, 2014.

1.9.2 MODELED POLLUTANT LOADING, ALLOWABLE LIMITS, AND REQUIRED PERCENT REDUCTION

The modeled (estimated) pollutant loadings, allowable limit, and percent reduction required to meet effluent limits are shown in the tables and graphs below.

LA River and Tributaries

Formula used for Metals Effluent Limit Calculation from Order R4-2012-0175

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER[1] x 2.8 x 10^{-9} x daily volume (L) – 1.8
Copper	WER[1] x 1.5 x 10^{-8} x daily volume (L) – 9.5
Lead	WER[1] x 5.6 x 10^{-8} x daily volume (L) – 3.85
Zinc	WER[1] x 1.4 x 10^{-7} x daily volume (L) – 83

Table 1-6: LA River Metals

Modeled Pollutants	Daily Volume (L/day)	Calc'd Limits (kg/day)	Modeled Load (kg/day)	Percent Reduction Required
Copper	253,142,882	28	See table 1.9	None required
Lead	253,142,882	138	See table 1.10	None required
Zinc	253,142,882	271	See table 1.11	None required

Table 1-9: LA River Copper

Wet Days	Modeled Total Copper (kg/day)	Limit (kg/day)
10/17/2004	14.04	28
10/18/2004	15.39	28
10/20/2004	0.48	28
10/26/2004	4.76	28
10/27/2004	0.12	28
11/18/2004	2.11	28
12/5/2004	3.50	28
12/25/2004	14.58	28
12/26/2004	5.40	28
12/27/2004	0.12	28
12/28/2004	0.54	28
12/29/2004	0.51	28
1/1/2005	2.55	28
1/5/2005	3.37	28
1/8/2005	0.98	28
1/9/2005	1.64	28
1/23/2005	0.64	28
2/11/2005	9.35	28
2/18/2005	3.12	28
3/2/2005	6.76	28
3/21/2005	7.86	28
4/26/2005	4.51	28
9/20/2005	1.16	28

Figure 1-8: Scatter Plot for LA River Copper

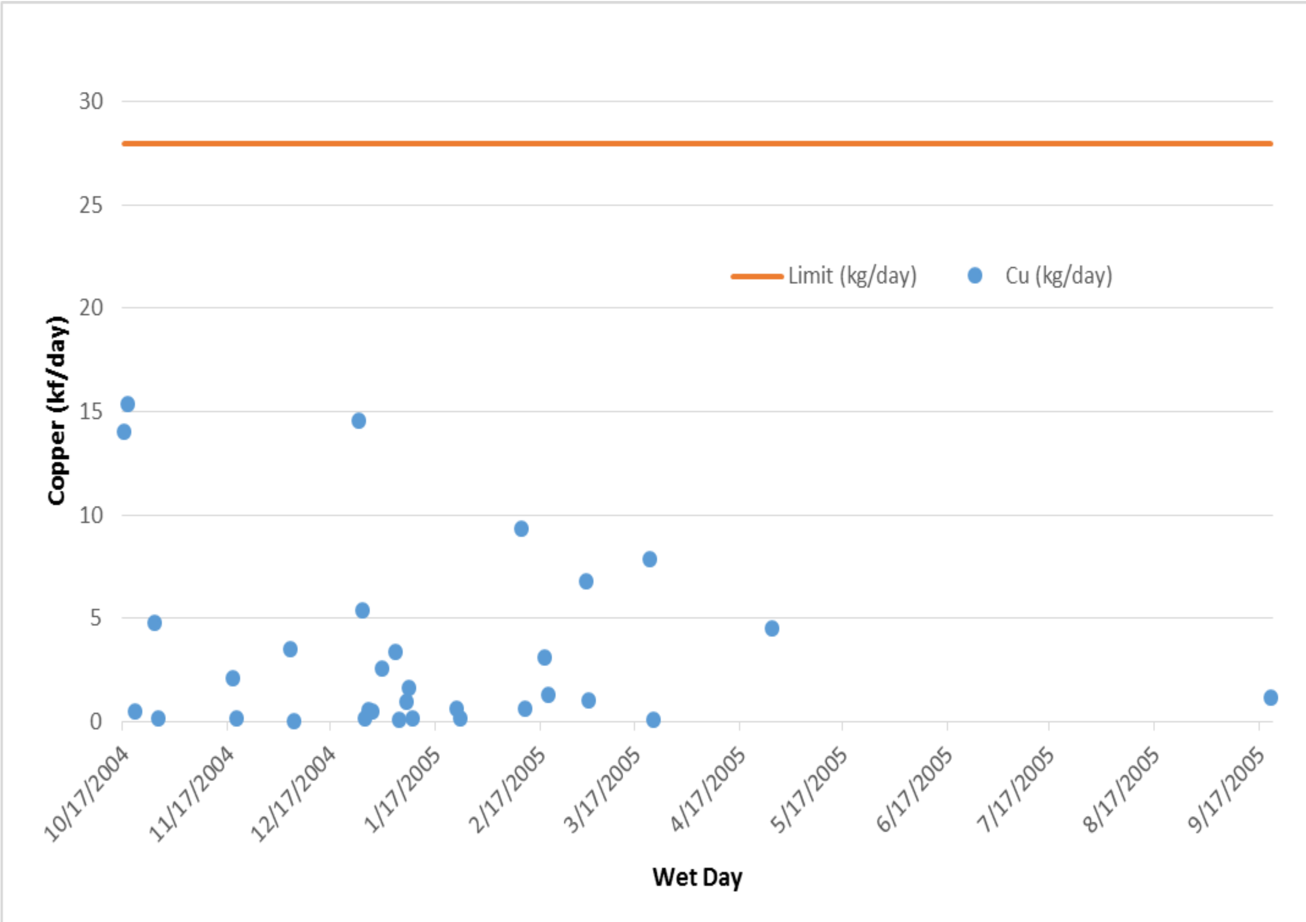


Table 1-7: LA River Lead

Wet Days	Modeled Total Pb (Kg/Day)	Limit (kg/day)
10/17/2004	12.41	138
10/26/2004	4.29	138
11/18/2004	1.89	138
12/5/2004	3.16	138
12/25/2004	12.87	138
1/1/2005	1.87	138
1/5/2005	2.95	138
1/9/2005	1.08	138
1/23/2005	0.57	138
2/11/2005	8.35	138
2/18/2005	2.84	138
2/19/2005	1.13	138
3/2/2005	6.10	138
3/3/2005	0.61	138
3/21/2005	7.15	138
4/26/2005	4.08	138
9/20/2005	0.62	138

Figure 1-9: Scatter Plot for LA River Lead

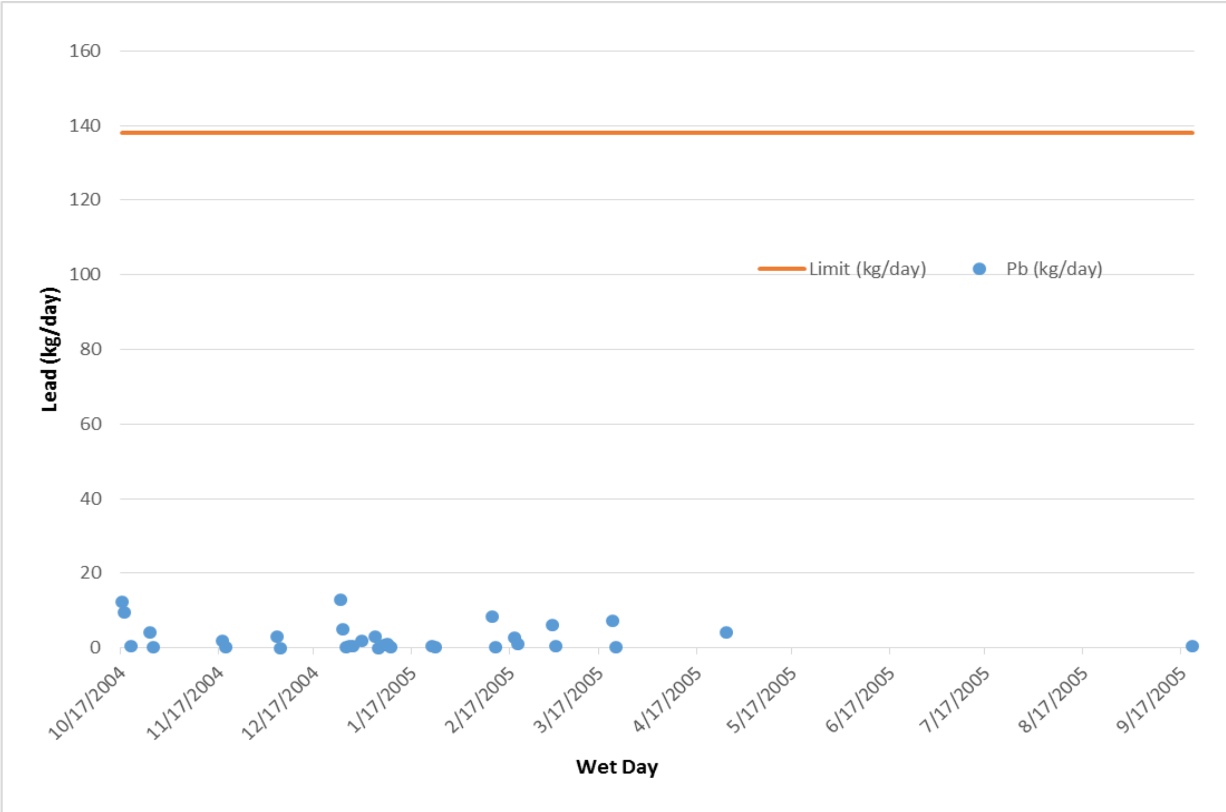
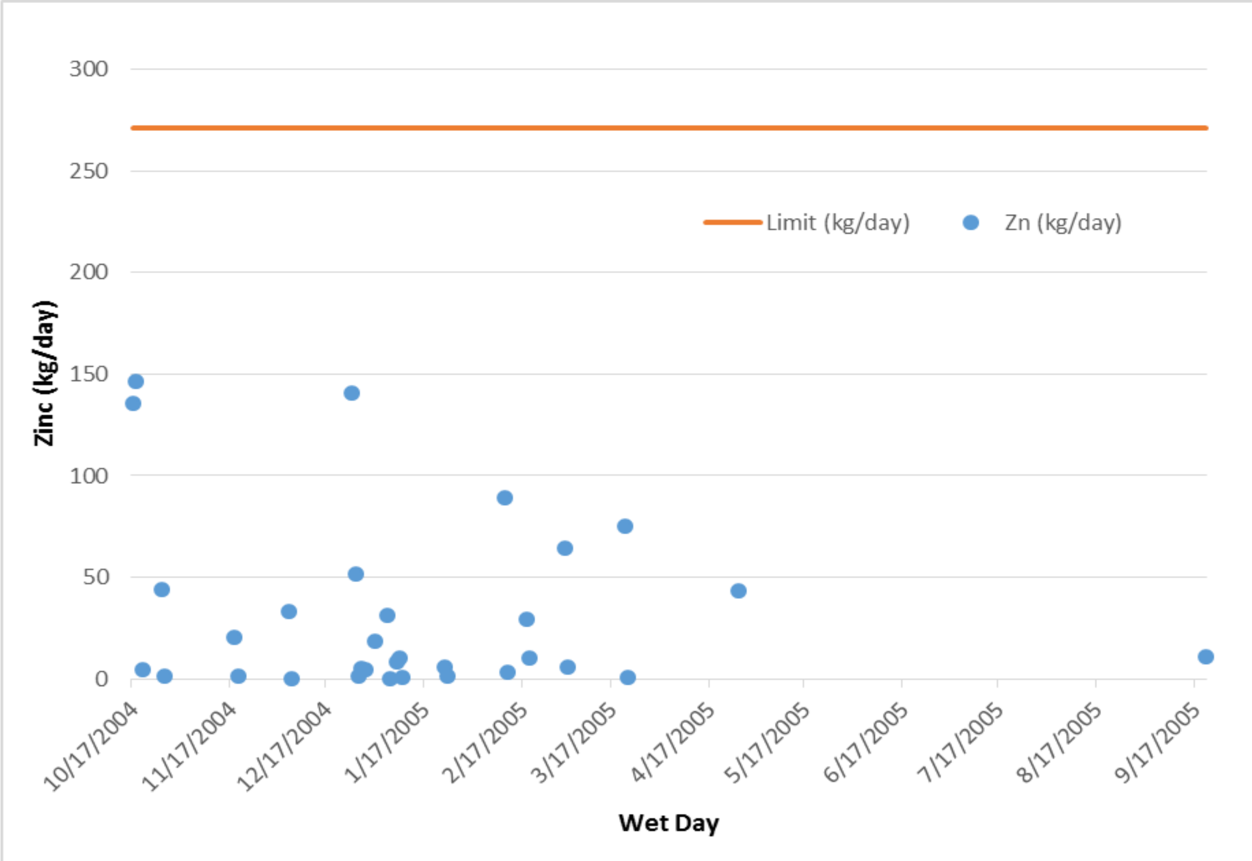


Table 1-8: LA River Zinc

Wet Days	Modeled Total Zn (Kg/day)	Limit (kg/day)
10/17/2004	135.72	271
10/18/2004	146.63	271
10/20/2004	4.58	271
10/26/2004	44.25	271
10/27/2004	1.15	271
11/18/2004	20.28	271
11/19/2004	1.32	271
12/5/2004	33.41	271
12/25/2004	140.86	271
12/26/2004	51.44	271
12/27/2004	1.08	271
12/28/2004	5.05	271
12/29/2004	4.77	271
1/1/2005	18.68	271
1/5/2005	31.23	271
1/8/2005	8.53	271
1/9/2005	10.43	271
1/23/2005	6.09	271
2/11/2005	89.20	271
2/18/2005	29.30	271
3/2/2005	64.30	271
3/21/2005	75.10	271
4/26/2005	43.10	271
9/20/2005	11.04	271

Figure 1-10: Scatter Plot for LA River Zinc



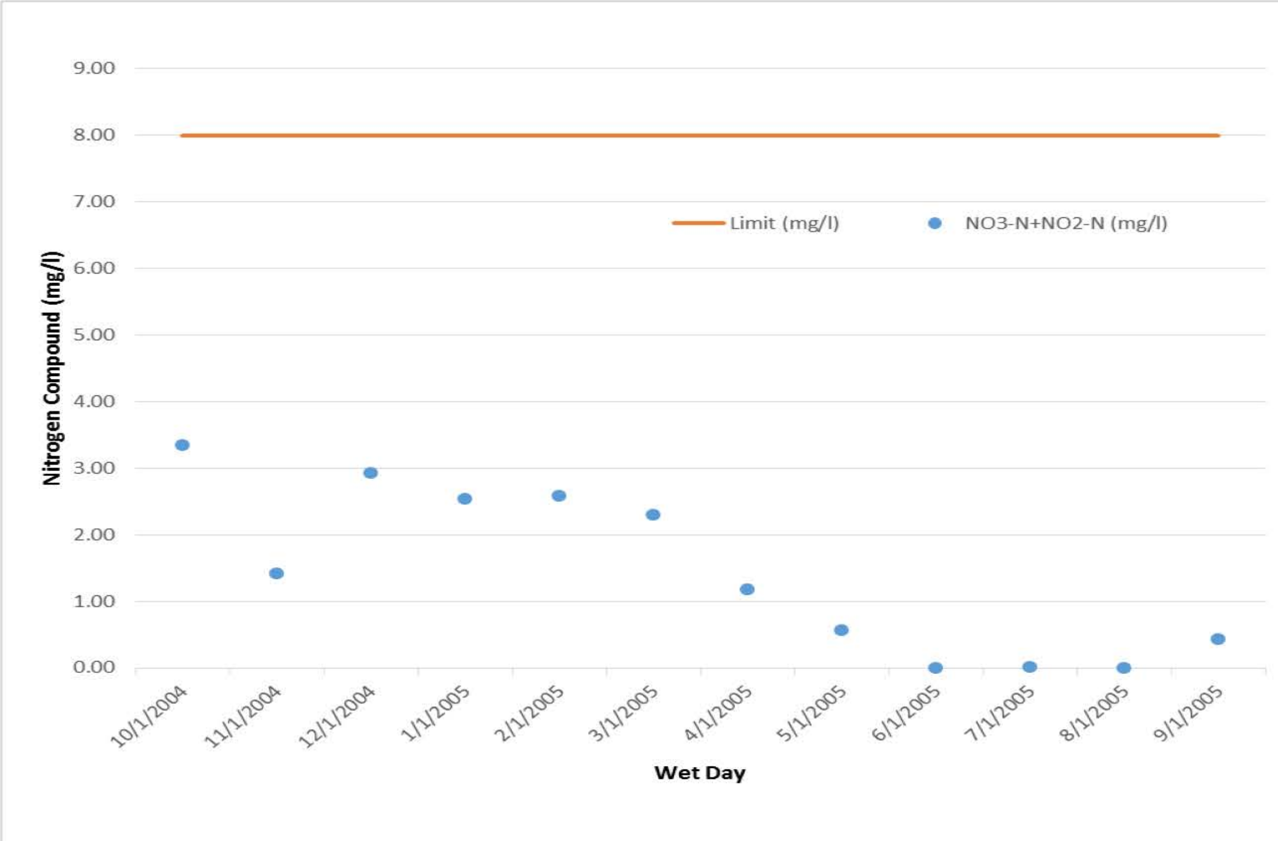
Nitrogen Compounds Effluent Limits from Order R4-2012-0175

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
Los Angeles River above Los Angeles-Glendale WRP (LAG)	4.7	1.6	8.0	1.0	8.0
Los Angeles River below LAG	8.7	2.4	8.0	1.0	8.0
Los Angeles Tributaries	10.1	2.3	8.0	1.0	8.0

Table 1-9: LA River Nitrogen Compounds

Month	Av. Modeled TSS (mg/L)	Converted to NO3-N+NO2-N (mg/L)	Thirty-day Average Limit (mg/L)	Percent Reduction Required
10/31/2004	371.91	3.35	8.00	None required
11/30/2004	157.46	1.42	8.00	None required
12/31/2004	324.44	2.92	8.00	None required
1/31/2005	281.84	2.54	8.00	None required
2/28/2005	285.70	2.57	8.00	None required
3/31/2005	255.71	2.30	8.00	None required
4/30/2005	130.47	1.17	8.00	None required
5/31/2005	63.04	0.57	8.00	None required
6/30/2005	0.00	0.00	8.00	None required
7/31/2005	0.26	0.00	8.00	None required
8/31/2005	0.00	0.00	8.00	None required
9/30/2005	47.09	0.42	8.00	None required

Figure 1-10: Scatter Plot for LA River Nitrogen Compounds



Legg Lake Nutrients TMDL

Annual mass-based allocations from Order R4-2012-0175

Subwatershed	Permittee	Flow (ac-ft/yr)	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Northwestern	County of Los Angeles	33.5	53.6	148.7
Northwestern	South El Monte	308	526.3	1,500.6
Northeastern	El Monte	122	226.6	590.3
Northeastern	County of Los Angeles	8.18	12.8	39.2
Northeastern	South El Monte	287	498.7	1,394.8

Table 1-10: Legg Lake Modeled Nutrients Reduction Required

Subwatershed ID	Pollutants	Modeled (lb/yr)	Limits (lb/yr)	Percent Reduction
6133	Nitrogen	678.4	590.3	13%
	Phosphorous	594.7	226.6	62%

Peck Road Park Lake Nutrients TMDL

Annual mass-based allocations from Order R4-2012-0175

Subwatershed	Permittee	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Eastern	Arcadia	383	2,320
Eastern	Bradbury	497	3,223
Eastern	Duarte	1,540	9,616
Eastern	Irwindale	496	3,487
Eastern	County of Los Angles	924	5,532
Eastern	Monrovia	6,243	38,736
Near Lake	Arcadia	158	1,115
Near Lake	El Monte	96.2	602
Near Lake	Irwindale	28.2	207
Near Lake	County of Los Angeles	129	773
Near Lake	Monrovia	60.4	415
Western	Arcadia	2,840	16,334
Western	County of Los Angeles	467	2,818
Western	Monrovia	425	2,678
Western	Sierra Madre	695	4,254

Table 1-11: Peck Road Park Lake Modeled Nutrients

Subwatershed ID	Modeled Total N (lb/yr)	Modeled Total P (lb/yr)
6301	546	413

Table 1-12: Peck Road Park Lake Modeled Nutrients Reduction Required

Pollutants	Modeled (lb/yr)	Limits (lb/yr)	Percent Reduction Required
Nitrogen	546	602	None required
Phosphorous	413	96.2	77%

Waste Load Allocation from Order R4-2012-0175

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
San Gabriel Reach 2	---	81.34 µg/L x daily storm volume (L)	---
Coyote Creek	24.71 µg/L x daily storm volume (L)	96.99 µg/L x daily storm volume (L)	144.57 µg/L x daily storm volume (L)

Table 1-13: San Gabriel River Modeled Nutrients Reduction Required

Pollutant	Daily Volume (L/day)	Limits (kg/day)	Modeled Load (kg/day)	Percent Reduction Required
Lead	108,192,160	9	See table 1-15	None required

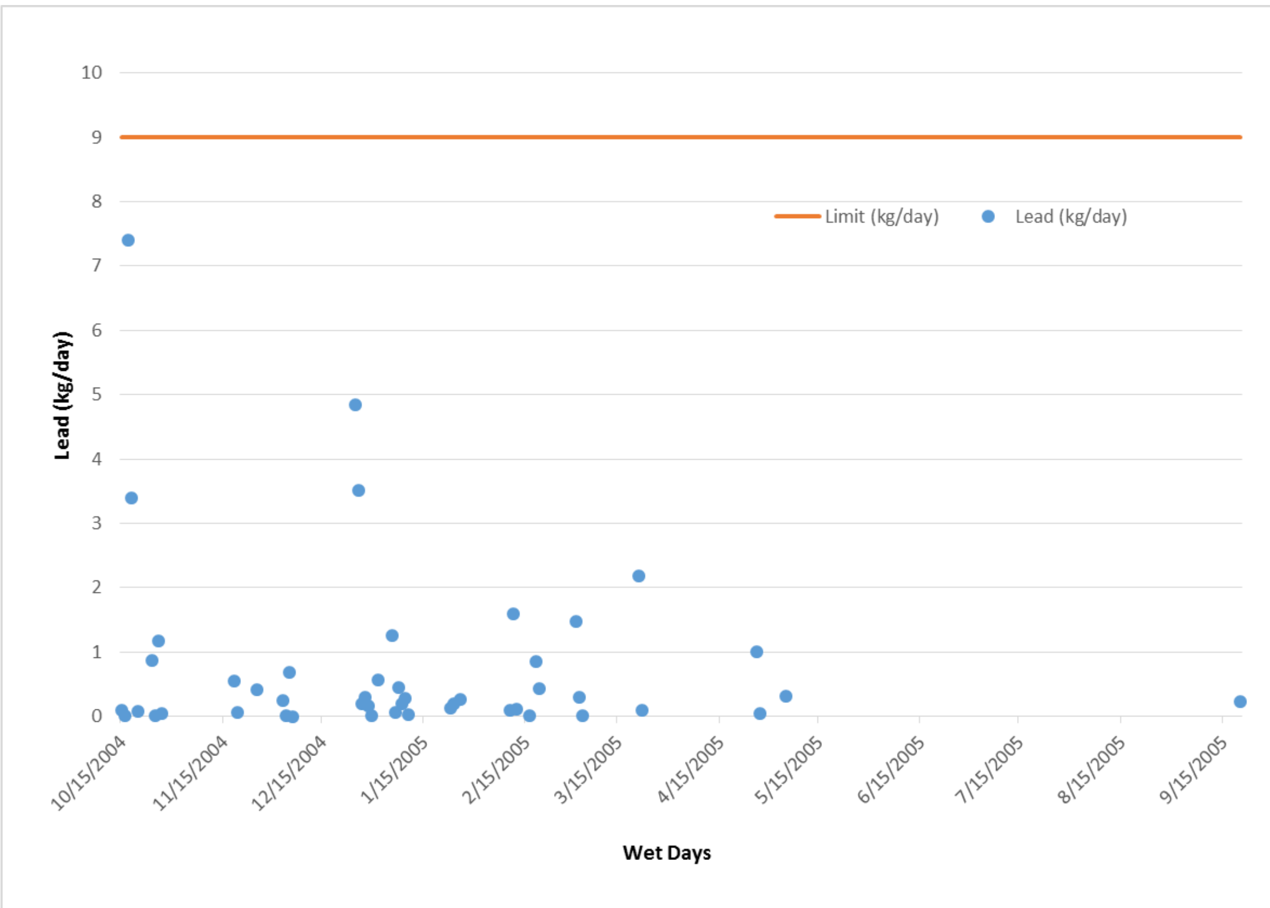
Table 1-14: San Gabriel River Modeled Lead

Day	Modeled Lead (kg/day)	Limit (kg/day)
10/15/2004	0.10	9
10/16/2004	0.01	9
10/17/2004	7.41	9
10/18/2004	3.40	9
10/20/2004	0.09	9
10/24/2004	0.87	9
10/25/2004	0.02	9
10/26/2004	1.18	9
10/27/2004	0.04	9
11/18/2004	0.54	9
11/19/2004	0.06	9
11/25/2004	0.42	9
12/3/2004	0.24	9
12/4/2004	0.01	9

Day	Modeled Lead (kg/day)	Limit (kg/day)
12/5/2004	0.69	9
12/6/2004	0.00	9
12/25/2004	4.85	9
12/26/2004	3.51	9
12/27/2004	0.19	9
12/28/2004	0.29	9
12/29/2004	0.17	9
12/30/2004	0.02	9
1/1/2005	0.57	9
1/5/2005	1.25	9
1/6/2005	0.06	9
1/7/2005	0.44	9
1/8/2005	0.20	9
1/9/2005	0.29	9
1/10/2005	0.04	9
1/23/2005	0.13	9
1/24/2005	0.19	9
1/26/2005	0.26	9
2/10/2005	0.09	9
2/11/2005	1.59	9
2/12/2005	0.12	9
2/16/2005	0.01	9
2/18/2005	0.85	9
2/19/2005	0.43	9
3/2/2005	1.48	9
3/3/2005	0.29	9
3/4/2005	0.02	9
3/21/2005	2.18	9
3/22/2005	0.10	9
4/26/2005	1.01	9

Day	Modeled Lead (kg/day)	Limit (kg/day)
4/27/2005	0.05	9
5/5/2005	0.32	9
9/20/2005	0.24	9

Figure 1-11: Scatter Plot for San Gabriel River Lead



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1.9.3 POLLUTANT REDUCTION PLAN

Compliance Determination

- Compliance points are located at the compliance points required in the TMDLs that are within the area covered by the WMP.

- Compliance points for MS4 discharges from the area covered by the WMP to the Receiving Waters of the Los Angeles River (via the Rio Hondo) and the San Gabriel River will be at the outfall(s) (or immediately upstream of the outfalls if safety concerns preclude sampling at the outfalls.

- The compliance point for the Legg Lake system of lakes will be the last catch basin (manhole) on Mountain View Road nearest the City's southernmost jurisdictional boundary. This point corresponds to a point on the single storm drain line from the City to the North Lake at the City's jurisdictional boundary.

- The compliance point for the Peck Road Park Lake has not been fully determined at this point. A review of City and LACFCD records show no direct discharge from the City to the lake. LACFCD maps show catch basins within the residential area discharging to the concrete spillway downstream of the lake. Subwatershed 6301 also does not appear to have a direct connection to the lake.

1.9.4 TMDL SUMMARY AND ACTION REQUIRED

TMDLs	Water Body	El Monte Action Required
Los Angeles River Watershed Trash TMDL	LA River	Retrofit catch basins with trash excluders for zero trash by Sept. 30, 2016
Los Angeles River Nitrogen Compounds and Related Effects TMDL	LA River	None; Modeled concentration below limit
Los Angeles River and Tributaries Metals TMDL	LA River	None; Modeled concentrations below limits
Los Angeles River Watershed Bacteria TMDL	LA River	Develop Load Reduction Strategy for Bacteria by March 23, 2016
Los Angeles Area Lakes TMDL (Peck Road Park Lake)	Peck Road Park Lake	None; no discharge to lake
Legg Lake Trash TMDL	LA River	Retrofit catch basins with trash excluders for zero trash by March 6, 2016
Los Angeles Area Lakes TMDL (Legg Lake Nutrients)	Legg Lake	Retrofit catch basins with BMPs to remove nutrients to comply with WLAs
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	LA River	Collaborate with Lower Los Angeles River Watershed Group on TMDL monitoring (yearly)
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	San Gabriel River	Collaborate with Lower San Gabriel River Watershed Management Group on TMDL monitoring (yearly)
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	San Gabriel River	None; Modeled concentrations below limits

1.10. COMPLIANCE AND BMP IMPLEMENTATION SCHEDULES

The City will implement the following BMPs per the schedules shown in order to be in compliance with the Trash TMDL for the Los Angeles River and the Trash and Nutrient TMDLs for Legg Lake.

Los Angeles River Trash TMDL BMP Implementation Schedule

Subwatershed ID	Area (ac)	Approx. Catch Basins*	Existing Retrofitted Catch Basins	Planned Catch Basin Retrofits	BMP Type	Schedule	
6178	778.6	101	30	71	ARS**	30 retrofitted by 2015	41 retrofitted by 2016
6267	655.8	70	0	70	ARS	35 retrofitted by 2015	35 retrofitted by 2016
6266	579.7	50	11	39	ARS	20 retrofitted by 2015	19 retrofitted by 2016
6300	397.1	40	0	40	ARS	20 retrofitted by 2015	20 retrofitted by 2016
6216	231.4	25	0	25	ARS	12 retrofitted by 2015	13 retrofitted by 2016

**Catch basins that City of El Monte is responsible for.*

***ARS: Automatic Retractable Screen*.

Legg Lake Trash and Nutrients TMDL BMP Implementation Schedule

Subwatershed ID	Drainage Area (ac)	Predominant Land Use	Pollutant of Concern	BMP Type	Schedule**	
6133 (Legg Lake)	129.6	Commercial/High Density Residential	Nutrients & Trash	MWS*	80% of drainage area by March 6, 2015	100% of drainage area by March 6, 2016

**MWS: Modular Wetland System or equivalent.*
***Schedule from Legg Lake Trash TMDL.*

1.11. STAKEHOLDER INVOLVEMENT

The City is committed to identifying and involving stakeholders in the development and implementation of the Watershed Management Program. The City has and continues to inform and seek input from stakeholders and incorporate that feedback throughout the development and implementation of the Watershed Management Programs. The City has posted water quality information on the City website. The Watershed Management Program and Monitoring and Reporting Program was also explained to the City Council and public with a formal presentation during the open session portion of a council meeting.

City representatives attended all scheduled Technical Advisor Meetings (TAC) meetings and have sought Regional Board staff input regarding the review of the City's draft LID Ordinance and Green Streets Policy.

Stakeholders associated with the City of El Monte WMP are:

- Amigos de Rios
- San Gabriel Valley Conservation Corps
- City departments that may be involved with portions of WMP implentation (plus LID, GS)
    - Public Works:
        - Engineering
        - Environmental Services
        - Building
        - PW Maintenance
        - Transportation
    - Economic Development:
        - Planning
        - Neighborhood Services
    - Parks & Recreation

1.11.1 CITY AND STAKEHOLDER PROJECTS IN PROGRESS

The City, in partnership with the San Gabriel Valley Conservation Corps (SGVCC), is completing a project in Lambert Park. The name of the project is the Rio Hondo/San Gabriel River Watershed Enhancement Project/ Lambert Park. The project is being funded by Proposition 84 funding obtained by the SGVCC for watershed rehabilitation projects. The project will convert a portion of the park's impervious area into a woodland garden and a watershed garden, both of which will allow for infiltration of stormwater runoff. Other City/SGVCC partnership projects that have promoted soil conservation and watershed improvements include:

- City of El Monte, CA – Tree Planting – Maintenance Services
- Madrid Middle School, El Monte, CA.- Tree Planting
- Cogswell Elementary, El Monte, CA School Garden & Tree Planting
- Emerald Necklace, El Monte, CA – Tree Planting & Erosion Control
- Baldwin Mini Park, El Monte, CA – Beautifications Projects
- Centennial Liberty Garden, El Monte, CA – Tree Planting and Shrubs Planting

Rio Hondo/San Gabriel River Watershed Enhancement Project at Lambert Park

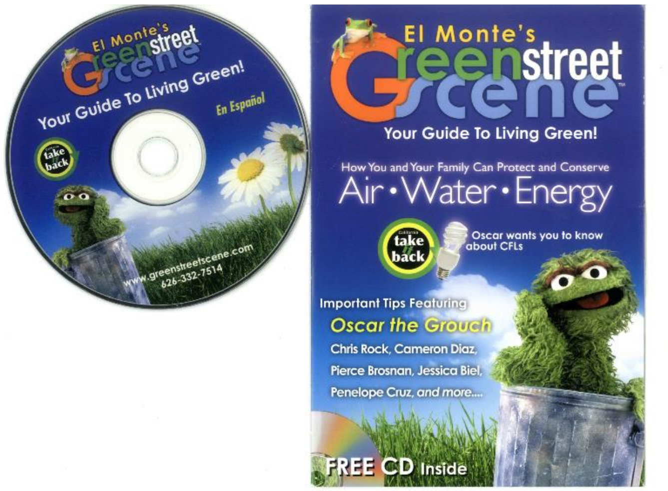
Porous pavers and tree well at Lambert Park

Mulched infiltration swale at Lambert Park

Mulched infiltration swale at Lambert Park

The City has provided every citizen and business with a DVD of information entitled “Green Street Scene” to further inform residents and businesses regarding water use and water quality. Active stakeholder groups around and within El Monte that work with the City to improve water quality through education and the modification of areas within the City (parks, trails, etc.) in order to promote storm water infiltration, capture, and re-use.

“Green Street Scene” DVD provided to citizens



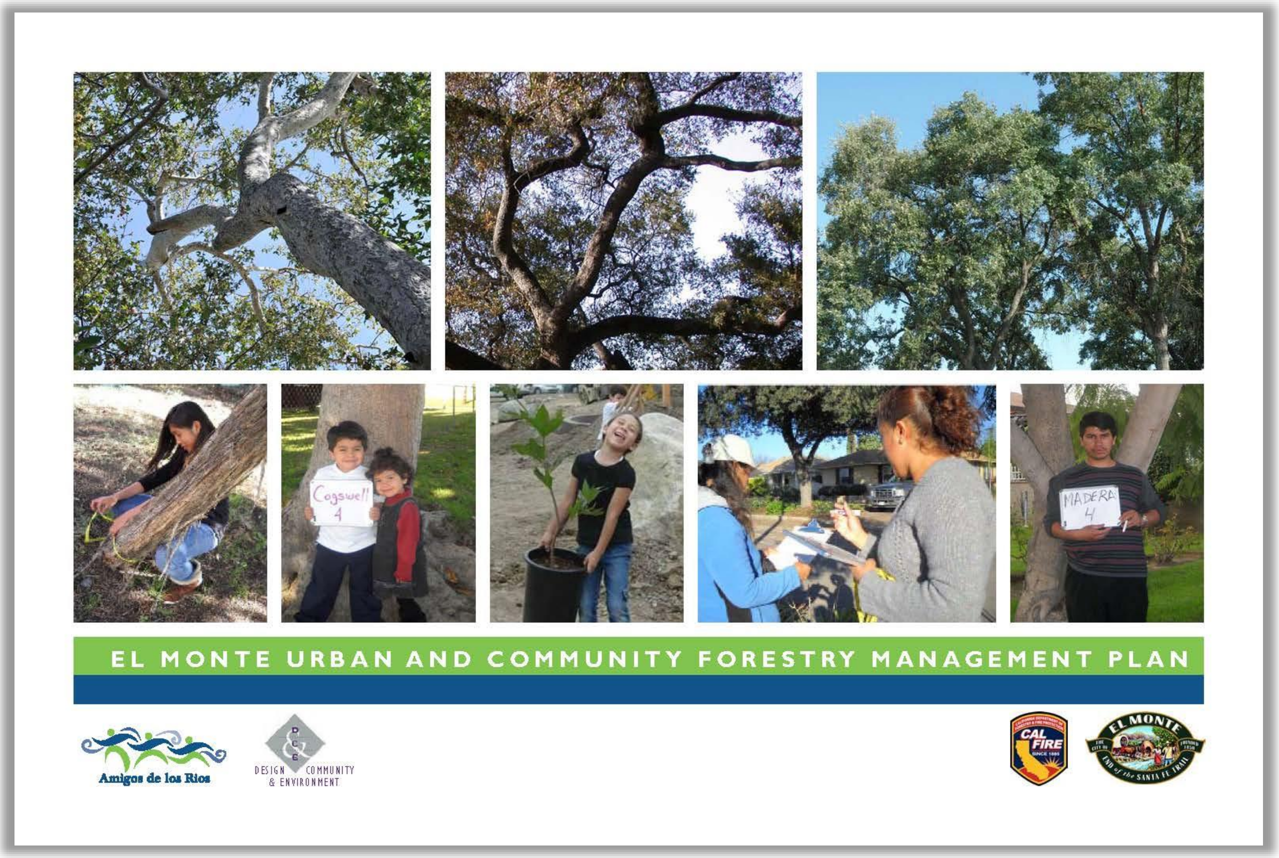
1.11.2 CITY AND RESIDENTS WORK TOGETHER TO RECYLE AND ILIMINATE POLLUTION

The City promotes cleaner water by providing free oil drain containers to all City residents as well as free paper shredding/recycling and free electronic waste collection during the 2014 Earth Day celebration at Arceo Park in El Monte. The City is dedicated to informing their citizens, municipal staff, and developers of the importance or water quality as evidenced by the City's continued distribution of educational materials at community activities and special events.

City of El Monte Environmental Program at Arceo Park

The City also has active and dedicated Public Works and Economic Development Departments as evidenced by their Urban and Community Forestry Management Plan Manual.

City of El Monte Urban and Community Forestry Management Plan Manual



Both Departments use the manual to promote the following benefits:

- Connection with Nature – Support Habitat. Trees provide shelter and food for birds and other small animals. A varied tree population supports a wide diversity of animals. In addition to being beneficial on a regional and global level, local habitat diversity creates a dynamic, educational, and enjoyable environment for humans.

- Improved Public Health. Nearly all of the benefits provided by trees contribute to health. While clean air and water directly benefit physical health, the provision of shade and aesthetically pleasing streets encourages walking and physical activity. Research has also demonstrated that trees and other vegetation soothe nerves, helping to accelerate healing processes and reduce behavioral problems in children.

- Improved Air Quality. Trees can play several roles in improving air quality. The most direct way that trees help to improve air quality is by absorbing and filtering air pollutants. In addition, trees reduce air pollution by creating cool microclimates and by reducing the demand for air conditioning in buildings. When trees shade buildings and reduce the need for air conditioning, they also indirectly improve air quality. Air pollution increases with higher temperatures, so maintaining cool microclimates can actually improve air quality.

- Stormwater Management. Trees improve the quality of stormwater by reducing the amount of stormwater runoff that enters storm drains. The leaves of a tree capture rain and other precipitation. This slows the rate of rainfall, reduces runoff volume, and increases water infiltration directly into the soil, which filters the water. Roots and duff (fallen leaf layer on top of the soil) hold soil in place during storm events and allow more time for water to infiltrate into the soil[8].

[8] Source: El Monte Urban and Community Forestry Management Plan Manual, 2010.

SECTION 2 - IMPLEMENTATION

The City will begin implementing the WMP immediately upon approval of the plan by the Regional Water Board or the Executive Officer. It is understood that the City may request an extension of deadlines for achievement of interim milestones only.

As the City was preparing its WMP and IMP, the following items were completed or in progress:

- The LID Ordinance was reviewed by Board staff and adopted by the City on June 10, 2014
- The Greens Streets Policy was reviewed by Board staff and implemented on June 10,2014
- The MCMs were reviewed and modifications were considered
- The City attended the Catch Basin Retrofit Workshop hosted by LACDPW
- The Development Tracking Program was implemented
- The list of Industrial Commercial facilities for inspection was determined and inspections began

SECTION 3 - INTEGRATED WATERSHED MONITORING AND ASSESSMENT

The City has developed an Integrated Monitoring Program (IMP) as set forth in Part IV of the MRP (Attachment E of Order R4-2012-0175). The IMP assesses progress toward achieving the WQBELs and/or RWLs per the compliance schedules and progress toward addressing the water quality priorities of each WMA. The IMP will be subject to approval by the Executive Officer following a public comment period. To increase the cost effectiveness and efficiency of the monitoring program, the City of El Monte has collaborated with several groups on Receiving Water and TMDL monitoring. The IMP includes and addresses the following monitoring program elements:

- Receiving Water Monitoring
- Storm Water Outfall Monitoring
- Non-storm Water Outfall Monitoring
- New Development/Redevelopment Effectiveness Tracking
- Regional Studies

Please refer to the IMP for the details of the Monitoring and Reporting Program (MRP) (as an accompanying document) submitted with this Watershed Management Program.

SECTION 4 - ADAPTIVE MANAGEMENT PROCESS

4.1. WMP ADAPTIVE MANAGEMENT ELEMENTS

Every two years, from the date of program approval, the City of El Monte will implement an adaptive management process for each WMA, adapting the WMP to become more effective, based on, but not limited to the following:

- Progress toward achieving interim and/or final WQBELs and/or RWLs;
- Progress toward achieving improved water quality in MS4 discharges and achieving RWLs through implementation of the watershed control measures based on an elevation of outfall-based monitoring and RW monitoring data;
- Achievement of interim milestones;
- Re-evaluation of the water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the RWs and a reassessment of sources of pollutants in MS4 discharges;
- Availability of new information and data from sources other than the City's monitoring program(s) within the WMAs that forms the effectiveness of the actions implemented by the City;
- Regional Board recommendations; and
- Recommendations for modifications to the Watershed Management Program solicited through a public participation process.

4.2. MODIFICATIONS MADE TO IMPROVE WMP

Based on results of the adaptive management process, the City will report any modification, including where appropriate new compliance deadlines and interim milestones (with the exception of those compliance deadlines established in a TMDL, necessary to improve the effectiveness of the WMP in the Annual Report (as required by the MRP and as part of the ROWD required pursuant to Part II.B of Attachment D).

The adaptive management process fulfills the requirements of Part V.A.4 to address continuing exceedances of RWLs.

4.3. SCHEDULE FOR IMPLEMENTATION MODIFICATIONS

The City will implement any modifications to the WMP upon approval by the Regional Board or within 60 days of submittal (if no objections from the Regional Board).

SECTION 5 - REFERENCES

GUIDELINES FOR CONDUCTING REASONABLE ASSURANCE ANALYSIS IN A WATERSHED MANAGEMENT PROGRAM, INCLUDING AN ENHANCED WATERSHED MANAGEMENT PROGRAM, Prepared by Thanhloan Nguyen, Dr. C. P. Lai, Ivar Ridgeway, Dr. Jun Zhu, Los Angeles Regional Water Quality Control Board, March 25, 2014.

Los Angeles County Department of Public Works (LACDPW) Annual Storm Water Monitoring Report, 2012-2013.

Los Angeles Area Lakes TMDLs, U.S. EPA, March 2012

Total Maximum Daily Loads for Metals and Selenium, San Gabriel River and Impaired Tributaries, U.S. EPA, March 2007

Trash Total Maximum Daily Load for Legg Lake, California Regional Water Quality Control Board, Los Angeles Region, July 11, 2007

Trash Total Maximum Daily Loads for Los Angeles River, California Regional Water Quality Control Board, Los Angeles Region, July 27, 2007

California Environmental Data Exchange Network (CEDEN)

www.idcide.com/**weather**/**ca**/**el-monte**.htm)

2010 303(d) listing website

Water Quality Policy for Developing California's Clean Water Act Section 303(d) List, State of California State Water Resources Control Board, September, 2004

APPENDIX A

LID Ordinance

Green Streets Policy

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF EL MONTE)

I, M. Helen Mireles, Chief Deputy City Clerk, do hereby certify this to be a true and correct copy of City Council Agenda Item No. 13.3, Urgency Ordinance No. 2840, An Urgency Ordinance of the El Monte City Council Amending Section 13.20 Storm water and Urban Runoff Pollution Control to Expand the Applicability of the Existing Section 13.20.150 – Post Construction Pollution Reduction Requirements by Imposing Low Impact Development (LID) Strategies on Projects that Require Building Permits and/or Encroachment Permits. Approved and adopted at the regular agenda meeting, of the City of El Monte, held on Tuesday, June 10, 2014.

M. Helen Mireles, Chief Deputy City Clerk
El Monte California

URGENCY ORDINANCE NO. 2840

AN URGENCY ORDINANCE OF THE EL MONTE CITY COUNCIL AMENDING SECTION 13.20 STORMWATER AND URBAN RUNOFF POLLUTION CONTROL TO EXPAND THE APPLICABILITY OF THE EXISTING SECTION 13.20.150 – POST-CONSTRUCTION POLLUTION REDUCTION REQUIREMENTS BY IMPOSING LOW IMPACT DEVELOPMENT (LID) STRATEGIES ON PROJECTS THAT REQUIRE BUILDING PERMITS AND/OR ENCROACHMENT PERMITS

WHEREAS, The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity; and

WHEREAS, The City 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 State's water quality; and

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; and

WHEREAS, The City has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan; and

WHEREAS, The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, and economic considerations; and

WHEREAS, Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters; and

WHEREAS, The City needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization; and

WHEREAS, LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge; and

WHEREAS, It is the intent of the City 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.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL MONTE DOES FIND AND ORDAIN AS FOLLOWS:

SECTION 1. The facts set forth in the recitals above are true and correct and are incorporated by reference as though fully set forth herein.

SECTION 2. Section 13.20 Stormwater and Urban Runoff Pollution Control of the El Monte Municipal Code ("EMMC") to expand the applicability of the existing Section 13.20.150 is modified in its entirety to read per Exhibit "**A**":

SECTION 3. Inconsistent Provisions. Any provision of the El Monte Municipal Code or appendices thereto that conflicts with the provisions of this Ordinance, to the extent of such conflict and no further, is hereby repealed or modified to the extent necessary to affect the provisions of this Ordinance.

SECTION 4. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or any part thereof is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase would be subsequently declared invalid or unconstitutional.

SECTION 5. Publication. The Mayor shall sign and the City Clerk shall attest to the passage of this Ordinance. The City Clerk shall cause the same to be published once in the official newspaper within fifteen (15) days after its adoption. This Ordinance shall become effective thirty (30) days after adoption.

PASSED, APPROVED AND ADOPTED by the City Council of the City of El Monte at the regular meeting of this 10 day of June, 2014.

Andre Quintero, Mayor

ATTEST:

Jonathan Hawes, City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:
CITY OF EL MONTE)

I, Jonathan Hawes, City Clerk of the City of EL Monte, hereby certify that the foregoing Ordinance No. 2840 was passed and adopted by the City Council of the City of El Monte, signed by the Mayor and attested by the City Clerk at a regular meeting of said Council held on the 10 day of June, 2014 and that said Resolution was adopted by the following vote, to-wit:

AYES: Mayor Quintero, Mayor Pro Tem Patel, Councilmembers Gomez, Macias and Martinez

NOES: None

ABSTAIN: None

ABSENT: None

Jonathan Hawes

Jonathan Hawes, City Clerk

EXHIBIT A

EXHIBIT A

Low Impact Development Ordinance

Urgency ORDINANCE NO. 2840

An ordinance amending MUNICIPAL CODE Chapter 13.20 of the City of El Monte Municipal Code to expand the applicability of the existing Stormwater and Urban Runoff Pollution Control Section 13.20.150 – Post-Construction Pollution reduction requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

A. The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

B. The City 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 State's water quality.

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 consistent with the Planning and Land Development Program requirements contained within the Permit.

D. The City has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

E. The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, 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 needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization.

H. LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge.

Municipal Code Chapter 13.20 of the City of El Monte Municipal Code is amended in its entirety to read as follows:

13.20.010 Definitions.

Except as specifically provided herein, any term used in this Section13.20 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 in effect at the City at the time of development application, 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, City 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.

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.

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.

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. 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.

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.

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.

City means the City of El Monte.

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.

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance. Construction activity also covers any activity that requires coverage under the State General Construction Permit by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities.

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities.

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.

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.

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.

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.

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.

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.

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.

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.

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.

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff.

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))

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".

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.

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater.

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.

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.

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).

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.

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged.

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.

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).

Retail Gasoline Outlet means any retail gasoline outlet per SIC 5541.

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.

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.

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.

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 El Monte.

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 project.

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.

13.20.020. SHORT TITLE

(A) The ordinance codified in this chapter shall be known as the "Low Impact Development (LID) Ordinance of the City of El Monte" and may be so cited.

13.20.020. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) **Objective**. The provisions of this section contain requirements for site design and post-construction BMP operation and maintenance of Development and Redevelopment projects to comply with the City of El Monte's Municipal NPDES permit (Permit) currently in effect at the time of development application submittal, to 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.

(B) **Scope.** This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of El Monte 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 alternative compliance for technical infeasibility, as allowed by the Municipal NPDES Permit currently in effect at the time of development application, and collect fees from projects granted exceptions. Except as otherwise provided herein, the City of El Monte shall administer, implement and enforce the provisions of this Section. Any guidance documents supporting implementation of the Municipal NPDES permit requirements, currently in effect at the time of development application submittal, meeting application in this Ordinance, are hereby incorporated by reference.

(C) Applicability. This Section is applicable to projects as defined below:

1) All Development and Redevelopment projects, termed "Planning Priority Projects," as defined in the Municipal NPDES Permit currently in effect at the time of the development application, shall comply with subsection E of Section 13.20.020.

2) Street and Road Construction projects of ten thousand (10,000) square feet or more of impervious surface, in addition to complying with all other applicable provisions of Section 13.20.020, shall follow USEPA guidance regarding "Managing West Weather with Green Infrastructure: Green Streets" (December 2008, EPA-833-F-08-009) to the maximum extent practicable. This subsection applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects, including Capital Improvement Projects (CIPs).

3) Single Family Hillside Homes (as defined in City Code 13.20.010 Part C), in addition to complying with all other applicable provisions of Section 13.20.020, shall implement the following measures:

   i. Conserve natural areas

   ii. Protect slopes and channels

   iii. Provide storm drain stenciling and signage

   iv. Divert roof runoff to vegetated areas before discharge unless the diversion would results in slope instability

   v. Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

4) Any other project, as deemed appropriate by the Department, submitted for complete discretionary or non-discretionary permit application filed with the Department after December 31, 2012.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective 30 Days from the adoption of this Ordinance. This includes all applicable projects listed in subsection C of Section 13.20.020 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 30 days of adoption of this Ordinance. Projects that have been deemed complete within 30 days of adoption of this Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. All applicable projects listed in subsection C of Section 13.20.020 shall be designed to control pollutants, pollutant loads, and runoff volumes 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. All applicable projects shall prepare a LID Plan that is submitted to and approved by the Department. All LID plans shall comply with the following:

a. Low Impact Development Standards and BMP Implementation hierarchy: All project Applicants shall:

    i. Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function and avoid breeding of vectors.

    ii. Prioritize the selection of BMPs to remove Stormwater pollutants, reduce Stormwater runoff volume, and beneficially use Stormwater to support an integrated approach to protecting water quality and managing water resources in the following order:

        1. On-site infiltration, bioretention and/or rainfall harvest and use; then

        2. On-site biofiltration, offsite groundwater replenishment, and/or off-site retrofit.

            a. If using biofiltration due to demonstrated technical infeasibility, then the volume to be biofiltrated shall be calculated using the following equation:

            $B_V = 1.5 * [SWQD_V - R_V$

            Where:

            B_V = biofiltration volume

            $SWQD_V$ = the storm water runoff from a 0.75 inch, 24-hour storm or the 85^{th} percentile storm, whichever is greater

            R_V = volume reliably retained on-site

b. Retain onsite the Stormwater Quality Design Volume (SWQDv) as required per the Permit currently in effect at the time of development application submittal.

c. When 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan and approved by the Department. 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 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. Projects that have successfully demonstrated technical infeasibility for full retention of the SWQDv to the Department, shall implement alternate compliance measures (alternate mitigation options) as designated in the Permit currently in effect at the time of development application submittal.

e. Additional alternative compliance options, such as offsite infiltration, may be available to the project. The project applicant should contact the Department to determine eligibility. Alternative compliance options are as further specified in the Permit currently in effect at the time of development application submittal.

f. A Multi-Phased Project shall comply with the standards and requirements of this section for all of its phases by:

i. Designing a system acceptable to the Department to satisfy these standards and requirements for the entire Site during the first phase; and/or

ii. Implementing these standards and requirements for each phase of Development or Redevelopment of the project 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.

iii. For purposes of this subsection, "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.

g. Minimize hydromodification impacts by maintaining the project's pre-development storm water runoff volumes, flow rates, and durations by maintaining the Erosion Potential (EP) in streams at 1, or implementing hydromodification control BMPs and/or LID strategies, or other restoration measures to meet Hydromodification Control Criteria as designated in the Permit currently in effect at the time of development application submittal.

h. Department may exempt certain applicable projects listed in subsection C of Section 13.20.020 from hydromodification control requirements where assessments of downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to beneficial uses of natural drainage systems are unlikely:

i. The replacement, maintenance or repair of existing, publicly-maintained flood control facilities, storm drains, or transportation networks.

ii. Redevelopment of a previously developed site in an urbanized area that does not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.

iii. Projects that have any increased discharge directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has an estimated 100-year peak flow of 25,000 cubic feet per second or more, or other receiving water that is not susceptible to hydromodification impacts.

iv. Projects that discharge directly or through a storm drain into concrete or other engineered (not natural) channels (e.g. channelized or armored rip rap, shotcrete, etc.) which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.

v. Single family homes that incorporate LID BMPs.

(F) LID Plan Review. The applicant for any development project shall submit a LID plan to the Department for review and approval that provides a comprehensive, technical discussion of how the development project will comply with this Section 13.20.020. A deposit and fee to recover associated review costs shall be required. Timing for obtaining LID plan approval shall be as follows:

a. For subdivisions, the LID Plan shall be approved prior to the tentative map.

b. For any development project requiring a Conditional Use Permit (CUP) or other discretionary entitlement required under (City Code 16.38.010 General Purposes), the LID plan shall be approved prior to the issuance of any such CUP or other discretionary entitlement.

c. For all development projects, the LID plan shall be approved prior to issuance of a grading permit for the development project, or when no grading permit is required, prior to the issuance of a building permit. When no grading or building permit is required, LID plan approval shall be prior to the commencement of any development activity or as otherwise indicated in the non-discretionary land use approval.

(G) Ongoing Maintenance.

a. All project's LID and hydromodification control features shall be maintained and shall remain operable at all times and shall not be removed from the project unless and until such features have been replaced with other LID and/or hydromodification control features in accordance with this Section.

b. Unless excused by the Department, all LID plans shall include an operation and maintenance plan and monitoring plan for all LID practices, LID BMPs and hydromodification control features incorporated into the project.

c. The owner of the subject development project site shall record a covenant or agreement, approved by the Department, in the office of the Los Angeles County Registrar-Recorder/County Clerk indicating that the owner of the subject development project site is aware of and agrees to the requirements in this

subsection. The covenant or agreement shall also include a diagram of the development project site indicating the location and type of each LID and hydromodification control feature incorporated into the development project. The time to record such convenient or agreement shall be as follows:

i. For any subdivision, prior to final map approval.

ii. For any other development project, prior to issuance of a grading plan approval for the development project, and when no grading plan approval is required, prior to issuance of building plan approval for the development project.

(H) Other Agencies of the City of El Monte. All City of El Monte departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Ordinance on all applicable projects, as listed in subsection C of Section 13.20.020, and report their activities annually to the Department.

(I) 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 that are declared to be severable.

(J) 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 El Monte, at its meeting of June 10, 2014.

Jonathan Hawes, City Clerk

By ______________________

Deputy

Approved June 10, 2014

____

Andre Quintero, Mayor

Approved as to Form ~~and Legality~~ RP.
~~Rick Olivarez, City Attorney~~

By ______________________
Richard Padilla
Asst. ~~Deputy~~ City Attorney REVIEWED TO TO FORM ONLY

Date June 10, 2014

File No. ______________________

City of El Monte Green Streets Policy

Purpose

The City of El Monte (City) Department of Public Works (Department) shall implement Green Streets' Best Management Practices (BMPs) for the addition of new streets, redevelopment projects, and roadway improvement projects, including Capital Improvement Projects (CIPs), as described in Section A below.

Green Streets provide many benefits including water quality improvements, groundwater replenishment, and attractive streetscapes by optimizing public space to integrate green techniques into transportation design. Green Streets is defined as public right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff.

Policy

A. Application:

Department shall require all new developments, redevelopment projects, roadway construction projects, and CIP projects conducted within the public right-of-way, hereafter referred to as "roadway projects," to incorporate Green Streets' BMPs to the maximum extent practicable (MEP). For the purposes of this policy, MEP determination shall be on a project-by-project basis and at the discretion of the Public Works Director. Roadway projects requiring Green Street's BMPs shall meet one of the following criteria:

1. Street and road construction of 10,000 square feet or more of impervious surface area, including:
    a. Standalone street and road projects
    b. Standalone highway and freeway projects
    c. Streets within larger projects
2. Street and road developments resulting in the creation or addition or replacement of 5,000 square feet or more of impervious surface on an already developed site. 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.

3. Street and road improvements with a cost of $500,000 or more.

B. Criteria and Constraints:

Project characteristics or constraints may reduce the ability to incorporate Green Streets' BMPs. When planning for incorporation of BMPs and/or techniques into a roadway project, consideration should be given to the following:

- Right-of-way availability
- Adjacent agency owned land where BMPs, such as bioretention and infiltration basins, may be incorporated into the project.
- Existing utilities – availability of stormdrains or confliction with existing utility locations
- Soil type and elevated groundwater.
- Safety concerns – siting limitations or potential maintenance access concerns

C. Feasibility and Implementation:

Implementation of BMPs within roadway projects requires that drainage patterns be considered such that drainage may be routed to the BMPs prior to entering the storm drain system or exiting the project area. Design of BMPs shall utilize available topography in order to utilize gravity for conveyance to and through each BMP designed into the project. Flow paths of higher flows must be considered when designing BMPs to ensure flooding or ponding does not occur in peak flow situations. See also Section D.4 of this policy regarding peak flow considerations.

All roadway projects shall incorporate the following techniques and/or BMPs into the project design to the MEP standard:

- Conservation of natural areas to the extent feasible
- Use of landscaping that minimizes irrigation and runoff, and promotes surface infiltration
- Street trees to increase the canopy cover of a street
- Planter boxes/tree boxes to the extent feasible, and in compliance with City codes

The extent to which BMPs may be incorporated into a project depends on the project type and project-specific feasibility. Feasibility of implementing BMPs may be affected by regulatory requirements, site-specific characteristics, and infrastructure and project-specific characteristics. Therefore, each roadway project shall also evaluate the feasibility of incorporating the following BMPs into their project design to the MEP standard. This is in addition to those techniques and BMPs listed above:

- Vegetated curb extensions
- Bioswales
- Permeable pavers
- Alternative street widths
- Infiltration basins, if City owned land is project adjacent and infiltration is determined to be feasible for the site

D. Infiltration Infeasibility:

Use of any BMP relying solely on infiltration for drainage, such as permeable pavement without underdrains, shall confirm that project soils are appropriate for infiltration to ensure no standing water within the BMPs after 72 hours. A complete geotechnical or soils report should be performed to determine existing ground water depth, site soil types, and field measured infiltration rates. Projects whose underlying soils are determined to infiltrate at a measured rate lower than 0.3"/hr are determined to be technically infeasible for use of any BMP relying solely on infiltration for drainage.

E. Target Sizing Criteria:

The larger of the 0.75", 24-hour rain event, or the 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile isohyetal map, should be utilized to size all proposed BMPs in roadway projects. Using available soils information, topography, and in compliance with City codes and ordinances, identify the appropriate BMPs for incorporation into the roadway project. Implementation of several BMP types in succession may also be utilized and is commonly referred to as a *BMP treatment train*. The following steps should be followed for all roadway projects:

1. Determine overall tributary area to each proposed BMP location and compute imperviousness.
2. Using a published BMP design standard, determine the appropriate BMP sizing method and calculate the target sizing criteria.
3. Design BMPs into the roadway project to capture the target sizing criteria.
4. If determination is made that a proposed BMP, or a BMP treatment train, cannot adequately capture the target sizing criteria, then provide capture for the greatest portion of the target sizing criteria that can be reasonably achieved.

   If BMPs are undersized for their overall tributary area, the BMP must have the inlet, outlet and any energy dissipation device properly designed for the entire tributary area's peak flows. Consideration must be given for bypass of peak flows

to ensure that all BMPs are not eroded, scoured and/or overwhelmed in larger storm events.

Documentation of any infeasibility and/or project-specific constraints should be placed in the Project development file.

F. Amenities:

Department 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 construction projects and CIPs.

G. Guidance Documents:

Department shall use USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1] or develop an equivalent guidance for use in public and private developments. Any Department developed guidance shall be reviewed by the Department every two years and updated accordingly.

H. Retrofit Scope:

Department shall use the City's Watershed Management Program to identify opportunities for Green Streets' BMP retrofits. Final decisions regarding implementation will be determined by the Director of Public Works, or designee, based on the availability of adequate funding.

I. Training:

Department shall incorporate aspects of Green Streets' BMPs into internal annual staff trainings.

[1] US Environmental Protection Agency, EPA-833-F-08-009, December 2008.

APPENDIX B

Chain of Custody Records and laboratory reports from outfall monitoring

W L

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 East Clark Avenue : Industry : CA 91745
Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

CHAIN OF CUSTODY RECORD

3L26030

Page 1 Of 1

CLIENT NAME: AEI-CASC CONSULTING

PROJECT: EL MONTE DRY WEATHER OUTFALLS

ADDRESS: 2740 W. MAGNOLIA BIVD SUITE 102 BURBANK, CA 91505

PHONE: 310-291-1150

FAX:

Email: e_suher@AEI-CASC.COM

PO#:

PROJECT MANAGER: ED SUHER

Sampler: CM/LZ/ES

Special Handling

- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 4-5 Day Rush 75%
- ☐ Rush Extraction 50%
- ☒ 10-15 Business Days
- ☐ QA/QC Package

Charges will apply for weekends and holidays

Method of Shipment

ANALYSES REQUESTED

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OIL + GREASE 1664A	TOTAL P 365.3	TOTAL N BY CALC	TSS SM 2540 D	TDS SM 2540 C	POLYNUCLEAR AROMATICS 625	TOTAL COLIFORM 9221B	FECAL COLIFORM 9221E	E. COLI 9221F	Cu, Pb, Zn, SE 200.7		COMMENTS
	12-26-13	1310	RW	RH-DWO-05	8	X	X	X	X	X	X	X	X	X	X		
	12-26-13	1500	RW	SG-DWO-07	8	X	X	X	X	X	X	X	X	X	X		

RELINQUISHED BY SIGNATURE	PRINT NAME	DATE / TIME	RECEIVED BY SIGNATURE	PRINT NAME	DATE / TIME
EG Suher	EDMOND G. SUHER	12-26-13 / 1610	[signature]	Adrian Talaby	122613 16:10

SAMPLE CONDITION:

Actual Temperature: 1.9°C

- Received On Ice: Y / N (Y)
- Preserved: Y / N (Y)
- Evidence Seals Present: Y / N (N)
- Container Attacked: Y / N (N)
- Preserved at Lab: Y / N (N)

SAMPLE TYPE CODE:
AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM).

SPECIAL REQUIREMENTS / BILLING INFORMATION

DISTRIBUTION: WHITE & CANARY - For Laboratory PINK - For Client

RB-AR4731

CERTIFICATE OF ANALYSIS

Client:	AEI-CASC Consulting 2740 W. Magnolia Blvd., Ste.102 Burbank CA, 91505	**Report Date:**	01/23/14 16:00
		Received Date:	12/26/13 16:10
		Turn Around:	Normal
Attention:	Ed Suher	**Client Project:**	El Monte Dry Weather Outfalls
Phone:	(818) 841-9004		
Fax:	(818) 841-8013		
Work Order(s):	3L26030		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Ed Suher :

Enclosed are the results of analyses for samples received 12/26/13 16:10 with the Chain of Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
RH-DWO-05	CM/LZ/ES		3L26030-01	Water	12/26/13 13:10
SG-DWO-07	CM/LZ/ES		3L26030-02	Water	12/26/13 15:00

ANALYSES

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Metals by EPA 200 Series Methods

Microbiological Parameters by Standard Methods

Semivolatile Organics - Low Level by GC/MS SIM Mode

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-01 RH-DWO-05

Sampled: 12/26/13 13:10 **Sampled By:** CM/LZ/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W3L1437 Prepared: 12/31/13 09:03 Analyst: qvn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	12/31/13 15:15	

Method: EPA 351.2 Batch: W3L1467 Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.32**	0.10	mg/l	1	01/08/14 12:34	

Method: EPA 353.2 Batch: W3L1341 Prepared: 12/27/13 13:20 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**180**	100	ug/l	1	12/27/13 17:27	

Method: EPA 365.3 Batch: W3L1314 Prepared: 12/27/13 09:21 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.052**	0.010	mg/l	1	12/31/13 09:57	

Method: SM 2540C Batch: W3L1456 Prepared: 12/31/13 10:59 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**180**	10	mg/l	1	12/31/13 17:15	

Method: SM 2540D Batch: W3L1304 Prepared: 12/26/13 17:16 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	12/26/13 19:00	

Method: Various Batch: [CALC] Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**0.50**	0.20	mg/l	1	01/08/14 12:34	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W3L1403 Prepared: 12/30/13 15:43 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.010**	0.010	mg/l	1	01/02/14 11:21	
Lead, Total	ND	0.0050	mg/l	1	01/02/14 11:21	
Selenium, Total	ND	0.030	mg/l	1	01/02/14 11:21	
Zinc, Total	ND	0.050	mg/l	1	01/02/14 11:21	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**20**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-01 **RH-DWO-05**

Sampled: 12/26/13 13:10 **Sampled By:** CM/LZ/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**1700**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221F Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
E. coli	**20**	2.0	MPN/100ml	1	12/26/13 16:40	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W3L1446 Prepared: 12/31/13 10:34 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
2-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
Acenaphthene	ND		0.10	ug/l	1	01/23/14 03:29	
Acenaphthylene	ND		0.10	ug/l	1	01/23/14 03:29	
Anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (a) anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (a) pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Chrysene	ND		0.10	ug/l	1	01/23/14 03:29	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Fluorene	ND		0.10	ug/l	1	01/23/14 03:29	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Naphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
Phenanthrene	ND		0.10	ug/l	1	01/23/14 03:29	
Pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Surr: 2-Fluorobiphenyl	*78 %*	Conc:*3.90*	*22-107*	%			
Surr: Nitrobenzene-d5	*81 %*	Conc:*4.04*	*27-111*	%			
Surr: Terphenyl-d14	*79 %*	Conc:*3.96*	*28-113*	%			

RB-AR4735

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-02 SG-DWO-07

Sampled: 12/26/13 15:00 **Sampled By:** CM/LZ/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W3L1437 Prepared: 12/31/13 09:03 Analyst: qvn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	12/31/13 15:15	

Method: EPA 351.2 Batch: W3L1467 Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**2.6**	0.10	mg/l	1	01/08/14 12:34	

Method: EPA 353.2 Batch: W3L1341 Prepared: 12/27/13 13:20 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**4000**	100	ug/l	1	12/27/13 17:29	

Method: EPA 365.3 Batch: W3L1314 Prepared: 12/27/13 09:21 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.63**	0.020	mg/l	1	12/31/13 09:57	M-06

Method: SM 2540C Batch: W3L1456 Prepared: 12/31/13 10:59 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**460**	10	mg/l	1	12/31/13 17:15	

Method: SM 2540D Batch: W3L1304 Prepared: 12/26/13 17:16 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**21**	5	mg/l	1	12/26/13 19:00	

Method: Various Batch: [CALC] Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**6.6**	0.20	mg/l	1	01/08/14 12:34	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W3L1403 Prepared: 12/30/13 15:43 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.034**	0.010	mg/l	1	01/02/14 11:23	
Lead, Total	**0.0056**	0.0050	mg/l	1	01/02/14 11:23	
Selenium, Total	ND	0.030	mg/l	1	01/02/14 11:23	
Zinc, Total	**0.084**	0.050	mg/l	1	01/02/14 11:23	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**14000**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-02 **SG-DWO-07**

Sampled: 12/26/13 15:00 **Sampled By:** CM/LZ/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**90000**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221F Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
E. coli	**14000**	2.0	MPN/100ml	1	12/26/13 16:40	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W3L1446 Prepared: 12/31/13 10:34 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
2-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
Acenaphthene	ND		0.10	ug/l	1	01/23/14 04:02	
Acenaphthylene	ND		0.10	ug/l	1	01/23/14 04:02	
Anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (a) anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (a) pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Chrysene	ND		0.10	ug/l	1	01/23/14 04:02	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Fluorene	ND		0.10	ug/l	1	01/23/14 04:02	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Naphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
Phenanthrene	ND		0.10	ug/l	1	01/23/14 04:02	
Pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Surr: 2-Fluorobiphenyl	*75 %*	Conc:*3.77*	*22-107*	%			
Surr: Nitrobenzene-d5	*77 %*	Conc:*3.85*	*27-111*	%			
Surr: Terphenyl-d14	*82 %*	Conc:*4.08*	*28-113*	%			

RB-AR4737

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QUALITY CONTROL SECTION

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L1304 - SM 2540D

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1304-BLK1)				Analyzed: 12/26/13 19:00						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W3L1304-DUP1)	**Source: 3L24045-01**			Analyzed: 12/26/13 19:00						
Total Suspended Solids	ND	5	mg/l		0.00					

Batch W3L1314 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1314-BLK1)				Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W3L1314-BS1)				Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.206	0.010	mg/l	0.200		103	90-110			
Matrix Spike (W3L1314-MS1)	**Source: 3L23090-01**			Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.425	0.010	mg/l	0.200	0.214	105	90-110			
Matrix Spike Dup (W3L1314-MSD1)	**Source: 3L23090-01**			Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.421	0.010	mg/l	0.200	0.214	103	90-110	0.9	20	

Batch W3L1341 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1341-BLK1)				Analyzed: 12/27/13 16:57						
NO2+NO3 as N	ND	100	ug/l							
LCS (W3L1341-BS1)				Analyzed: 12/27/13 16:59						
NO2+NO3 as N	998	100	ug/l	1000		100	90-110			
Matrix Spike (W3L1341-MS1)	**Source: 3L26032-01**			Analyzed: 12/27/13 17:08						
NO2+NO3 as N	5270	100	ug/l	2000	3330	97	90-110			
Matrix Spike Dup (W3L1341-MSD1)	**Source: 3L26032-01**			Analyzed: 12/27/13 17:44						
NO2+NO3 as N	5240	100	ug/l	2000	3330	95	90-110	0.7	20	

Batch W3L1437 - EPA 1664A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1437-BLK1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	ND	5.0	mg/l							
LCS (W3L1437-BS1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	19.2	5.0	mg/l	20.0		96	78-114			
LCS (W3L1437-BS2)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	4.60	5.0	mg/l	5.00		92	78-114			
LCS Dup (W3L1437-BSD1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	17.3	5.0	mg/l	20.0		86	78-114	10	18	
Matrix Spike (W3L1437-MS1)	**Source: 3L26029-01**			Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	19.7	5.0	mg/l	20.9	2.50	82	78-114			

Batch W3L1456 - SM 2540C

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L1456 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1456-BLK1)				Analyzed: 12/31/13 17:15						
Total Dissolved Solids	ND	10	mg/l							
LCS (W3L1456-BS1)				Analyzed: 12/31/13 17:15						
Total Dissolved Solids	823	10	mg/l	824		100	96-102			
Duplicate (W3L1456-DUP1)	**Source: 3L30053-03**			Analyzed: 12/31/13 17:15						
Total Dissolved Solids	4960	10	mg/l		4940			0.5	10	
Duplicate (W3L1456-DUP2)	**Source: 3L30053-04**			Analyzed: 12/31/13 17:15						
Total Dissolved Solids	3640	10	mg/l		3630			0.3	10	

Batch W3L1467 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1467-BLK1)				Analyzed: 01/08/14 12:34						
TKN	ND	0.10	mg/l							
Blank (W3L1467-BLK2)				Analyzed: 01/08/14 12:34						
TKN	ND	0.10	mg/l							
LCS (W3L1467-BS1)				Analyzed: 01/08/14 12:34						
TKN	1.01	0.10	mg/l	1.00		101	90-110			
LCS (W3L1467-BS2)				Analyzed: 01/08/14 12:34						
TKN	1.01	0.10	mg/l	1.00		101	90-110			
Matrix Spike (W3L1467-MS1)	**Source: 3L27018-01**			Analyzed: 01/08/14 12:34						
TKN	1.23	0.10	mg/l	1.00	0.186	104	90-110			
Matrix Spike (W3L1467-MS2)	**Source: 3L27018-02**			Analyzed: 01/08/14 12:34						
TKN	1.29	0.10	mg/l	1.00	0.221	107	90-110			
Matrix Spike Dup (W3L1467-MSD1)	**Source: 3L27018-01**			Analyzed: 01/08/14 12:34						
TKN	1.23	0.10	mg/l	1.00	0.186	104	90-110	0.4	10	
Matrix Spike Dup (W3L1467-MSD2)	**Source: 3L27018-02**			Analyzed: 01/08/14 12:34						
TKN	1.29	0.10	mg/l	1.00	0.221	107	90-110	0.01	10	

Metals by EPA 200 Series Methods - Quality Control

Batch W3L1403 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1403-BLK1)				Analyzed: 01/02/14 11:03						
Copper, Total	ND	0.010	mg/l							
Lead, Total	ND	0.0050	mg/l							
Selenium, Total	ND	0.030	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W3L1403-BS1)				Analyzed: 01/02/14 11:05						
Copper, Total	0.211	0.010	mg/l	0.200		105	85-115			
Lead, Total	0.199	0.0050	mg/l	0.200		100	85-115			
Selenium, Total	0.207	0.030	mg/l	0.200		104	85-115			

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Metals by EPA 200 Series Methods - Quality Control

Batch W3L1403 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L1403-BS1)				Analyzed: 01/02/14 11:05						
Zinc, Total	0.194	0.050	mg/l	0.200		97	85-115			
Matrix Spike (W3L1403-MS1)	**Source: 3L19098-01**			Analyzed: 01/02/14 11:33						
Copper, Total	0.213	0.010	mg/l	0.200	0.0118	101	70-130			
Lead, Total	0.192	0.0050	mg/l	0.200	ND	96	70-130			
Selenium, Total	0.203	0.030	mg/l	0.200	ND	102	70-130			
Zinc, Total	0.364	0.050	mg/l	0.200	0.177	94	70-130			
Matrix Spike Dup (W3L1403-MSD1)	**Source: 3L19098-01**			Analyzed: 01/02/14 11:36						
Copper, Total	0.215	0.010	mg/l	0.200	0.0118	102	70-130	1	30	
Lead, Total	0.196	0.0050	mg/l	0.200	ND	98	70-130	2	30	
Selenium, Total	0.208	0.030	mg/l	0.200	ND	104	70-130	2	30	
Zinc, Total	0.366	0.050	mg/l	0.200	0.177	95	70-130	0.5	30	

Microbiological Parameters by Standard Methods - Quality Control

Batch W3L1394 - SM 9221F

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1394-BLK1)				Analyzed: 12/16/13 12:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK2)				Analyzed: 12/19/13 17:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK3)				Analyzed: 12/23/13 13:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK4)				Analyzed: 12/24/13 13:15						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							

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Microbiological Parameters by Standard Methods - Quality Control

Batch W3L1394 - SM 9221B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1394-BLK4)				Analyzed: 12/24/13 13:15						
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK5)				Analyzed: 12/26/13 16:40						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W3L1446 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1446-BLK1)				Analyzed: 01/23/14 01:19						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surr: 2-Fluorobiphenyl	*3.30*		*ug/l*	*5.00*		*66*	*22-107*			
Surr: Nitrobenzene-d5	*3.67*		*ug/l*	*5.00*		*73*	*27-111*			
Surr: Terphenyl-d14	*3.52*		*ug/l*	*5.00*		*70*	*28-113*			
LCS (W3L1446-BS1)				Analyzed: 01/23/14 04:34						
Acenaphthene	8.56	0.10	ug/l	10.0		86	47-145			
Acenaphthylene	7.93	0.10	ug/l	10.0		79	33-145			
Anthracene	8.19	0.10	ug/l	10.0		82	27-133			
Benzo (a) anthracene	8.69	0.10	ug/l	10.0		87	33-143			
Benzo (a) pyrene	6.39	0.10	ug/l	10.0		64	17-163			

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Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W3L1446 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L1446-BS1)				Analyzed: 01/23/14 04:34						
Benzo (b) fluoranthene	7.02	0.10	ug/l	10.0		70	24-159			
Benzo (g,h,i) perylene	4.59	0.10	ug/l	10.0		46	0.1-219			
Benzo (k) fluoranthene	7.19	0.10	ug/l	10.0		72	11-162			
Chrysene	8.35	0.10	ug/l	10.0		84	17-168			
Dibenzo (a,h) anthracene	4.98	0.10	ug/l	10.0		50	0.1-227			
Fluoranthene	8.53	0.10	ug/l	10.0		85	26-137			
Fluorene	8.05	0.10	ug/l	10.0		80	59-121			
Indeno (1,2,3-cd) pyrene	6.24	0.10	ug/l	10.0		62	0.1-171			
Naphthalene	8.10	0.10	ug/l	10.0		81	21-133			
Phenanthrene	8.33	0.10	ug/l	10.0		83	54-120			
Pyrene	8.51	0.10	ug/l	10.0		85	52-115			
Surr: 2-Fluorobiphenyl	*3.75*		*ug/l*	*5.00*		*75*	*22-107*			
Surr: Nitrobenzene-d5	*3.94*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.39*		*ug/l*	*5.00*		*68*	*28-113*			
LCS Dup (W3L1446-BSD1)				Analyzed: 01/23/14 05:06						
Acenaphthene	8.67	0.10	ug/l	10.0		87	47-145	1	30	
Acenaphthylene	8.03	0.10	ug/l	10.0		80	33-145	1	30	
Anthracene	8.62	0.10	ug/l	10.0		86	27-133	5	30	
Benzo (a) anthracene	9.18	0.10	ug/l	10.0		92	33-143	5	30	
Benzo (a) pyrene	6.66	0.10	ug/l	10.0		67	17-163	4	30	
Benzo (b) fluoranthene	7.27	0.10	ug/l	10.0		73	24-159	4	30	
Benzo (g,h,i) perylene	4.87	0.10	ug/l	10.0		49	0.1-219	6	30	
Benzo (k) fluoranthene	7.56	0.10	ug/l	10.0		76	11-162	5	30	
Chrysene	8.75	0.10	ug/l	10.0		88	17-168	5	30	
Dibenzo (a,h) anthracene	5.20	0.10	ug/l	10.0		52	0.1-227	4	30	
Fluoranthene	8.99	0.10	ug/l	10.0		90	26-137	5	30	
Fluorene	8.26	0.10	ug/l	10.0		83	59-121	3	30	
Indeno (1,2,3-cd) pyrene	6.69	0.10	ug/l	10.0		67	0.1-171	7	30	
Naphthalene	8.31	0.10	ug/l	10.0		83	21-133	3	30	
Phenanthrene	8.65	0.10	ug/l	10.0		86	54-120	4	30	
Pyrene	9.08	0.10	ug/l	10.0		91	52-115	7	30	
Surr: 2-Fluorobiphenyl	*3.81*		*ug/l*	*5.00*		*76*	*22-107*			
Surr: Nitrobenzene-d5	*3.96*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.65*		*ug/l*	*5.00*		*73*	*28-113*			

RB-AR4743

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Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

WL

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

CHAIN OF CUSTODY RECORD

14859 East Clark Avenue : Industry : CA 91745
Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

Page 1 Of 1

CLIENT NAME: AEI-CASC CONSULTING

PROJECT: EL MONTE WET WEATHER OUTFALLS

ADDRESS: 2740 W. MAGNOLIA BLVD SUITE 102 BURBANK, CA 91505

PHONE: 310-291-1150

FAX:

Email: e_suher@aei-casc.com

PO#:

PROJECT MANAGER ED SUHER

Sampler CM/ES

ANALYSES REQUESTED: OIL + GREASE 1664A | TOTAL P 365.3 | TOTAL N - by CALC | TSS SM 2540 D | TDS SM 2540 C | POLYNUCLEAR AROMAT 625 | TOTAL COLIFORM 9221B | FECAL COLIFORM 9221E | E. COLI 9221F | Cu, Pb, Zn, Se 200.7

Special Handling

- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 4-5 Day Rush 75%
- ☐ Rush Extraction 50%
- ☑ 10-15 Business Days
- ☐ QA/QC Package

Charges will apply for weekends and holidays

Method of Shipment

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OIL + GREASE 1664A	TOTAL P 365.3	TOTAL N - by CALC	TSS SM 2540 D	TDS SM 2540 C	POLYNUCLEAR AROMAT	TOTAL COLIFORM	FECAL COLIFORM	E. COLI 9221 F	Cu, Pb, Zn, Se 200.7		COMMENTS
	2/6/14	1520	RW	RH-WWO-05	8	X	X	X	X	X	X	X	X	X	X		
	2/6/14	1640	RW	SG-WWO-07	8	X	X	X	X	X	X	X	X	X	X		

RB-AR4745

RELINQUISHED BY SIGNATURE	PRINT NAME	DATE / TIME	RECEIVED BY SIGNATURE	PRINT NAME	DATE / TIME
E. Suher	ED SUHER	2/6/14 18:15	Jamalmon		2/6/14 18:15

SAMPLE CONDITION:

Actual Temperature: 4.1C

- Received On Ice (Y) / N
- Preserved (Y) / N
- Evidence Seals Present Y / (N)
- Container Attacked Y / (N)
- Preserved at Lab Y / (N)

SAMPLE TYPE CODE: AQ=Aqueous, NA= Non Aqueous, SL = Sludge, DW = Drinking Water, WW = Waste Water, RW = Rain Water, GW = Ground Water, SO = Soil, SW = Solid Waste, OL = Oil, OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM).

SPECIAL REQUIREMENTS / BILLING INFORMATION

DISTRIBUTION: WHITE & CANARY - For Laboratory PINK - For Client

WECK LABORATORIES, INC.
Analytical Laboratory Service - Since 1964

CERTIFICATE OF ANALYSIS

Client:	AEI-CASC Consulting 2740 W. Magnolia Blvd., Ste.102 Burbank CA, 91505	**Report Date:**	02/24/14 17:11
		Received Date:	02/06/14 18:15
		Turn Around:	Normal
Attention:	Ed Suher	**Client Project:**	El Monte Wet Weather Outfalls
Phone:	(818) 841-9004		
Fax:	(818) 841-8013		
Work Order(s):	4B06078		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Ed Suher :

Enclosed are the results of analyses for samples received 02/06/14 18:15 with the Chain of Custody document. The samples were received in good condition, at 4.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

RB-AR4746

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
RH-WWO-05	CM/ES		4B06078-01	Water	02/06/14 15:20
SG-WWO-07	CM/ES		4B06078-02	Water	02/06/14 16:40

ANALYSES

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Metals by EPA 200 Series Methods

Microbiological Parameters by Standard Methods

Semivolatile Organics - Low Level by GC/MS SIM Mode

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-01 **RH-WWO-05**

Sampled: 02/06/14 15:20 **Sampled By:** CM/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W4B0521 Prepared: 02/12/14 12:10 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	02/14/14 14:38	

Method: EPA 351.2 Batch: W4B0653 Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.91**	0.10	mg/l	1	02/18/14 13:17	

Method: EPA 353.2 Batch: W4B0589 Prepared: 02/13/14 14:03 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**590**	100	ug/l	1	02/13/14 17:19	

Method: EPA 365.3 Batch: W4B0393 Prepared: 02/10/14 12:58 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.076**	0.010	mg/l	1	02/14/14 18:26	

Method: SM 2540C Batch: W4B0489 Prepared: 02/11/14 17:53 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**190**	10	mg/l	1	02/12/14 11:15	

Method: SM 2540D Batch: W4B0321 Prepared: 02/07/14 17:21 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	02/07/14 18:45	

Method: Various Batch: [CALC] Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**1.5**	0.20	mg/l	1	02/18/14 13:17	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W4B0375 Prepared: 02/10/14 09:39 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.016**	0.010	mg/l	1	02/10/14 16:03	
Lead, Total	ND	0.0050	mg/l	1	02/10/14 16:03	
Selenium, Total	ND	0.030	mg/l	1	02/10/14 16:03	
Zinc, Total	ND	0.050	mg/l	1	02/10/14 16:03	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**10000**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-01 **RH-WWO-05**

Sampled: 02/06/14 15:20 **Sampled By:** CM/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**260**		40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221F Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**260**		40	MPN/100ml	20	02/06/14 18:50	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W4B0592 Prepared: 02/13/14 14:17 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
2-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
Acenaphthene	ND		0.10	ug/l	1	02/20/14 05:36	
Acenaphthylene	ND		0.10	ug/l	1	02/20/14 05:36	
Anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (a) anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (a) pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Chrysene	ND		0.10	ug/l	1	02/20/14 05:36	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Fluorene	ND		0.10	ug/l	1	02/20/14 05:36	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Naphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
Phenanthrene	ND		0.10	ug/l	1	02/20/14 05:36	
Pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Surr: 2-Fluorobiphenyl	*71 %*	Conc:*3.53*	*22-107*	%			
Surr: Nitrobenzene-d5	*78 %*	Conc:*3.90*	*27-111*	%			
Surr: Terphenyl-d14	*69 %*	Conc:*3.45*	*28-113*	%			

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-02 **SG-WWO-07**

Sampled: 02/06/14 16:40 **Sampled By:** CM/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W4B0521 Prepared: 02/12/14 12:10 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	02/14/14 14:38	

Method: EPA 351.2 Batch: W4B0653 Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**4.6**	0.40	mg/l	4	02/18/14 13:17	

Method: EPA 353.2 Batch: W4B0589 Prepared: 02/13/14 14:03 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**2000**	100	ug/l	1	02/13/14 17:21	

Method: EPA 365.3 Batch: W4B0393 Prepared: 02/10/14 12:58 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**1.2**	0.10	mg/l	1	02/14/14 18:26	M-06

Method: SM 2540C Batch: W4B0489 Prepared: 02/11/14 17:53 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**130**	10	mg/l	1	02/12/14 11:15	

Method: SM 2540D Batch: W4B0321 Prepared: 02/07/14 17:21 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**230**	5	mg/l	1	02/07/14 18:45	

Method: Various Batch: [CALC] Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**6.6**	0.50	mg/l	4	02/18/14 13:17	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W4B0375 Prepared: 02/10/14 09:39 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.072**	0.010	mg/l	1	02/10/14 16:06	
Lead, Total	**0.032**	0.0050	mg/l	1	02/10/14 16:06	
Selenium, Total	ND	0.030	mg/l	1	02/10/14 16:06	
Zinc, Total	**0.29**	0.050	mg/l	1	02/10/14 16:06	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**28000**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-02 **SG-WWO-07**

Sampled: 02/06/14 16:40 **Sampled By:** CM/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**1400**		40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221F Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**1400**		40	MPN/100ml	20	02/06/14 18:50	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W4B0592 Prepared: 02/13/14 14:17 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
2-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
Acenaphthene	ND		0.10	ug/l	1	02/20/14 06:09	
Acenaphthylene	ND		0.10	ug/l	1	02/20/14 06:09	
Anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (a) anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (a) pyrene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	02/20/14 06:09	
Chrysene	**0.14**		0.10	ug/l	1	02/20/14 06:09	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Fluoranthene	**0.19**		0.10	ug/l	1	02/20/14 06:09	
Fluorene	ND		0.10	ug/l	1	02/20/14 06:09	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	02/20/14 06:09	
Naphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
Phenanthrene	**0.12**		0.10	ug/l	1	02/20/14 06:09	
Pyrene	**0.15**		0.10	ug/l	1	02/20/14 06:09	
Surr: 2-Fluorobiphenyl	*86 %*	Conc:*4.28*	*22-107*	%			
Surr: Nitrobenzene-d5	*94 %*	Conc:*4.69*	*27-111*	%			
Surr: Terphenyl-d14	*86 %*	Conc:*4.32*	*28-113*	%			

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

QUALITY CONTROL SECTION

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4B0321 - SM 2540D

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0321-BLK1)				Analyzed: 02/07/14 18:45						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W4B0321-DUP1)	**Source: 4B06021-01**			Analyzed: 02/07/14 18:45						
Total Suspended Solids	ND	5	mg/l		0.00					
Duplicate (W4B0321-DUP2)	**Source: 4B06078-01**			Analyzed: 02/07/14 18:45						
Total Suspended Solids	4.00	5	mg/l		4.00			NR	20	

Batch W4B0393 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0393-BLK1)				Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W4B0393-BS1)				Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.205	0.010	mg/l	0.200		102	90-110			
Matrix Spike (W4B0393-MS1)	**Source: 4B05080-03**			Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.329	0.010	mg/l	0.200	0.136	97	90-110			
Matrix Spike Dup (W4B0393-MSD1)	**Source: 4B05080-03**			Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.328	0.010	mg/l	0.200	0.136	96	90-110	0.3	20	

Batch W4B0489 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0489-BLK1)				Analyzed: 02/12/14 11:15						
Total Dissolved Solids	ND	10	mg/l							
LCS (W4B0489-BS1)				Analyzed: 02/12/14 11:15						
Total Dissolved Solids	817	10	mg/l	824		99	96-102			
Duplicate (W4B0489-DUP1)	**Source: 4B06014-01**			Analyzed: 02/12/14 11:15						
Total Dissolved Solids	537	10	mg/l		535			0.4	10	
Duplicate (W4B0489-DUP2)	**Source: 4B11083-01**			Analyzed: 02/12/14 11:15						
Total Dissolved Solids	296	10	mg/l		289			2	10	

Batch W4B0521 - EPA 1664A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0521-BLK1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	ND	5.0	mg/l							
LCS (W4B0521-BS1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	19.5	5.0	mg/l	20.0		98	78-114			
LCS (W4B0521-BS2)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	4.80	5.0	mg/l	5.00		96	78-114			
LCS Dup (W4B0521-BSD1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	19.2	5.0	mg/l	20.0		96	78-114	2	18	

Batch W4B0589 - EPA 353.2

RB-AR4753

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4B0589 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0589-BLK1)				Analyzed: 02/13/14 17:15						
NO2+NO3 as N	ND	100	ug/l							
LCS (W4B0589-BS1)				Analyzed: 02/13/14 16:34						
NO2+NO3 as N	1030	100	ug/l	1000		103	90-110			
Matrix Spike (W4B0589-MS1)	**Source: 4B12061-03**			Analyzed: 02/13/14 16:42						
NO2+NO3 as N	5360	100	ug/l	2000	3370	99	90-110			
Matrix Spike (W4B0589-MS2)	**Source: 4B12061-04**			Analyzed: 02/13/14 16:49						
NO2+NO3 as N	6480	100	ug/l	2000	4570	96	90-110			
Matrix Spike Dup (W4B0589-MSD1)	**Source: 4B12061-03**			Analyzed: 02/13/14 16:44						
NO2+NO3 as N	5330	100	ug/l	2000	3370	98	90-110	0.6	20	
Matrix Spike Dup (W4B0589-MSD2)	**Source: 4B12061-04**			Analyzed: 02/13/14 16:51						
NO2+NO3 as N	6580	100	ug/l	2000	4570	100	90-110	1	20	

Batch W4B0653 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0653-BLK1)				Analyzed: 02/18/14 13:17						
TKN	ND	0.10	mg/l							
Blank (W4B0653-BLK2)				Analyzed: 02/18/14 13:17						
TKN	ND	0.10	mg/l							
LCS (W4B0653-BS1)				Analyzed: 02/18/14 13:17						
TKN	0.968	0.10	mg/l	1.00		97	90-110			
LCS (W4B0653-BS2)				Analyzed: 02/18/14 13:17						
TKN	0.969	0.10	mg/l	1.00		97	90-110			
Duplicate (W4B0653-DUP1)	**Source: 4B07076-01**			Analyzed: 02/18/14 13:17						
TKN	1.74	0.40	mg/l		1.77			2	10	
Matrix Spike (W4B0653-MS1)	**Source: 4B07070-01**			Analyzed: 02/18/14 13:17						
TKN	6.93	0.40	mg/l	4.00	2.91	100	90-110			
Matrix Spike (W4B0653-MS2)	**Source: 4B07073-01**			Analyzed: 02/18/14 13:17						
TKN	2.52	0.20	mg/l	2.00	0.670	93	90-110			
Matrix Spike Dup (W4B0653-MSD1)	**Source: 4B07070-01**			Analyzed: 02/18/14 13:17						
TKN	6.99	0.40	mg/l	4.00	2.91	102	90-110	0.9	10	
Matrix Spike Dup (W4B0653-MSD2)	**Source: 4B07073-01**			Analyzed: 02/18/14 13:17						
TKN	2.53	0.20	mg/l	2.00	0.670	93	90-110	0.3	10	

Metals by EPA 200 Series Methods - Quality Control

Batch W4B0375 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0375-BLK1)				Analyzed: 02/10/14 15:55						
Copper, Total	ND	0.010	mg/l							
Lead, Total	ND	0.0050	mg/l							

RB-AR4754

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Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Metals by EPA 200 Series Methods - Quality Control

Batch W4B0375 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0375-BLK1)				Analyzed: 02/10/14 15:55						
Selenium, Total	ND	0.030	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W4B0375-BS1)				Analyzed: 02/10/14 15:58						
Copper, Total	0.198	0.010	mg/l	0.200		99	85-115			
Lead, Total	0.204	0.0050	mg/l	0.200		102	85-115			
Selenium, Total	0.205	0.030	mg/l	0.200		102	85-115			
Zinc, Total	0.194	0.050	mg/l	0.200		97	85-115			
Matrix Spike (W4B0375-MS1)	**Source: 4B07077-01**			Analyzed: 02/10/14 16:31						
Copper, Total	0.227	0.010	mg/l	0.200	0.0178	105	70-130			
Lead, Total	0.211	0.0050	mg/l	0.200	0.00345	104	70-130			
Selenium, Total	0.215	0.030	mg/l	0.200	ND	107	70-130			
Zinc, Total	0.420	0.050	mg/l	0.200	0.211	104	70-130			
Matrix Spike (W4B0375-MS2)	**Source: 4B07059-01**			Analyzed: 02/10/14 16:36						
Copper, Total	0.277	0.010	mg/l	0.200	0.0632	107	70-130			
Lead, Total	0.204	0.0050	mg/l	0.200	ND	102	70-130			
Selenium, Total	0.221	0.030	mg/l	0.200	0.0101	105	70-130			
Zinc, Total	0.372	0.050	mg/l	0.200	0.155	109	70-130			
Matrix Spike Dup (W4B0375-MSD1)	**Source: 4B07077-01**			Analyzed: 02/10/14 16:33						
Copper, Total	0.232	0.010	mg/l	0.200	0.0178	107	70-130	2	30	
Lead, Total	0.217	0.0050	mg/l	0.200	0.00345	107	70-130	3	30	
Selenium, Total	0.224	0.030	mg/l	0.200	ND	112	70-130	4	30	
Zinc, Total	0.429	0.050	mg/l	0.200	0.211	109	70-130	2	30	
Matrix Spike Dup (W4B0375-MSD2)	**Source: 4B07059-01**			Analyzed: 02/10/14 16:38						
Copper, Total	0.279	0.010	mg/l	0.200	0.0632	108	70-130	0.8	30	
Lead, Total	0.204	0.0050	mg/l	0.200	ND	102	70-130	0.07	30	
Selenium, Total	0.228	0.030	mg/l	0.200	0.0101	109	70-130	3	30	
Zinc, Total	0.371	0.050	mg/l	0.200	0.155	108	70-130	0.3	30	

Microbiological Parameters by Standard Methods - Quality Control

Batch W4B0809 - SM 9221F

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0809-BLK1)				Analyzed: 02/06/14 18:50						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W4B0809-BLK2)				Analyzed: 02/06/14 23:00						
E. coli	ND	2.0	MPN/100 ml							

RB-AR4755

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2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

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Microbiological Parameters by Standard Methods - Quality Control

Batch W4B0809 - SM 9221E

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0809-BLK2)				Analyzed: 02/06/14 23:00						
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W4B0592 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0592-BLK1)				Analyzed: 02/20/14 03:55						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surr: 2-Fluorobiphenyl	*3.87*		*ug/l*	*5.00*		*77*	*22-107*			
Surr: Nitrobenzene-d5	*4.55*		*ug/l*	*5.00*		*91*	*27-111*			
Surr: Terphenyl-d14	*3.64*		*ug/l*	*5.00*		*73*	*28-113*			
LCS (W4B0592-BS1)				Analyzed: 02/20/14 04:29						
Acenaphthene	7.85	0.10	ug/l	10.0		78	47-145			
Acenaphthylene	8.58	0.10	ug/l	10.0		86	33-145			
Anthracene	8.66	0.10	ug/l	10.0		87	27-133			
Benzo (a) anthracene	8.89	0.10	ug/l	10.0		89	33-143			
Benzo (a) pyrene	7.76	0.10	ug/l	10.0		78	17-163			
Benzo (b) fluoranthene	8.39	0.10	ug/l	10.0		84	24-159			
Benzo (g,h,i) perylene	5.33	0.10	ug/l	10.0		53	0.1-219			
Benzo (k) fluoranthene	8.45	0.10	ug/l	10.0		84	11-162			
Chrysene	9.39	0.10	ug/l	10.0		94	17-168			
Dibenzo (a,h) anthracene	5.78	0.10	ug/l	10.0		58	0.1-227			

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Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W4B0592 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4B0592-BS1)				Analyzed: 02/20/14 04:29						
Fluoranthene	8.96	0.10	ug/l	10.0		90	26-137			
Fluorene	7.91	0.10	ug/l	10.0		79	59-121			
Indeno (1,2,3-cd) pyrene	5.80	0.10	ug/l	10.0		58	0.1-171			
Naphthalene	7.86	0.10	ug/l	10.0		79	21-133			
Phenanthrene	8.75	0.10	ug/l	10.0		88	54-120			
Pyrene	9.01	0.10	ug/l	10.0		90	52-115			
Surr: 2-Fluorobiphenyl	*3.77*		*ug/l*	*5.00*		*75*	*22-107*			
Surr: Nitrobenzene-d5	*4.17*		*ug/l*	*5.00*		*83*	*27-111*			
Surr: Terphenyl-d14	*3.61*		*ug/l*	*5.00*		*72*	*28-113*			
LCS Dup (W4B0592-BSD1)				Analyzed: 02/20/14 05:02						
Acenaphthene	7.39	0.10	ug/l	10.0		74	47-145	6	30	
Acenaphthylene	8.16	0.10	ug/l	10.0		82	33-145	5	30	
Anthracene	7.78	0.10	ug/l	10.0		78	27-133	11	30	
Benzo (a) anthracene	8.40	0.10	ug/l	10.0		84	33-143	6	30	
Benzo (a) pyrene	6.98	0.10	ug/l	10.0		70	17-163	11	30	
Benzo (b) fluoranthene	7.60	0.10	ug/l	10.0		76	24-159	10	30	
Benzo (g,h,i) perylene	4.85	0.10	ug/l	10.0		49	0.1-219	9	30	
Benzo (k) fluoranthene	7.55	0.10	ug/l	10.0		75	11-162	11	30	
Chrysene	8.36	0.10	ug/l	10.0		84	17-168	12	30	
Dibenzo (a,h) anthracene	5.28	0.10	ug/l	10.0		53	0.1-227	9	30	
Fluoranthene	8.11	0.10	ug/l	10.0		81	26-137	10	30	
Fluorene	7.34	0.10	ug/l	10.0		73	59-121	8	30	
Indeno (1,2,3-cd) pyrene	5.35	0.10	ug/l	10.0		53	0.1-171	8	30	
Naphthalene	7.42	0.10	ug/l	10.0		74	21-133	6	30	
Phenanthrene	7.94	0.10	ug/l	10.0		79	54-120	10	30	
Pyrene	8.12	0.10	ug/l	10.0		81	52-115	10	30	
Surr: 2-Fluorobiphenyl	*3.59*		*ug/l*	*5.00*		*72*	*22-107*			
Surr: Nitrobenzene-d5	*3.93*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.30*		*ug/l*	*5.00*		*66*	*28-113*			

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Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

DRAFT

INTEGRATED MONITORING PROGRAM

City of El Monte, California

June 2014

City of El Monte

Department of Public Works

City Hall West – 2nd Floor

11333 Valley Boulevard

El Monte, CA 91731-3293

www.ci.el-monte.ca.us

Prepared By:

CASC Engineering and Consulting

2740 W. Magnolia Boulevard, Suite 102

Burbank, CA 91505

TABLE OF CONTENTS

RB-AR4760

FIGURES

APPENDIX A

APPENDIX B

ACRONYMS AND ABBREVIATIONS

Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BMP	Best Management Practices
CCR	California Code of Regulations
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of El Monte
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles County MS4 Permittee
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
EWMP	Enhanced Watershed Management Program
GIS	Geographical Information System
gpd	gallons per day
HUC	Hydrologic Unit Code
IC/ID	Illicit Connection and Illicit Discharge Elimination
LA	Load Allocations
LACDPW	Los Angeles County Department of Public Works
LID	Low Impact Development
µg/L	micrograms per Liter
MCM	Minimum Control Measure
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MRP	Monitoring and Reporting Program

RB-AR4762

MS4	Municipal Separate Storm Sewer System
ND	Not Detected
NPDES	National Pollutant Discharge Elimination System
NTR	National Toxics Rule
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
Order	Order R4-2012-0175 (“the Los Angeles County MS4 Permit”)
Permittee	Agency named in Order as being responsible for permit conditions within its jurisdiction
PIPP	Public Information and Participation Program
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
SIC	Standard Industrial Classification
State Water Board	California State Water Resources Control Board
SWQDv	Storm Water Quality Design Volume
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WDID	Waste Discharge Identification
WLA	Waste Load Allocations
WMA	Watershed Management Area
WMP	Watershed Management Program
WQBELs	Water Quality-Based Effluent Limitations
WQO	Water Quality Objective
WQS	Water Quality Standards

EXECUTIVE SUMMARY

The Clean Water Act and Title 40 of the Code of Federal Regulations require that all National Pollutant Discharge Elimination Systems (NPDES) Permits include monitoring and reporting requirements. The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is authorized by California Water Code Section 13383 to issue NPDES Permits and has issued Order R4-2102-0175 (Order) which applies to the City of El Monte (City). Attachment E of the Order includes the requirements for the City to develop and implement a Monitoring and Reporting Program (MRP). This document contains that program.

The primary objectives of the MRP are to:

- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Assess the chemical, physical, and biological impacts of discharges from the municipal storm water sewer system (MS4) on receiving waters.
- Assess compliance with RWLs and WQBELs established to implement TMDL wet weather and dry weather WLAs.
- Measure and improve the effectiveness of pollutant controls implemented under the current Order.

The Order provides the flexibility to allow the City to develop an Integrated Monitoring Program (IMP) or Coordinated Integrated Monitoring Program (CIMP) to satisfy the monitoring requirements of the MRP. Permittees are encouraged to coordinate monitoring efforts on a watershed or subwatershed basis to leverage monitoring resources in an effort to increase cost-efficiency and effectiveness and to closely align monitoring with TMDL monitoring requirements. The City of El Monte has chosen to collaborate with other permittees/groups in adjoining Watershed Management Areas (WMAs) to address the Receiving Water (RW) monitoring and TMDL monitoring for its WMAs.

The City has developed this IMP to address the following monitoring elements:

- Receiving Water/TMDL Monitoring (to be addressed collaboratively with other groups)
- Storm Water Based Outfall Monitoring
- Non-storm Water based Outfall Monitoring
- New Development/Re-Development Effectiveness Tracking
- Regional Studies (collaborative program)

By implementing the IMP and participating in collaborative programs, the City will fulfill its applicable monitoring requirements. This IMP also includes the details of the annual reporting process.

SECTION 1 - MONITORING AND REPORTING PROGRAM (MRP)

The Clean Water Act and Title 40 of the Code of Federal Regulations require that all National Pollutant Discharge Elimination Systems (NPDES) Permits include monitoring and reporting requirements. The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is authorized by California Water Code Section 13383 to issue NPDES Permits and has issued Order R4-2102-0175 (Order) which applies to the City of El Monte (City). Attachment E of the Order includes the requirements for the City to develop and implement a Monitoring and Reporting Program (MRP).

1.1. PURPOSE

The purpose of the MRP is to refine the control measures being implemented or proposed for implementation for the reduction of pollutant loading and the protection and enhancement of the beneficial uses of the receiving waters within the WMAs covered by the MRP, and to evaluate and assess existing water quality conditions.

1.2. PRIMARY OBJECTIVES

The primary objectives of the MRP to:

- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Assess the chemical, physical, and biological impacts of discharges from the municipal storm water sewer system (MS4) on receiving waters.
- Assess compliance with RWLs and WQBELs established to implement TMDL wet weather and dry weather WLAs.
- Measure and improve the effectiveness of pollutant controls implemented under the current Order.

1.3. INTEGRATED MONITORING PROGRAM APPROACH

The Order provides the flexibility to allow the City to develop an Integrated Monitoring Program (IMP) or Coordinated Integrated Monitoring Program (CIMP) to satisfy the monitoring requirements of the MRP. The City of El Monte will collaborate with other permittees/groups in adjoining WMAs to address the Receiving Water (RW) monitoring and TMDL monitoring for its WMAs. The City has developed an IMP to address the monitoring requirements. By implementing the IMP and participating in collaborative programs, the City will fulfill its applicable monitoring requirements. The monitoring program will include the following elements:

- Receiving Water (RW) Monitoring (to be addressed collaboratively with other groups)
- Storm Water Based Outfall Monitoring
- Non-storm Water based Outfall Monitoring
- New Development/Re-Development Effectiveness Tracking
- Regional Studies (City will contribute to SMC monitoring efforts)

1.3.1 RECEIVING WATER MONITORING (COLLABORATIVELY WITH ADJACENT GROUPS)

The objectives of the receiving water monitoring are:

- To determine whether receiving water limitations are being achieved
- To assess trends in pollutant concentrations over time or during specified conditions
- To determine if designated beneficial uses are being affected

The following information pertains to receiving water/TMDL monitoring:

- The City will collaborate with the Upper San Gabriel River EWMP Group on the RW/TMDL monitoring in the San Gabriel River. The City will also collaborate with the Rio Hondo/San Gabriel River Water Quality Group on RW/TMDL monitoring in the Rio Hondo (tributary to the LA River).

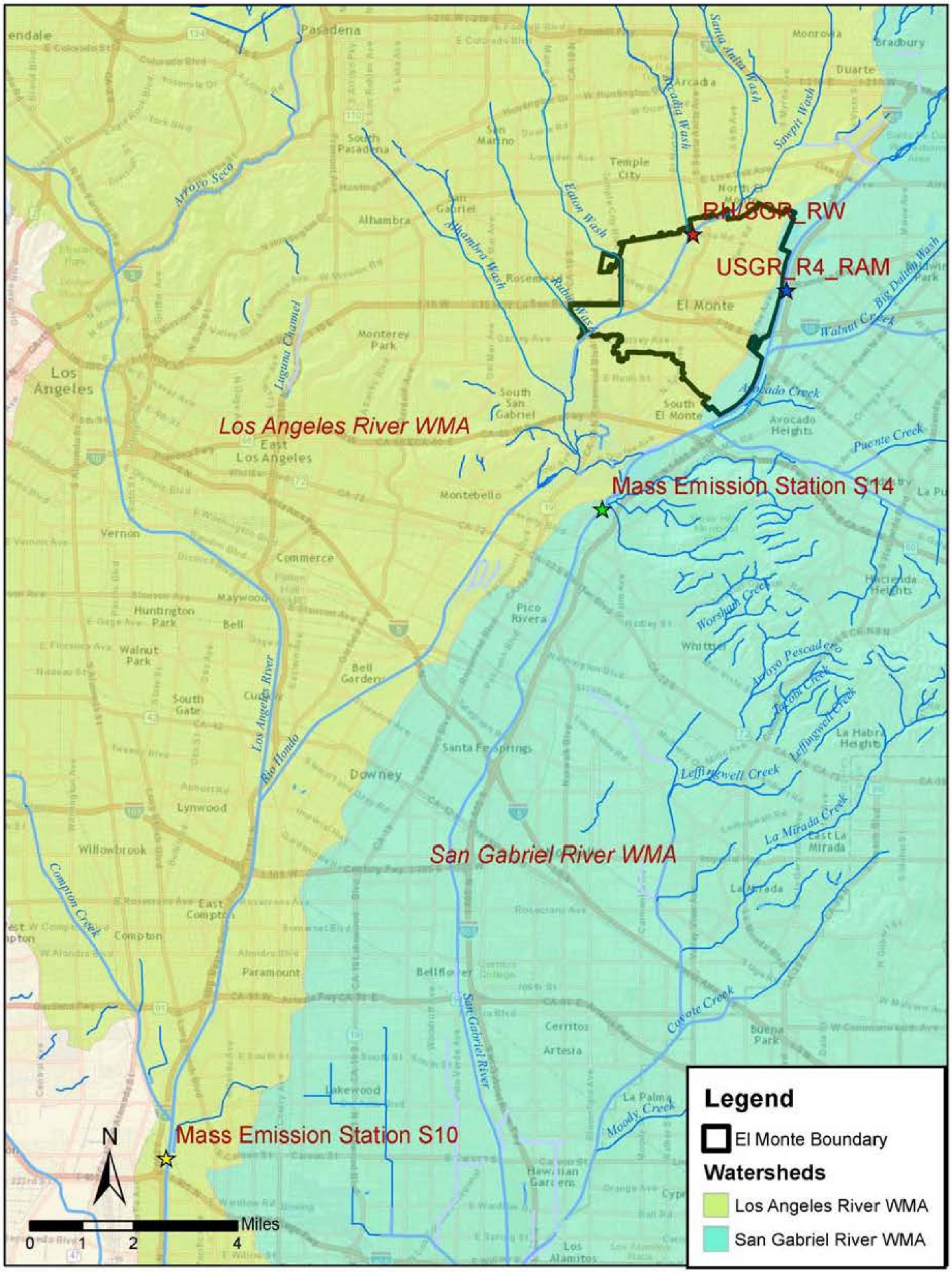
- The proposed receiving water monitoring locations and the Mass Emissions stations are shown in Figure 1-1. The collaboratively monitored RW locations are RH/SGR_RW and USGR_R4_RAM.

- The proposed monitoring locations will provide representative measurement of the effects of the City's MS4 discharges on receiving waters because the land use in the areas discharging upstream of the monitoring sites are representative of the City's land use.

- The City will collaborate with both the Lower San Gabriel River Group and the Lower LA River Group to satisfy the requirement of monitoring for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxics Pollutants TMDL. (for the appropriate portions (acreage) of the Los Angeles River WMA and the San Gabriel River WMA). Draft copies of the Commitment Letters for RW cost sharing are included in Appendix B. Final signed letters will be included in the IMP once the groups have established the appropriate cost share.

- It is the City's understanding that the Mass Emissions data will be available to all Permittees.

Figure 1-1: Proposed collaborative receiving water monitoring sites



The TMDLs applicable to the City's two WMAs are listed below:

Los Angeles River WMA:

Los Angeles River Watershed Trash TMDL

Los Angeles River Nitrogen Compounds and Related Effects TMDL

Los Angeles River and Tributaries Metals TMDL

Los Angeles River Watershed Bacteria TMDL

Legg Lake Trash TMDL

Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL

Los Angeles Area Lakes TMDLs (Legg Lake and Peck Road Park Lake)

San Gabriel River WMA:

San Gabriel River and Impaired Tributaries Metals and Selenium TMDL

The Mass Emission (ME) Stations that the City will obtain data from for its MWAs are listed below:

- Los Angeles River Mass Emissions Station (S10)
- San Gabriel River Mass Emissions Station (S14)

The Mass Emissions Station monitoring data will be used to assess if RWLs are being achieved and also to asses pollutant trends over time.

1.3.2 STORM DRAINS, CHANNELS, AND OUTFALLS MAP(S) AND /OR DATABASE

Through research of existing records combined with field reconnaissance, the City has developed a series of GIS maps and a database for the City's MS4.

GIS data includes:

- Surface water bodies within the City's jurisdiction
- Sub-watershed (HUC 12) boundaries
- Land use
- Effective Impervious Area (if available) (in development)
- Jurisdictional boundaries
- The location and length of open channels and underground pipes 18 inches in diameter or greater (with the exception of catch basin connector pipes)
- The location of dry weather diversions (none)
- The location of major MS4 outfalls (greater than or equal to 36 inches in diameter) (in development)

- The location of outfalls greater than 12 inches in diameter that drain from industrial areas greater than 2 acres (in development)
- Notation of outfalls with significant non-storm water discharges (pending; to be updated annually)
- Storm drain outfall catchment areas for each major outfall within the City's jurisdiction (in development)
- Each mapped MS4 outfall will be linked to a database containing descriptive and monitoring data associated with the outfall. The data will include:
    - Ownership (pending)
    - Coordinates
    - Physical description
    - Photographs of the outfall (to track operation and maintenance needs over time)

Figure 1-2 shows an example of a GIS map showing the preliminary outfall screening data plus a hyperlink to an outfall attribute. Figure 1-3 shows the City's open channels. Copies of the outfall screening data sheets for those outfalls screened in November 2013 are included in Appendix A. A sample of the Outfall Screening Form is included in Appendix A.

Figure 1-2: Example Map showing outfalls with data attribute

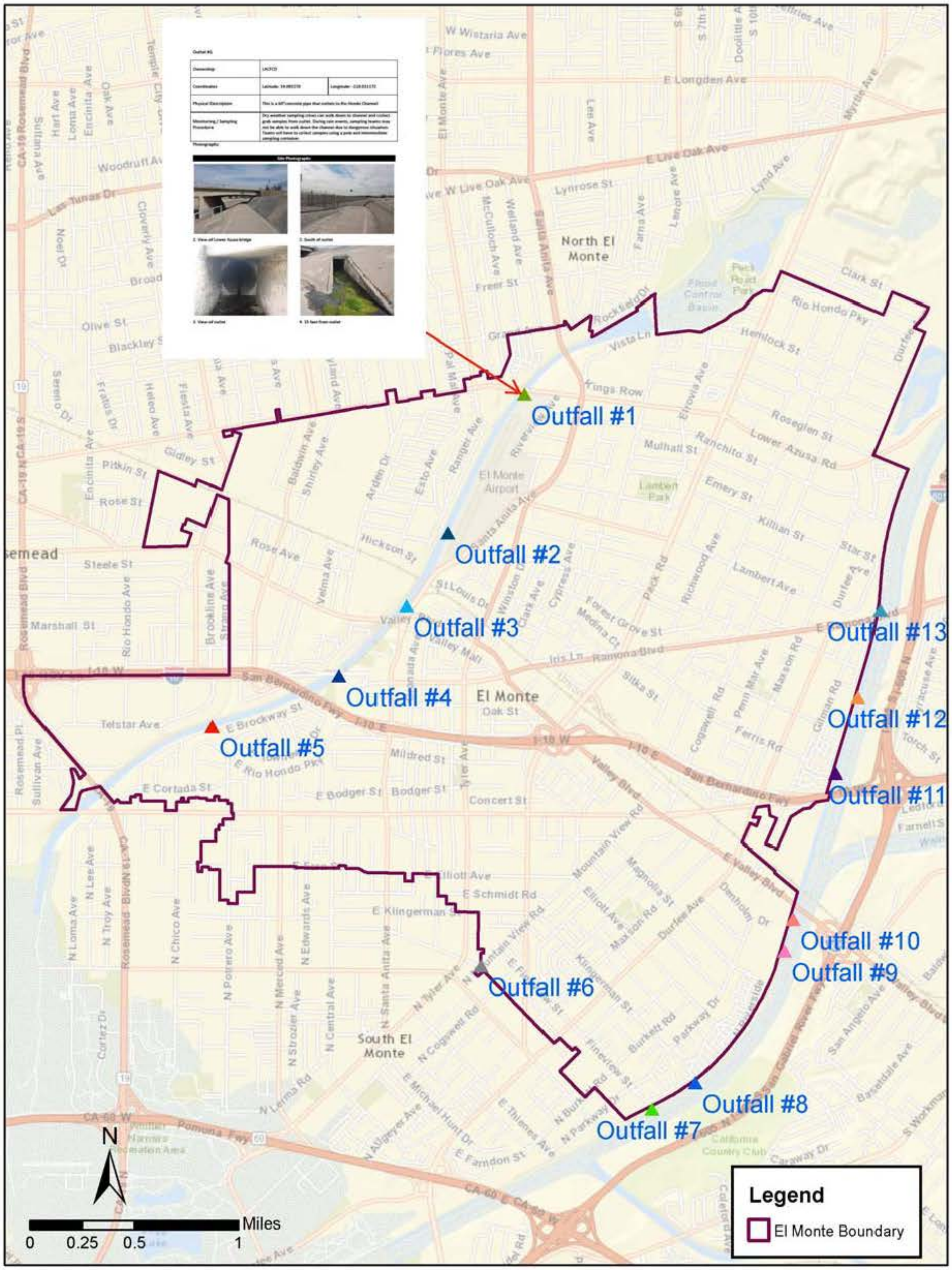
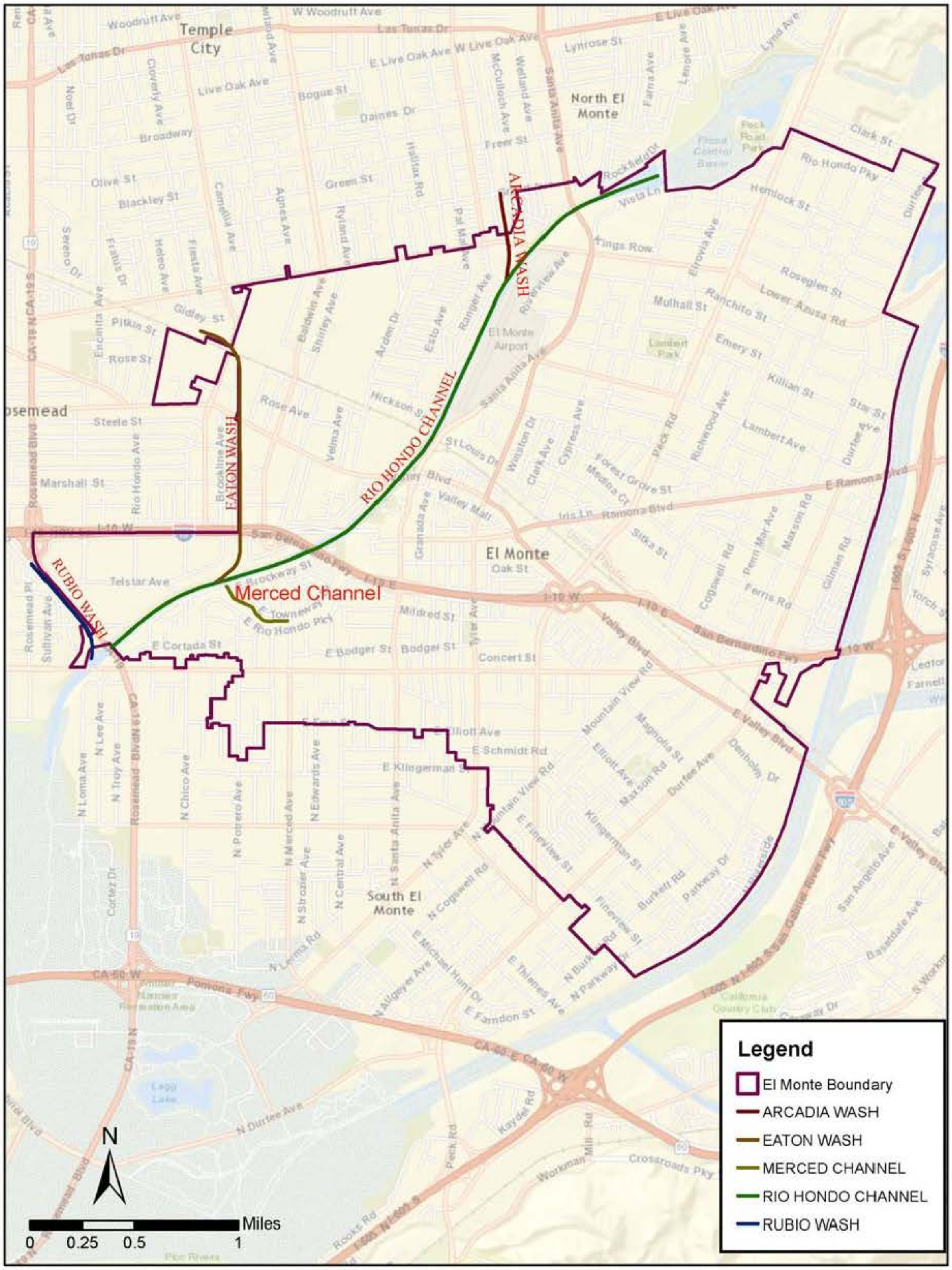


Figure 1-3: Open Channels



1.3.3 STORM WATER OUTFALL BASED MONITORING

Storm water discharges from the MS4 will be monitored at outfalls and/or alternative access points such as manholes or in channels at the City's jurisdictional boundary.

The City considered the following criteria when selecting outfalls for storm water discharge monitoring:

- The storm water outfall monitoring program will ensure representative data by monitoring approximately one major outfall per HUC 12 drainage area, within the City's jurisdiction, or alternate approaches as approved. The City will monitor approximately one outfall per HUC12 boundary and has proposed three outfall monitoring locations.

- The drainage(s) to the selected outfall(s) are representative of the land uses within the City's jurisdiction. The City's land use is:

    - 7% office
    - 10% industrial/commercial
    - 11% retail
    - 58% residential
    - 14% other amenities

- The selected outfalls are exclusive to the City. The selected outfalls will not receive drainage from another jurisdiction so the City will not have to conduct "upstream" and "downstream" monitoring as the system enters and exits the City's jurisdiction.

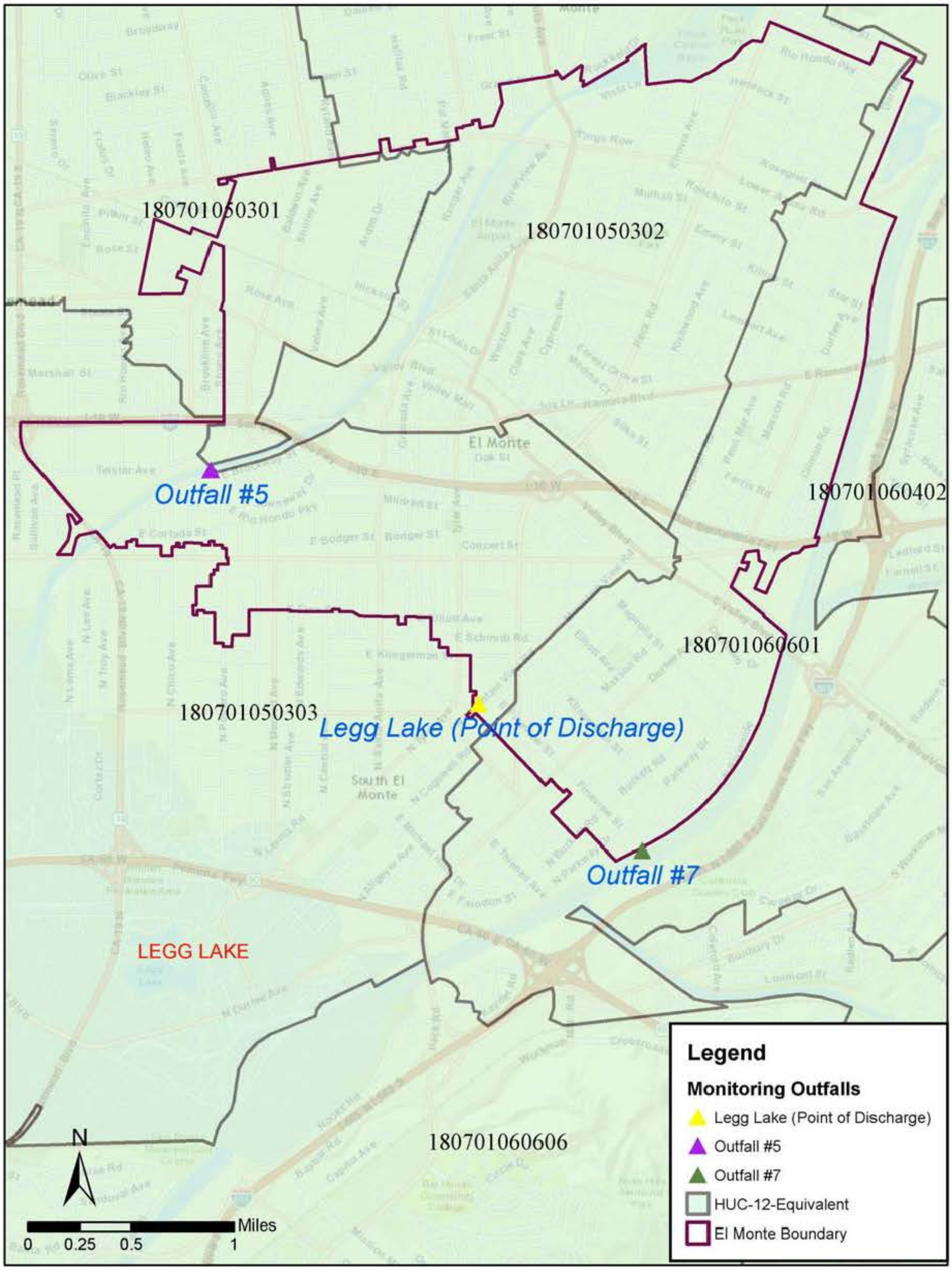
- Outfalls will be selected with configurations that facilitate accurate flow measurement and in consideration of safety of monitoring personnel.

- The specific location of sample collection may be within the MS4 upstream of the actual outfall to the receiving water if field safety or accurate flow measurement require it. (as long as the point selected remains representative of the outfall point.)

The IMP will incorporate all the requirements of Attachment E of the Order regarding the Minimum Storm Water Outfall based Monitoring Requirements.

The proposed storm water outfall monitoring locations within the HUC 12 drainage areas are shown on Figure 1-4.

Figure 1-4: Proposed outfall monitoring locations and HUC 12 Equivalent Boundaries



1.3.4 NON-STORM WATER OUTFALL BASED SCREENING AND MONITORING

The Non-Storm Water Outfall Screening and Monitoring process include the following:

- An outfall inventory will be performed, data collected, and incorporated into a GIS map and/or entered into a database. The City will assess and identify outfalls with significant non-storm water discharges during the term of the Order.

- For outfalls determined to have significant non-storm water flow, the City will determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, natural flows, or from unknown sources. IC/ID flows will be investigated and eliminated.

- The City will prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules. Land use types will also be used to prioritize the monitoring.

- The City will conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.

- The City will conduct monitoring or other investigations to identify the source of pollutants in non-storm water discharges.

- The results of the screening process will be used to evaluate the conditionally exempt non-storm water discharges as identified in Parts III.A.2 and III.A.3 of the Order and the City will take appropriate actions pursuant to Part III.A.4.d of the Order for those discharges that have been found to be a source of pollutants.

The City's non-storm water outfall based screening and monitoring program and procedures are explained in the following subsections. The procedures will be updated as needed to reflect the City's program.

The City will conduct at least one re-assessment of its non-storm water outfall-based screening and monitoring program during the term of the Order to determine whether changes or updates are needed. Where changes are needed, the Permittee shall make the changes in its written program documents, implement these changes in practice, and describe the changes within the next annual report.

The City is in the process of developing and maintaining an electronic inventory of MS4 outfalls and identifying those with known, significant non-storm water discharges and those requiring no further assessment. If the MS4 outfall requires no further assessment, the inventory will include the rationale for the determination of no further action required. This inventory will be recorded in a database with outfall locations linked to the Storm Drains, Channels and Outfalls map as required in Part VII.A of Attachment E.

The City will record existing data from past outfall screening and monitoring and initiate data collection efforts as warranted. The data will include the physical attributes of those MS4 outfalls or alternative monitoring locations determined to have significant nonstorm water discharges. Attributes to be obtained shall, at a minimum, include those listed In Attachment E of the Order.

The non-stormwater outfall based screening and monitoring for the Bacteria TMDL for the LA River WMA will follow the outfall monitoring requirements as outlined in a Load Reduction Strategy (LRS) being developed.

The City's non-stormwater outfall based screening and monitoring process is outlined in the following subsections.

1.3.4.1 INVENTORY OF OUTFALLS

The outfall inventory elements include:

- A desktop search/records search of outfalls and drainages (completed in November 2013)
- A review of County and City GIS maps and records (completed in November 2013)
- The creation of an electronic inventory of outfalls (created in November 2013)

The outfall data collected in November 2013 is included in Appendix A.

1.3.4.2 FIELD SCREENING

The field screening elements include:

- Initial screening (completed in November 2013)
- Outfalls greater than or equal to 36 inches in diameter located and mapped (in progress; initial screening completed in November 2013)
- Remaining outfall screening in progress
- Outfalls will be observed two additional times (three days or longer after a rain event)
- Observations conducted during working hours

- During future observations, staff will complete an Outfall Screening Form containing at least the following information about their observations:
  - date, time, weather, ponding
  - Flow amount: no flow; a trickle; similar to garden hose flow; similar to fire hydrant flow
  - Visual and olfactory observations: turbidity, trash, floatables, foam, algae, odor, etc.
  - photographs

An example Outfall Screening Form is included in Appendix A.

1.3.4.3 NO FURTHER ASSESSMENT

No Further Assessment will be reported in the Inventory database if criteria a, b, or c is met:

a. No flow observed or a trickle of flow observed on at least 2 out of 3 visits.
b. The source is confirmed to be from NPDES permitted or categorically exempt essential flow.
c. Flow is categorized as not significant.

1.3.4.4 SIGNIFICANT NON-STORM WATER DISCHARGES

Discharges with the following characteristics will be considered significant:

- Discharges from major outfalls subject to dry weather TMDLs
- Discharges for which existing monitoring data exceeds non-storm water Action Levels identified in Attachment G
- Non-Storm water discharges that have caused or have the potential to cause overtopping of downstream diversions (if applicable)
- Discharges exceeding a proposed threshold discharge rate
- Other characteristics determined during the field screening:
  - Garden hose amount of flow or greater (~5 gpm)
  - Persistent Flows (flow observed twice from same outfall)
  - Visual and olfactory observations: turbidity, trash, floatables, foam, algae, odor, etc.
  - Flows that are conditionally exempt or natural flows

1.3.4.5 PRIORITIZED SOURCE IDENTIFICATION

The following priorities will be used for source identification:

- Outfalls discharging directly to receiving waters with WQBELs or receiving water limitations in the TMDL provisions for which final compliance deadlines have passed

- All major outfalls and other outfalls that discharge to a receiving water subject to a TMDL shall be prioritized according to TMDL compliance schedules

- Outfalls for which monitoring data exist and indicate recurring exceedances of one or more of the Action Levels identified in Attachment G of the Order

- All other major outfalls identified to have significant non-storm water discharges

1.3.4.6 PRIORITIZED SOURCE IDENTIFICATION SCHEDULE

The City's schedule is as follows:

- The City will complete 25% of source identification inventory by 12/28/15 and 100% 12/28/17 (25% within 3 years of Order effective date, 100% completed within 5 years of Order effective date)

(The City began the screening process in November 2013.)

1.3.4.7 IMPLEMENT/CONDUCT SOURCE IDENTIFICATION

If necessary, the City will implement source identification as follows:

- in the prioritization order
- consistent with the City's IC/ID Program
- contributions will be quantified if discharge is comprised of multiple sources
- efforts to identify unknown sources described and documented
- upstream jurisdictions and RWQCB will be notified if sources originate outside jurisdiction

1.3.4.8 MONITOR NON-STORM WATER DISCHARGES EXCEEDING CRITERIA

Beginning within 90 days of completing source identification or after the Executive Officer of the Regional Board approves the IMP, whichever is later, the City will monitor those outfalls as described below:

- Outfalls conveying significant discharges comprised of unknown or conditionally exempt non-storm water discharges, or continuing illicit discharges

- Outfalls in order of Source Prioritization as described above

- Outfalls subject to an approved dry weather TMDL will be monitored per the TMDL Monitoring Plan

- Outfalls not subject to dry weather TMDLs shall be monitored 4 times for the first year, approximately quarterly.

- Monitoring frequency will be reduced to twice per year beginning the second year of monitoring if pollutant concentrations during the first year do not exceed WQBELs, non-storm water action levels, or water quality standards identified on the 303(d) list for receiving waters.

- Outfall flows will be monitored for the parameters listed on page E27 of Attachment E of the Order.

1.3.4.9 SAMPLING METHODS

Sampling will be conducted as follows:

- Dry weather samples will be collected on days when there has be no measurable precipitation within the last 72 hours.

- Wet weather samples will be collected for the first storm event of the season when there is a 70% probability of rain and a forecast rainfall depth of at least 0.25 inches in 24 hours. Subsequent samples will be collected when there is a 70% probability of rain and a forecast rainfall depth of at least 1 inch.

- Grab samples will be collected for all outfall monitoring. It is not anticipated that composite sampling at the outfall monitoring locations is warranted.

The grab sampling will meet the following Order/MRP requirements:

- Grab samples will be taken for constituents that are required to be collected by grab sampling methods (e.g., pathogen indicator bacteria, oil and grease, cyanides, and volatile organics).

- Grab samples will be collected in instances where grab samples are generally expected to be sufficient to characterize water quality conditions (primarily dry weather).

- Grab samples will be collected where the sample location limits City's ability to install an automated sampler, as provided for in an approved IMP or CIMP.

- Sufficient volume of sample will be collected to perform required biological and chemical tests.

- Sampling, monitoring methods, and reporting for trash monitoring will be conducted in accordance with the applicable requirements specified in Part VI.E.5 of the Order.

- Flow will be estimated using USEPA methods at receiving water monitoring sites where flow measuring equipment is not in place.

- Flow will be estimated for storm water outfall monitoring sites based on drainage area, impervious cover, and precipitation data.

1.3.4.10 ANALYTICAL PROCEDURES

Analytical Procedures will be conducted as follows:

- Sample analysis will be performed at an ELAP certified lab with QA/QC procedures and protocols consistent with 40 CFR Part 136.

- Suspended-Sediment Concentration (SSC), if necessary, will be analyzed per American Society for Testing and Materials (ASTM) Standard Test Method D-3977-97.

- Aquatic toxicity will be monitored in accordance with Part XI of the MRP.

- Other parameters shall be analyzed according to the provisions of the Standard Provisions for Monitoring described in Attachment D of the Order and Part XIV of the MRP.

- The Standard Operation Procedures (SOPs) for the Monitoring and Reporting Program will be provided to the Regional Water Board upon request as stated in item J of Part XIV (page E-37).

1.3.4.11 MONITORING AND REPORTING

Monitoring and reporting will be conducted as follows:

- Monitoring and reporting will be conducted in accordance with the Standard Monitoring Provisions specified in Part XIV of the MRP and in accordance with the requirements specified in Attachment D of the Order.

- Records of monitoring information will include the information required under Attachment D of the Order (Part IV, Standard Provisions - Records).

- Applications, reports, plans, or other information submitted to the Regional Water Board, State Water Board, and/or USEPA will be signed and certified in accordance with Attachment D of the Order.

- Monitoring results submitted to the Regional Water Board will be consistent with the requirements identified in Part XVIII.A.5 and Part XVIII.A.7 of the MRP.

1.3.4.12 RE-ASSESSMENT

Re-assessment will be conducted as follows:

- The City will conduct at least one re-assessment of its non-storm water outfall-based screening and monitoring program during the term of the Order.
- Needed changes to the program will be made in writing, implemented, and described in the next Annual Report.

1.3.5 NEW DEVELOPMENT/RE-DEVELOPMENT EFFECTIVENESS TRACKING

The City will maintain in its database the following information for each new development/re-development that is approved by the City on or after the effective date of the Order:

- Name of the Project and Developer
- Project location and map (linked to the GIS storm drain map)
- 85th percentile storm event for the project design (inches per 24 hours)
- 95th percentile storm event for projects draining to natural water bodies (inches per 24 hours)
- Other design criteria required to meet hydromodification requirements for drainages to natural water bodies
- Project design storm (inches per 24-hours)
- Project design storm volume (gallons, ac-ft, or MGD)
- Percent of design storm volume to be retained on site
- Design volume for water quality mitigation treatment BMPs, if any
- If flow through water quality treatment BMPs are approved, provide the one year, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist
- Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site
- Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project
- Location and maps (preferably linked to the GIS storm drain map required in Part VII.A of this MRP) of off-site mitigation, groundwater replenishment, or retrofit sites
- Documentation of issuance of requirements to the developer

1.3.6 REGIONAL STUDIES

The Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program was initiated in 2008. This program is conducted in collaboration with the Southern California Coastal Water Research Project (SCCWRP), State Water Board's Surface Water Ambient Monitoring Program, three Southern California Regional Water Quality Control Boards (Los Angeles, Santa Ana, and San Diego) and several county storm water agencies (Los Angeles, Ventura, Orange, Riverside, San Bernardino and San Diego). SCCWRP acts as the facilitator to organize the program and completes data analysis and report preparation.

The SMC monitoring program seeks to coordinate and leverage existing monitoring efforts to produce regional estimates of condition, improve data comparability and quality assurance, and maximize data availability, while conserving monitoring expenditures. The primary goal of this program is to implement an ongoing, large-scale regional monitoring program for southern California's coastal streams and rivers. The monitoring program addresses three main questions:

- What is the condition of streams in southern California?
- What are the stressors that affect stream condition?; and
- Are conditions getting better or worse?

In order to continue the implementation efforts of the SMC monitoring program, the City will support or provide monitoring data as described at the SMC sites within the watershed management area(s) that overlap with the City's jurisdictional area.

SECTION 2 - ANNUAL REPORTING REQUIREMENTS

The annual reporting process is discussed below.

2.1. ANNUAL REPORT SUMMARY INFORMATION

The City will provide information in the annual reporting process that allows the Regional Water Board to assess the following:

- The City's participation in one or more Watershed Management Programs.
- The impact of the City's storm water and non-storm water discharges on receiving waters.
- The City's compliance with receiving water limitations, numeric water quality-based effluent limitations, and non-storm water action levels.
- The effectiveness of the City's control measures in reducing discharges of pollutants from the MS4 to receiving waters.
- Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result watershed management program efforts, and/or TMDL implementation measures, or other Minimum Control Measures.
- Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.

The data and information will be provided in an accessible format that will allow the Regional Water Board to verify the conclusions presented in the City's summary information. The data and conclusions will be presented in a manner so as to allow review and understanding by the general public. The annual reporting process will provide the opportunity to discuss the effectiveness of its past and ongoing control measure efforts and to convey its plans for future control measures. Reporting efforts will focus on watershed condition, water quality assessment, and the effectiveness of control measures.

2.2. WATERSHED SUMMARY INFORMATION, ORGANIZATION AND CONTENT

The City will include the information requested below in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information will be provided for each WMA within the City's jurisdiction.
Since the City is participating in a WMP it will provide the requested information through the development and submission of the WMP and any updates thereto.

2.2.1 WATERSHED MANAGEMENT AREAS

The following information will be included for each WMA within the City's jurisdiction, where not already included in the WMP:

- A description of effective TMDLs, applicable WQBELs and receiving water limitations, and implementation and reporting requirements, and compliance dates
- CWA section 303(d) listings of impaired waters not addressed by TMDLs
- Results of regional bioassessment monitoring
- A description of known hydromodifications to receiving waters and a description, including locations, of natural drainage systems
- A description of groundwater recharge areas including number and acres
- Maps and/or aerial photographs identifying the location of ESAs, ASBS, natural drainage systems, and groundwater recharge areas

2.2.2 SUBWATERSHED (HUC12 OR EQUIVALENT) DESCRIPTION

Since the City has individually developed a WMP, reference to the WMP and any revisions thereto will suffice for baseline information regarding the subwatershed (HUC-12 or equivalent) descriptions, where the required information is already included in the WMP. Only changes to the HUC 12 or subwatersheds will be included in the Annual Report.

2.2.3 DESCRIPTION OF CITY'S DRAINAGE AREA WITHIN SUBWATERSHED

Since the City has individually developed a WMP, reference to the WMP and any revisions thereto will suffice for baseline information regarding the drainage area descriptions, where the required information is already included in the WMP. Only changes to the drainage areas will be included in the Annual Report.

2.3. ANNUAL ASSESSMENT AND REPORTING

The City will format its Annual Report to align with the reporting requirements for each WMA within the City's jurisdiction as detailed in Attachment E of the Order for the items identified below:

- Storm Water Control Measures.
- Effectiveness Assessment of Storm Water Control Measures

- Non-Storm Water Control Measures
- Effectiveness Assessment of Non-Storm Water Control Measures
- Integrated Monitoring Compliance Report
- Adaptive Management Strategies
- Supporting Data and Information

SECTION 3 - REFERENCES

Order No. R4-2012-0175, California Regional Water Quality Control Board, Los Angeles Region, November 8, 2012.

Monitoring and Reporting Program No. CI-6948, California Regional Water Quality Control Board, Los Angeles Region, November 8, 2012.

APPENDIX A

Outfall screening data sheets

Example of Outfall Screening Form

Outfall #1

Ownership	LACFCD	
Coordinates	Latitude: 34.092270	Longitude: -118.031172
Physical Description	This is a 60”concrete pipe that outfalls to Rio Hondo Channel	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of Lower Azusa bridge from top of outfall

2. Looking South from top of outfall

3. View of outfall

4. 15 feet from outfall

5. Markings near outfall

Outfall #2

Ownership	LACFCD	
Coordinates	Latitude: 34.082498	Longitude: -118.037535
Physical Description	This is a 60”concrete pipe that discharges to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of outfall from Rio Hondo

2. Marking on outfall

Outfall #3

Ownership	LACFCD	
Coordinates	Latitude: 34.077765	Longitude: -118.040547
Physical Description	This is a 60”concrete pipe that outlets to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of outfall from bike path

2. 15 feet from outfall

3. View of outfall

4. Looking south toward outfall

Outfall #4

Ownership	Unknown	
Coordinates	Latitude: 34.072502	Longitude: -118.046323
Physical Description	This is a 36”concrete pipe that outfalls to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

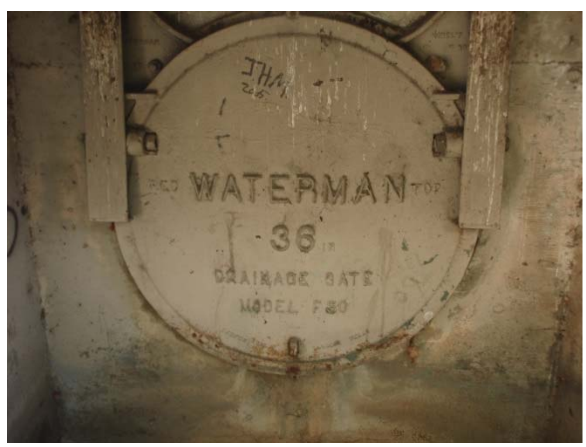
Photographs:

Site Photographs

1. View of outfall north of railroad bridge

2. View of outfall

3. View of outfall



4.Close up of outfall

Outfall #5

Ownership	LACFCD	
Coordinates	Latitude: 34.068816	Longitude: -118.057081
Physical Description	Three (3) 48” concrete pipes that outfall to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfalls. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of Merced Channel opposite outfalls

2. View looking South toward the three outfalls

5. View of outfalls from bike path

4. View of outfalls from Rio Hondo

Outfall #6

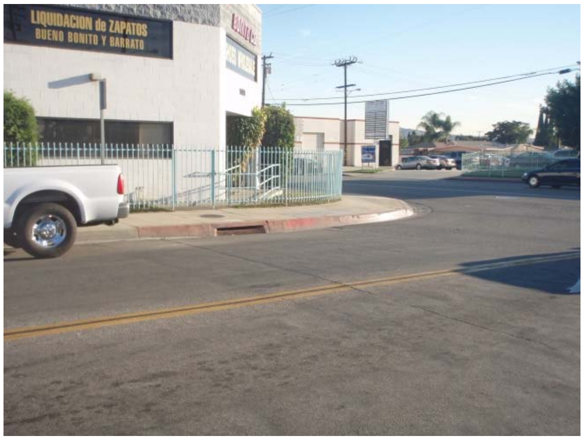
Ownership	LACFCD	
Coordinates	Latitude: 34.051025	Longitude: -118.035839
Physical Description	Drainage plans show storm drain ultimately discharges to Legg Lake. Catch basin/manhole location is last accessible location that can be sampled within the city of El Monte.	
Monitoring /Sampling Procedure	Sampling crews may be able to remove manhole cover and lower an intermediate sampling container to obtain a representative sample. (Access permit required.)	

Photographs:

Site Photographs

1. Intersection location

2. View of east catch basin



3. View of east catch basin

4. View of west catch basin

5. West manhole close up

Outfall #7

Ownership	LACFCD	
Coordinates	Latitude: 34.042331	Longitude: -118.019868
Physical Description	48” concrete pipe with cover discharges to San Gabriel River	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View looking down at outfall

2. Access to San Gabriel RIver

3. View of outfall

4. 15 feet from outfall

Outfall #8

Ownership	LACFCD	
Coordinates	Latitude: 34.044254	Longitude: -118.016240
Physical Description	42” reinforced concrete pipe outfalls to San Gabriel River.	
Monitoring Sampling Procedure	Sampling crews may use gate north of sampling site to gain access. However crews must walk down rocky slope with caution. During rain events it may be too dangerous to access for sampling. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View looking down at outfall

2. View looking down at outfall

3. View looking down at outfall

4. 5. Gate entrance near outfall

Outfall #9

Ownership	LACFCD	
Coordinates	Latitude: 34.053293	Longitude: -118.009092
Physical Description	36” pipe outlet with automated cover outfalls to San Gabriel River	
Monitoring / Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams can collect sample with an intermediate container using a pole or collect sample from the manhole on the opposite side of the bike path.	

Photographs:

Site Photographs

1. Unit connected to outfall from bike path

2. Close up view outfall

3. View of high school from outfall

4. 15 feet from outfall

Outfall #10

Ownership	Unknown	
Coordinates	Latitude: 34.055751	Longitude: -118.008222
Physical Description	Unknown because cannot access.	
Monitoring /Sampling Procedure	Fence limits access of outlet but there is a gate that is locked in the vicinity. Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down to the channel due to dangerous conditions.	

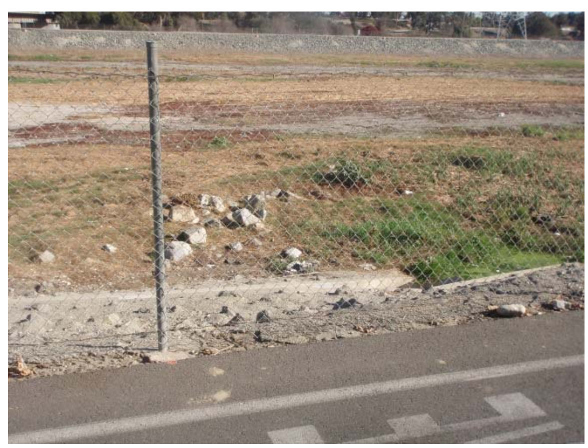
Photographs:

Site Photographs

1. Valley Blvd access to SGR Bike Path

2. View from top of outfall

3. View of outfall looking towards Valley Blvd



4. View of outfall and fence

Outfall #11

Ownership	LACFCD	
Coordinates	Latitude: 34.065846	Longitude: -118.004757
Physical Description	72" concrete pipe outfalls to San Gabriel River	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View looking down at outfall

2. 15 feet from outfall

3. Close up view of outfall

4. 20 feet from outfall

Outfall #12

Ownership	LACFCD	
Coordinates	Latitude: 34.071001	Longitude: -118.002996
Physical Description	48" concrete pipe outfalls to San Gabriel River	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View across bike path opposite outfall

2. View from above outfall

3. View of outfall

4. 15 feet from outfall

Outfall #13

Ownership	LACFCD	
Coordinates	Latitude: 34.077360	Longitude: -118.001074
Physical Description	Two (2) 48" pipe discharge with covers but do not seem to be tied into storm drain system. The two pipes daylight on the opposite side of the bike path but no connections could be seen. People looked to be residing in storm drains that day light on the west side of the bike path.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down to the channel due to dangerous conditions. Teams may have to collect sample using a pole and an intermediate container.	

Photographs:

Site Photographs

1. Ramona Bike Path entrance

2. View from above outfall

3. 20' from outfalls

4. View of outfalls

5. Possible inlets on west side of bike path

6. View showing possible habitation of pipes

Outfall Reconnaissance Inventory/ Sample Collection Field Sheet

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: ____________________
- Known Industries: ____________________

Notes (e.g.., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL	SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ☐ Other: ________	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: ____________	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____	☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**				
Flow Present?	☐ Yes ☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle ☐ Moderate ☐ Substantial				

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐Flow #2	Flow depth		In	Tape measure
	Flow width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1.	Sample for the lab?	☐ Yes	☐ No	
2.	If yes, collected from:	☐ Flow	☐ Pool	
3.	Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

RB-AR4805

APPENDIX B

Draft Commitment Letters for Receiving Water Monitoring Cost Sharing

[DATE]

Mr. Gary Hildebrand
Assistant Deputy Director
County of Los Angeles Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803-1331

Dear Mr. Hildebrand:

LETTER OF COMMITMENT TO COLLABRATIVELY COST-SHARE THE RECEIVING WATER MONITORING FOR THE UPPER SAN GABRIEL RIVER WATERSHED

The City of El Monte commits to collaborating and sharing costs with the Upper San Gabriel River EWMP Group in the receiving water monitoring for the Upper San Gabriel River Watershed. The monitoring is a requirement of the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175.

We will work with you in developing an equitable cost share for the City of El Monte's contribution for this monitoring.

Should you have and questions, please contact Ed Suher at CASC Engineering and Consulting at 310-291-1150.

Sincerely,

Michelle Marquez-Riley, P. E.
City Engineer
City of El Monte

[DATE]

Mr. James Carlson
Chair of Rio Hondo/San Gabriel River Water Quality Group
City of Sierra Madre
232 W. Sierra Madre Blvd
Sierra Madre, CA 91024

Dear Mr. Carlson:

LETTER OF COMMITMENT TO COLLABRATIVELY COST-SHARE THE RECEIVING WATER MONITORING FOR THE LOS ANGELES (RIO HONDO) WATERSHED MANAGEMENT AREA

The City of El Monte commits to collaborating and sharing costs with the Rio Hondo/San Gabriel Water Quality Group in the receiving water monitoring for the Los Angeles River (Rio Hondo) watershed. The monitoring is a requirement of the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175.

We will work with you in developing an equitable cost sharing formula for the City of El Monte and the Rio Hondo/San Gabriel River Water Quality Group.

Should you have and questions, please contact Ed Suher at CASC Engineering and Consulting at 310-291-1150.

Sincerely,

Michelle Marquez-Riley, P. E.
City Engineer
City of El Monte

[DATE]

Ms. Adriana Figueroa
Chair of Lower San Gabriel River Watershed Management Group and
Administrative Services Manager of City of Norwalk
City of Norwalk-Administration Department
12700 Norwalk Boulevard
Norwalk, CA 90650

Dear Ms. Figueroa:

LETTER OF COMMITMENT TO COLLABRATIVELY FUND THE DOMINGGUEZ CHANNEL AND GREATER HARBORS TOXICS TOTAL MAXIMUM DAILY LOAD MONITORING

The City of El Monte commits to collaborating and sharing costs with the Lower San Gabriel River Watershed Management Group in the receiving water monitoring for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Load (TMDL). The monitoring is a requirement of the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175.

We will work with you in developing an equitable cost share for the City of El Monte's contribution for the cost of the monitoring.

Should you have and questions, please contact Ed Suher at CASC Engineering and Consulting at 310-291-1150.

Sincerely,

Michelle Marquez-Riley, P. E.
City Engineer
City of El Monte

[DATE]

Mr. Steve Myrter, P.E.
Chair of Lower Los Angeles River Watershed Group
City of Signal Hill
2175 Cherry Avenue
Signal Hill, CA 90755

Dear Mr. Myrter:

LETTER OF COMMITMENT TO COLLABRATIVELY FUND THE DOMINGGUEZ CHANNEL AND GREATER HARBORS TOXICS TOTAL MAXIMUM DAILY LOAD MONITORING

The City of El Monte commits to collaborating and sharing costs with the Lower Los Angeles River Watershed Group in the receiving water monitoring for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Load (TMDL). The monitoring is a requirement of the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175.

We will work with you in developing an equitable cost share for the City of El Monte's contribution for the cost of the monitoring.

Should you have and questions, please contact Ed Suher at CASC Engineering and Consulting at 310-291-1150.

Sincerely,

Michelle Marquez-Riley, P. E.
City Engineer
City of El Monte

Los Angeles Regional Water Quality Control Board

October 22, 2014

Mr. Frank Senteno, City Engineer
City of El Monte
Department of Public Works
11333 Valley Blvd.
El Monte, CA 91731

REVIEW OF THE CITY OF EL MONTE'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 Mr. Senteno:

The Regional Water Board has reviewed the draft Watershed Management Program (WMP) submitted on June 26, 2014 by the City of El Monte. 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 26, 2014, the City of El Monte submitted a draft Watershed Management Program (WMP) for their entire jurisdiction 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 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 22, 2015.**

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

If the necessary revisions are not made, the City of El Monte 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 Attachments O and P pursuant to subparts VI.E.2.d.i.(1)-(3) and VI.E.2.e.i.(1)-(3), respectively.

Until the draft WMP is approved, the City of El Monte 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 26, 2014, the City of El Monte submitted a draft Coordinated Integrated Monitoring Program (CIMP) 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 CIMP will be provided under separate cover.

If you have any questions, please 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

Samuel Unger, P.E.
Executive Officer

Enclosures:
Attachment 1 Comments and Necessary Revisions to Draft WMP
Attachment 2 Comments on Reasonable Assurance Analysis for the City of El Monte

cc: Jesus Gomez, Assistant City Manager
Edmond Suher, Senior Project Engineer, CASC Engineering and Consulting

Attachment to October 22, 2014 Letter Regarding the City of El Monte's Draft Watershed Management Program (WMP) 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 (Permit Page Number)	Regional Water Board Staff Comment
Part VI.C.5.a.i. Water Quality Characterization (p. 58)	• The Regional Board staff acknowledges the City's initiative in conducting outfall monitoring to characterize their storm water and non-storm water discharges at two outfalls, one in the Rio Hondo subwatershed and one in the San Gabriel River watershed. The City states that, "the drainage(s) to the selected outfall(s) are representative of the land uses within the City's jurisdiction. The City's land use is: o 7% office o 10% industrial/commercial o 11% retail o 58% residential o 14% other amenities" Corresponding land use for the drainage areas associated with Outfalls 5 and 7 should be presented for comparison. • At a minimum, the last five years of Mass Emissions data for S10 (LA River) and S14 (SG River) should be considered. Additionally, applicable tributary monitoring data (such as for Rio Hondo @ TS06 conducted from 2002-04) should be considered as well as data collected during TMDL development for Legg Lake (and Peck Road Park Lake, if applicable).
Part VI.C.5.a.ii. Waterbody-Pollutant Classification (page 59)	Category 1 Waterbody-Pollutant Combinations: • The City's draft WMP lists Category 1 pollutants but did not include cadmium, for which there is a WQBEL applicable to storm water per the LA River Metals TMDL. • Cadmium is omitted from the RAA, as are dry weather WQBELs for Cu, Pb, and Zn in the LA River, as well as interim bacteria WQBELs. All WQBELs should be included in the RAA or should be accounted for using a surrogate pollutant. Category 2 Waterbody-Pollutant Combinations: • The draft WMP should be revised to identify the applicable Receiving Water Limitations for Category 2 pollutants that are required to be addressed by the draft WMP. • Indicator Bacteria for San Gabriel River Reach 3 should be included as a Category 2 pollutant in accordance with the 2010 303(d) list. • Toxicity and pH for Rio Hondo should be included as Category 2 Pollutants in accordance with the 2010 303(d) list. • The draft WMP does not include Cyanide as a Category 2 pollutant though the WMP acknowledges water quality has been identified as having been impaired by Cyanide. The WMP needs to include Cyanide or explain why it was not included. • Lead, Odor, and Organic Enrichment/Low Dissolved Oxygen should be included as Category 2 pollutants for Peck Road Park Lake in accordance with the 2010 303(d) list, unless documentation confirming that there are no discharges from the City's

Issue and MS4 Permit Provision (Permit Page Number)	Regional Water Board Staff Comment
	MS4 to Peck Road Park Lake is included in the revised WMP. • Trash for Legg Lake and Peck Road Park Lake don't need to be included as Category 2 pollutants as they are already included as Category 1 pollutants. <u>Category 3 Waterbody-Pollutant Combinations</u>: • The City's submittal does not summarize the findings from the review of Annual Reports, IC/ID reports, SWAMP, Industrial/Commercial Facility baseline exceedances information from SMARTS, which are data sources listed in Section 1.7.3 as being used by the City to identify waterbody-pollutant combinations with exceedances of water quality objectives. The WMP should be revised to include the findings from the review of these data sources. • The draft WMP should be revised to identify the applicable Receiving Water Limitations for Category 3 pollutants that are required to be addressed by the draft WMP. • The WMP should also potentially include diazinon and arsenic as Category 3 pollutants for Rio Hondo based on the tributary monitoring data from TS06. • Copper and Zinc for the Los Angeles River do not need to be included as Category 3 pollutants since they are already in Category 1. • Lead in the San Gabriel River does not need to be included as a Category 3 pollutant as it is already included as a Category 1 pollutant.
Part VI.C.5.a.iii. Source Assessment (page 59-60)	• The City's draft WMP lists a variety of data sources used in developing the source assessment but does not present the findings from these data sources. The WMP should be revised to present the findings from the review of the data sources identified in Section 1.6. • The draft WMP did not include data and conclusions from TMDL source investigations regarding known and suspected stormwater and non-stormwater pollutant sources in discharges to the MS4 and from the MS4 to receiving waters. The data and conclusions from TMDL source investigations regarding known and suspected stormwater and non-stormwater pollutant sources should be included in the draft WMP's source assessment.

Issue and MS4 Permit Provision (Permit Page Number)	Regional Water Board Staff Comment
Part VI.C.5.b. Selection of Watershed Control Measures (pages 61-64)	• Section 1.8 of the draft WMP lists a general strategy to implement pollutant controls but few details are included and watershed control measures are not presented for the City's MS4 discharges to the San Gabriel River. Regional Board staff acknowledges that to a large degree the selection of watershed controls is based on the City's RAA, which indicates no pollutant reduction is required for the following pollutants: o Nitrogen-Peck Rd Park Lake o Lead-San Gabriel River o Copper, Zinc, and Lead-LA River o Nitrogen Compounds-LA River However, some waterbody-pollutant combinations were omitted from the RAA, including cadmium in the LA River, non-stormwater discharges of copper, lead and zinc to the LA River, bacteria in the LA River and San Gabriel River, etc. Detailed comments on the City's RAA are provided in a separate memorandum. • The draft WMP needs to include greater specificity in detailing how non-stormwater discharges will be identified and what measures will be taken to eliminate them, particularly in order to achieve applicable WQBELs for bacteria, copper, lead and zinc for non-stormwater discharges to the LA River per applicable interim and final compliance deadlines in the LA County MS4 Permit. • The draft WMP needs to include greater specificity on watershed control measures including how the pollutants identified in Categories 1, 2 and 3 are each addressed by the proposed control measures. • The draft WMP needs to include documentation demonstrating that the City's MS4 does not discharge to Peck Road Park Lake. • The draft WMP references trash control BMPs (full capture inserts) but does not reference any other control measures identified in TMDLs and corresponding TMDL implementation plans, specifically the Los Angeles River & Tributaries Total Maximum Daily Loads for Metals Final Implementation Plan for Reach 2 Participating Jurisdictions. • The draft WMP needs to ensure controls identified in TMDLs and TMDL Implementation plans are incorporated in the WMP. • Figure 1-7 in the draft WMP is fairly detailed; listing the location and type of structural controls proposed for implementation but the narrative language in the WMP is fairly general and does not match up with Figure 1-7. The WMP should be revised to include specific narrative language that is consistent with Figure 1-7. • Interim milestones for BMP implementation were only included for trash for the LA River and trash and nutrients for Legg Lake (Section 1.10). The WMP needs to be revised to include interim milestones for the implementation of each structural control and non-structural best management practice identified in Sections 1.8.3 and 1.8.4 and on Figure 1.7 to comply with interim and final compliance deadlines for the LA River metals and bacteria TMDLs as well as interim milestones for addressing pollutants in Categories 2 and 3. • The draft WMP needs to include documentation that the City has the necessary legal authority to implement the Watershed Control Measures identified in the WMP, or that other legal authority exists to compel implementation of the Watershed Control Measures. • The WMP does not specify a strategy for pollutants in Categories 2 and 3. Section 1.8 lists a general strategy that concludes with the statement, "The City will implement Watershed Control Measures based on the results of its watershed modeling and the necessary pollutant reductions." The WMP needs to be revised to specify a strategy for pollutants in Categories 2 and 3.

Issue and MS4 Permit Provision (Permit Page Number)	Regional Water Board Staff Comment
Part VI.C.5.b. Selection of Watershed Control Measures (pages 61-64) continued	• As stated above, the RAA did not include all pollutants identified in Categories 1, 2 and 3, as required. The RAA needs to include these other pollutants and the City needs to propose appropriate BMPs in the WMP where the RAA indicates that load reductions for these pollutants are required.
Reasonable Assurance Analysis – Category 1 Pollutants Part VI.C.5.b.iv.(5)	Not all Category 1 pollutants were included in the RAA. All Category 1 pollutants or surrogates need to be included in the RAA.
Reasonable Assurance Analysis – Categories 2 and 3 Pollutants Part VI.C.5.b.iv.(5)	The WMP did not model any pollutants in Categories 2 and 3. These pollutants or surrogates need to be included in the RAA.

TO: Mr. Frank Senteno, City Engineer
City of El Monte

FROM: C.P. Lai, Ph.D., P.E. and Thanhloan Nguyen
LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

DATE: October 22, 2014

SUBJECT: COMMENTS ON DRAFT WATERSHED MANAGEMENT PROGRAM, SECTION 1.9, REASONABLE ASSURANCE ANALYSIS

This memorandum contains comments on Section 1.9 of the City of El Monte's Draft Watershed Management Program, "Reasonable Assurance Analysis" (RAA), dated June 2014, which was submitted by the City of El Monte.

A. General comments on the draft Reasonable Assurance Analysis section of the 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 MS4 Permit, the City is subject to final water quality-based effluent limitations pursuant to (i) Attachment O, Part A "Los Angeles River Watershed Trash TMDL", Part B "Los Angeles River Nitrogen Compounds and Related Effects TMDL", Part C "Los Angeles River and Tributaries Metals TMDL", Part D "Los Angeles River Watershed Bacteria TMDL", Part E "Legg Lake Trash TMDL", Part G.7 "Legg lake System Nutrient TMDL, Part G.8 to 13 "Peck Road Park Lake Nutrient, PCBs, Chlordane, DDT, Dieldrin, and and Trash TMDLs", and (ii) Attachment P, Part A "San Gabriel River and Impaired Tributaries Metals and Selenium TMDL." As identified below, some pollutants with applicable water quality-based effluent limitations (WQBELs) appear to have been omitted from the RAA, including bacteria in the Los Angeles River and non-stormwater discharges of copper, lead and zinc to the Los Angeles River.

2. The City has provided an evaluation of the existing water quality conditions for receiving water to which the City's MS4 discharges, including the Los Angeles River and San Gabriel River. However, lead for San Gabriel River and cadmium and nitrogen compounds for Los Angeles River were not summarized and included the receiving water characterization section (Section 1.2 of the draft Watershed Management Program). A summary of water quality conditions for these pollutants should be added to the revised WMP.

3. The City has estimated nutrient baseline loading and the required reduction for Peck Road Park Lake. However, the City did not include any pollutant reduction plan to reduce nutrient loading to the lake based on the review of the City and LACFCD that

there is no direct or indirect discharge from the City to the Lake (Section 1.8.3 *TMDL Control Measures* of the draft WMP). The City must submit the record and evidence to support the City's conclusion that there are no MS4 discharges from the City to Peck Road Park Lake.

4. Model simulation for pollutants in Categories 2 and 3 was not included in the RAA.

B. Modeling comments regarding analysis of dissolved copper, dissolved lead, dissolved zinc, and nitrogen loads for Los Angeles River; nitrogen and phosphorous loads for Legg Lake and Peck Road Park Lake; and dissolved lead loads for San Gabriel River:

1. The model predicted mass contributions of pollutants from the City shown in Table 1-6 through Table 1-14 and Figure 1-8 through Figure 1-11 are not consistent with those values directly from the model output (see attached Figure A. and Figure B. for an example) . As such, the conclusion that no pollutant reduction is required should be re-evaluated.

2. The RAA did not include the model results for cadmium, nitrogen compounds and bacteria for Los Angeles River. There are too many uncertainties involved in converting modeled TSS concentrations to predicted concentrations of nitrate + nitrite as nitrogen, as presented in Table 1-9. The RAA should present instead the directly modeled concentrations of nitrate + nitrite as nitrogen. Additionally, the RAA should include model output for cadmium loading as is done for copper, lead and zinc loading to the Los Angeles River or alternatively, include the rationale on how cadmium loading will be addressed by addressing the other metals.

3. Section 1.9 of the draft WMP 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.

4. The 90th percentile wet year was selected. However, the report did not present the precipitation data and frequency analysis used to select the critical condition for the modeling. 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 presentation of the process and data used for identifying critical conditions is needed prior to the modeling analysis. A summary of TMDL critical conditions relevant to MS4 discharges was provided in Appendix B of the RAA Guidelines for Permittees' reference.

5. The report presents mass contributions of copper, lead and zinc, but does not present the runoff volumes and concentrations of those pollutants under the critical condition.

6. The ID number for each of the 313 subwatersheds from the model input file must be provided and be shown in the simulation domain to present the geographic relationship of these subwatersheds within the surrounding watershed area and within the City's boundaries, which are simulated in the LSPC model.

7. Where pollutant reductions are necessary, the model output should include the storm water runoff volume, flow, water quality concentration and pollutant loads in time series at the jurisdictional boundary of each subwatershed for 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).

8. Per the RAA Guidelines, the required load reduction should be evaluated at the jurisdictional boundary of each subwatershed 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.

9. Model simulation under the dry weather condition for dissolved copper, lead and zinc for Los Angeles River and for bacteria in the Los Angeles River was not included in the RAA.

Figure 1-8: Scatter Plot for LA River Copper

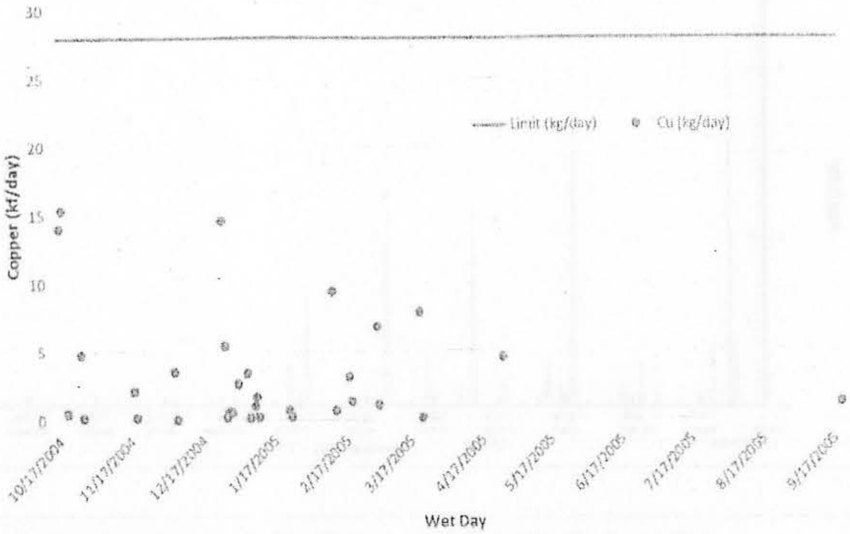


Figure 1-9: Scatter Plot for LA River Lead

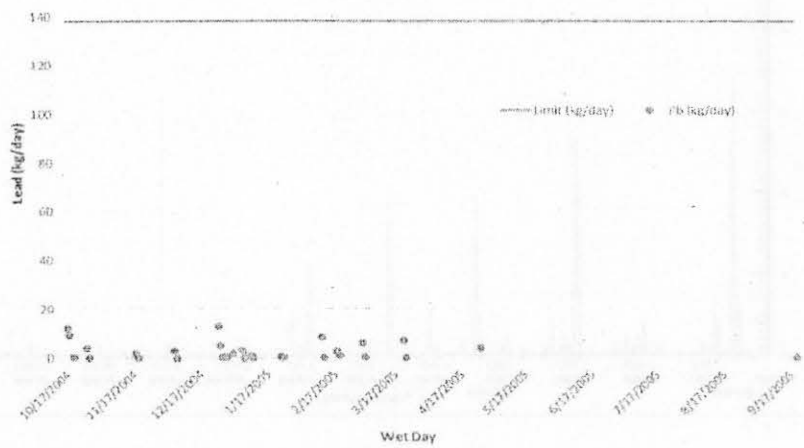


Figure 1-10: Scatter Plot for LA River Zinc

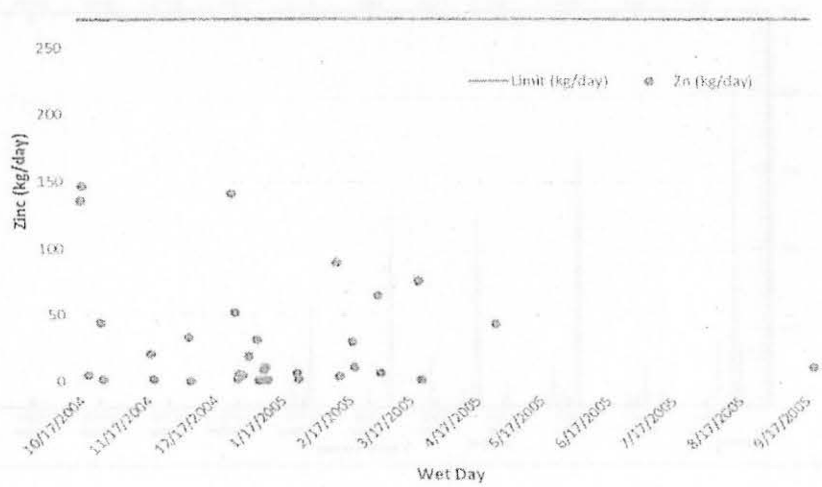
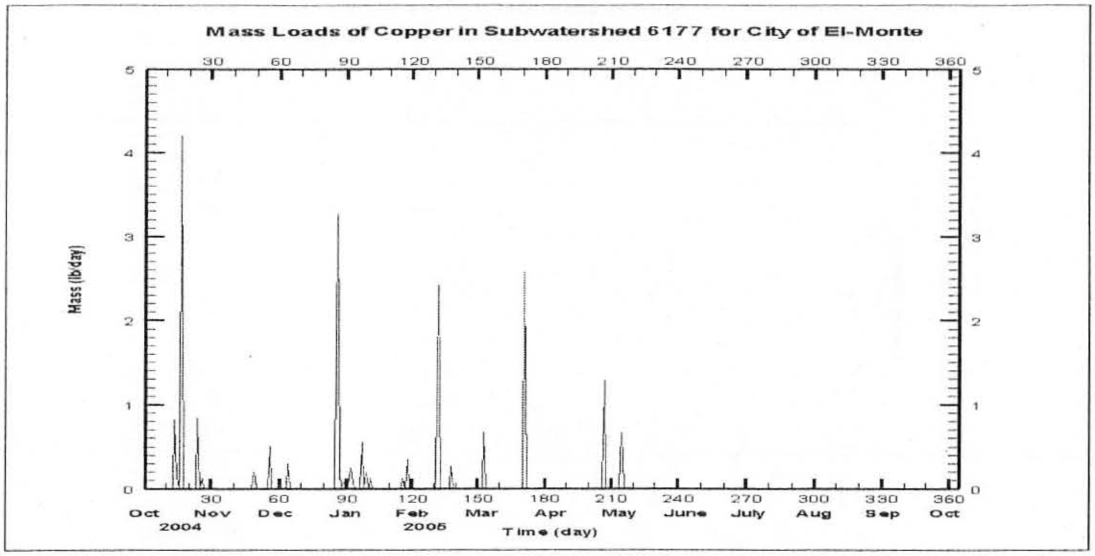
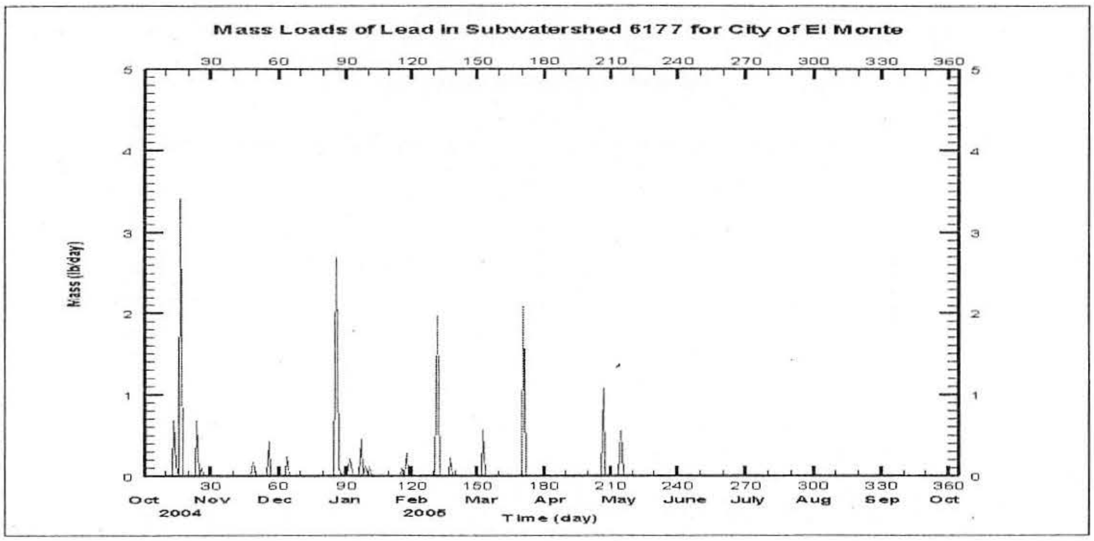


Figure A. Model predicted results from RAA Report for City of El Monte





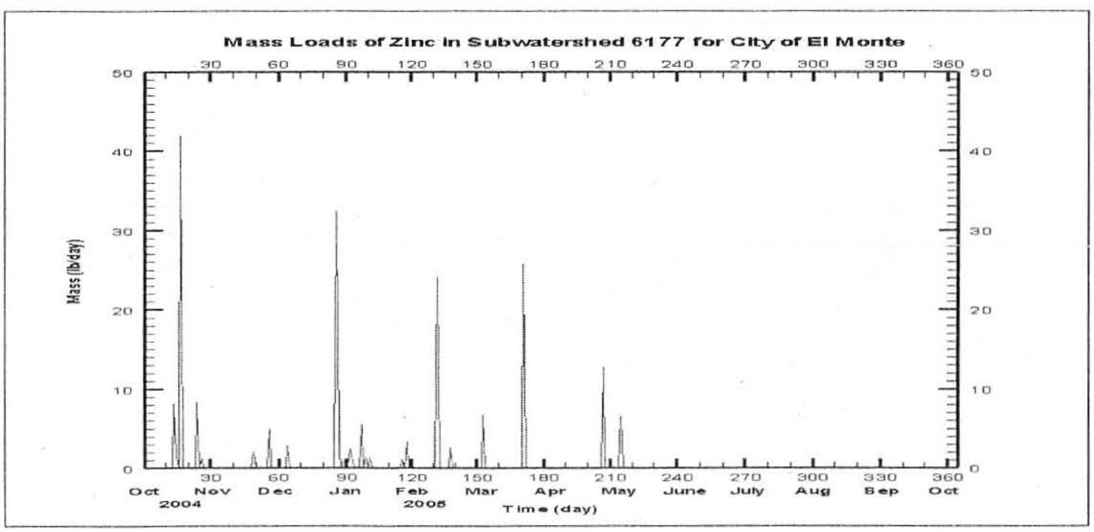


Figure B. Model predicted results directly from the output file for City of El Monte

December 22, 2014

Mr. Frank Senteno, City Engineer
City of El Monte
Department of Public Works
11333 Valley Blvd
El Monte, CA 91731

REVIEW OF THE CITY OF EL MONTE'S DRAFT INTEGRATED MONITORING PROGRAM, PURSUANT TO PART VI.B AND ATTACHMENT E PART IV.B OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Mr. Senteno:

The Regional Water Board has reviewed the draft Integrated Monitoring Program (IMP) submitted on June 26, 2014 by the City of El Monte. 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 and implement, in coordination with an approved Watershed Management Program per Part VI.C, a customized monitoring program that achieves the five Primary Objectives set forth in Part II.A of Attachment E and includes the elements set forth in Part II.E of Attachment E. Customized monitoring programs may be developed on an individual jurisdictional basis, referred to as an Integrated Monitoring Program (IMP). These programs must be approved by the Executive Officer of the Regional Water Board.

The Regional Water Board has reviewed the draft IMP and has determined that, for the most part, the IMP includes the elements set forth in Part II.E and will achieve the Primary Objectives set forth in Part II.A of Attachment E of the LA County MS4 Permit. However, some additions and revisions to the IMP are necessary. The Regional Water Board's comments on the IMP, including detailed information concerning necessary additions and revisions to the IMP, are found in Enclosure 1 and Enclosure 2.

Regional Board staff review of the draft IMP reveals that the City states that it will be participating with four other groups on CIMPs to meet its obligations to conduct receiving water monitoring, including TMDL monitoring requirements in the receiving waters to which its MS4 discharges. The City's IMP cannot be approved without the Regional Board having copies of the final agreement between the City and those other groups to collaborate on the CIMPs, so that it is clear that the City is meeting all of the requirements of Attachment E through the combination of its IMP and the 4 CIMPs it is participating in.

Please make the necessary additions and revisions to the IMP as identified in the enclosures to this letter and submit the revised CIMP as soon as possible and no later than **March 22, 2015.** The revised IMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised El Monte IMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov.

Upon approval of the revised IMP by the Executive Officer, the Permittees must prepare to commence their monitoring program within 90 days. If the necessary revisions are not made, the Permittees must comply with the Monitoring and Reporting Program (MRP) and future revisions thereto, in Attachment E of the LA County MS4 Permit.

Until the IMP is approved by the Executive Officer, the monitoring requirements pursuant to Order No. 01-182 and MRP CI 6948, and pursuant to approved TMDL monitoring plans shall remain in effect for the Permittees.

If you have any questions, please 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

Samuel Unger, P.E.
Executive Officer

Enclosures:
Enclosure 1 – Summary of Comments and Necessary Revisions to Draft IMP

Enclosure 1 to December 22, 2014 Letter Regarding the City of El Monte's Draft Integrated Monitoring Program

Summary of Comments and Required Revisions to the Draft Integrated Monitoring Program

IMP Reference	MRP Element/ Reference (Attachment #)	Comment and Necessary Revision
Section 1.3.4.10	Analysis Methods Att. D Part III.B page D-5	The draft IMP references methods set forth in 40 CFR Part 136 consistent with requirements in Attachment E but does not specify that PCB analysis should be for congeners (and arachlors if following Table E-2). Monitoring for PCBs in sediment or water should be reported as the summation of aroclors and a minimum of 40 (and preferably at least 50) congeners. See Table C8 in the state's Surface Water Ambient Monitoring Program's Quality Assurance Program Plan (Page 72 of Appendix C), which can be downloaded at http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/qaprp082209.pdf for guidance. It is preferable samples be analyzed using EPA Methods 8270 or 1668C (as appropriate), and High Resolution Mass Spectrometry. Note that for mercury, Method 245.7 or 1631E should be utilized (not 245.1) to get sufficiently sensitive minimum levels for analytical results to be compared with the water quality objective. In addition the draft IMP relies upon two adjacent CIMPs (USGR EWMP Group and Rio Hondo/SGR WQ Group) and two downstream CIMPs (Lower LAR and Lower SGR) to fulfill Receiving Water Monitoring and TMDL monitoring requirements. The draft IMP needs to be revised to include a demonstration that the Receiving Water monitoring sites and TMDL monitoring sites listed in the adjacent CIMPs are appropriate for the City of El Monte to use for those purposes.
Section 1.3.3	Outfall Monitoring Att. E Part II.E.2 page E-4	The draft IMP notes, ***The drainage(s) to the selected outfall(s) are representative of the land uses within the City's jurisdiction. The City's land use is:*** • ***7% office*** • ***10% industrial/commercial*** • ***11% retail*** • ***58% residential*** • ***14% other amenities*** ***The selected outfalls are exclusive to the City. The selected outfalls will not receive drainage from another jurisdiction so the City will not have to conduct "upstream" and "downstream" monitoring as the system enters and exits the City's jurisdiction.*** Though HUC 12 boundaries are included on the maps of the outfall locations there was no land use overlay on the outfall location maps, or more importantly a tabular comparison of the land use breakdown within the drainages specific to the outfall locations and the larger HUC-12 drainage area(s) within the City that the outfall location is intended to represent. This tabular comparison should be provided for each of the proposed outfall monitoring locations to validate the statement that the outfall locations are appropriately representative.

Section 1.3.1	Receiving Water Monitoring Att. E Part VI.A.1.a page E-13	The IMP does not include Receiving Water monitoring but states, ***The City will collaborate with the Upper San Gabriel River EWMP Group on the RW/TMDL monitoring in the San Gabriel River. The City will also collaborate with the Rio Hondo/San Gabriel River Water Quality Group on RW/TMDL monitoring in the Rio Hondo (tributary to the LA River).*** It should be noted that approval of these Plans is pending and should either of these Plans not receive an approval, the City of El Monte would be responsible for complying with all Receiving Water monitoring requirements.
Section 1.3.1	TMDL Monitoring Att. E Parts VI.A.1.b.iii and VI.B.2.a page E-14	While the IMP identifies applicable TMDLs, the IMP does not propose Receiving Water monitoring but states, ***The City will collaborate with the Upper San Gabriel River EWMP Group on the RW/TMDL monitoring in the San Gabriel River. The City will also collaborate with the Rio Hondo/San Gabriel River Water Quality Group on RW/TMDL monitoring in the Rio Hondo (tributary to the LA River).***
Section 1.3.1	Receiving Water Monitoring Att. E Part VI.C.1.b.i & VI.C.1.b.ii page E-15	The draft CIMP does not clearly state what wet-weather conditions trigger receiving water monitoring. The IMP does not include Receiving Water monitoring but states, ***The City will collaborate with the Upper San Gabriel River EWMP Group on the RW/TMDL monitoring in the San Gabriel River. The City will also collaborate with the Rio Hondo/San Gabriel River Water Quality Group on RW/TMDL monitoring in the Rio Hondo (tributary to the LA River).***
Section 1.3.4.9	Dry Weather Outfall Monitoring Att. E Part VI.D.1.a page E-16	The draft IMP did not specify that one dry weather monitoring event occur during the month with the historically lowest instream flows, or where instream flow data are not available, during the historically driest month for outfall monitoring. The draft IMP needs to be revised to comply with that requirement.
Section 1.3.4.10	Analytical Parameters Att. E Parts VIII.B.1.c & VIII.B.1.d pp. E-22 & E-23	While the IMP states, ***The IMP will incorporate all the requirements of Attachment E of the Order regarding the Minimum Storm Water Outfall based Monitoring Requirements,*** the monitoring parameters for each outfall monitoring location need to be clearly specified. The draft CIMP needs to require monitoring of pollutants identified in a TIE conducted at the downstream receiving water monitoring station during the most recent sample event, or where the TIE conducted on the receiving water sample was inconclusive, aquatic toxicity. If the discharge exhibits aquatic toxicity, then a TIE shall be conducted. In addition to that requirement, The draft CIMP needs to require monitoring of Other parameters in Table E-2 identified as exceeding the lowest applicable water quality objective in the nearest downstream receiving water monitoring station. The draft CIMP needs to specify the process that will be used to ensure these requirements are met.
Section 1.3.3 & Section	Outfall Monitoring Att. E	While the IMP states, ***The IMP will incorporate all the requirements of Attachment E of the Order regarding the Minimum Storm Water Outfall based Monitoring Requirements,*** the wet weather conditions

1.3.4.9	Parts VIII.B.1.b.i & VIII.B.1.b.ii page E-22	that trigger outfall monitoring need to be clearly specified (i.e. When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or an alternative threshold as provided for in an approved IMP or CIMP, or as defined by effective TMDLs within the watershed.).
Section 1.3.3	Outfall Monitoring Att. E Part VIII.C.1 page E-23	The IMP states, ***grab samples will be collected for all outfall monitoring. It is not anticipated that composite sampling at the outfall monitoring locations is warranted.*** No rationale was provided why compositing would not be necessary in wet weather. The draft IMP needs to be revised to include a rationale on why compositing is not necessary during wet weather monitoring.
Section 1.3.4	Non-Storm Wáter Outfall Monitoring Att. E Part IX.H.2 page E-28	The IMP states, ***grab samples will be collected for all outfall monitoring. It is not anticipated that composite sampling at the outfall monitoring locations is warranted.*** The draft IMP needs to be revised to include a rationale on why compositing is not necessary.
Section 1.3.1 & Section 1.3.4.9	Toxicity Monitoring	The IMP states, ***Aquatic toxicity will be monitored in accordance with Part XI of the MRP.*** Additionally, ***the IMP states, The IMP will incorporate all the requirements of Attachment E of the Order regarding the Minimum Storm Water Outfall based Monitoring Requirements.*** As stated in the comment above regarding Analytical parameters, the draft CIMP needs to require monitoring of pollutants identified in a TIE conducted at the downstream receiving water monitoring station during the most recent sample event, or where the TIE conducted on the receiving water sample was inconclusive, aquatic toxicity. If the discharge exhibits aquatic toxicity, then a TIE shall be conducted.

REVISED DRAFT

WATERSHED MANAGEMENT PROGRAM

City of El Monte, California

January 2015

City of El Monte

Department of Public Works

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TABLES

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APPENDIX A

APPENDIX B

ACRONYMS AND ABBREVIATIONS

Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BMP	Best Management Practices
CCR	California Code of Regulations
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of El Monte
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles County MS4 Permittee
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
EWMP	Enhanced Watershed Management Program
GIS	Geographical Information System
gpd	gallons per day
HUC	Hydrologic Unit Code
IC/ID	Illicit Connection and Illicit Discharge Elimination
LA	Load Allocations
LACDPW	Los Angeles County Department of Public Works
LID	Low Impact Development
µg/L	micrograms per Liter
MCM	Minimum Control Measure
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MRP	Monitoring and Reporting Program

MS4	Municipal Separate Storm Sewer System
ND	Not Detected
NPDES	National Pollutant Discharge Elimination System
NTR	National Toxics Rule
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
Order	Order R4-2012-0175 ("the Los Angeles County MS4 Permit")
Permittee	Agency named in Order as being responsible for permit conditions within its jurisdiction
PIPP	Public Information and Participation Program
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
SIC	Standard Industrial Classification
State Water Board	California State Water Resources Control Board
SWQDv	Storm Water Quality Design Volume
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WDID	Waste Discharge Identification
WLA	Waste Load Allocations
WMA	Watershed Management Area
WMMS	Watershed Management Modeling System
WMP	Watershed Management Program
WQBELs	Water Quality-Based Effluent Limitations
WQO	Water Quality Objective
WQS	Water Quality Standards

EXECUTIVE SUMMARY

The National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Order R4-2012-0175 (Order) became effective on December 28, 2012. The Order ensures that the MS4s are not causing or contributing to exceedances of water quality objectives (WQOs) and that the beneficial uses of receiving waters are supported. The Order gives Permittees some flexibility on how to meet the requirements of the Order and its accompanying Monitoring and Reporting Program (MRP).

The City is located in two watersheds which are the Los Angeles River Watershed and the San Gabriel River Watershed. Water quality in these two watersheds has been identified as impaired by:

- Bacteria
- Copper
- Lead
- Zinc
- Cadmium
- Cyanide
- Trash
- Nitrogen Compounds
- Nutrients
- Diazanon

The City of El Monte (City) has chosen to exercise the option of developing a Watershed Management Program (WMP) and accompanying Integrated Monitoring Program (IMP) to meet the requirements of the Order. This WMP outlines the process for complying with the requirements of the Order for each of the City's Watershed Management Areas (WMA) and includes the following:

- Identification of water quality priorities
- Water quality characterization
- Pollutant classification
- Source assessment
- Prioritization and sequencing of control efforts based on impairments
- Selection of watershed control measures
- Reasonable Assurance Analysis (RAA) including pollutant modeling and load reduction

The WMP also includes details of the following:

- Implementation schedules for structural and nonstructural BMPs
- Integrated watershed monitoring and assessment
- Stakeholder involvement
- Adaptive management process and elements

The program set forth in the WMP will be implemented over time. Adaptive management processes will be implemented as part of the WMP to evaluate the success of the WMP in achieving its objectives, and based on the outcome of the evaluations, the WMP will be adjusted.

The near-term critical elements of the WMP include the requirements for the City to address the pollutants with Total Daily Maximum Loads (TMDLs) and State listed impairments as well as other exceedances. The long-term requirements of the City will be to monitor receiving waters and outfalls to receiving waters to ensure that it is not causing or contributing to exceedances of WQOs or affecting beneficial uses. The modeled results indicate that the City is in compliance with metals and nitrogen compounds TMDLs but will need to implement BMPs to achieve reductions for nutrients and trash. A Load Reduction Strategy will be developed to address the bacteria TMDL.

As part of the early actions and consistent with the Order, the City drafted a Low Impact Development (LID) Ordinance and Green Streets policy. The LID Ordinance outlines strategies for the incorporation of infiltration devices as a shift from storm water treatment to the use of devices and policies that promote the capture, re-use, and infiltration of stormwater. The draft LID Ordinance was reviewed by Board staff and all staff comments (including those comments issued in a Memo to all Permittees on April 16, 2014) were incorporated into the LID Ordinance which was then adopted by the El Monte City Council on June 10, 2014. Board comments were also incorporated into the City's final Green Streets Policy and the policy has been put into effect. New Development and Redevelopment Projects are being conditioned by the LID Ordinance and Green Street elements are being incorporated into applicable municipal and private projects. A certified copy of the LID Ordinance and a copy of the Green Streets Policy are included in Appendix A

The City is dedicated to informing their citizens, municipal staff, and developers of the importance or water quality as evidenced by the City's continued distribution of educational materials at community activities and special events and distribution of free devices to encourage recycling of used oil and waste products. The City has provided every citizen and business with a DVD of information entitled "Green Street Scene" to further inform residents and businesses regarding water use and water quality. The City is also active with local stakeholder groups to improve water quality through education and the modification of areas within the City (parks, trails, etc.) in order to promote storm water infiltration, capture, and re-use.

SECTION 1 - WATERSHED MANAGEMENT PROGRAM DEVELOPMENT

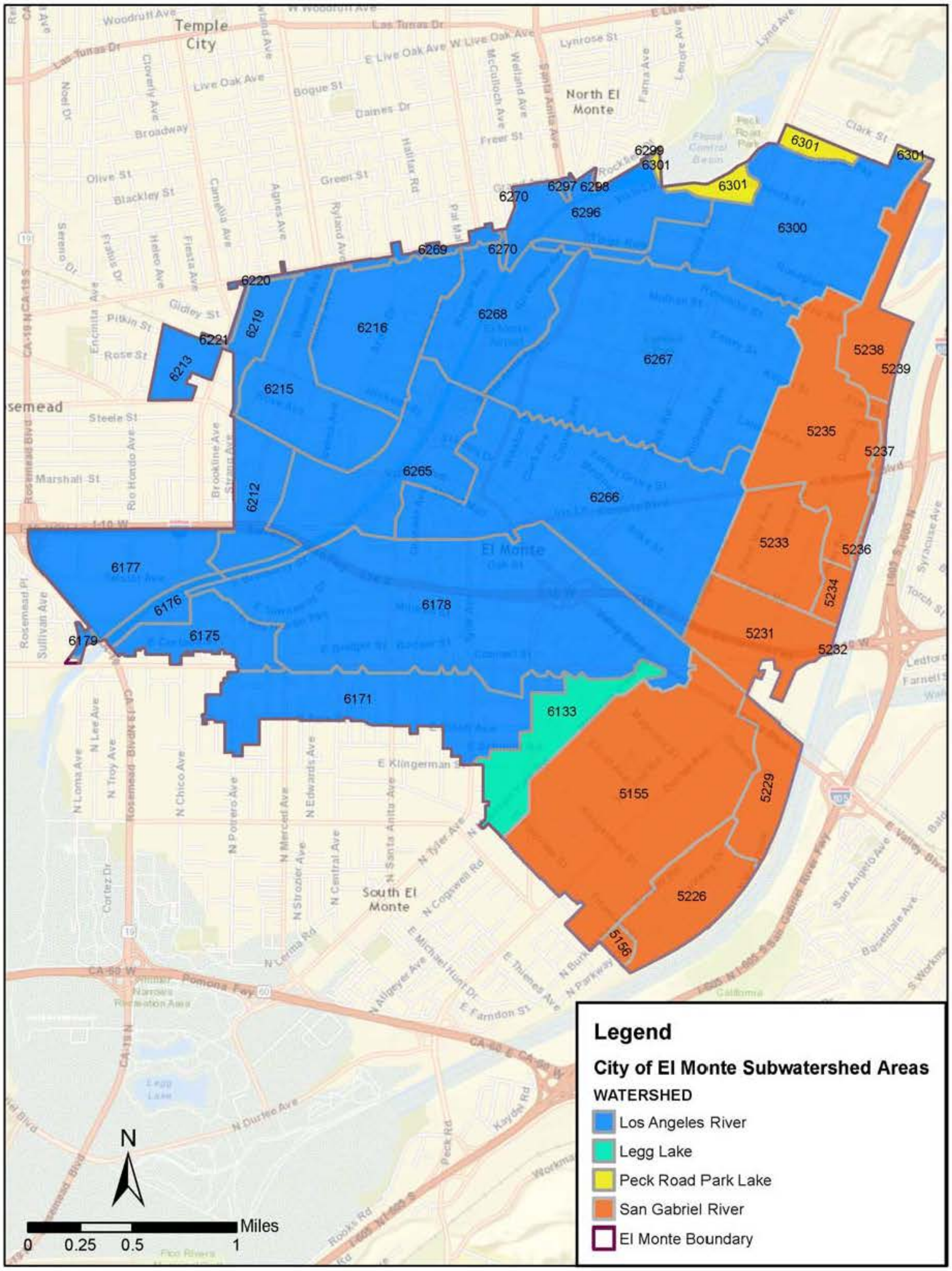
Storm water and non-storm water discharges within the Coastal Watersheds of Los Angeles County consist of surface runoff from various land uses. This runoff enters the Municipal Separate Storm Sewer System (MS4), commonly referred to as the storm drain system, which then conveys the discharges to receiving waters throughout the region. Discharges of storm water and non-storm water can carry pollutants which can have a damaging effect on both human and aquatic health. The Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) Program to regulate MS4 discharges. The Los Angeles Regional Water Quality Control Board (Regional Water Board) issued Order Number R4-2012-0175 to address MS4 discharges within the Coastal Watershed of Los Angeles County. The Order was adopted by the Regional Water Board on November 8, 2012 and became effective December 28, 2012. The Order allows Permittees the flexibility to develop a Watershed Management Program (WMP) to implement the requirements of the Order through customized strategies, control measure, and Best Management Practices (BMPs). This document describes the steps, processes, implementation, and timelines associated with the City of El Monte's Watershed Management Program (WMP).

1.1. IDENTIFICATION OF WATER QUALITY PRIORITIES

The Order requires Permittees to identify water quality priorities within each Watershed Management Area (WMA). The Order redefines WMAs consistent with the delineations used in the Regional Water Board's Watershed Management Initiative. A map depicting El Monte's WMAs is shown in Figure 1-1. The subwatersheds and drainage areas to each WMA (Los Angeles River or San Gabriel River) are shown in Figure 1-2. The process for identifying the water quality priorities within each WMA is broken into Water Quality Characterization, Water Body Pollutant Classification, Source Assessment, and Prioritization. Each category is explained in detail in the sections below.

Figure 1-1: Watershed Management Areas

Figure 1-2: Subwatersheds



The four digit number represents the identification number for the particular subwatershed.

List of Subwatersheds within City of El Monte

Subwatershed ID	Area (ac)	Water Body
5155	584.99	San Gabriel River
5156	8.91	San Gabriel River
5226	150.69	San Gabriel River
5229	91.05	San Gabriel River
5231	155.87	San Gabriel River
5233	150.81	San Gabriel River
5234	24.97	San Gabriel River
5235	283.21	San Gabriel River
5236	2.66	San Gabriel River
5237	16.3	San Gabriel River
5238	112.38	San Gabriel River
5239	0.33	San Gabriel River
6133	129.58	Legg Lake
6171	287.93	Los Angeles River
6174	0.16	Los Angeles River
6175	101.04	Los Angeles River
6176	34.88	Los Angeles River
6177	208.19	Los Angeles River
6178	778.58	Los Angeles River
6179	5.82	Los Angeles River
6212	111.43	Los Angeles River
6213	51.23	Los Angeles River
6215	215.27	Los Angeles River
6216	231.36	Los Angeles River
6219	52.71	Los Angeles River
6220	3.51	Los Angeles River
6221	1.3	Los Angeles River
6265	277.08	Los Angeles River
6266	579.69	Los Angeles River
6267	655.75	Los Angeles River
6268	197.11	Los Angeles River
6269	15.81	Los Angeles River
6270	1.65	Los Angeles River
6296	170.88	Los Angeles River
6297	1.47	Los Angeles River
6299	0.23	Los Angeles River
6300	397.06	Los Angeles River

The total acreage for the subwatersheds within the City's jurisdiction is approximately 6,131 acres.

1.2. RECEIVING WATER QUALITY CHARACTERIZATION

In order to support identification and prioritization of management actions, the Order requires Permittees to provide an evaluation of existing water quality conditions within each WMA. Monitoring data for sites within the Los Angeles River and San Gabriel River WMAs were reviewed. The sources of the data researched included monitoring data from:

- Council for Watershed Health (CWH)
- California Environmental Data Exchange Network (CEDEN)
- Los Angeles County Sanitation District (LACSD)
- Los Angeles County Department of Public Works (LACDPW) Annual StormWater Monitoring Reports (2008-2014)
- LACDPW Stormwater Monitoring Reports (2002-2003, 2003-2004)

The CWH monitoring had limited data for sites within the Los Angeles and San Gabriel River WMAs. A search of CEDEN revealed no monitoring data within the two WMAs. The 2012-2013 LACDPW Annual Stormwater Monitoring Report provided the most recent and relevant data for the receiving water conditions in both WMAs. Also reviewed were the 2010 303(d) Listing, the State's Listing Policy, and documents for TMDLs for which the City is listed as a responsible party.

The pollutants detected in the various monitoring programs and databases were used to characterize the receiving waters within each WMA.

Monitoring data for each receiving water is summarized in the following subsections:

1.2.1 LOS ANGELES RIVER

Mass Emissions Site S10 monitoring summary (2012-2013 LACDPW Annual Stormwater Monitoring Report): E.coli concentrations were above the water quality objective (WQO) of 235 MPN/100ml during all seven storm events monitored for bacteria. E.coli concentrations ranged from 8,310 to 57,300 MPN/100mL. pH was not within the WQO range of 6.5- 8.5 pH units for one of the eight wet weather samples. Dissolved copper concentrations were above the hardness-based WQO for all eight wet weather samples collected. Dissolved copper concentrations ranged from 19.4 to 77.2 ug/L. Hardness values ranged from 40 to 200 mg/L. Dissolved lead was above the hardness-based WQO for one of the eight wet weather samples collected. Dissolved lead concentrations ranged from 7.75 to 70.0 ug/L. Dissolved zinc concentrations were above the hardness-based WQO for all but one of the samples collected. Dissolved zinc concentrations ranged from 117 to 665 ug/L. E.coli did not meet the applicable WQO for one of the two monitored dry weather events. E.coli concentrations ranged from 46 to 959 MPN/100mL. Cyanide was above the WQO of 0.022mg/L during one of the two dry weather events. Cyanide concentrations ranged from 0.015 to 0.026 mg/L. PH was not within the QWO range of 6.5-8.5 pH units during one of the two dry weather events[1].

Tributary Monitoring Site TS06 (Rio Hondo) summary: During wet weather (2002-2003), total coliform, fecal coliform, and fecal enterococcus exceeded the public health criteria for the Basin Plan for each storm 100% of the time. Diazanon was exceeded in 40% of the samples. Total zinc exceeded the Ocean Plan water quality standard. Samples exceeded the California Toxic Rule (CTR) water quality standard 100% of the time for dissolved copper and 40% of the time for dissolved lead. No exceedances were identified during dry weather (2002-2003). Similar results were observed during wet weather (2003-2004) with total coliform, fecal coliform, and fecal enterococcus exceeding the public health criteria for the Basin Plan for each storm 100% of the time. Diazanon was exceeded in 25% of the samples. Total copper and total lead samples exceeded the Ocean Plan water quality standard. During dry weather (2003-2004), the ratio of fecal coliform to total coliform Basin Plan water quality standard was exceeded 50% of the time. Cyanide and total copper exceeded the Ocean Plan water quality standard in 100% of the samples and zinc exceedances were observed in 50% of the samples. Dissolved copper exceeded the CTR water quality standard in 50% of the samples.

The pollutants of concern for the Los Angeles River are:

- E.coli, total coliform, fecal coliform, and fecal enterococcus
- Copper
- Lead
- Zinc
- Cyanide
- Trash
- Diazanon
- Cadmium
- Nitrogen Compunds

[1] (Source: Los Angeles County Department of Public Works (LACDPW) Annual Stormwater Monitoring Report, 2012-2013)

1.2.2 SAN GABRIEL RIVER

Mass Emissions Site S14 monitoring summary: E.coli concentrations were above the water quality objective (WQO) of 235 MPN/100ml during all five storm events monitored for bacteria. E.coli concentrations ranged from 1,842 to 127,400 MPN/100mL. pH was not within the WQO range of 6.5-8.5 pH units for one of the five wet weather samples. Dissolved copper concentrations were above the hardness-based WQO for two of the five wet weather samples collected. Dissolved copper concentrations ranged from 8.53 to 32.7 ug/L. Hardness values ranged from 90 to 210 mg/L. Dissolved zinc concentrations were above the hardness-based WQO for one of the five samples collected. Dissolved zinc concentrations ranged from 69.9 to 286 ug/L. Cyanide was above the WQO of 0.022mg/L for one storm event. Cyanide concentrations ranged from non-detect to 0.031 mg/L. No dry weather samples were collected due to dry conditions (no flow).

The pollutants of concern for the San Gabriel River are:

- E.coli
- Copper
- Zinc
- Cyanide
- Lead

1.2.3 LEGG LAKE

Legg Lake data summary: according to the 2010 303(d) list, Legg Lake is impaired for Ammonia, Copper, Lead, Odor, pH, and Trash. There is also a Nutrient TMDL for Legg Lake. According to the TMDL document, there was one ammonia exceedance in 50 samples. Therefore, Legg Lake meets ammonia water quality standards and the USEPA concludes that preparing a TMDL for ammonia is unwarranted at this time. The U.S. EPA recommends that Legg Lake not be identified as impaired for ammonia in California's next 303 (d) listing[2]. In addition to the impairments listed on the 303(d) list, Legg Lake also has a trash TMDL and a nutrient TMDL (Los Angeles Area Lakes TMDL).

The pollutants of concern for Legg Lake are:

- Ammonia
- Copper
- Lead
- Nutrients (Nitrogen and Phosphorus)
- Trash

[2] Source: U.S. EPA Los Angeles Area Lakes TMDLs, March 2012.

1.2.4 PECK ROAD PARK LAKE

Peck Road Park Lake data summary: The Peck Road Park Lake Chlordane impairment is primarily due to historical loading and storing within the lake sediments, with some ongoing contribution by watershed wet weather loads. Elevated fish tissue concentrations of Chlordane is primarily due to the storage of historic loads of Chlordane in the lake sediments. Watershed loads of Chlordane may arise from past pesticide applications, improper disposal, and atmospheric deposition (and possible erosion of Chlordane contaminated soils). There is no definitive information on specific sources within the watershed at this time. Chlordane is no longer in use and fish tissue concentrations are likely to decline. Total Chlordane concentrations in water flowing into Peck Road Park Lake are below detection limits, and most Chlordane load is expected to move in association with sediment[3].

The Dichlorodiphenyltrichloroethane (DDT) impairment present 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. Watershed loads of DDT may arise from past pesticide applications, improper disposal, and atmospheric deposition. There is no definitive information on specific sources of elevated DDT within the watershed at this time. Incoming loads of DDT will mainly be absorbed to sediment particles conveyed by stormwater runoff (eroded from legacy contaminations sites or from atmospheric conditions). DDT in water flowing into Peck Road Park Lake are below detection limits, and most DDT load is expected to move in association with sediment. The legacy DDT stored in lake sediment is the major cause of exposure to aquatic organisms and sport fish. DDT, like PCBs and Chlordane is an organochlorine compound that is strongly sorbed to sediments and lipids and is no longer in production[4].

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. There is no definitive information on specific sources of Dieldrin within the watershed at this time. Dieldrin is a chlorinated insecticide originally developed as an alternative to DDT and was in use from the 1950s to the 1970s. Dieldrin in the environment arises from the use of the insecticide Aldrin. The use of both Dieldrin and Aldrin was discontinued in the 1970s. Dieldrin, like PCBs, Chlordane and DDT is an organochlorine compound that is strongly sorbed to sediments and lipids (fats) and is no longer in production. Most

[3] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012.
[4] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012

Dieldrin load is expected to move in association with sediment. Stormwater loads from the watershed could not be directly estimated because all sediment and water sample results were below detection limits. The manufacture and use of Dieldrin is currently banned[5].

Trash is an impairment at Peck Road Park Lake and is comprised of plastic bags, plastic pieces, paper items, plastic and glass bottles, Styrofoam, bottle caps, and cigarette butts. Uncovered trash cans at the lake can be a source of trash and the trash can be transported by wind and animals. The largest accumulations of trash were observed near picnic areas, near industrial facilities, and near the ends of storm drain outfalls discharging to the lake. The major source of trash in Peck Road Park Lake is due to littering, either intentional or accidental.

The pollutants of concern for Peck Road Park Lake are:

- Nutrients (Nitrogen and Phosphorus)
- PCBs
- DDT
- Dieldrin
- Trash

1.3. DISCHARGE WATER QUALITY CHARACTERIZATION

Two outfalls in the City were selected for characterizing discharge water quality from the City. The two outfalls were sampled during dry weather in December 2013 and again during a rain event (wet weather) in February 2014. The results of these two sampling events provide information on the current characteristics of dry weather and wet weather discharges from the City's jurisdiction.

A map showing the locations of the two outfalls and their corresponding drainage areas are shown in Figure 1-3. Analytical results are provided in Tables 1-1 and 1-2. Copies of the Chain of Custody Records and Laboratory Reports for the discharge characterization sampling are included in Appendix B.

[5] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012

Figure 1-3: Dry and Wet Weather Outfall Monitoring Locations

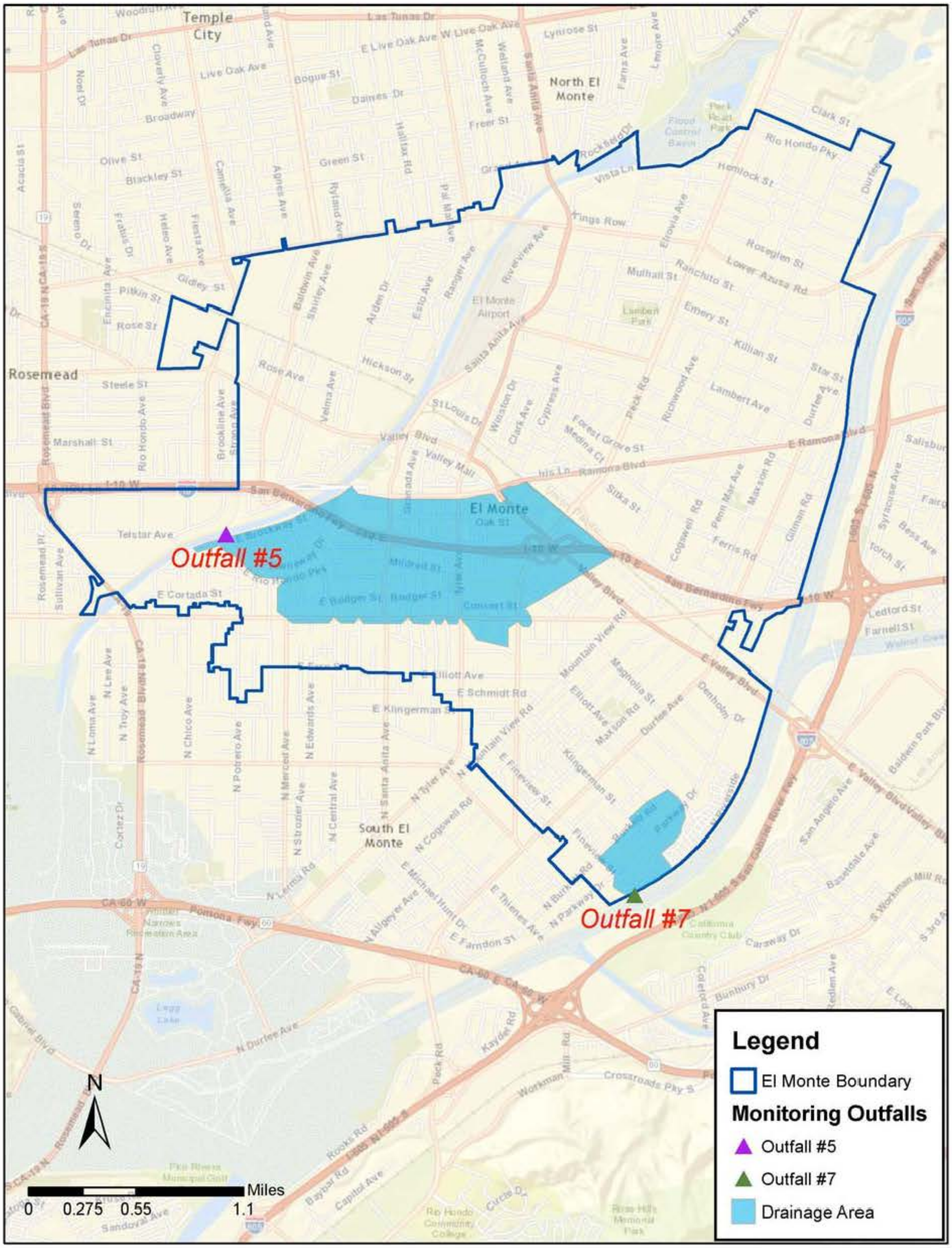


Figure 1-4: Dry and Wet Weather Outfall Drainage Area Land Use

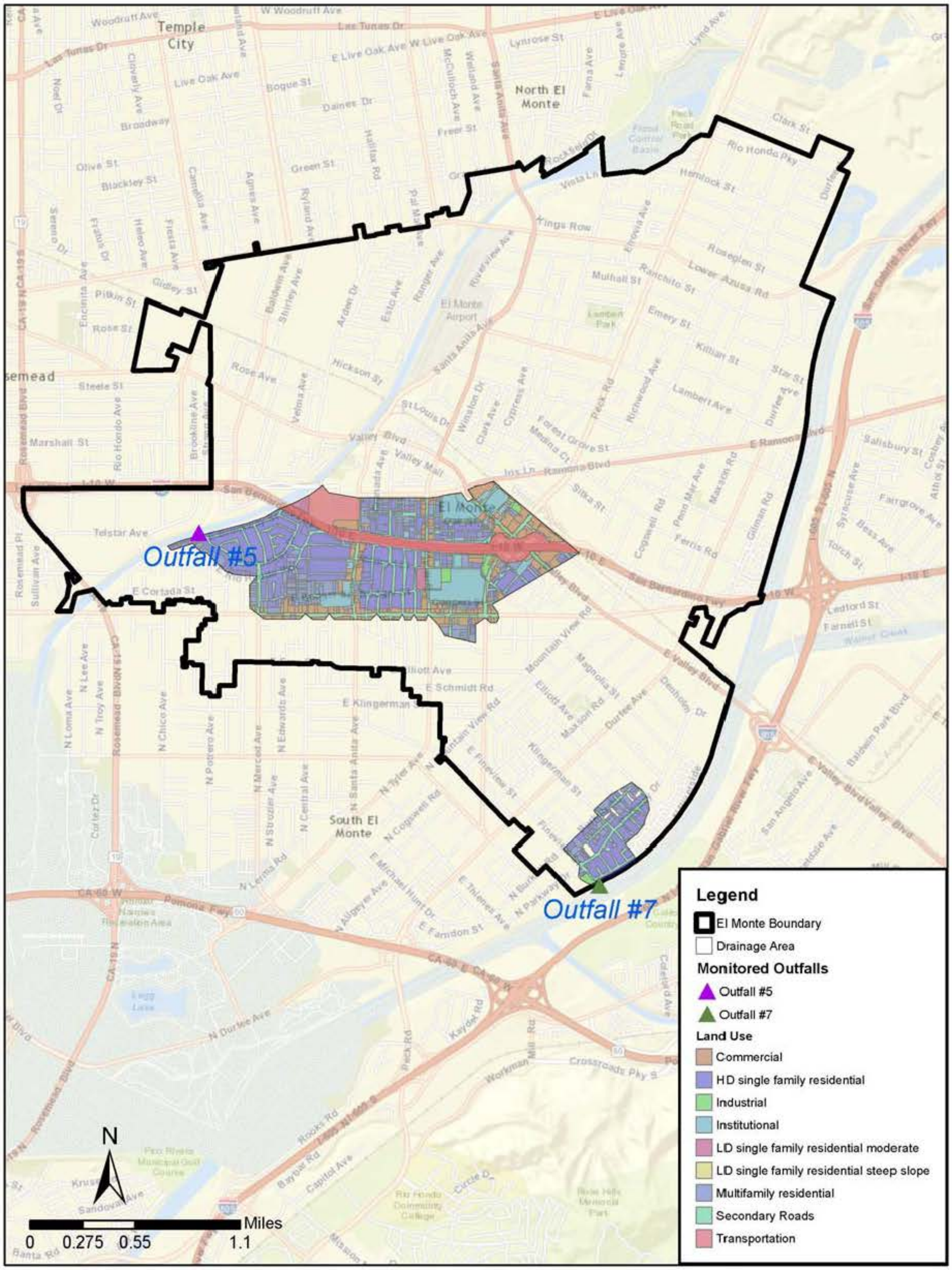


Table 1-1: Drainage Area Land Use Comparison

Land Use Type	Land Use within drainage area to Outfall 5	Land Use within drainage area to Outfall 7	City Land Use
Residential	41%	71%	58%
Industrial/Commercial/Retail	15.1%	2.3%	10%
Office	11%	0%	7%
Other Amenities	32.9%	26.7%	14%

The land use within the drainage area for Outfall 5 more closely resembles that of the entire city. The land use within the drainage area of Outfall 7 more closely resembles the residential sections of the city. The data from samples collected from Outfall 5 provide information on the types and concentrations of pollutants being discharged from a mixed residential/commercial/other amenities area while data from Outfall 7 provides information on the types and concentration of pollutants being discharged from predominately residential areas. The outfall data collected from the two types of land use provide useful information for identifying the types of pollutants associated with each land use.

Table 1-2: Outfall No. 5 - Dry and Wet Weather Sampling Results

Outfall #	Constituent	Dry Weather Results	Wet Weather Results	Outfall Receiving Waterbody:
5	Oil & Grease	ND	ND	Rio Hondo
5	TKN	0.32 mg/L	0.91 mg/L	Rio Hondo
5	NO2 +NO3 as N	180 ug/L	590 ug/L	Rio Hondo
5	Total Phosphorus as P	0.052 mg/L	0.076 mg/L	Rio Hondo
5	Total Dissolved Solids	180 mg/L	190 mg/L	Rio Hondo
5	Total Suspended Solids	ND	ND	Rio Hondo
5	Total Nitrogen	0.50 mg/L	1.50 mg/L	Rio Hondo
5	Total Copper	0.010 mg/L	0.016 mg/L	Rio Hondo
5	Total Lead	ND	ND	Rio Hondo
5	Total Selenium	ND	ND	Rio Hondo
5	Total Zinc	ND	ND	Rio Hondo
5	Total Coliform	20 MPN/100 ml	10,000 MPN/100 ml	Rio Hondo
5	Fecal Coliform	1,700 MPN/100 ml	260 MPN/100 ml	Rio Hondo
5	E. coli	20 MPN/100 ml	260 MPN/100 ml	Rio Hondo
5	1-Methylnaphthalene	ND	ND	Rio Hondo
5	2-Methylnaphthalene	ND	ND	Rio Hondo
5	Acenaphthene	ND	ND	Rio Hondo
5	Acenaphthyene	ND	ND	Rio Hondo
5	Anthracene	ND	ND	Rio Hondo
5	Benzo (a) anthracene	ND	ND	Rio Hondo
5	Benzo (b) pyrene	ND	ND	Rio Hondo
5	Benzo (b) fluoranthene	ND	ND	Rio Hondo
5	Benzo (g, h, i) perylene	ND	ND	Rio Hondo
5	Benzo (k) fluoranthene	ND	ND	Rio Hondo
5	Chrysene	ND	ND	Rio Hondo
5	Dibenzo (a, h) anthracene	ND	ND	Rio Hondo
5	Fluoranthene	ND	ND	Rio Hondo
5	Fluorene	ND	ND	Rio Hondo
5	Indeno (1,2,3-cd) pyrene	ND	ND	Rio Hondo
5	Naphthalene	ND	ND	Rio Hondo
5	Phenanthrene	ND	ND	Rio Hondo
5	Pyrene	ND	ND	Rio Hondo

Table 1-3: Outfall No. 7 - Dry and Wet Weather Sampling Results

Outfall #	Constituent	Dry Weather Results	Wet Weather Results	Outfall Receiving Waterbody:
7	Oil & Grease	ND	ND	San Gabriel River
7	TKN	2.6 mg/L	4.6 mg/L	San Gabriel River
7	NO2 +NO3 as N	4,000 ug/L	2,000 ug/L	San Gabriel River
7	Total Phosphorus as P	0.63 mg/L	1.2 mg/L	San Gabriel River
7	Total Dissolved Solids	460 mg/L	130 mg/L	San Gabriel River
7	Total Suspended Solids	21 mg/L	230 mg/L	San Gabriel River
7	Total Nitrogen	6.6 mg/L	6.6 mg/L	San Gabriel River
7	Total Copper	0.034 mg/L	0.72 mg/L	San Gabriel River
7	Total Lead	0.0056 mg/L	0.32 mg/L	San Gabriel River
7	Total Selenium	ND	ND	San Gabriel River
7	Total Zinc	0.084 mg/L	0.29 mg/L	San Gabriel River
7	Total Coliform	14,000 MPN/100 ml	28,000 MPN/100 ml	San Gabriel River
7	Fecal Coliform	90,000 MPN/100 ml	1,400 MPN/100 ml	San Gabriel River
7	E. coli	14,000 MPN/100 ml	1,400 MPN/100 ml	San Gabriel River
7	1-Methylnaphthalene	ND	ND	San Gabriel River
7	2-Methylnaphthalene	ND	ND	San Gabriel River
7	Acenaphthene	ND	ND	San Gabriel River
7	Acenaphthyene	ND	ND	San Gabriel River
7	Anthracene	ND	ND	San Gabriel River
7	Benzo (a) anthracene	ND	ND	San Gabriel River
7	Benzo (b) pyrene	ND	ND	San Gabriel River
7	Benzo (b) fluoranthene	ND	ND	San Gabriel River
7	Benzo (g, h, i) perylene	ND	ND	San Gabriel River
7	Benzo (k) fluoranthene	ND	ND	San Gabriel River
7	Chrysene	ND	0.14 ug/L	San Gabriel River
7	Dibenzo (a, h) anthracene	ND	ND	San Gabriel River
7	Fluoranthene	ND	0.19 ug/L	San Gabriel River
7	Fluorene	ND	ND	San Gabriel River
7	Indeno (1,2,3-cd) pyrene	ND	ND	San Gabriel River
7	Naphthalene	ND	ND	San Gabriel River
7	Phenanthrene	ND	0.12 ug/L	San Gabriel River
7	Pyrene	ND	0.15 ug/L	San Gabriel River

In summary, the discharge water quality characterization supports:

- Pollutant identification
- Modeled pollutant concentration correlation

1.4. WATERSHED CHARACTERISTICS

The City discharges primarily into two major watersheds, the San Gabriel River Watershed on the East and the Los Angeles River Watershed on the West. A small section (approximately 130 acres) in the south part of the City drains to Legg Lake.

1.4.1 GEOGRAPHIC SETTING

Located approximately 12 miles east of downtown Los Angeles, El Monte has a population of approximately 120,000. The City, located below the mountains, is relatively flat, and is between two majors drainage features, the San Gabriel River and the Rio Hondo. The Rio Hondo is a tributary of the Los Angeles River. The Rio Hondo also links the double watersheds of the Los Angeles and San Gabriel Rivers. Although it is now a major tributary of the Los Angeles River, the Rio Hondo once formed the main bed of the San Gabriel River. The six major tributaries of the Rio Hondo are the Alhambra, Rubio, Eaton, Arcadia, Santa Anita, and Sawpit Washes. (Source: “Rio Hondo Watershed Management Plan”) http://www.rmc.ca.gov/plans/rio_hondo/Rio%20Hondo%20Water%20Management%20Plan_small.pdf

The San Gabriel River watershed is divided into three sections: upper watershed, lower watershed, and mainstem. The watershed drains into the San Gabriel River from the San Gabriel Mountains flowing 58 miles south until its confluence with the Pacific Ocean. Major tributaries to the San Gabriel River include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains entering from the 19 cities along the San Gabriel River. Channel flows pass through different sections in the San Gabriel River, diverting from the riverbed into four different spreading grounds, held behind several rubber dams for controlled flow and ground water recharge and controlled through 10 miles of concrete channel bottom from below Whittier Narrows Dam to past Coyote Creek. (Source: LA Department of Public Works – San Gabriel Watershed http://ladpw.org/wmd/watershed/sg/

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake. Below is a map showing the City of El Monte and the County of Los Angeles' drainage system. Additional field investigations verified that the City of El Monte does not discharge into Peck Road Park Lake.

Legg Lake is south of the City and receives runoff from a small portion of the City (approximately 134 acres).

Figure 1-5: City of El Monte GIS Shape File – MS4 Catch Basins and Drainage System

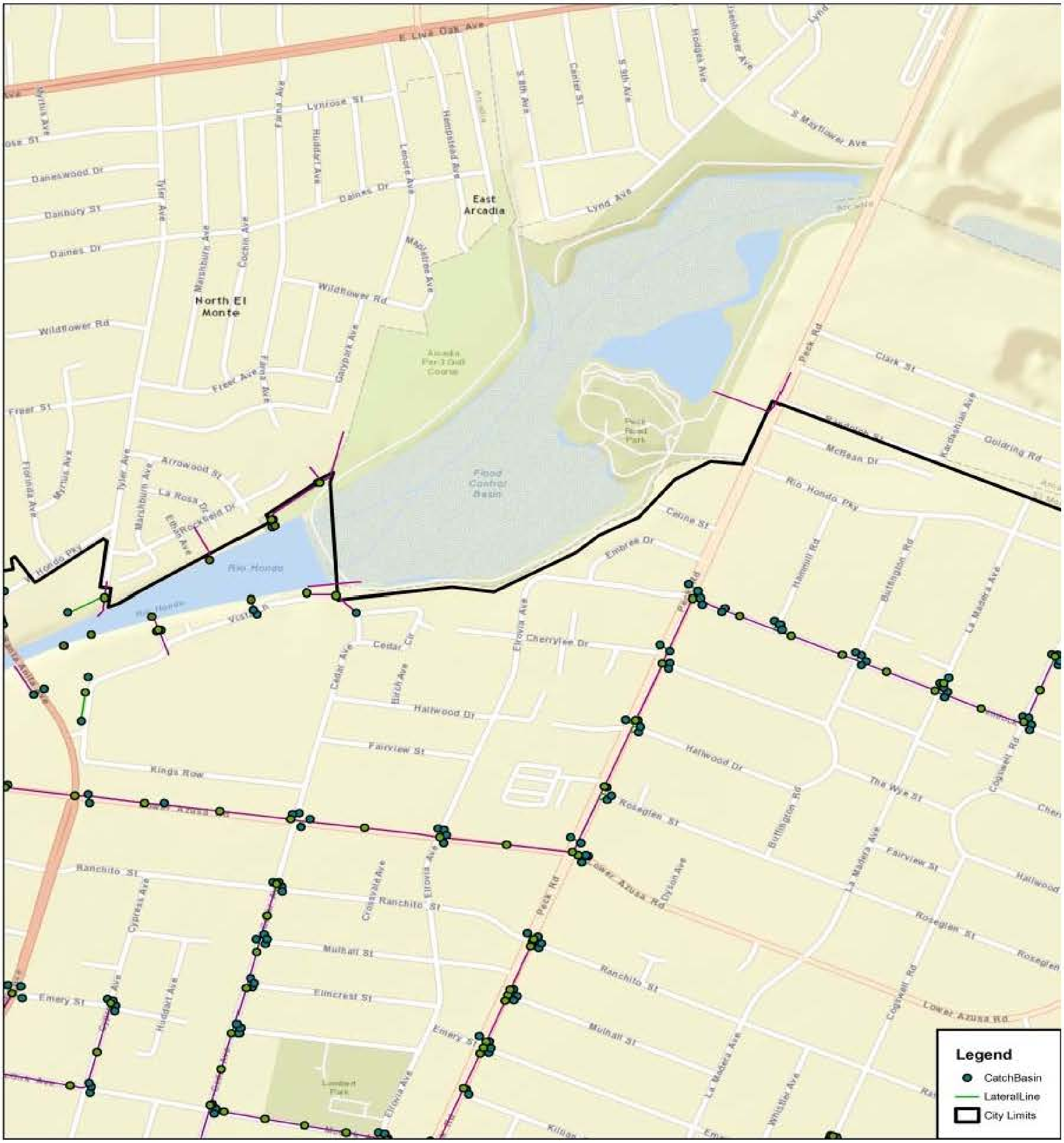
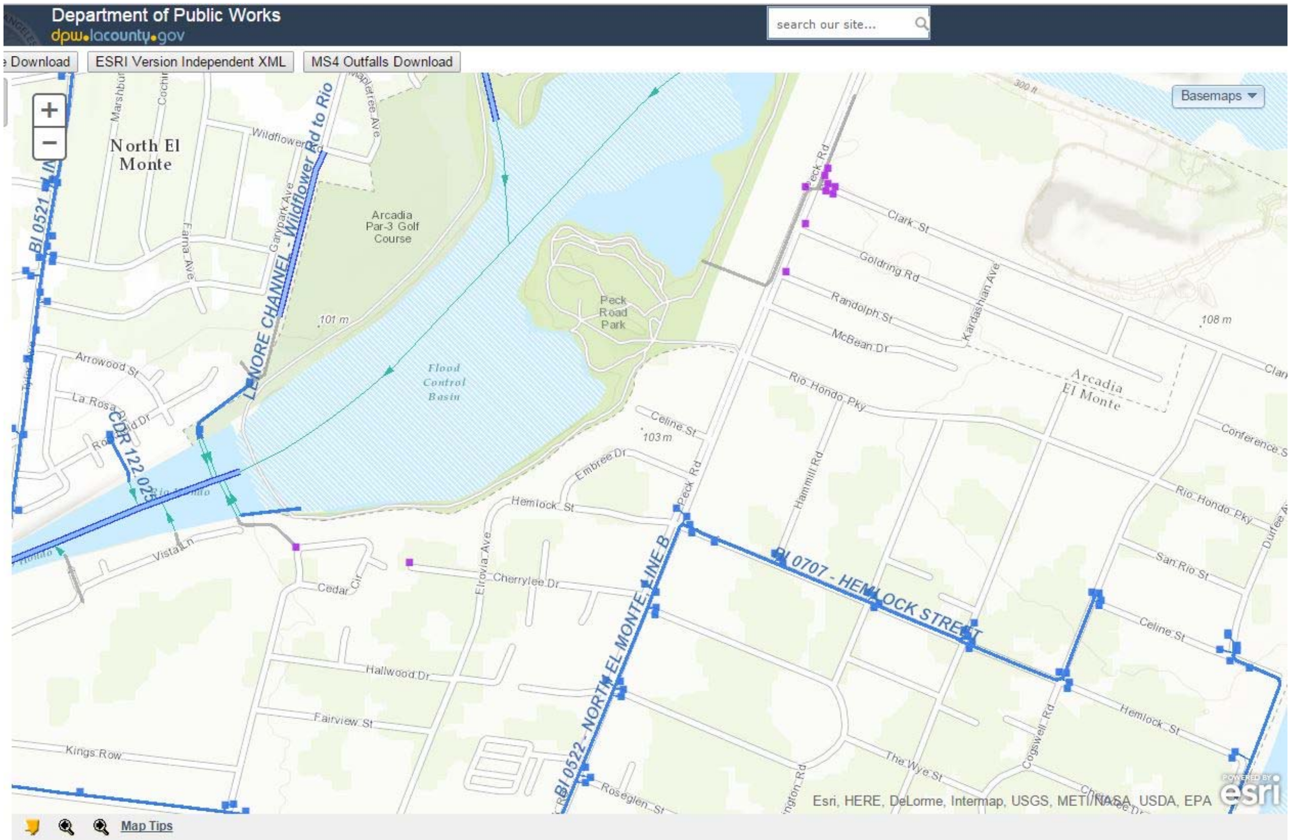


Figure 1-6: LA County Dept of Public Works GIS Shape File – MS4 Catch Basins and Drainage System



1.4.2 GEOLOGIC SETTING

In the northwestern half of the City, subsurface and surficial deposits tend to consist of varying amounts of sand, gravel, and silt layers that are incorporated within large, composite alluvial fans associated with the Alhambra, Rubio, Eaton, Arcadia, Santa Anita, and Sawpit washes. In the southeastern part of the City, flood plain and overbank deposits associated with the San Gabriel River make up most of the subsurface and surficial deposits.

1.4.3 CLIMATE

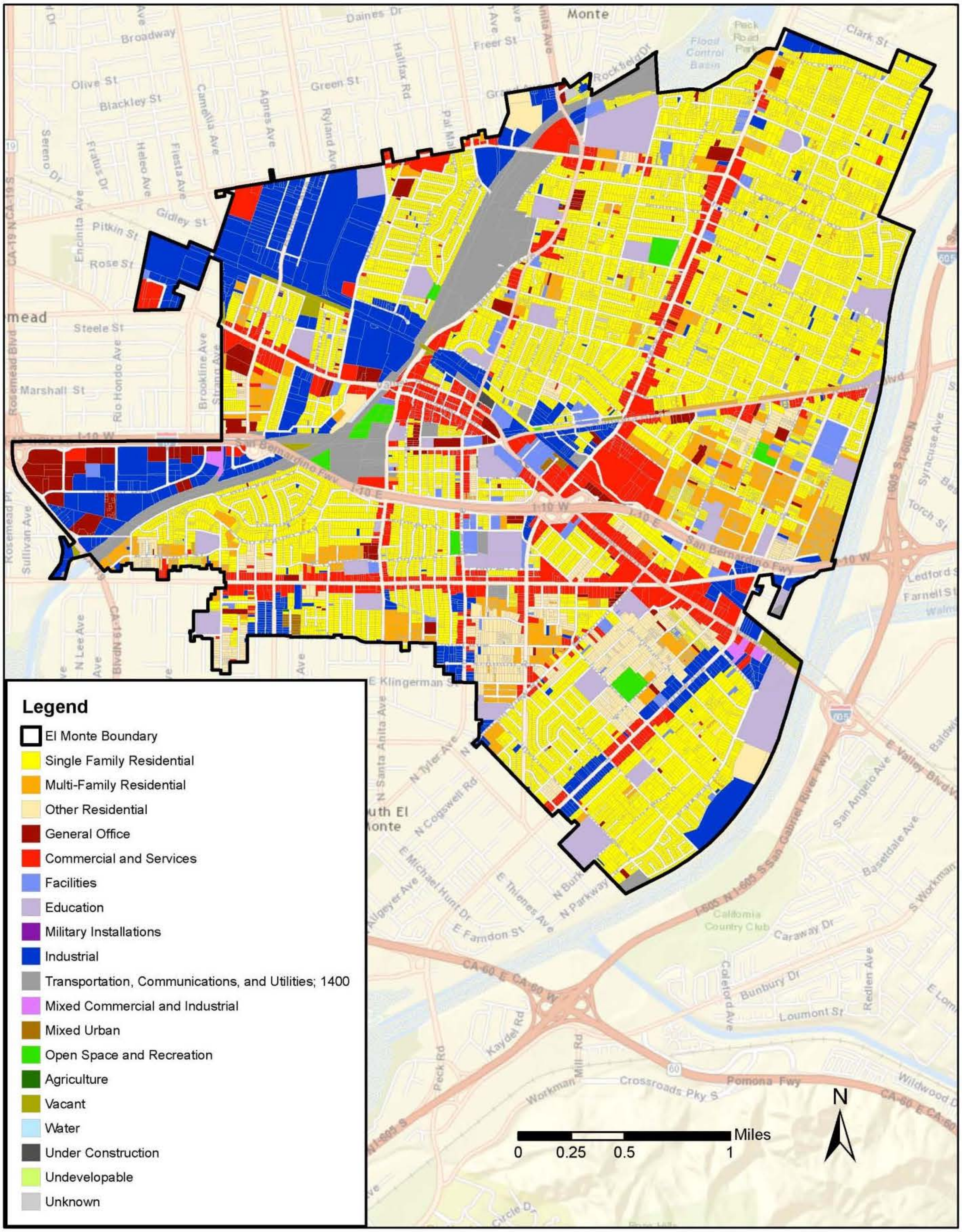
The El Monte climate is warm during summer when temperatures tend to be in the 70's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is August with an average maximum temperature of 90.20 degrees Fahrenheit, while the coldest month of the year is December with an average minimum temperature of 41.90 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 27 degrees Fahrenheit, and moderate during winter with an average difference of 27 degrees Fahrenheit. The annual average precipitation at El Monte is 18.56 Inches. Winter months tend to be wetter than summer months. The wettest month of the year is February with an average rainfall of 4.66 Inches. (Source: www.idcide.com/**weather**/**ca**/**el-monte**.htm)

1.4.4 LAND USE

The land uses within the City's approximate 10 square mile area are comprised of 58 percent residential, 11 percent retail, 10 percent industrial, 7 percent office/retail, and 14 percent other of amenities[6]. See Figure 1-4 for a map of land use.

[6] Source: City of El Monte website- General Description.

Figure 1-7: Land Use Map



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1.5. WATER BODY POLLUTANT CLASSIFICATION

On the basis of the evaluation of existing water quality conditions, Water Body-Pollutant Combinations (WBPCs) will be classified into one of the following three categories:

- Category 1 (Highest Priority) Pollutants for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E TMDL Provisions and Attachments L through R of the MS4 Permit.

- Category 2 (High Priority) Pollutants for which data indicate water quality impairment in the receiving water according to the State Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State's Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.

- Category 3 (Medium Priority) Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.

1.6. POLLUTANT SOURCE ASSESSMENT

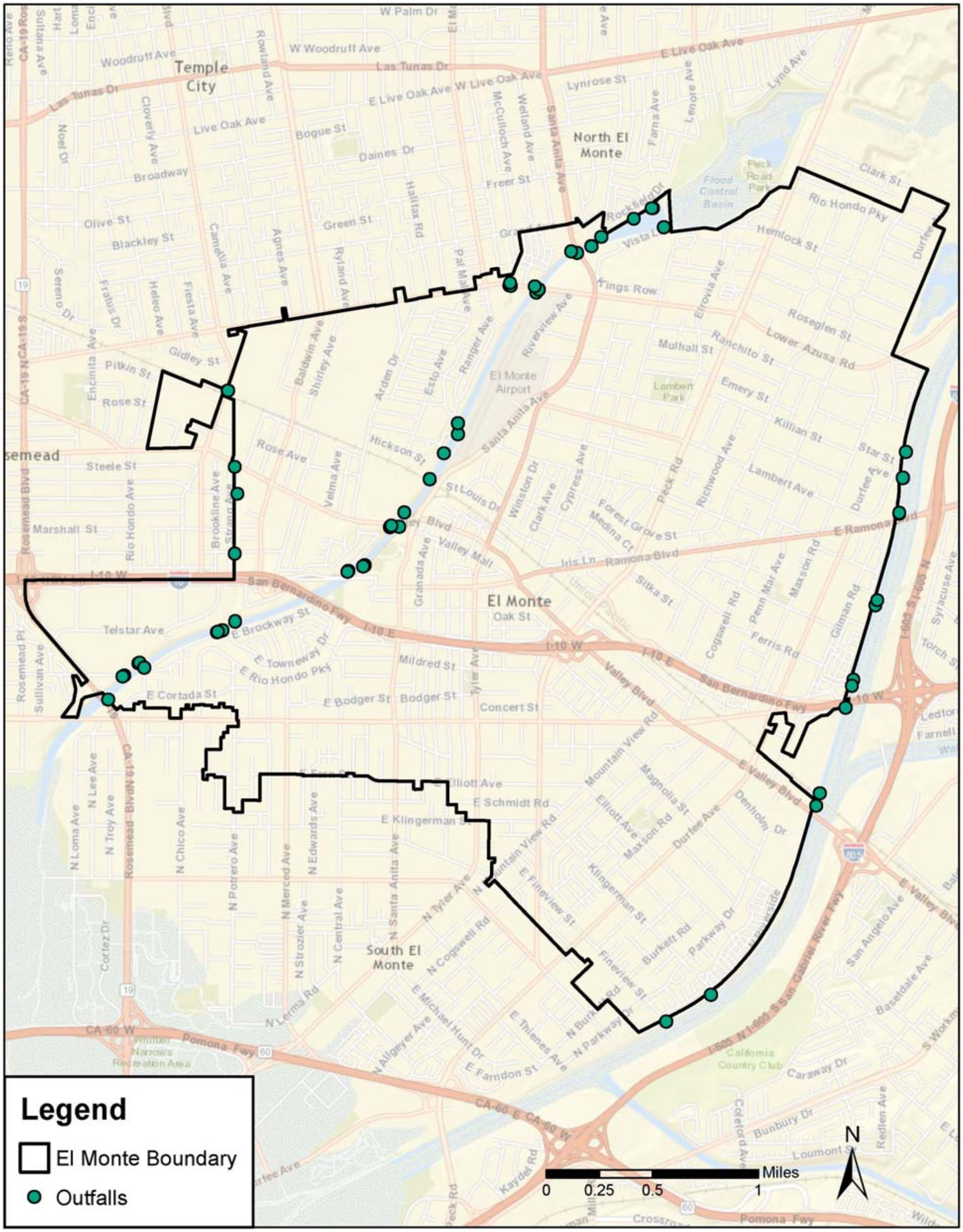
In order to identify potential stormwater and non-storm water pollutant sources in discharges to the MS4 in each WMA, the City reviewed data from the following:

- Findings from the IC/ID Elimination Program
- Findings from the Industrial/Commercial Facilities Inspections Program
- Findings from the Development Construction Program
- Findings from the Public Activities Program
- Findings from US EPA TMDL Documentation
- Watershed Model Results and Regional Monitoring Programs Results
- Findings from exceedances from facilities with coverage under the Industrial General Permit (from SMARTS)
- Results from review of Los Angeles River Metals TMDL Coordinated Monitoring Plan
- Los Angeles Area Lakes TMDLs document
- San Gabriel River and Impaired Tributaries TMDL document
- Findings from review of the State's Listing Policy (potential exceedances of WQ objectives)
- Results from dry weather and wet weather outfall sampling conducted by the City

The pollutants associated with the above findings are prioritized in Section 1.7. Not all sources produced pollutant data for El Monte. The IC/ID Elimination Program review indicated discharges but did not identify the pollutant(s). The 303 (d) list and the Los Angeles County Monitoring Reports and Tributary Monitoring Reports provided the most recent and extensive data on impairments and exceedances.

The major outfalls from the City are shown in Figure 1-6.

Figure 1-8: Major Outfalls



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1.7. PRIORITIZATION

Based on findings of the source assessment, the water quality issues will be prioritized and sequenced in the same order as the Pollutant Classification.

- Category 1 will be WBPCs with TMDLs
- Category 2 will be WBPCs listed on the 303(d) list
- Category 3 will be WBPCs with other exceedances.

1.7.1 WBPCS WITH TMDLS

WBPCs with TMDLs from Attachments O and P of the Order are summarized in Table 1-3.

Table 1-4: WBPCs with TMDLs (Category 1)

TMDL Pollutant	Water Body
Nutrients	Legg Lake
Trash	Legg Lake
Cadmium	Los Angeles River
Copper, Zinc, Lead	Los Angeles River
E. coli (Bacteria)	Los Angeles River
Nitrogen Compounds	Los Angeles River
Trash	Los Angeles River
Lead	San Gabriel River
Selenium	San Gabriel River

1.7.2 WBPCS FROM 303(D) LISTED WATER BODIES

The following table contains the pollutants and water bodies as listed on the 2010 303(d) list. Impairment or exceedances of RWLs.

Table 1-5: WBPCs on 2010 303(d) List (Category 2)

Impairment	Water body	Receiving Water Limitations
Ammonia*	Legg Lake	
Copper	Legg Lake	12 ug/L
Lead	Legg Lake	8 ug/L
Odor	Legg Lake	N/A
pH	Legg Lake and Los Angeles River	6.5-8.5
Trash	Legg Lake	0 trash by 3/6/2016
Cyanide	Los Angeles River and San Gabriel Rivers	0.2 mg/L
Toxicity	Los Angeles River (Rio Hondo)	
Indicator Bacteria	San Gabriel River (Reach 3)	

* Recommended for removal by EPA due to lack of sample results testing positive for ammonia.

1.7.3 WBPCS WITH EXCEEDANCES OF WATER QUALITY OBJECTIVES

Data from Annual Reports, IC/ID reports, SWAMP, Industrial/ Commercial Facility baseline exceedances information from SMARTS, Mass Emissions Stations sampling, dry weather and wet weather outfall sampling conducted by the City, etc.

Table 1-6: WBPCs with exceedances (Category 3)

Constituent	Water Body	Receiving Water Limitations
Cyanide	Los Angeles River	0.2 mg/L
Diazanon	Los Angeles River (Rio Hondo)	0.05 mg/L
Copper	San Gabriel River	12 ug/L
Indicator Bacteria	San Gabriel River	
Zinc	San Gabriel River	80 ug/L

1.8. SELECTION OF WATERSHED CONTROL MEASURES

The City will identify strategies, control measures, and BMPs to implement through storm water management programs and on a watershed scale (for both WMAs) with the goal of creating an efficient program to focus individual/collective resources on watershed priorities.

The objectives of the Watershed Control Measures are:

- To implement pollutant controls necessary to achieve all applicable interim and final WQBELs and /or RWLs pursuant to compliance schedules.

- To ensure that discharges from the MS4 do not cause or contribute to exceedances of RWLs.
- To prevent or eliminate non-stormwater discharges to MS4 that are a source of pollutants form the MS4 to receiving waters.

The Watershed Control Measures will include combinations of:

- Structural and/or non-structural controls and operation and maintenance of procedures designed to achieve applicable WQBELs and/or RWLs;
- Retrofitting areas of existing development known or suspected to contribute to the highest water quality priorities with regional controls or management measures; and
- Stream and/or habitat rehabilitation or restoration projects where necessary.

The City will implement Watershed Control Measures based on the results of its watershed modeling and the necessary pollutant reductions.

1.8.1 MINIMUM CONTROL MEASURES (MCMS)

Until the WMP is approved, the City will continue to implement their existing storm water management programs , including those actions within each of the minimum control measures consistent with 40 CFR 122.26(d)(2)(iv)(A)-(D). The MCMs are listed below, with a sub bullet emphasizing the major

- Development Construction Program
- Industrial Commercial Program
- IC/ID Detection and Elimination Program
- Public Agency Activities Program
    - Install trash excluders in catch basins (to comply with WQBEL of zero trash by September 30, 2016)
    - Develop an inventory of facilities and BMPs for retrofitting opportunities
- Public Information and Participation Program
- Planning and Land Development Program
    - Low Impact Development Strategies (LID Ordinance adopted June 10, 2014)
    - New Development/Redevelopment Effectiveness Tracking

The City will assess the MCMs to identify opportunities for focusing on high priority issues and identify potential modifications for each of the MCMs. Currently, the City does not anticipate customizing any of the MCMs. If the City elects to eliminate a control measure because that specific control measure is not applicable to the City, the City will provide justification for its elimination. The City understands that the Planning and Land Development Program is not eligible for elimination.

1.8.2 NON-STORM WATER DISCHARGE CONTROL MEASURES

Where the City identifies non-storm water discharges from the MS4 as a source of pollutants that cause or contribute to exceedances of RWLs, drainage area control measures, and /or BMPs will be implemented to effectively eliminate the source of pollutants. These measures may include prohibiting additional non-storm water discharges to the MS4, adding BMPs to reduce the pollutants, and/or diversion of the runoff to a sanitary sewer.

The dry weather screening of outfalls to the Rio Hondo and San Gabriel River three times per year will identify possible dry weather flows that can be eliminated. The training of City Public Works staff and Code Enforcement staff in the recognition and reporting of non-stormwater discharges is an important step in eliminating non-stormwater discharges. Public information and education regarding water conservation and irrigation reduction will results in less runoff.

1.8.3 TMDL CONTROL MEASURES

The City will implement control measures that have been identified in TMDLs and corresponding implementation plans. The City will also evaluate and identify control measures as follows:

- Where necessary, TMDL measures shall include control measure to address both storm water and non-storm water discharges from the MS4.
- TMDL control measures may include baseline or customized activities covered under the general MCM categories as well as BMPs and control measures covered under non-storm water discharge provisions.
- The WMP includes actions that will be implemented during the permit term to achieve interim and/or final WQBELs and/or RWLs with compliance deadlines within the permit term.

Los Angeles River

A total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts (FBIs) account for 20 of the retrofitted catch basins and the remaining are Automatic Retractable Screens (ARSs). Two Modular Wetland Systems have also been installed and three additional modular Wetland Systems are planned for a housing and retail development currently being constructed. The Los Angeles River Trash TMDL compliance strategies include installation of full capture devices, or partial capture devices with institutional controls. Implementation measures include Daily Generation Rate studies.

A map showing the location of catch basins and drain lines within the City's jurisdiction is shown in Figure 1-7 below. The existing and planned control measures are shown in Figure 1-8.

TMDL control measures for Cadmium, Copper, Lead, and Zinc for both wet weather and dry weather will include a robust Industrial/Commercial Facilities Inspection Program. The program will emphasize the proper implementation of source control BMPs at facilities that have the potential to discharge metals to the MS4. Facilities with known exposure or a history of discharge will be inspected at twice the frequency of other facilities. The Los Angeles River and Tributaries TMDL for Metals recommendations for non-structural controls include more frequent and appropriately timed catch basin cleaning, enhanced street sweeping, and source reduction through increased detection methods resulting in elimination of illicit discharges and dry weather flows. Structural control recommendations include infiltration or filter devices specifically designed to reduce metals or diversion to treatment facilities.

TMDL control measures for Nutrients in wet weather will be largely associated with implementation of the LID Ordinance and Green Street Policy. Control measures for both wet and dry weather will include implentation of enhanced street sweeping, irrigation reduction/water conservation ordinances, and capture and use/infiltration control measures.

TMDL control measures for Diazanon for both wet weather and dry weather will include identifying facilities within any sampled drainage area that show an elevated level of pesticides and then inspecting them specifically for use of and the presence of known pesticides and if warranted, the city may elect to sample discharges from that facility and subject the facility to enforcement actions.

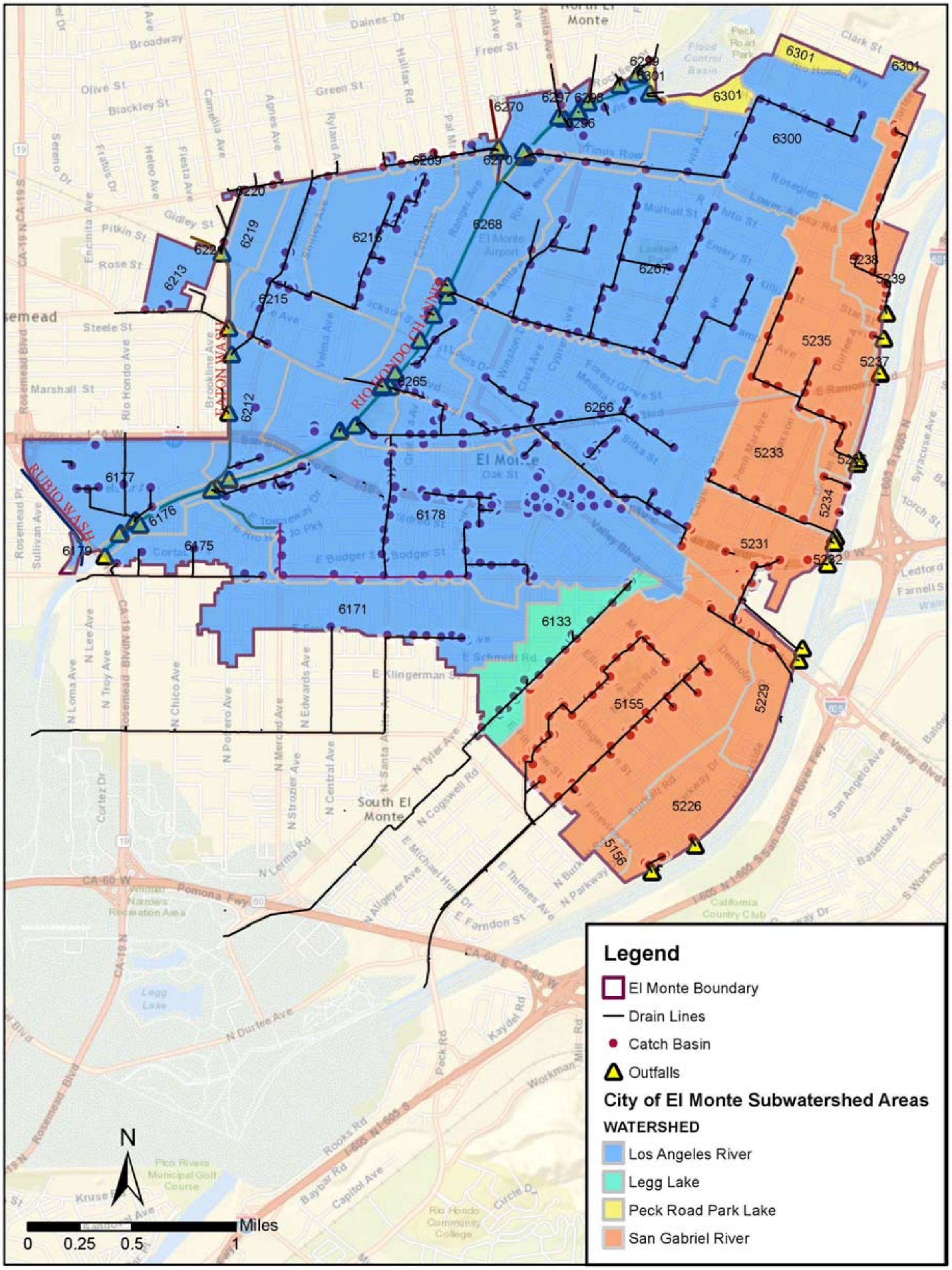
San Gabriel River

TMDL control measures for Lead for wet weather will include a robust Industrial/Commercial Facilities Inspection Program. The program will emphasize the proper implementation of source control BMPs at facilities that have the potential to discharge metals to the MS4. Facilities with known exposure or a history of discharge will be inspected at twice the frequency of other facilities. Control measures for dry weather bacteria will include source reduction through increased detection methods resulting in elimination of illicit discharges and dry weather flows, irrigation reduction/water conservation ordinances, and capture and use/infiltration control measures.

Watershed control measures for Category 1, 2, and 3 pollutants include:

The City will develop protocols for investigating and following up on all non stormwater discharges (regardless of receiving water) discovered by City or County staff or reported through the County Hotline. An enhanced enforcement policy will be developed to ensure the elimination of all illicit discharges.

Figure 1-9: Catch Basins and Drain Lines



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Legg Lake

El Monte's point source area for the Trash TMDL is approximately 0.10 square miles. LACFCD storm drain line BI 0529-Line B drains catch basins within that approximate 0.10 square mile portion of the City. The catch basins feeding the storm drain line are along Mountain View Road from approximately Garvey Avenue to the city limit boundary on south near Weaver Avenue. The storm drain line has a single outlet at North Lake. Six catch basins along Mtn. View Road have been retrofitted with trash exclusion devices. The devices consist of a combination of ARSs and FBIs at the highest traffic areas along this route.

The City is committed to trash reduction to the Legg Lake system and plans to retrofit more catch basins with trash excluders along this route as funding becomes available. The City will also explore increased frequency of sweeping along Mountain View Road, sweeping of alleyways, and increased frequency of sweeping of public parking lots. The discharge of trash from storm drains draining to Legg Lake will largely be controlled/reduced by the implementation of the trash excluders described above but additional measures for eliminating the trash impairment to Legg Lake (as described in the Trash TMDL for Legg Lake) will include placement of additional trash receptacles along Mountain View Road, Public Education regarding the Lake impairments, and Community Involvement to further promote water quality at the lake.

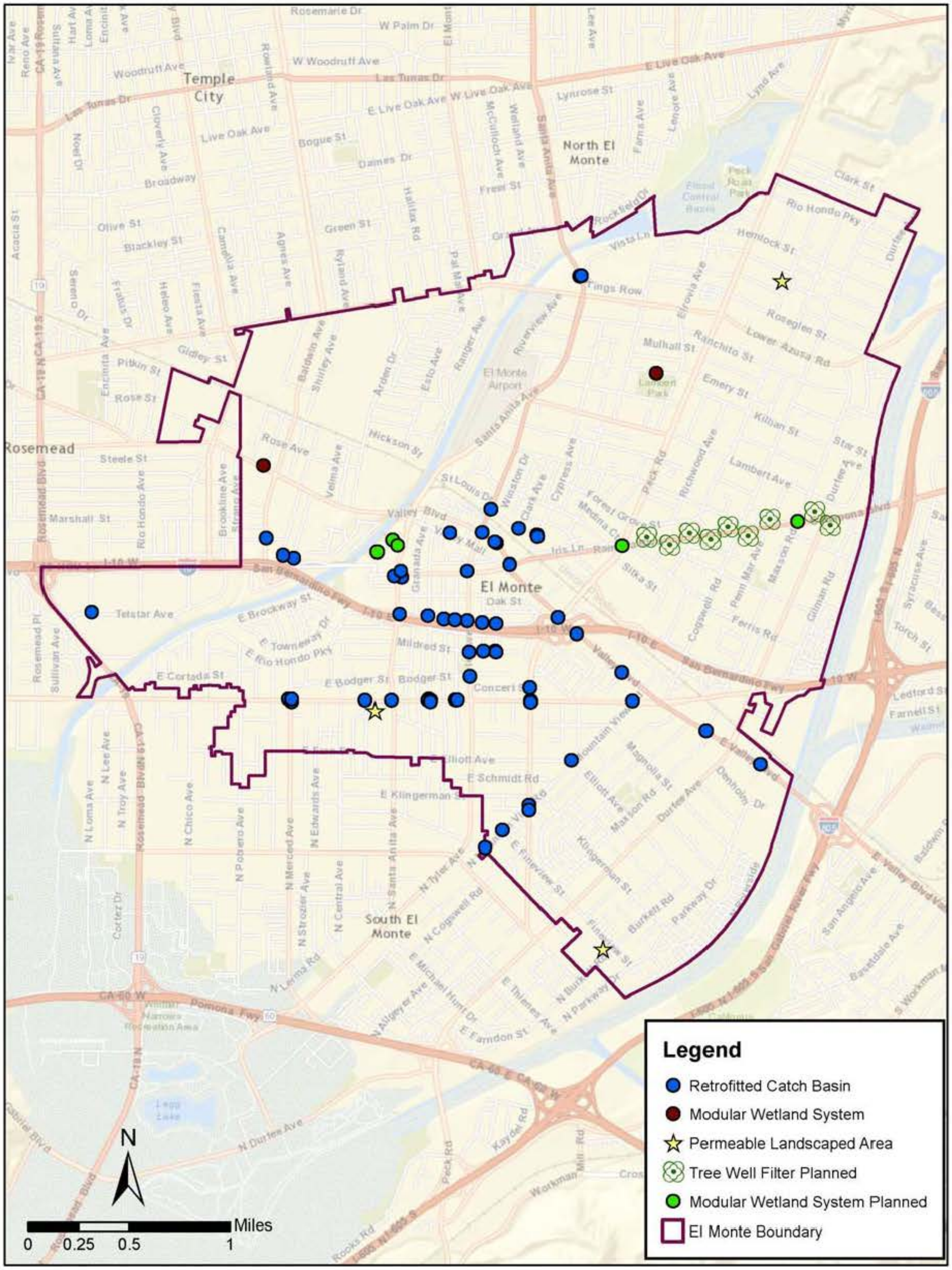
Peck Road Park Lake

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake.

1.8.4 EXISTING AND PLANNED STRUCTURAL CONTROL MEASURES

There are approximately 300 catch basins in the City's jurisdiction. Of the 300, a total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts account for 20 of the retrofitted catch basins and the remaining are Automatic Retractable Screens. Two Modular Wetland Systems have also been installed and three additional Modular Wetland Systems are planned for a housing and retail development currently being constructed. Permeable landscaped areas have been installed at three schools and two additional Modular Wetland Systems plus nine Tree Well Filters are planned for the Ramona Boulevard Improvement Project. The locations of the devices are shown on Figure 1-8.

Figure 1-10: Existing and Planned Control Measures



RB-AR4870

1.9. REASONABLE ASSURANCE ANALYSIS (RAA)

Permittees electing to develop a watershed management program (WMP) or enhanced watershed management program (EWMP) are required to submit a Reasonable Assurance Analysis (RAA) as part of their draft WMP to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of the watershed control measures proposed in WMP. The City will conduct a RAA for each water body pollutant combination (WBPC) addressed by its WMP. The RAA will be quantitative and performed using a peer-reviewed model in the public domain. The RAA will commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of QA/QC criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data shall only be drawn from peer-reviewed sources and statistically analyzed to determine the best estimate for the performance and confidence limits on that estimate for the pollutants to be evaluated. The Regional Board has prepared a guidance document to provide information and guidance to assist permittees in development of the RAA. The document provides clarification of the regulatory requirements of the RAA along with recommended criteria for the permittees to follow to prepare an appropriate RAA for Regional Board approval.

The objective of the RAA shall be to demonstrate the ability of the WMP to ensure that Permittees MS4 discharges achieve applicable WQBELS and do not cause or contribute to exceedances of RWLs.

1.9.1 MODELING REQUIREMENTS FOR RAA

The WMMS meets the model requirements of the Reasonable Assurance Guidelines and is appropriate for conducting the required RAA.

Model input files: the model input/output files will be uploaded with this WMP.

The City has chosen to use the Watershed Management Modeling System (WMMS) to support/demonstrate/conduct the RAA. The WMMS was developed by the Los Angeles County Flood Control District and the U.S. EPA. The WMMS meets the requirements of Section G. of the RAA Guidelines and is appropriate for conducting the required Reasonable Assurance Analysis. WMMS

modeled 38 subwatershed within City's jurisdiction. GIS "intersect" methods were used to include those portions of subwatersheds within the City's jurisdiction.

This RAA (using WMMS) and the associated IMP uses the Los Angeles County's HUC-12 equivalent boundaries. The City has verified with neighboring groups and cities that there are no gaps in the geographic areas addressed in the RAA or IMP.

Calibration

Since the original development of the WMMS LSPC model, Los Angeles County personnel have independently updated the model with meteorological data through 2012. The calibration of WMMS was fully documented, and is consistent with methods used in LSPC modeling efforts previously performed by the EPA to support TMDL development (Tetra Tech 2010). There is limited or insufficient storm flow and water quality data available near El Monte to facilitate additional calibration of modeling parameters.

Rain Data

The RAA is based on recorded rainfall depth metrics obtained for historical wet season data, classified as October 1st to April 30th, for the years 1986 to 2012. This wet season time period is referred to in the RAA as a "Wet Year", and was utilized to represent the evaluated critical condition, allowing for the modeling to capture variability of rainfall storm depths. Recorded rainfall depths were obtained from LA County Department of Public Works Rain Gage D108 data, located at El Monte Fire Station on Santa Anita Ave, between Valley Mall and Ramona Blvd. The wet year minimum, maximum and total annual rainfall depths are summarized in Table 1-7 below for only the last ten years of data, per the RAA Guidelines [1]). Based on the data from these last ten years, the 90th percentile rainfall value is 26.66 inches, which most closely corresponds to the 2004-2005 wet year. Therefore, the wet year for 2004-2005 was determined to be the representative year for the 90th percentile wet year.

Table 1-7: 90th Percentile Wet Year Selection

Wet Year Start	Wet Year End	Average Wet Year Rainfall (in/yr)	Minimum Size Storm Depth per Wet Year (in/event)	Maximum Size Storm Depth Per Wet Year (in/event)
2001	2002	19.47	0.01	1.8
2002	2003	9.09	0.01	1.11
2003	2004	9.09	0.01	1.11
2004	2005	27.22	0.01	2
2005	2006	12.86	0.01	1.9
2006	2007	4.07	0.01	1.84
2007	2008	14.44	0.04	0.72
2008	2009	11.01	0.04	0.51
2009	2010	28.04	0.04	0.51
2010	2011	21.3	0.03	0.51
	90th Percentile Year			

The model estimates sediment (TSS), metals, nutrients, and bacteria. For Nitrogen compounds, TSS was used as surrogate pollutant to indirectly model the Nitrogen compounds. Cadmium is not modeled by WMMS. Although not directly modeled by WMMS, BMPs implemented to remove other heavy metals will remove Cadmium. Additionally, a review of Los Angeles County monitoring data for five sampling events during the 2002-2003 wet season showed no hits for dissolved or total Cadmium for the Rio Hondo Channel. Similarly for four sampling events during the 2003-2004 wet season and two sampling event in the dry season, again Cadmium was not detected in the Rio Hondo.

1.9.2 MODELED POLLUTANT LOADING, ALLOWABLE LIMITS, AND REQUIRED PERCENT REDUCTION

The modeled (estimated) pollutant loadings, allowable limit, and percent reduction required to meet effluent limits are shown in the tables and graphs below.

LA River and Tributaries

Table 1-8: Formula used for Metals Effluent Limit Calculation from Order R4-2012-0175

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER[1] x 2.8 x 10^{-9} x daily volume (L) – 1.8
Copper	WER[1] x 1.5 x 10^{-8} x daily volume (L) – 9.5
Lead	WER[1] x 5.6 x 10^{-8} x daily volume (L) – 3.85
Zinc	WER[1] x 1.4 x 10^{-7} x daily volume (L) – 83

Table 1-9: LA River Metals

Modeled Pollutants	Daily Volume (L/day)	Calc'd Limits (kg/day)	Modeled Load (kg/day)	Percent Reduction Required
Copper	253,142,882	28	See table 1.9	None required
Lead	253,142,882	138	See table 1.10	None required
Zinc	253,142,882	271	See table 1.11	None required

Table 1-9: LA River Copper

Wet Days	Modeled Total Copper (kg/day)	Limit (kg/day)
10/17/2004	14.04	28
10/18/2004	15.39	28
10/20/2004	0.48	28
10/26/2004	4.76	28
10/27/2004	0.12	28
11/18/2004	2.11	28
12/5/2004	3.50	28
12/25/2004	14.58	28
12/26/2004	5.40	28
12/27/2004	0.12	28
12/28/2004	0.54	28
12/29/2004	0.51	28
1/1/2005	2.55	28
1/5/2005	3.37	28
1/8/2005	0.98	28
1/9/2005	1.64	28
1/23/2005	0.64	28
2/11/2005	9.35	28
2/18/2005	3.12	28
3/2/2005	6.76	28
3/21/2005	7.86	28
4/26/2005	4.51	28
9/20/2005	1.16	28

Figure 1-11: Scatter Plot for LA River Copper

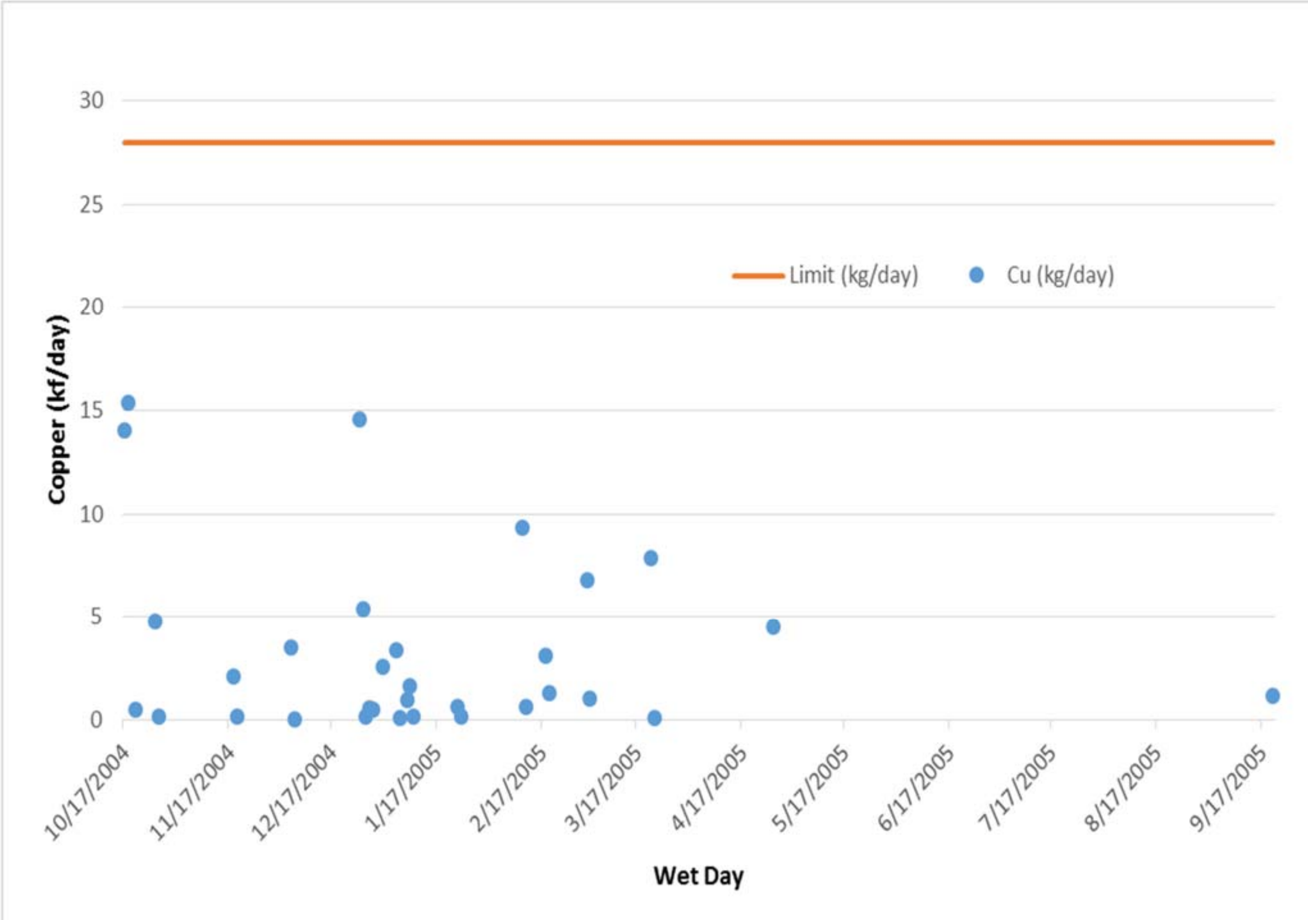


Table 1-10: LA River Lead

Wet Days	Modeled Total Pb (Kg/Day)	Limit (kg/day)
10/17/2004	12.41	138
10/26/2004	4.29	138
11/18/2004	1.89	138
12/5/2004	3.16	138
12/25/2004	12.87	138
1/1/2005	1.87	138
1/5/2005	2.95	138
1/9/2005	1.08	138
1/23/2005	0.57	138
2/11/2005	8.35	138
2/18/2005	2.84	138
2/19/2005	1.13	138
3/2/2005	6.10	138
3/3/2005	0.61	138
3/21/2005	7.15	138
4/26/2005	4.08	138
9/20/2005	0.62	138

Figure 1-12: Scatter Plot for LA River Lead

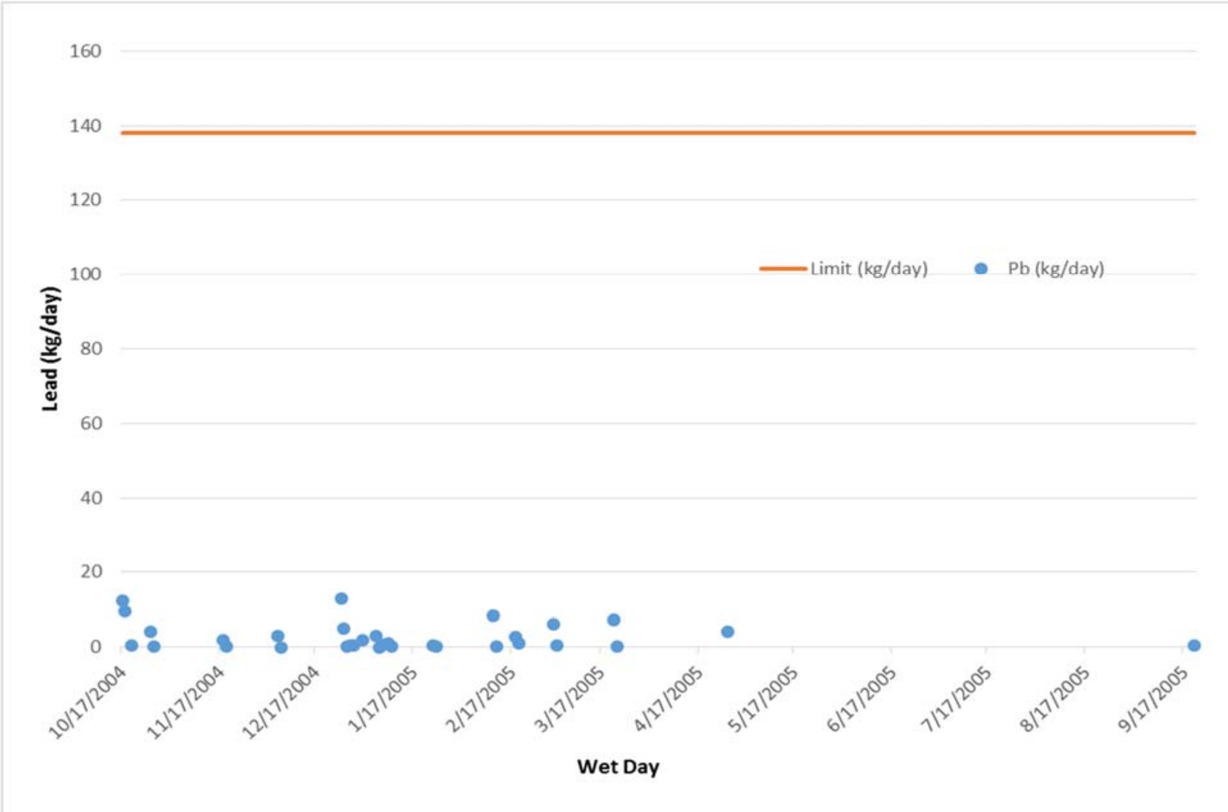


Table 1-11: LA River Zinc

Wet Days	Modeled Total Zn (Kg/day)	Limit (kg/day)
10/17/2004	135.72	271
10/18/2004	146.63	271
10/20/2004	4.58	271
10/26/2004	44.25	271
10/27/2004	1.15	271
11/18/2004	20.28	271
11/19/2004	1.32	271
12/5/2004	33.41	271
12/25/2004	140.86	271
12/26/2004	51.44	271
12/27/2004	1.08	271
12/28/2004	5.05	271
12/29/2004	4.77	271
1/1/2005	18.68	271
1/5/2005	31.23	271
1/8/2005	8.53	271
1/9/2005	10.43	271
1/23/2005	6.09	271
2/11/2005	89.20	271
2/18/2005	29.30	271
3/2/2005	64.30	271
3/21/2005	75.10	271
4/26/2005	43.10	271
9/20/2005	11.04	271

Figure 1-13: Scatter Plot for LA River Zinc

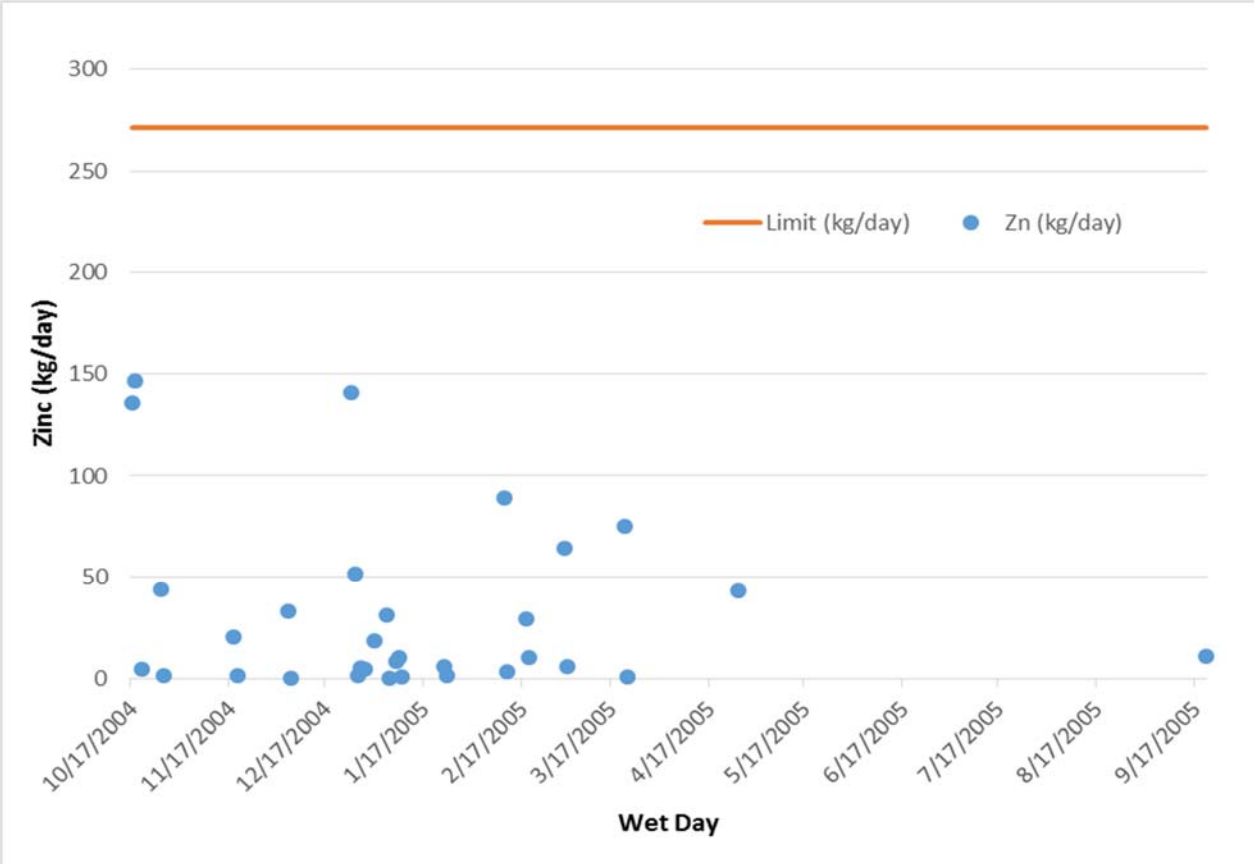


Table 1-12: Nitrogen Compounds Effluent Limits from Order R4-2012-0175

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
Los Angeles River above Los Angeles-Glendale WRP (LAG)	4.7	1.6	8.0	1.0	8.0
Los Angeles River below LAG	8.7	2.4	8.0	1.0	8.0
Los Angeles Tributaries	10.1	2.3	8.0	1.0	8.0

Table 1-13: LA River Nitrogen Compounds

Month	Av. Modeled TSS (mg/L)	Converted to NO3-N+NO2-N (mg/L)	Thirty-day Average Limit (mg/L)	Percent Reduction Required
10/31/2004	371.91	3.35	8.00	None required
11/30/2004	157.46	1.42	8.00	None required
12/31/2004	324.44	2.92	8.00	None required
1/31/2005	281.84	2.54	8.00	None required
2/28/2005	285.70	2.57	8.00	None required
3/31/2005	255.71	2.30	8.00	None required
4/30/2005	130.47	1.17	8.00	None required
5/31/2005	63.04	0.57	8.00	None required
6/30/2005	0.00	0.00	8.00	None required
7/31/2005	0.26	0.00	8.00	None required
8/31/2005	0.00	0.00	8.00	None required
9/30/2005	47.09	0.42	8.00	None required

Figure 1-14: Scatter Plot for LA River Nitrogen Compounds

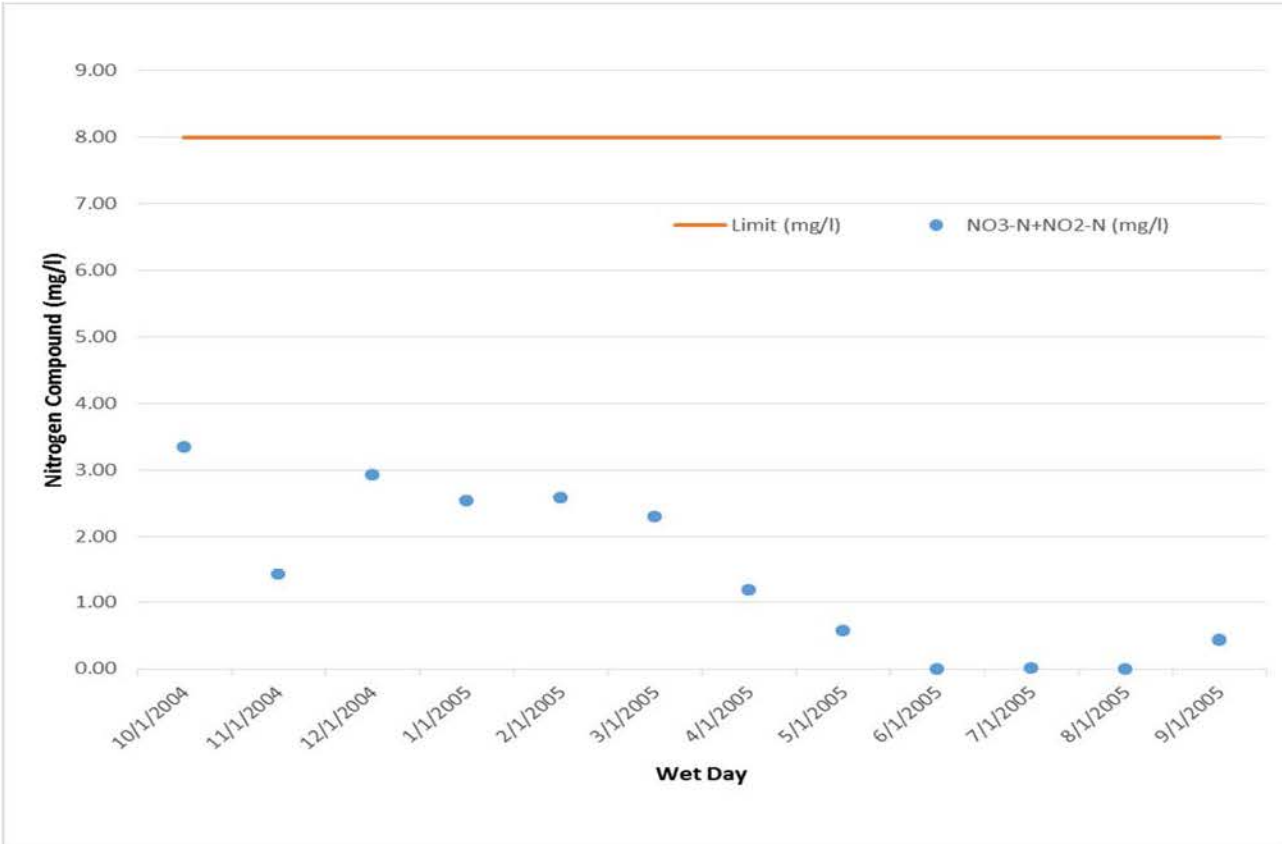


Figure 1-15: Scatter Plot for LA River Bacteria

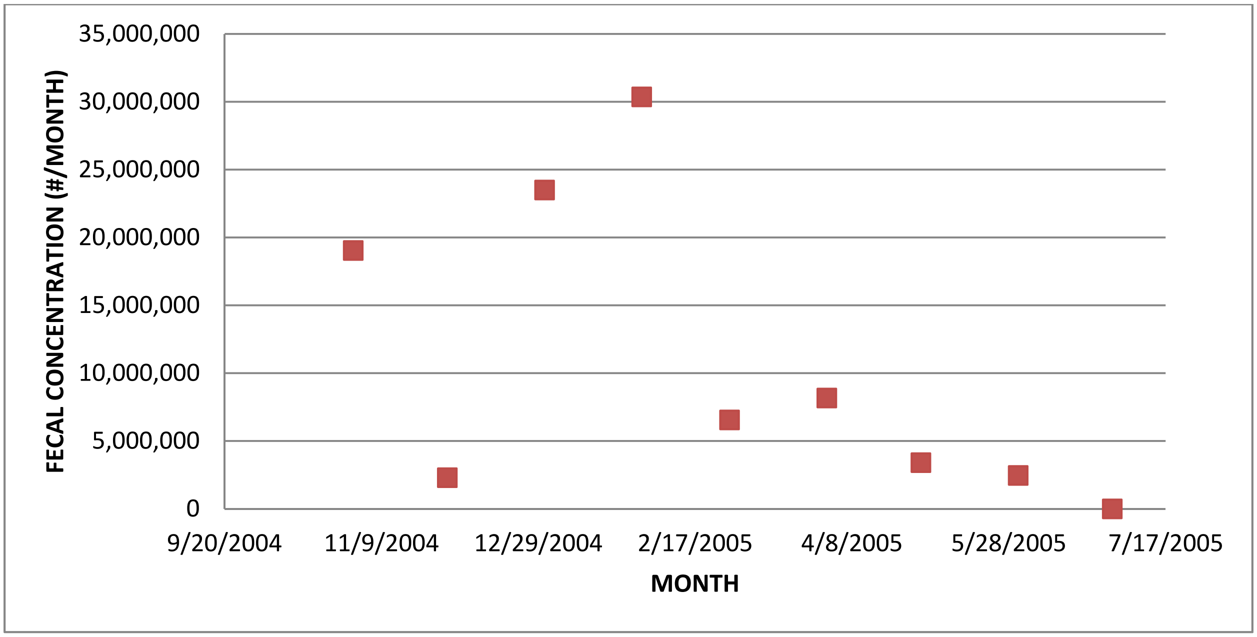
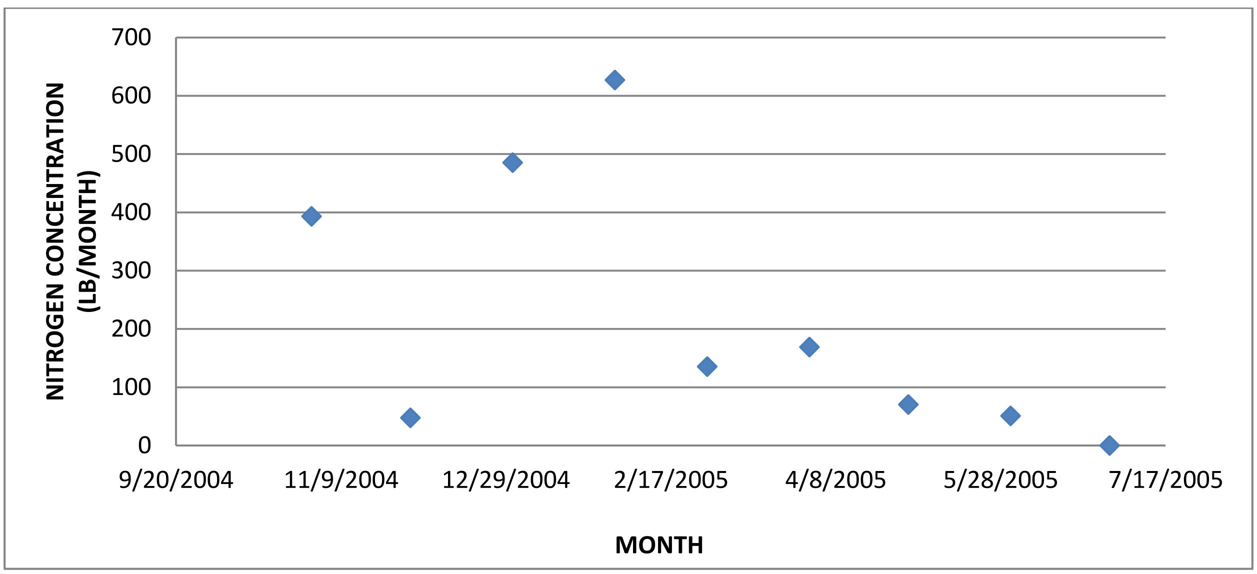


Figure 1-16: Scatter Plot for LA River Nitrogen Compounds



Legg Lake Nutrients TMDL

Table 1-14: Annual mass-based allocations from Order R4-2012-0175

Subwatershed	Permittee	Flow (ac-ft/yr)	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Northwestern	County of Los Angeles	33.5	53.6	148.7
Northwestern	South El Monte	308	526.3	1,500.6
Northeastern	El Monte	122	226.6	590.3
Northeastern	County of Los Angeles	8.18	12.8	39.2
Northeastern	South El Monte	287	498.7	1,394.8

Table 1-15: Legg Lake Modeled Nutrients Reduction Required

Subwatershed ID	Pollutants	Modeled (lb/yr)	Limits (lb/yr)	Percent Reduction
6133	Nitrogen	678.4	590.3	13%
	Phosphorous	594.7	226.6	62%

Figure 1-17: Scatter Plot for Legg Lake Total Lead

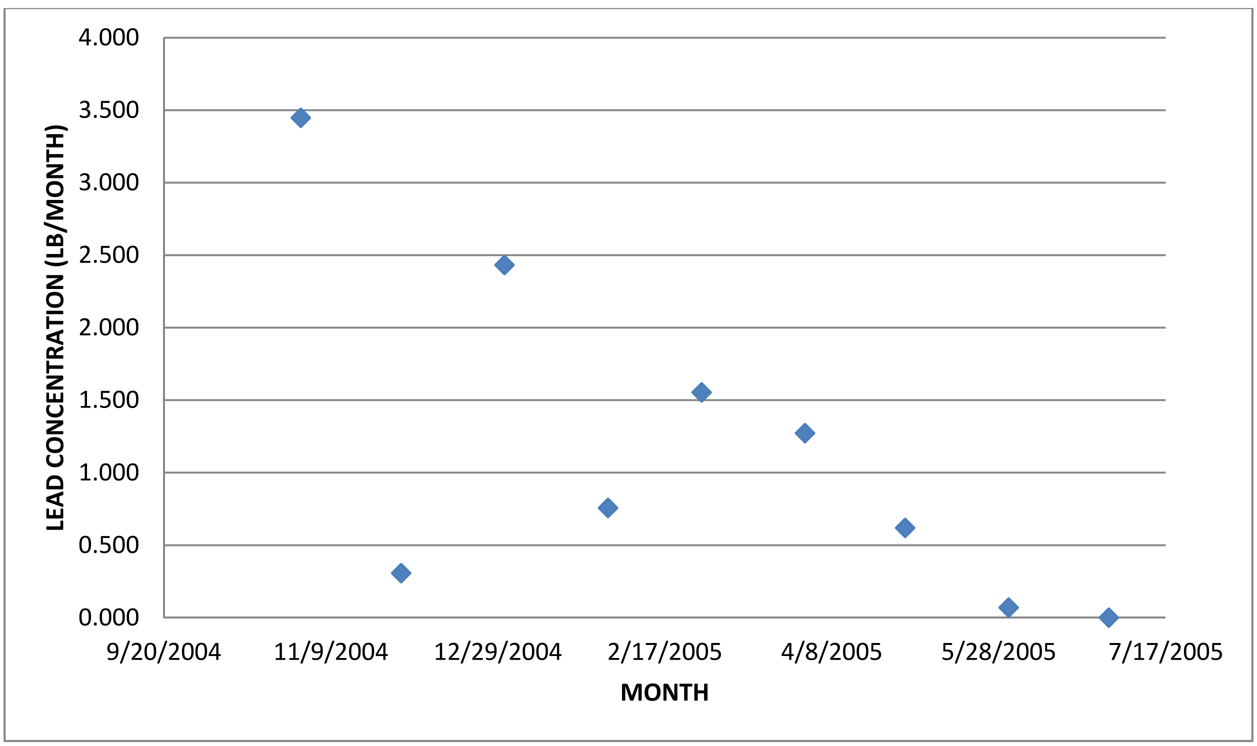


Figure 1-18: Scatter Plot for Legg Lake Total Copper

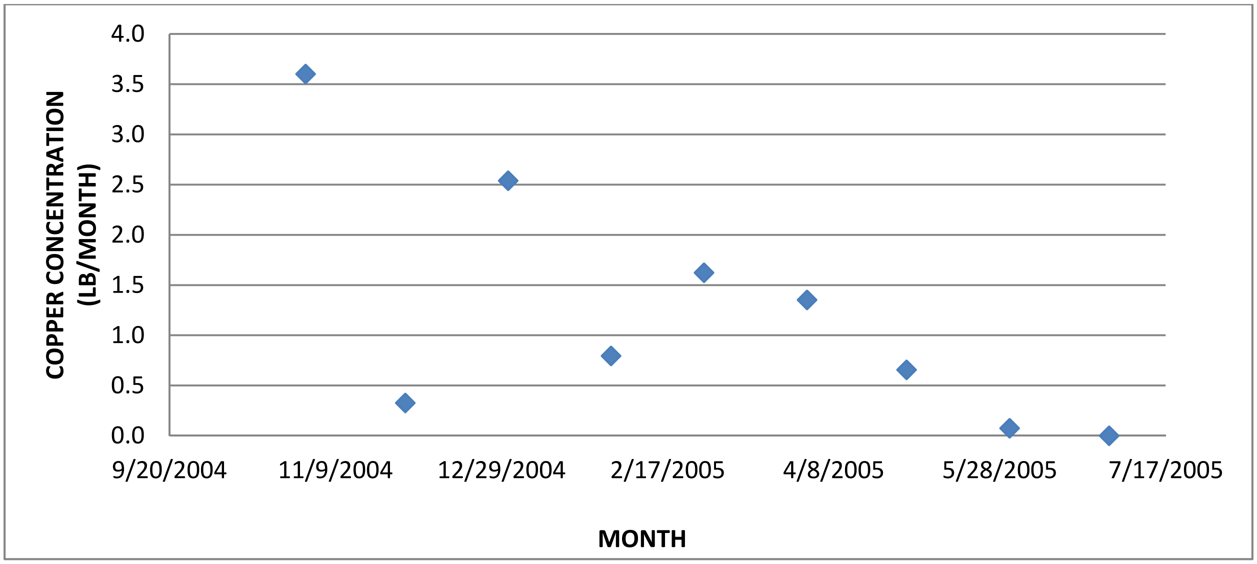


Table 1-16: Legg Lake - Nutrient Flow, Volume & Loading

Subwatershed ID	Land Use	Phosphorus	lb/yr	Nitrogen	lb/yr	Flow	in-acre/yr
6133	HD_SF_RESIDENTIAL	PO_TP	61.24	PO_TN	64.45	SURO	142.20
6133	LD_SF_RES_MODERATE	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	LD_SF_RES_STEEP	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	MF_RES	PO_TP	524.81	PO_TN	552.36	SURO	1218.72
6133	COMMERCIAL	PO_TP	170.46	PO_TN	113.63	SURO	250.72
6133	INSTITUTIONAL	PO_TP	53.89	PO_TN	85.51	SURO	188.68
6133	INDUSTRIAL	PO_TP	1.13	PO_TN	1.79	SURO	3.95
6133	TRANSPORTATION	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	SECONDARY_ROADS	PO_TP	101.29	PO_TN	202.51	SURO	446.83
6133	URBAN_GRASS_IRRIGATED	PO_TP	25.55	PO_TN	47.32	SURO	59.67
6133	URBAN_GRASS_NONIRRIGATED	PO_TP	4.01	PO_TN	7.43	SURO	9.00
6133	AGRICULTURE_MODERATE_B	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	AGRICULTURE_MODERATE_D	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT _MODERATE_B	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT _MODERATE_D	PO_TP	0.00	PO_TN	0.00	SURO	0.00

6133	VACANT_STEEP_A	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_B	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_C	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_D	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	WATER	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	WATER_REUSE	PO_TP	0.00	PO_TN	0.00	SURO	0.00
		Totals	942.37		1075.00		2319.77
						Flow in ac-ft/yr	193.31
						Volume in L/yr	238,449,261.2

RB-AR4886

Peck Road Park Lake Nutrients TMDL

Table 1-17: Annual mass-based allocations from Order R4-2012-0175

Subwatershed	Permittee	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Eastern	Arcadia	383	2,320
Eastern	Bradbury	497	3,223
Eastern	Duarte	1,540	9,616
Eastern	Irwindale	496	3,487
Eastern	County of Los Angles	924	5,532
Eastern	Monrovia	6,243	38,736
Near Lake	Arcadia	158	1,115
Near Lake	El Monte	96.2	602
Near Lake	Irwindale	28.2	207
Near Lake	County of Los Angeles	129	773
Near Lake	Monrovia	60.4	415
Western	Arcadia	2,840	16,334
Western	County of Los Angeles	467	2,818
Western	Monrovia	425	2,678
Western	Sierra Madre	695	4,254

Table 1-18: Peck Road Park Lake Modeled Nutrients

Subwatershed ID	Modeled Total N (lb/yr)	Modeled Total P (lb/yr)
6301	546	413

Table 1-19: Peck Road Park Lake Modeled Nutrients Reduction Required

Pollutants	Modeled (lb/yr)	Limits (lb/yr)	Percent Reduction Required
Nitrogen	546	602	None required
Phosphorous	413	96.2	77%

San Gabriel River Watershed Management Area TMDL

Table 1-20: Waste Load Allocation from Order R4-2012-0175

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
San Gabriel Reach 2	---	81.34 µg/L x daily storm volume (L)	---
Coyote Creek	24.71 µg/L x daily storm volume (L)	96.99 µg/L x daily storm volume (L)	144.57 µg/L x daily storm volume (L)

Table 1-21: San Gabriel River Modeled Nutrients Reduction Required

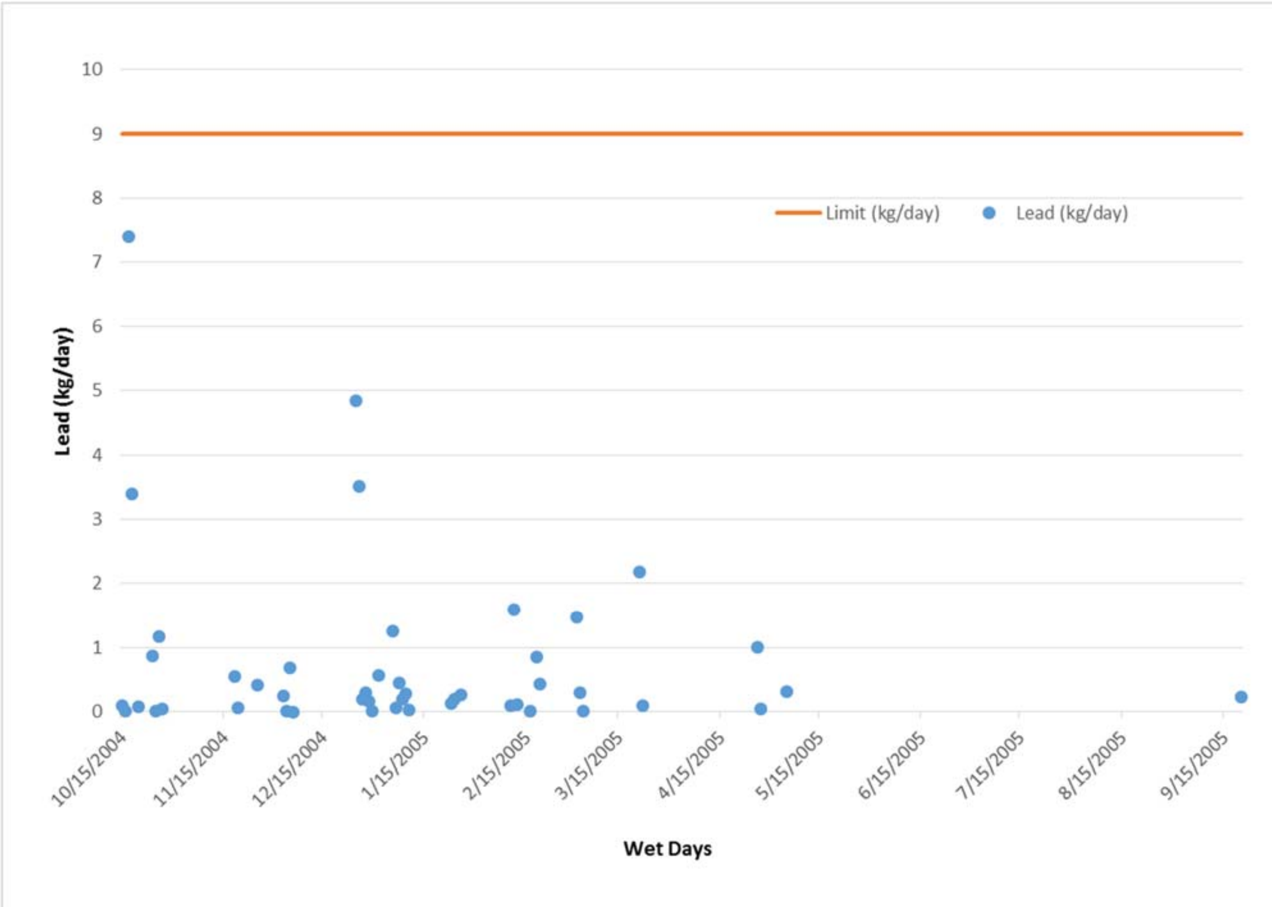
Pollutant	Daily Volume (L/day)	Limits (kg/day)	Modeled Load (kg/day)	Percent Reduction Required
Lead	108,192,160	9	See table 1-15	None required

Table 1-22: San Gabriel River Modeled Lead

Day	Modeled Lead (kg/day)	Limit (kg/day)
10/15/2004	0.10	9
10/16/2004	0.01	9
10/17/2004	7.41	9
10/18/2004	3.40	9
10/20/2004	0.09	9
10/24/2004	0.87	9
10/25/2004	0.02	9
10/26/2004	1.18	9
10/27/2004	0.04	9
11/18/2004	0.54	9
11/19/2004	0.06	9
11/25/2004	0.42	9
12/3/2004	0.24	9
12/4/2004	0.01	9
12/5/2004	0.69	9
12/6/2004	0.00	9
12/25/2004	4.85	9

Day	Modeled Lead (kg/day)	Limit (kg/day)
12/26/2004	3.51	9
12/27/2004	0.19	9
12/28/2004	0.29	9
12/29/2004	0.17	9
12/30/2004	0.02	9
1/1/2005	0.57	9
1/5/2005	1.25	9
1/6/2005	0.06	9
1/7/2005	0.44	9
1/8/2005	0.20	9
1/9/2005	0.29	9
1/10/2005	0.04	9
1/23/2005	0.13	9
1/24/2005	0.19	9
1/26/2005	0.26	9
2/10/2005	0.09	9
2/11/2005	1.59	9
2/12/2005	0.12	9
2/16/2005	0.01	9
2/18/2005	0.85	9
2/19/2005	0.43	9
3/2/2005	1.48	9
3/3/2005	0.29	9
3/4/2005	0.02	9
3/21/2005	2.18	9
3/22/2005	0.10	9
4/26/2005	1.01	9
4/27/2005	0.05	9
5/5/2005	0.32	9
9/20/2005	0.24	9

Figure 1-19: Scatter Plot for San Gabriel River Lead



1.9.3 POLLUTANT REDUCTION PLAN

Compliance Determination

- Compliance points are located at the compliance points required in the TMDLs that are within the area covered by the WMP.

- Compliance points for MS4 discharges from the area covered by the WMP to the Receiving Waters of the Los Angeles River (via the Rio Hondo) and the San Gabriel River will be at the outfall(s) (or immediately upstream of the outfalls if safety concerns preclude sampling at the outfalls.

- The compliance point for the Legg Lake system of lakes will be the last catch basin (manhole) on Mountain View Road nearest the City's southernmost jurisdictional boundary. This point corresponds to a point on the single storm drain line from the City to the North Lake at the City's jurisdictional boundary.

- The compliance point for the Peck Road Park Lake has not been fully determined at this point. A review of City and LACFCD records show no direct discharge from the City to the lake. LACFCD maps show catch basins within the residential area discharging to the concrete spillway downstream of the lake. Subwatershed 6301 also does not appear to have a direct connection to the lake.

1.9.4 TMDL SUMMARY AND ACTION REQUIRED

Figure 1-20: MDL Summary and Action Required

TMDLs	Water Body	El Monte Action Required
Los Angeles River Watershed Trash TMDL	LA River	Retrofit catch basins with trash excluders for zero trash by Sept. 30, 2016
Los Angeles River Nitrogen Compounds and Related Effects TMDL	LA River	None; Modeled concentration below limit
Los Angeles River and Tributaries Metals TMDL	LA River	None; Modeled concentrations below limits
Los Angeles River Watershed Bacteria TMDL	LA River	Develop Load Reduction Strategy for Bacteria by March 23, 2016
Los Angeles Area Lakes TMDL (Peck Road Park Lake)	Peck Road Park Lake	None; no discharge to lake
Legg Lake Trash TMDL	LA River	Retrofit catch basins with trash excluders for zero trash by March 6, 2016
Los Angeles Area Lakes TMDL (Legg Lake Nutrients)	Legg Lake	Retrofit catch basins with BMPs to remove nutrients to comply with WLAs
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	LA River	Collaborate with Lower Los Angeles River Watershed Group on TMDL monitoring (yearly)
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	San Gabriel River	Collaborate with Lower San Gabriel River Watershed Management Group on TMDL monitoring (yearly)
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	San Gabriel River	None; Modeled concentrations below limits

1.10. COMPLIANCE AND BMP IMPLEMENTATION SCHEDULES

The City will implement the following BMPs per the schedules shown in order to be in compliance with the Trash TMDL for the Los Angeles River and the Trash and Nutrient TMDLs for Legg Lake.

Table 1-23: Los Angeles River Trash TMDL BMP Implementation Schedule

Subwatershed ID	Area (ac)	Approx. Catch Basins*	Existing Retrofitted Catch Basins	Planned Catch Basin Retrofits	BMP Type	Schedule	
6178	778.6	101	30	71	ARS**	30 retrofitted by 2015	41 retrofitted by 2016
6267	655.8	70	0	70	ARS	35 retrofitted by 2015	35 retrofitted by 2016
6266	579.7	50	11	39	ARS	20 retrofitted by 2015	19 retrofitted by 2016
6300	397.1	40	0	40	ARS	20 retrofitted by 2015	20 retrofitted by 2016
6216	231.4	25	0	25	ARS	12 retrofitted by 2015	13 retrofitted by 2016

**Catch basins that City of El Monte is responsible for.*

***ARS: Automatic Retractable Screen.*

Table 1-24: Legg Lake Trash and Nutrients TMDL BMP Implementation Schedule

Subwatershed ID	Drainage Area (ac)	Predominant Land Use	Pollutant of Concern	BMP Type	Schedule**	
6133 (Legg Lake)	129.6	Commercial/High Density Residential	Nutrients & Trash	MWS*	80% of drainage area by March 6, 2015	100% of drainage area by March 6, 2016

**MWS: Modular Wetland System or equivalent.*

***Schedule from Legg Lake Trash TMDL*

Table 1-25: TMDL Milestones for Los Angeles River

TMDL	Constituents	Compliance Goal	Dry/Wet	Compliance Milestone					
				2012	2020	2024	2028	2032	2037
LAR Nutrients	Nitrogen Compounds	Meet WQBELs	All	Final Pre2012					
LAR Metals	Copper, Lead, Zinc, Cadmium	% of MS4 Area/Meet WQBELs	Wet	25% 1/11		50% 1/11	100% 1/11		
	Copper, Lead	% of MS4 Area/Meet WQBELs	Dry	50% 1/11	75% 1/11	100% 1/11			
LAR Bacteria	E. Coli	Meet WQBELs	Wet/Dry						Final 3/23
Dominguez Channel/Harbor Toxics	DDTs, PCBs, Copper, Lead, Zinc, PAHs	Meet WQBELs	All	Interim 12/28				Final 3/23	

Table 1-26: TMDL Milestones for San Gabriel River

TMDL	Constituents	Compliance Goal	Dry/Wet	Compliance Milestone					
				2012	2013	2014	2015	2016	2032
SGR Metals	Lead and Selenium	Meet WQBELs	Wet						
Dominguez Channel/Harbor Toxics	DDTs, PCBs, Copper, Lead, Zinc, PAHs	Meet WQBELs	All	Interim 12/28					Final 3/23

1.11. STAKEHOLDER INVOLVEMENT

The City is committed to identifying and involving stakeholders in the development and implementation of the Watershed Management Program. The City has and continues to inform and seek input from stakeholders and incorporate that feedback throughout the development and implementation of the Watershed Management Programs. The City has posted water quality information on the City website. The Watershed Management Program and Monitoring and Reporting Program was also explained to the City Council and public with a formal presentation during the open session portion of a council meeting.

City representatives attended all scheduled Technical Advisor Meetings (TAC) meetings and have sought Regional Board staff input regarding the review of the City's draft LID Ordinance and Green Streets Policy.

Stakeholders associated with the City of El Monte WMP are:

- Amigos de Rios
- San Gabriel Valley Conservation Corps
- City departments that may be involved with portions of WMP implentation (plus LID, GS)
  - Public Works:
    - Engineering
    - Environmental Services
    - Building
    - PW Maintenance
    - Transportation
  - Economic Development:
    - Planning
    - Neighborhood Services
  - Parks & Recreation

1.11.1 CITY AND STAKEHOLDER PROJECTS IN PROGRESS

The City, in partnership with the San Gabriel Valley Conservation Corps (SGVCC), is completing a project in Lambert Park. The name of the project is the Rio Hondo/San Gabriel River Watershed Enhancement Project/ Lambert Park. The project is being funded by Proposition 84 funding obtained by the SGVCC for watershed rehabilitation projects. The project will convert a portion of the park's impervious area into a woodland garden and a watershed garden, both of which will allow for infiltration of stormwater runoff. Other City/SGVCC partnership projects that have promoted soil conservation and watershed improvements include:

- City of El Monte, CA – Tree Planting – Maintenance Services
- Madrid Middle School, El Monte, CA.- Tree Planting
- Cogswell Elementary, El Monte, CA School Garden & Tree Planting
- Emerald Necklace, El Monte, CA – Tree Planting & Erosion Control
- Baldwin Mini Park, El Monte, CA – Beautifications Projects

- Centennial Liberty Garden, El Monte, CA – Tree Planting and Shrubs Planting

Rio Hondo/San Gabriel River Watershed Enhancement Project at Lambert Park

Porous pavers and tree well at Lambert Park

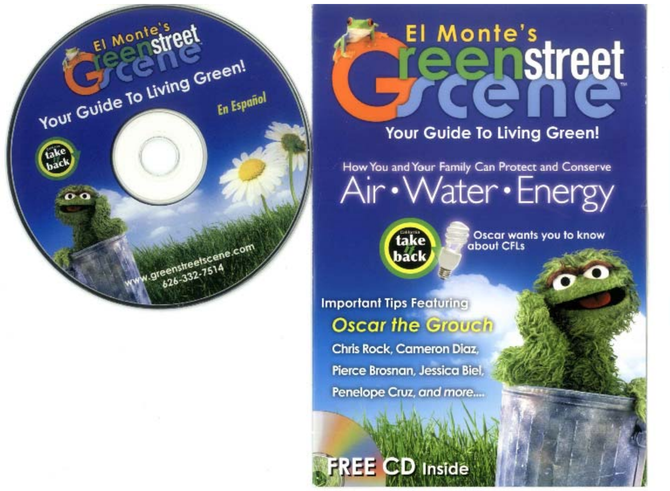
Mulched infiltration swale at Lambert Park

Mulched infiltration swale at Lambert Park

RB-AR4896

The City has provided every citizen and business with a DVD of information entitled “Green Street Scene” to further inform residents and businesses regarding water use and water quality. Active stakeholder groups around and within El Monte that work with the City to improve water quality through education and the modification of areas within the City (parks, trails, etc.) in order to promote storm water infiltration, capture, and re-use.

“Green Street Scene” DVD provided to citizens


El Monte's
Greenstreet Scene
Your Guide To Living Green!
En Español
take back
www.greenstreetscene.com
626-332-7514
El Monte's
Greenstreet Scene
Your Guide To Living Green!
How You and Your Family Can Protect and Conserve
Air • Water • Energy
take back
Oscar wants you to know about CFLs
Important Tips Featuring
Oscar the Grouch
Chris Rock, Cameron Diaz,
Pierce Brosnan, Jessica Biel,
Penelope Cruz, and more....
FREE CD Inside

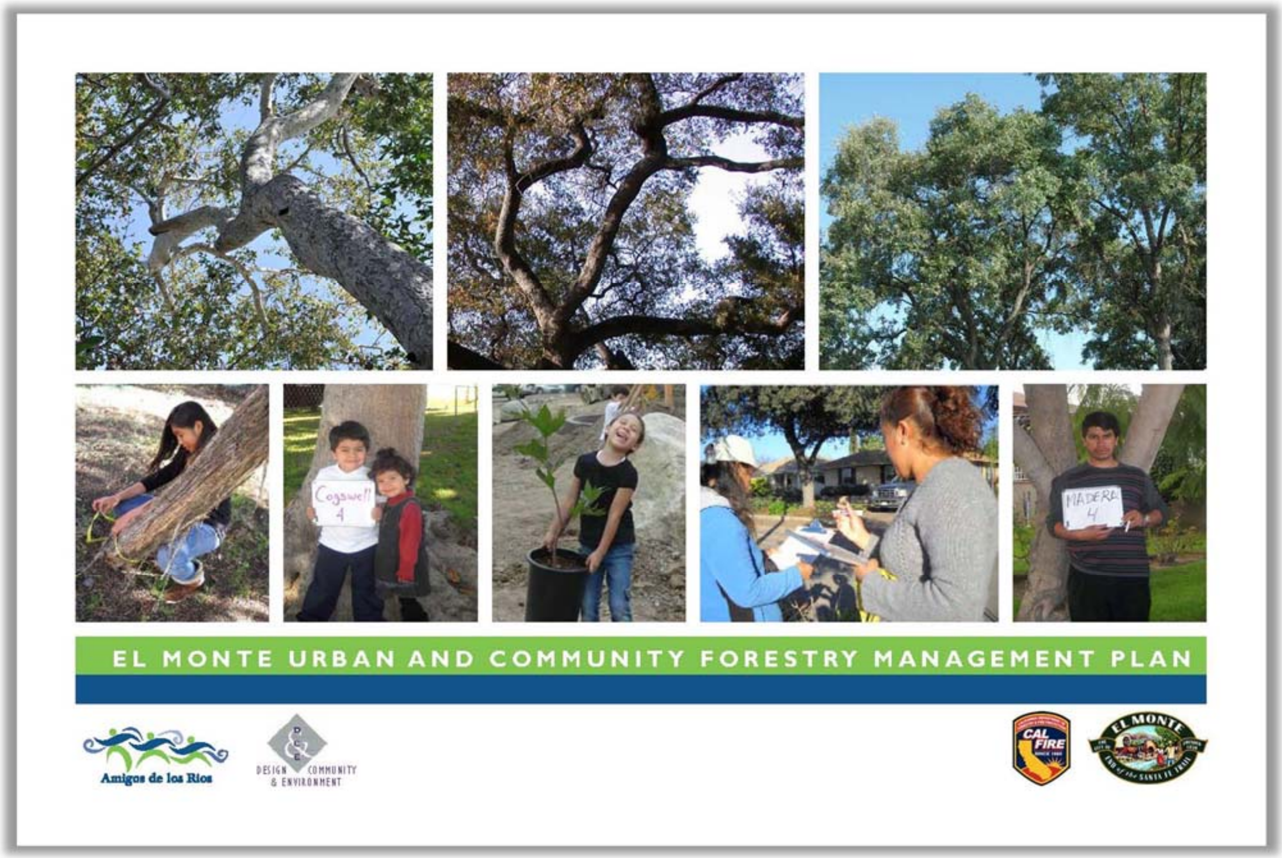
1.11.2 CITY AND RESIDENTS WORK TOGETHER TO RECYLE AND ILIMINATE POLLUTION

The City promotes cleaner water by providing free oil drain containers to all City residents as well as free paper shredding/recycling and free electronic waste collection during the 2014 Earth Day celebration at Arceo Park in El Monte. The City is dedicated to informing their citizens, municipal staff, and developers of the importance or water quality as evidenced by the City's continued distribution of educational materials at community activities and special events.

City of El Monte Environmental Program at Arceo Park

The City also has active and dedicated Public Works and Economic Development Departments as evidenced by their Urban and Community Forestry Management Plan Manual.

City of El Monte Urban and Community Forestry Management Plan Manual



Both Departments use the manual to promote the following benefits:

- Connection with Nature – Support Habitat. Trees provide shelter and food for birds and other small animals. A varied tree population supports a wide diversity of animals. In addition to being beneficial on a regional and global level, local habitat diversity creates a dynamic, educational, and enjoyable environment for humans.

- Improved Public Health. Nearly all of the benefits provided by trees contribute to health. While clean air and water directly benefit physical health, the provision of shade and aesthetically pleasing streets encourages walking and physical activity. Research has also demonstrated that trees and other vegetation soothe nerves, helping to accelerate healing processes and reduce behavioral problems in children.

- Improved Air Quality. Trees can play several roles in improving air quality. The most direct way that trees help to improve air quality is by absorbing and filtering air pollutants. In addition, trees reduce air pollution by creating cool microclimates and by reducing the demand for air conditioning in buildings. When trees shade buildings and reduce the need for air conditioning, they also indirectly improve air quality. Air pollution increases with higher temperatures, so maintaining cool microclimates can actually improve air quality.

- Stormwater Management. Trees improve the quality of stormwater by reducing the amount of stormwater runoff that enters storm drains. The leaves of a tree capture rain and other precipitation. This slows the rate of rainfall, reduces runoff volume, and increases water infiltration directly into the soil, which filters the water. Roots and duff (fallen leaf layer on top of the soil) hold soil in place during storm events and allow more time for water to infiltrate into the soil[8].

[8] Source: El Monte Urban and Community Forestry Management Plan Manual, 2010.

SECTION 2 - IMPLEMENTATION

The City will begin implementing the WMP immediately upon approval of the plan by the Regional Water Board or the Executive Officer. It is understood that the City may request an extension of deadlines for achievement of interim milestones only.

As the City was preparing its WMP and IMP, the following items were completed or in progress:

- The LID Ordinance was reviewed by Board staff and adopted by the City on June 10, 2014
- The Greens Streets Policy was reviewed by Board staff and implemented on June 10,2014
- The MCMs were reviewed and modifications were considered
- The City attended the Catch Basin Retrofit Workshop hosted by LACDPW
- The Development Tracking Program was implemented
- The list of Industrial Commercial facilities for inspection was determined and inspections began

SECTION 3 - INTEGRATED WATERSHED MONITORING AND ASSESSMENT

The City has developed an Integrated Monitoring Program (IMP) as set forth in Part IV of the MRP (Attachment E of Order R4-2012-0175). The IMP assesses progress toward achieving the WQBELs and/or RWLs per the compliance schedules and progress toward addressing the water quality priorities of each WMA. The IMP will be subject to approval by the Executive Officer following a public comment period. To increase the cost effectiveness and efficiency of the monitoring program, the City of El Monte has collaborated with several groups on Receiving Water and TMDL monitoring. The IMP includes and addresses the following monitoring program elements:

- Receiving Water Monitoring
- Storm Water Outfall Monitoring
- Non-storm Water Outfall Monitoring
- New Development/Redevelopment Effectiveness Tracking
- Regional Studies

Please refer to the IMP for the details of the Monitoring and Reporting Program (MRP) (as an accompanying document) submitted with this Watershed Management Program.

SECTION 4 - ADAPTIVE MANAGEMENT PROCESS

4.1. WMP ADAPTIVE MANAGEMENT ELEMENTS

Every two years, from the date of program approval, the City of El Monte will implement an adaptive management process for each WMA, adapting the WMP to become more effective, based on, but not limited to the following:

- Progress toward achieving interim and/or final WQBELs and/or RWLs;
- Progress toward achieving improved water quality in MS4 discharges and achieving RWLs through implementation of the watershed control measures based on an elevation of outfall-based monitoring and RW monitoring data;
- Achievement of interim milestones;
- Re-evaluation of the water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the RWs and a reassessment of sources of pollutants in MS4 discharges;
- Availability of new information and data from sources other than the City's monitoring program(s) within the WMAs that forms the effectiveness of the actions implemented by the City;
- Regional Board recommendations; and
- Recommendations for modifications to the Watershed Management Program solicited through a public participation process.

4.2. MODIFICATIONS MADE TO IMPROVE WMP

Based on results of the adaptive management process, the City will report any modification, including where appropriate new compliance deadlines and interim milestones (with the exception of those compliance deadlines established in a TMDL, necessary to improve the effectiveness of the WMP in the Annual Report (as required by the MRP and as part of the ROWD required pursuant to Part II.B of Attachment D).

The adaptive management process fulfills the requirements of Part V.A.4 to address continuing exceedances of RWLs.

4.3. SCHEDULE FOR IMPLEMENTATION MODIFICATIONS

The City will implement any modifications to the WMP upon approval by the Regional Board or within 60 days of submittal (if no objections from the Regional Board).

SECTION 5 - REFERENCES

GUIDELINES FOR CONDUCTING REASONABLE ASSURANCE ANALYSIS IN A WATERSHED MANAGEMENT PROGRAM, INCLUDING AN ENHANCED WATERSHED MANAGEMENT PROGRAM, Prepared by Thanhloan Nguyen, Dr. C. P. Lai, Ivar Ridgeway, Dr. Jun Zhu, Los Angeles Regional Water Quality Control Board, March 25, 2014.

Los Angeles County Department of Public Works (LACDPW) Annual Storm Water Monitoring Reports, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014

Los Angeles County Stormwater Monitoring Reports (Tributary Monitoring), 2002-2003, 2003-2004

Los Angeles Area Lakes TMDLs, U.S. EPA, March 2012

Tetra Tech 2010. Los Angeles County Watershed Model Configuration and Calibration—Part II: Water Quality. Prepared for Los Angeles County Department of Public Works

Total Maximum Daily Loads for Metals and Selenium, San Gabriel River and Impaired Tributaries, U.S. EPA, March 2007

Total Maximum Daily Loads for Metals, Los Angeles River and Tributaries, June 2, 2005

Trash Total Maximum Daily Load for Legg Lake, California Regional Water Quality Control Board, Los Angeles Region, July 11, 2007

Trash Total Maximum Daily Loads for Los Angeles River, California Regional Water Quality Control Board, Los Angeles Region, July 27, 2007

California Environmental Data Exchange Network (CEDEN)

www.idcide.com/**weather/ca/el-monte**.htm)

2010 303(d) listing website

Water Quality Policy for Developing California's Clean Water Act Section 303(d) List, State of California State Water Resources Control Board, September, 2004

APPENDIX A

LID Ordinance

Green Streets Policy

Legal Authority Letter

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF EL MONTE)

I, M. Helen Mireles, Chief Deputy City Clerk, do hereby certify this to be a true and correct copy of City Council Agenda Item No. 13.3, Urgency Ordinance No. 2840, An Urgency Ordinance of the El Monte City Council Amending Section 13.20 Storm water and Urban Runoff Pollution Control to Expand the Applicability of the Existing Section 13.20.150 – Post Construction Pollution Reduction Requirements by Imposing Low Impact Development (LID) Strategies on Projects that Require Building Permits and/or Encroachment Permits. Approved and adopted at the regular agenda meeting, of the City of El Monte, held on Tuesday, June 10, 2014.

M. Helen Mireles, Chief Deputy City Clerk
El Monte California

URGENCY ORDINANCE NO. 2840

AN URGENCY ORDINANCE OF THE EL MONTE CITY COUNCIL AMENDING SECTION 13.20 STORMWATER AND URBAN RUNOFF POLLUTION CONTROL TO EXPAND THE APPLICABILITY OF THE EXISTING SECTION 13.20.150 – POST-CONSTRUCTION POLLUTION REDUCTION REQUIREMENTS BY IMPOSING LOW IMPACT DEVELOPMENT (LID) STRATEGIES ON PROJECTS THAT REQUIRE BUILDING PERMITS AND/OR ENCROACHMENT PERMITS

WHEREAS, The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity; and

WHEREAS, The City 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 State's water quality; and

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; and

WHEREAS, The City has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan; and

WHEREAS, The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, and economic considerations; and

WHEREAS, Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters; and

WHEREAS, The City needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization; and

WHEREAS, LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge; and

WHEREAS, It is the intent of the City 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.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL MONTE DOES FIND AND ORDAIN AS FOLLOWS:

SECTION 1. The facts set forth in the recitals above are true and correct and are incorporated by reference as though fully set forth herein.

SECTION 2. Section 13.20 Stormwater and Urban Runoff Pollution Control of the El Monte Municipal Code ("EMMC") to expand the applicability of the existing Section 13.20.150 is modified in its entirety to read per Exhibit "**A**":

SECTION 3. Inconsistent Provisions. Any provision of the El Monte Municipal Code or appendices thereto that conflicts with the provisions of this Ordinance, to the extent of such conflict and no further, is hereby repealed or modified to the extent necessary to affect the provisions of this Ordinance.

SECTION 4. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or any part thereof is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase would be subsequently declared invalid or unconstitutional.

SECTION 5. Publication. The Mayor shall sign and the City Clerk shall attest to the passage of this Ordinance. The City Clerk shall cause the same to be published once in the official newspaper within fifteen (15) days after its adoption. This Ordinance shall become effective thirty (30) days after adoption.

PASSED, APPROVED AND ADOPTED by the City Council of the City of El Monte at the regular meeting of this 10 day of June, 2014.

Andre Quintero, Mayor

ATTEST:

Jonathan Hawes, City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:
CITY OF EL MONTE)

I, Jonathan Hawes, City Clerk of the City of EL Monte, hereby certify that the foregoing Ordinance No. 2840 was passed and adopted by the City Council of the City of El Monte, signed by the Mayor and attested by the City Clerk at a regular meeting of said Council held on the 10 day of June, 2014 and that said Resolution was adopted by the following vote, to-wit:

AYES: Mayor Quintero, Mayor Pro Tem Patel, Councilmembers Gomez, Macias and Martinez

NOES: None

ABSTAIN: None

ABSENT: None

Jonathan Hawes

Jonathan Hawes, City Clerk

EXHIBIT A

EXHIBIT A

Low Impact Development Ordinance

Urgency ORDINANCE NO. 2840

An ordinance amending MUNICIPAL CODE Chapter 13.20 of the City of El Monte Municipal Code to expand the applicability of the existing Stormwater and Urban Runoff Pollution Control Section 13.20.150 – Post-Construction Pollution reduction requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

A. The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

B. The City 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 State's water quality.

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 consistent with the Planning and Land Development Program requirements contained within the Permit.

D. The City has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

E. The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, 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 needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization.

H. LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge.

Municipal Code Chapter 13.20 of the City of El Monte Municipal Code is amended in its entirety to read as follows:

13.20.010 Definitions.

Except as specifically provided herein, any term used in this Section13.20 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 in effect at the City at the time of development application, 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, City 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.

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.

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.

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. 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.

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.

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.

City means the City of El Monte.

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.

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance. Construction activity also covers any activity that requires coverage under the State General Construction Permit by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities.

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities.

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.

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.

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.

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.

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.

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.

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.

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.

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.

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff.

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))

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".

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.

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater.

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.

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.

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).

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.

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged.

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.

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).

Retail Gasoline Outlet means any retail gasoline outlet per SIC 5541.

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.

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.

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.

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 El Monte.

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 project.

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.

13.20.020. SHORT TITLE

(A) The ordinance codified in this chapter shall be known as the "Low Impact Development (LID) Ordinance of the City of El Monte" and may be so cited.

13.20.020. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) **Objective**. The provisions of this section contain requirements for site design and post-construction BMP operation and maintenance of Development and Redevelopment projects to comply with the City of El Monte's Municipal NPDES permit (Permit) currently in effect at the time of development application submittal, to 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.

(B) **Scope.** This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of El Monte 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 alternative compliance for technical infeasibility, as allowed by the Municipal NPDES Permit currently in effect at the time of development application, and collect fees from projects granted exceptions. Except as otherwise provided herein, the City of El Monte shall administer, implement and enforce the provisions of this Section. Any guidance documents supporting implementation of the Municipal NPDES permit requirements, currently in effect at the time of development application submittal, meeting application in this Ordinance, are hereby incorporated by reference.

(C) Applicability. This Section is applicable to projects as defined below:

1) All Development and Redevelopment projects, termed "Planning Priority Projects," as defined in the Municipal NPDES Permit currently in effect at the time of the development application, shall comply with subsection E of Section 13.20.020.

2) Street and Road Construction projects of ten thousand (10,000) square feet or more of impervious surface, in addition to complying with all other applicable provisions of Section 13.20.020, shall follow USEPA guidance regarding "Managing West Weather with Green Infrastructure: Green Streets" (December 2008, EPA-833-F-08-009) to the maximum extent practicable. This subsection applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects, including Capital Improvement Projects (CIPs).

3) Single Family Hillside Homes (as defined in City Code 13.20.010 Part C), in addition to complying with all other applicable provisions of Section 13.20.020, shall implement the following measures:

    i. Conserve natural areas

    ii. Protect slopes and channels

    iii. Provide storm drain stenciling and signage

    iv. Divert roof runoff to vegetated areas before discharge unless the diversion would results in slope instability

    v. Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

4) Any other project, as deemed appropriate by the Department, submitted for complete discretionary or non-discretionary permit application filed with the Department after December 31, 2012.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective 30 Days from the adoption of this Ordinance. This includes all applicable projects listed in subsection C of Section 13.20.020 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 30 days of adoption of this Ordinance. Projects that have been deemed complete within 30 days of adoption of this Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. All applicable projects listed in subsection C of Section 13.20.020 shall be designed to control pollutants, pollutant loads, and runoff volumes 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. All applicable projects shall prepare a LID Plan that is submitted to and approved by the Department. All LID plans shall comply with the following:

a. Low Impact Development Standards and BMP Implementation hierarchy: All project Applicants shall:

    i. Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function and avoid breeding of vectors.

    ii. Prioritize the selection of BMPs to remove Stormwater pollutants, reduce Stormwater runoff volume, and beneficially use Stormwater to support an integrated approach to protecting water quality and managing water resources in the following order:

        1. On-site infiltration, bioretention and/or rainfall harvest and use; then

        2. On-site biofiltration, offsite groundwater replenishment, and/or off-site retrofit.

            a. If using biofiltration due to demonstrated technical infeasibility, then the volume to be biofiltrated shall be calculated using the following equation:

            $B_V = 1.5 * [SWQD_V - R_V$

            Where:

            B_V = biofiltration volume

            $SWQD_V$ = the storm water runoff from a 0.75 inch, 24-hour storm or the 85th percentile storm, whichever is greater

            R_V = volume reliably retained on-site

b. Retain onsite the Stormwater Quality Design Volume (SWQDv) as required per the Permit currently in effect at the time of development application submittal.

c. When 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan and approved by the Department. 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 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. Projects that have successfully demonstrated technical infeasibility for full retention of the SWQDv to the Department, shall implement alternate compliance measures (alternate mitigation options) as designated in the Permit currently in effect at the time of development application submittal.

e. Additional alternative compliance options, such as offsite infiltration, may be available to the project. The project applicant should contact the Department to determine eligibility. Alternative compliance options are as further specified in the Permit currently in effect at the time of development application submittal.

f. A Multi-Phased Project shall comply with the standards and requirements of this section for all of its phases by:

i. Designing a system acceptable to the Department to satisfy these standards and requirements for the entire Site during the first phase; and/or

ii. Implementing these standards and requirements for each phase of Development or Redevelopment of the project 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.

iii. For purposes of this subsection, "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.

g. Minimize hydromodification impacts by maintaining the project's pre-development storm water runoff volumes, flow rates, and durations by maintaining the Erosion Potential (EP) in streams at 1, or implementing hydromodification control BMPs and/or LID strategies, or other restoration measures to meet Hydromodification Control Criteria as designated in the Permit currently in effect at the time of development application submittal.

h. Department may exempt certain applicable projects listed in subsection C of Section 13.20.020 from hydromodification control requirements where assessments of downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to beneficial uses of natural drainage systems are unlikely:

i. The replacement, maintenance or repair of existing, publicly-maintained flood control facilities, storm drains, or transportation networks.

ii. Redevelopment of a previously developed site in an urbanized area that does not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.

iii. Projects that have any increased discharge directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has an estimated 100-year peak flow of 25,000 cubic feet per second or more, or other receiving water that is not susceptible to hydromodification impacts.

iv. Projects that discharge directly or through a storm drain into concrete or other engineered (not natural) channels (e.g. channelized or armored rip rap, shotcrete, etc.) which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.

v. Single family homes that incorporate LID BMPs.

(F) LID Plan Review. The applicant for any development project shall submit a LID plan to the Department for review and approval that provides a comprehensive, technical discussion of how the development project will comply with this Section 13.20.020. A deposit and fee to recover associated review costs shall be required. Timing for obtaining LID plan approval shall be as follows:

a. For subdivisions, the LID Plan shall be approved prior to the tentative map.

b. For any development project requiring a Conditional Use Permit (CUP) or other discretionary entitlement required under (City Code 16.38.010 General Purposes), the LID plan shall be approved prior to the issuance of any such CUP or other discretionary entitlement.

c. For all development projects, the LID plan shall be approved prior to issuance of a grading permit for the development project, or when no grading permit is required, prior to the issuance of a building permit. When no grading or building permit is required, LID plan approval shall be prior to the commencement of any development activity or as otherwise indicated in the non-discretionary land use approval.

(G) Ongoing Maintenance.

a. All project's LID and hydromodification control features shall be maintained and shall remain operable at all times and shall not be removed from the project unless and until such features have been replaced with other LID and/or hydromodification control features in accordance with this Section.

b. Unless excused by the Department, all LID plans shall include an operation and maintenance plan and monitoring plan for all LID practices, LID BMPs and hydromodification control features incorporated into the project.

c. The owner of the subject development project site shall record a covenant or agreement, approved by the Department, in the office of the Los Angeles County Registrar-Recorder/County Clerk indicating that the owner of the subject development project site is aware of and agrees to the requirements in this

subsection. The covenant or agreement shall also include a diagram of the development project site indicating the location and type of each LID and hydromodification control feature incorporated into the development project. The time to record such convenient or agreement shall be as follows:

i. For any subdivision, prior to final map approval.

ii. For any other development project, prior to issuance of a grading plan approval for the development project, and when no grading plan approval is required, prior to issuance of building plan approval for the development project.

(H) **Other Agencies of the City of El Monte.** All City of El Monte departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Ordinance on all applicable projects, as listed in subsection C of Section 13.20.020, and report their activities annually to the Department.

(I) **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 that are declared to be severable.

(J) **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 El Monte, at its meeting of June 10, 2014.

Jonathan Hawes

Jonathan Hawes, City Clerk

By ______________________

Deputy

Approved June 10, 2014

Andre Quintero

Andre Quintero, Mayor

Approved as to Form ~~and Legality~~ RP

~~Rick Olivarez, City Attorney~~

By ______________________

Richard Padilla

Asst. ~~Deputy~~ City Attorney

REVIEWED TO TO FORM ONLY

Date June 10, 2014

File No. ______________________

City of El Monte Green Streets Policy

Purpose

The City of El Monte (City) Department of Public Works (Department) shall implement Green Streets' Best Management Practices (BMPs) for the addition of new streets, redevelopment projects, and roadway improvement projects, including Capital Improvement Projects (CIPs), as described in Section A below.

Green Streets provide many benefits including water quality improvements, groundwater replenishment, and attractive streetscapes by optimizing public space to integrate green techniques into transportation design. Green Streets is defined as public right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff.

Policy

A. Application:

Department shall require all new developments, redevelopment projects, roadway construction projects, and CIP projects conducted within the public right-of-way, hereafter referred to as "roadway projects," to incorporate Green Streets' BMPs to the maximum extent practicable (MEP). For the purposes of this policy, MEP determination shall be on a project-by-project basis and at the discretion of the Public Works Director. Roadway projects requiring Green Street's BMPs shall meet one of the following criteria:

1. Street and road construction of 10,000 square feet or more of impervious surface area, including:
    a. Standalone street and road projects
    b. Standalone highway and freeway projects
    c. Streets within larger projects
2. Street and road developments resulting in the creation or addition or replacement of 5,000 square feet or more of impervious surface on an already developed site. 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.

3. Street and road improvements with a cost of $500,000 or more.

B. Criteria and Constraints:

Project characteristics or constraints may reduce the ability to incorporate Green Streets' BMPs. When planning for incorporation of BMPs and/or techniques into a roadway project, consideration should be given to the following:

- Right-of-way availability
- Adjacent agency owned land where BMPs, such as bioretention and infiltration basins, may be incorporated into the project.
- Existing utilities – availability of stormdrains or confliction with existing utility locations
- Soil type and elevated groundwater.
- Safety concerns – siting limitations or potential maintenance access concerns

C. Feasibility and Implementation:

Implementation of BMPs within roadway projects requires that drainage patterns be considered such that drainage may be routed to the BMPs prior to entering the storm drain system or exiting the project area. Design of BMPs shall utilize available topography in order to utilize gravity for conveyance to and through each BMP designed into the project. Flow paths of higher flows must be considered when designing BMPs to ensure flooding or ponding does not occur in peak flow situations. See also Section D.4 of this policy regarding peak flow considerations.

All roadway projects shall incorporate the following techniques and/or BMPs into the project design to the MEP standard:

- Conservation of natural areas to the extent feasible
- Use of landscaping that minimizes irrigation and runoff, and promotes surface infiltration
- Street trees to increase the canopy cover of a street
- Planter boxes/tree boxes to the extent feasible, and in compliance with City codes

The extent to which BMPs may be incorporated into a project depends on the project type and project-specific feasibility. Feasibility of implementing BMPs may be affected by regulatory requirements, site-specific characteristics, and infrastructure and project-specific characteristics. Therefore, each roadway project shall also evaluate the feasibility of incorporating the following BMPs into their project design to the MEP standard. This is in addition to those techniques and BMPs listed above:

- Vegetated curb extensions
- Bioswales
- Permeable pavers
- Alternative street widths
- Infiltration basins, if City owned land is project adjacent and infiltration is determined to be feasible for the site

D. Infiltration Infeasibility:

Use of any BMP relying solely on infiltration for drainage, such as permeable pavement without underdrains, shall confirm that project soils are appropriate for infiltration to ensure no standing water within the BMPs after 72 hours. A complete geotechnical or soils report should be performed to determine existing ground water depth, site soil types, and field measured infiltration rates. Projects whose underlying soils are determined to infiltrate at a measured rate lower than 0.3"/hr are determined to be technically infeasible for use of any BMP relying solely on infiltration for drainage.

E. Target Sizing Criteria:

The larger of the 0.75", 24-hour rain event, or the 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile isohyetal map, should be utilized to size all proposed BMPs in roadway projects. Using available soils information, topography, and in compliance with City codes and ordinances, identify the appropriate BMPs for incorporation into the roadway project. Implementation of several BMP types in succession may also be utilized and is commonly referred to as a *BMP treatment train*. The following steps should be followed for all roadway projects:

1. Determine overall tributary area to each proposed BMP location and compute imperviousness.
2. Using a published BMP design standard, determine the appropriate BMP sizing method and calculate the target sizing criteria.
3. Design BMPs into the roadway project to capture the target sizing criteria.
4. If determination is made that a proposed BMP, or a BMP treatment train, cannot adequately capture the target sizing criteria, then provide capture for the greatest portion of the target sizing criteria that can be reasonably achieved.

   If BMPs are undersized for their overall tributary area, the BMP must have the inlet, outlet and any energy dissipation device properly designed for the entire tributary area's peak flows. Consideration must be given for bypass of peak flows

to ensure that all BMPs are not eroded, scoured and/or overwhelmed in larger storm events.

Documentation of any infeasibility and/or project-specific constraints should be placed in the Project development file.

F. Amenities:

Department 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 construction projects and CIPs.

G. Guidance Documents:

Department shall use USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1] or develop an equivalent guidance for use in public and private developments. Any Department developed guidance shall be reviewed by the Department every two years and updated accordingly.

H. Retrofit Scope:

Department shall use the City's Watershed Management Program to identify opportunities for Green Streets' BMP retrofits. Final decisions regarding implementation will be determined by the Director of Public Works, or designee, based on the availability of adequate funding.

I. Training:

Department shall incorporate aspects of Green Streets' BMPs into internal annual staff trainings.

[1] US Environmental Protection Agency, EPA-833-F-08-009, December 2008.

January 13, 2015

Via Federal Express

Samuel Unger, P.E.
Executive Officer
Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Re: Statement of Legal Authority to Implement and Enforcement Requirements of 40 CFR 122.26(d)(2)(i)(A-F) and National Pollutant Discharge Elimination System Municipal Separate Store Sewer System Permit Order No. R4-2012-0175

Dear Mr. Unger:

The City of El Monte (the "City") hereby submits this Statement of Legal Authority pursuant to Section VI (A)(2) of Order No. R4-2012-0175, NPDES Permit No. CAS004001, issued by the California Regional Water Quality Contract Board ("RWQCB"), Los Angeles Region on November 8, 2012 and titled "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" (the "Permit").

The undersigned Assistant City Attorney for the City hereby states that the City has implemented legal authority to necessary comply with a majority of the legal requirements imposed upon the City by Order No. R4-2012-0175 (the "Order"), consistent with the requirements set forth under 40 CFR Section 122.26(d)(2)(i)(A-F), to the extent permitted by State and Federal law, but subject to the limitations on municipal actions under the California and the United States Constitutions. In so far as certain, legal requirements are not yet in place, the City is actively working to approve ordinances and enter into interagency arrangements that will help the City meet all of the requirements indicated. Parenthetically, nothing herein is intended nor shall be construed as waived by the City of any right to challenge the Permit or to seek cost recovery for complying with any unfunded State mandate. The City reserves all rights, and does not waive any remedy available by law or in equity.

The following is a listing of the requirements of 40 CFR Section 122.26(d)(2)(i)(A-F) as set forth under Section VI (A)(2) of the Order along with reference to the corresponding legal authority of the City to implement the requirement:

1. **Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit as well as to those sites that do not have coverage under an NPDES permit.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.100 – Reduction of pollutants from stormwater

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.050(B) – Regulatory compliance
Section 13.20.110 – Control of pollutants from industrial activities
Section 13.20.120(B) – Control of pollutants from demolition and/or construction activities
Section 13.20.130 – Control of pollutants from other construction activities.

2. **Prohibit all non-stormwater discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.020 – Purpose and Intent (of Chapter 13.16 which includes elimination of non-stormwater discharges)
Section 13.16.100(e) – Illicit discharge and illicit connections
Section 13.16.110(C),(E)(2), and (F) - Authority to Inspect
Section 13.16.200 (B)(1) – Administrative Enforcement Powers
Section 13.16.250 – Coordination with hazardous materials inventory and response program

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 3.20.060 – Illicit discharge and non-stormwater discharge

3. **Prohibit and eliminate illicit discharges and illicit connections to the MS4.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.090 – Illicit Discharge and illicit connections
Section 13.16.100(e) – Illicit discharge and illicit connections
Section 13.16.110(C) and (F) – Authority to Inspect
Section 13.16.250 – Coordination with hazardous material inventory and response program

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 3.20.060 – Illicit discharge and non-stormwater discharge

4. **Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.110(E)(1)-(2) – Authority to Inspect

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.020(A)(2) – Purpose and Intent (including control of discharges into municipal storm drains caused by spills or dumping
Section 13.20.070 – Illegal disposal/dumping
Section 13.20.150(A)(1)-(2) – Post-construction pollution reduction.

5. **Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.070(B) – Discharge of pollutants
Section 13.16.100 – Reduction of pollutants in stormwater

Section 13.16.120 (A) – Regulatory Compliance

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.050 (A) –Regulatory compliance
Section 13.20.110(A)-(B) – Authority to Inspect
Section 13.20.140 – Control of pollutants from new development
Section 13.20.170(A) – Plan review and approval (for building and grading permits)
Section 13.20.190(D), (E) – Installation and maintenance (as relates to structural and treatment control BMP's in general and residential properties in particular)
Section 13.20.210 – Inspections

6. **Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.170 - Violations deemed a public nuisance
Section 13.16.130 – Penalty for Violation
Section 13.16.190 – Civil Actions
Section 13.16.200 – Administrative enforcement powers
Section 13.16.220 – Remedies not exclusive

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.220 – Violation
Section 13.20.230 – Nuisance
Section 13.20.240 – Remedies not exclusive
Section 13.20.250 - Inspections, searches.

7. **Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees.**

The City of El Monte is not currently a party to an "interagency agreement" with other permittees. Nevertheless, the City's draft Integrated Monitoring Program sets as one of the City's goals, the execution of collaborative receiving water monitoring and cost sharing agreements with other public agencies including the Upper San Gabriel Valley

Municipal Water District, the Rio Hondo/San Gabriel Water Quality Group, the Lower San Gabriel River Watershed Management Group and the Lower Los Angeles River Watershed Group.

8. **Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.**

   The City of El Monte is not currently a party to an "interagency agreement" with other permittees. Nevertheless, the City's draft Integrated Monitoring Program sets as one of the City's goals, the execution of collaborative receiving water monitoring and cost sharing agreements with other public agencies including the Upper San Gabriel Valley Municipal Water District, the Rio Hondo/San Gabriel Water Quality Group, the Lower San Gabriel River Watershed Management Group and the Lower Los Angeles River Watershed Group.

9. **Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.**

   See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

   See Article III of Chapter 13.16 - Inspection and Enforcement

   Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

   Section 13.20.050(C) – Regulatory compliance
   Section 13.20.210 – Inspections

10. **Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.**

   See: *Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:*

Section 13.20.120(C) – Control of pollutants from demolition and/or construction activities
Section 13.20.150(F)(4) – Post construction pollution reduction

Chapter 13.10 (Fats, Oils and Grease Control Program)

11. Require that structural BMPs are properly operated and maintained.

See: *Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:*

Section 13.20.040 – Standards, guidelines and criteria
Section 13.20.100 – Control of pollutants from commercial facilities
Section 13.20.130 – Control of pollutants from other construction activities
Section 13.20.140 – Control of pollutants from new developments
Section 13.20.150(A),(F), (G) and (H) – Post-construction pollution reduction
Section 13.20.210 (D) - Inspections

12. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.110(F) – Authority to inspection (which includes imposition of duty to undertake monitoring activities and analysis and furnish reports)

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.050(A) – Regulatory compliance (including production of proof of compliance with all stormwater discharge requirements of the United States Environmental Protection Agency, the California State Water Resources Control Board and the California Regional Water Quality Control Board, Los Angeles Region)
Section 13.20.190(D) Installation and maintenance (including imposition of condition on certain property transfers that require successor property owner or lessee to conduct maintenance inspections of all

structural or treatment control BMP's at least once a year and retain proof of inspection)

Section 13.20.210(D) – Inspections (including inspections of records relating to BMP inspections conducted by owner, contractor, developer or occupant)

The City's enforcement authority is set forth under Article III (Inspection and Enforcement) of Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code and under Sections 13.20.220, 13.20.230, 13.20.240 and 13.20.250 of Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of El Monte Municipal Code. Violations are punishable as misdemeanors under the foregoing authority. The City may also enforce certain provisions by civil judicial action which includes remedies such as temporary or permanent injunctions, assessments for the recovery of costs of enforcement and costs incurred by the City in removing, correcting or terminating the adverse effects of any violation. (See Section 13.16.190(A)-(D)).

The City may also avail itself of an administrative enforcement process involving the issuance cease and desist orders. (See Sections 13.16.160 and 13.16.200(A)). The City's administrative enforcement tools also include the ability to issue "Notices to Clean" to owners or occupants of parcels that are the source certain pollutants that have entered or at risk of entering the municipal separate store sewer system. (Section 13.16.200(B)). Violations of Chapters 13.16 and 13.20 may also constitute public nuisances and may be abated as such (See Sections 13.16.170 and 13.20.030).

It should also be observed that in addition to general criminal, civil and administrative code enforcement remedies set forth in the City's Municipal Code, the City also has the ability to avail itself of State and Federal law remedies, e.g., remedies that may be available under the Federal Resource Conservation and Recovery Act (RCRA – 42 USC Section 6901 et seq.) and the Federal Clean Water Act (33 U.S.C. Section 1251 et seq.).

The City's efforts to enhance and improve its ability to enforce the Permit are ongoing. On June 10, 2014, the City adopted a low impact development ("LID") ordinance. The City has also:

- Implemented a green streets policy which, among other things, strives to reduce excess stormwater runoff;
- Prepared a draft Watershed Management Program and draft Integrated Monitoring Program which it has submitted to the State Regional Water Quality Control Board following feedback provided by the Los Angeles Regional Water Quality Control Board in its correspondence of October 22, 2014;
- Completed a first round of Commercial/Industrial inspections;
- Completed initial municipal employee training;

- Completed implementation a post-construction BMP tracking system;
- Commenced, and is continuing with, the implementation of a Minimum Control Measures program; and
- Implemented ordinance amendments to implement fines of up to $500 for the wasteful water practices, including cleaning impervious surfaces with potable water which, in turn, enters municipal storm drains.

Please do not hesitate to contact the undersigned should you have any questions or need any additional information with respect to any of the above, and thank you for your consideration of these matters.

Sincerely,

Richard Padilla
Assistant City Attorney

APPENDIX B

Chain of Custody Records and laboratory reports from outfall monitoring

W L

Weck Laboratories, Inc.

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CHAIN OF CUSTODY RECORD

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14859 East Clark Avenue : Industry : CA 91745
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RB-AR4940

CLIENT NAME: AEI-CASC CONSULTING

ADDRESS: 2740 W. MAGNOLIA BlVD SUITE 102 BURBANK, CA 91505

PROJECT MANAGER: ED SUHER

PROJECT: EL MONTE DRY WEATHER OUTFALLS

PHONE: 310-291-1150

FAX:

Email: e_suher@AEI-CASC.COM

PO#:

Sampler: CM/LZ/ES

Special Handling

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- ☐ 24 Hour Rush 100%
- ☐ 4-5 Day Rush 75%
- ☐ Rush Extraction 50%
- ☒ 10-15 Business Days
- ☐ QA/QC Package

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Method of Shipment

ANALYSES REQUESTED

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OIL + GREASE 1664A	TOTAL P 365.3	TOTAL N BY CALC	TSS SM 2540 D	TDS SM 2540 C	POLYNUCLEAR AROMATICS 625	TOTAL COLIFORM 9221B	FECAL COLIFORM 9221E	E. COLI 9221F	Cu, Pb, Zn, SE 200.7		COMMENTS
	12-26-13	1310	RW	RH-DWO-05	8	X	X	X	X	X	X	X	X	X	X		
	12-26-13	1500	RW	SG-DWO-07	8	X	X	X	X	X	X	X	X	X	X		

RELINQUISHED BY SIGNATURE	PRINT NAME	DATE / TIME	RECEIVED BY SIGNATURE	PRINT NAME	DATE / TIME
Ed Suher	EDMOND G. SUHER	12-26-13 / 1610	[signature]	Adrian Talabay	122613 16:10
SIGNATURE	PRINT NAME		SIGNATURE	PRINT NAME	
SIGNATURE	PRINT NAME		SIGNATURE	PRINT NAME	

SAMPLE CONDITION:

Actual Temperature: 1.9°C

- Received On Ice: Y / N (Y)
- Preserved: Y / N (Y)
- Evidence Seals Present: Y / N (N)
- Container Attacked: Y / N (N)
- Preserved at Lab: Y / N (N)

SAMPLE TYPE CODE:
AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM).

SPECIAL REQUIREMENTS / BILLING INFORMATION

DISTRIBUTION: WHITE & CANARY - For Laboratory PINK - For Client

CERTIFICATE OF ANALYSIS

Client:	AEI-CASC Consulting 2740 W. Magnolia Blvd., Ste.102 Burbank CA, 91505	**Report Date:**	01/23/14 16:00
		Received Date:	12/26/13 16:10
		Turn Around:	Normal
Attention:	Ed Suher	**Client Project:**	El Monte Dry Weather Outfalls
Phone:	(818) 841-9004		
Fax:	(818) 841-8013		
Work Order(s):	3L26030		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Ed Suher :

Enclosed are the results of analyses for samples received 12/26/13 16:10 with the Chain of Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
RH-DWO-05	CM/LZ/ES		3L26030-01	Water	12/26/13 13:10
SG-DWO-07	CM/LZ/ES		3L26030-02	Water	12/26/13 15:00

ANALYSES

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Metals by EPA 200 Series Methods

Microbiological Parameters by Standard Methods

Semivolatile Organics - Low Level by GC/MS SIM Mode

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-01 **RH-DWO-05**

Sampled: 12/26/13 13:10 **Sampled By:** CM/LZ/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W3L1437 Prepared: 12/31/13 09:03 Analyst: qvn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	12/31/13 15:15	

Method: EPA 351.2 Batch: W3L1467 Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.32**	0.10	mg/l	1	01/08/14 12:34	

Method: EPA 353.2 Batch: W3L1341 Prepared: 12/27/13 13:20 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**180**	100	ug/l	1	12/27/13 17:27	

Method: EPA 365.3 Batch: W3L1314 Prepared: 12/27/13 09:21 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.052**	0.010	mg/l	1	12/31/13 09:57	

Method: SM 2540C Batch: W3L1456 Prepared: 12/31/13 10:59 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**180**	10	mg/l	1	12/31/13 17:15	

Method: SM 2540D Batch: W3L1304 Prepared: 12/26/13 17:16 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	12/26/13 19:00	

Method: Various Batch: [CALC] Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**0.50**	0.20	mg/l	1	01/08/14 12:34	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W3L1403 Prepared: 12/30/13 15:43 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.010**	0.010	mg/l	1	01/02/14 11:21	
Lead, Total	ND	0.0050	mg/l	1	01/02/14 11:21	
Selenium, Total	ND	0.030	mg/l	1	01/02/14 11:21	
Zinc, Total	ND	0.050	mg/l	1	01/02/14 11:21	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**20**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-01 **RH-DWO-05**

Sampled: 12/26/13 13:10 **Sampled By:** CM/LZ/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**1700**		2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221F Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**20**		2.0	MPN/100ml	1	12/26/13 16:40	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W3L1446 Prepared: 12/31/13 10:34 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
2-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
Acenaphthene	ND		0.10	ug/l	1	01/23/14 03:29	
Acenaphthylene	ND		0.10	ug/l	1	01/23/14 03:29	
Anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (a) anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (a) pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Chrysene	ND		0.10	ug/l	1	01/23/14 03:29	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Fluorene	ND		0.10	ug/l	1	01/23/14 03:29	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Naphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
Phenanthrene	ND		0.10	ug/l	1	01/23/14 03:29	
Pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Surr: 2-Fluorobiphenyl	*78 %*	Conc:*3.90*	*22-107*	%			
Surr: Nitrobenzene-d5	*81 %*	Conc:*4.04*	*27-111*	%			
Surr: Terphenyl-d14	*79 %*	Conc:*3.96*	*28-113*	%			

RB-AR4944

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-02 **SG-DWO-07**

Sampled: 12/26/13 15:00 **Sampled By:** CM/LZ/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W3L1437 Prepared: 12/31/13 09:03 Analyst: qvn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	12/31/13 15:15	

Method: EPA 351.2 Batch: W3L1467 Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**2.6**	0.10	mg/l	1	01/08/14 12:34	

Method: EPA 353.2 Batch: W3L1341 Prepared: 12/27/13 13:20 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**4000**	100	ug/l	1	12/27/13 17:29	

Method: EPA 365.3 Batch: W3L1314 Prepared: 12/27/13 09:21 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.63**	0.020	mg/l	1	12/31/13 09:57	M-06

Method: SM 2540C Batch: W3L1456 Prepared: 12/31/13 10:59 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**460**	10	mg/l	1	12/31/13 17:15	

Method: SM 2540D Batch: W3L1304 Prepared: 12/26/13 17:16 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**21**	5	mg/l	1	12/26/13 19:00	

Method: Various Batch: [CALC] Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**6.6**	0.20	mg/l	1	01/08/14 12:34	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W3L1403 Prepared: 12/30/13 15:43 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.034**	0.010	mg/l	1	01/02/14 11:23	
Lead, Total	**0.0056**	0.0050	mg/l	1	01/02/14 11:23	
Selenium, Total	ND	0.030	mg/l	1	01/02/14 11:23	
Zinc, Total	**0.084**	0.050	mg/l	1	01/02/14 11:23	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**14000**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

RB-AR4945

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-02 **SG-DWO-07**

Sampled: 12/26/13 15:00 **Sampled By:** CM/LZ/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**90000**		2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221F Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**14000**		2.0	MPN/100ml	1	12/26/13 16:40	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W3L1446 Prepared: 12/31/13 10:34 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
2-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
Acenaphthene	ND		0.10	ug/l	1	01/23/14 04:02	
Acenaphthylene	ND		0.10	ug/l	1	01/23/14 04:02	
Anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (a) anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (a) pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Chrysene	ND		0.10	ug/l	1	01/23/14 04:02	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Fluorene	ND		0.10	ug/l	1	01/23/14 04:02	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Naphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
Phenanthrene	ND		0.10	ug/l	1	01/23/14 04:02	
Pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Surr: 2-Fluorobiphenyl	*75 %*	Conc:*3.77*	*22-107*	%			
Surr: Nitrobenzene-d5	*77 %*	Conc:*3.85*	*27-111*	%			
Surr: Terphenyl-d14	*82 %*	Conc:*4.08*	*28-113*	%			

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QUALITY CONTROL SECTION

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L1304 - SM 2540D

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1304-BLK1)				Analyzed: 12/26/13 19:00						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W3L1304-DUP1)	**Source: 3L24045-01**			Analyzed: 12/26/13 19:00						
Total Suspended Solids	ND	5	mg/l		0.00					

Batch W3L1314 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1314-BLK1)				Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W3L1314-BS1)				Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.206	0.010	mg/l	0.200		103	90-110			
Matrix Spike (W3L1314-MS1)	**Source: 3L23090-01**			Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.425	0.010	mg/l	0.200	0.214	105	90-110			
Matrix Spike Dup (W3L1314-MSD1)	**Source: 3L23090-01**			Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.421	0.010	mg/l	0.200	0.214	103	90-110	0.9	20	

Batch W3L1341 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1341-BLK1)				Analyzed: 12/27/13 16:57						
NO2+NO3 as N	ND	100	ug/l							
LCS (W3L1341-BS1)				Analyzed: 12/27/13 16:59						
NO2+NO3 as N	998	100	ug/l	1000		100	90-110			
Matrix Spike (W3L1341-MS1)	**Source: 3L26032-01**			Analyzed: 12/27/13 17:08						
NO2+NO3 as N	5270	100	ug/l	2000	3330	97	90-110			
Matrix Spike Dup (W3L1341-MSD1)	**Source: 3L26032-01**			Analyzed: 12/27/13 17:44						
NO2+NO3 as N	5240	100	ug/l	2000	3330	95	90-110	0.7	20	

Batch W3L1437 - EPA 1664A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1437-BLK1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	ND	5.0	mg/l							
LCS (W3L1437-BS1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	19.2	5.0	mg/l	20.0		96	78-114			
LCS (W3L1437-BS2)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	4.60	5.0	mg/l	5.00		92	78-114			
LCS Dup (W3L1437-BSD1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	17.3	5.0	mg/l	20.0		86	78-114	10	18	
Matrix Spike (W3L1437-MS1)	**Source: 3L26029-01**			Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	19.7	5.0	mg/l	20.9	2.50	82	78-114			

Batch W3L1456 - SM 2540C

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L1456 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1456-BLK1)				Analyzed: 12/31/13 17:15						
Total Dissolved Solids	ND	10	mg/l							
LCS (W3L1456-BS1)				Analyzed: 12/31/13 17:15						
Total Dissolved Solids	823	10	mg/l	824		100	96-102			
Duplicate (W3L1456-DUP1)	**Source: 3L30053-03**			Analyzed: 12/31/13 17:15						
Total Dissolved Solids	4960	10	mg/l		4940			0.5	10	
Duplicate (W3L1456-DUP2)	**Source: 3L30053-04**			Analyzed: 12/31/13 17:15						
Total Dissolved Solids	3640	10	mg/l		3630			0.3	10	

Batch W3L1467 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1467-BLK1)				Analyzed: 01/08/14 12:34						
TKN	ND	0.10	mg/l							
Blank (W3L1467-BLK2)				Analyzed: 01/08/14 12:34						
TKN	ND	0.10	mg/l							
LCS (W3L1467-BS1)				Analyzed: 01/08/14 12:34						
TKN	1.01	0.10	mg/l	1.00		101	90-110			
LCS (W3L1467-BS2)				Analyzed: 01/08/14 12:34						
TKN	1.01	0.10	mg/l	1.00		101	90-110			
Matrix Spike (W3L1467-MS1)	**Source: 3L27018-01**			Analyzed: 01/08/14 12:34						
TKN	1.23	0.10	mg/l	1.00	0.186	104	90-110			
Matrix Spike (W3L1467-MS2)	**Source: 3L27018-02**			Analyzed: 01/08/14 12:34						
TKN	1.29	0.10	mg/l	1.00	0.221	107	90-110			
Matrix Spike Dup (W3L1467-MSD1)	**Source: 3L27018-01**			Analyzed: 01/08/14 12:34						
TKN	1.23	0.10	mg/l	1.00	0.186	104	90-110	0.4	10	
Matrix Spike Dup (W3L1467-MSD2)	**Source: 3L27018-02**			Analyzed: 01/08/14 12:34						
TKN	1.29	0.10	mg/l	1.00	0.221	107	90-110	0.01	10	

Metals by EPA 200 Series Methods - Quality Control

Batch W3L1403 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1403-BLK1)				Analyzed: 01/02/14 11:03						
Copper, Total	ND	0.010	mg/l							
Lead, Total	ND	0.0050	mg/l							
Selenium, Total	ND	0.030	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W3L1403-BS1)				Analyzed: 01/02/14 11:05						
Copper, Total	0.211	0.010	mg/l	0.200		105	85-115			
Lead, Total	0.199	0.0050	mg/l	0.200		100	85-115			
Selenium, Total	0.207	0.030	mg/l	0.200		104	85-115			

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Metals by EPA 200 Series Methods - Quality Control

Batch W3L1403 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L1403-BS1)				Analyzed: 01/02/14 11:05						
Zinc, Total	0.194	0.050	mg/l	0.200		97	85-115			
Matrix Spike (W3L1403-MS1)	**Source: 3L19098-01**			Analyzed: 01/02/14 11:33						
Copper, Total	0.213	0.010	mg/l	0.200	0.0118	101	70-130			
Lead, Total	0.192	0.0050	mg/l	0.200	ND	96	70-130			
Selenium, Total	0.203	0.030	mg/l	0.200	ND	102	70-130			
Zinc, Total	0.364	0.050	mg/l	0.200	0.177	94	70-130			
Matrix Spike Dup (W3L1403-MSD1)	**Source: 3L19098-01**			Analyzed: 01/02/14 11:36						
Copper, Total	0.215	0.010	mg/l	0.200	0.0118	102	70-130	1	30	
Lead, Total	0.196	0.0050	mg/l	0.200	ND	98	70-130	2	30	
Selenium, Total	0.208	0.030	mg/l	0.200	ND	104	70-130	2	30	
Zinc, Total	0.366	0.050	mg/l	0.200	0.177	95	70-130	0.5	30	

Microbiological Parameters by Standard Methods - Quality Control

Batch W3L1394 - SM 9221F

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1394-BLK1)				Analyzed: 12/16/13 12:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK2)				Analyzed: 12/19/13 17:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK3)				Analyzed: 12/23/13 13:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK4)				Analyzed: 12/24/13 13:15						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Microbiological Parameters by Standard Methods - Quality Control

Batch W3L1394 - SM 9221B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1394-BLK4)				Analyzed: 12/24/13 13:15						
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK5)				Analyzed: 12/26/13 16:40						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W3L1446 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1446-BLK1)				Analyzed: 01/23/14 01:19						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surr: 2-Fluorobiphenyl	*3.30*		*ug/l*	*5.00*		*66*	*22-107*			
Surr: Nitrobenzene-d5	*3.67*		*ug/l*	*5.00*		*73*	*27-111*			
Surr: Terphenyl-d14	*3.52*		*ug/l*	*5.00*		*70*	*28-113*			
LCS (W3L1446-BS1)				Analyzed: 01/23/14 04:34						
Acenaphthene	8.56	0.10	ug/l	10.0		86	47-145			
Acenaphthylene	7.93	0.10	ug/l	10.0		79	33-145			
Anthracene	8.19	0.10	ug/l	10.0		82	27-133			
Benzo (a) anthracene	8.69	0.10	ug/l	10.0		87	33-143			
Benzo (a) pyrene	6.39	0.10	ug/l	10.0		64	17-163			

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Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W3L1446 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L1446-BS1)				Analyzed: 01/23/14 04:34						
Benzo (b) fluoranthene	7.02	0.10	ug/l	10.0		70	24-159			
Benzo (g,h,i) perylene	4.59	0.10	ug/l	10.0		46	0.1-219			
Benzo (k) fluoranthene	7.19	0.10	ug/l	10.0		72	11-162			
Chrysene	8.35	0.10	ug/l	10.0		84	17-168			
Dibenzo (a,h) anthracene	4.98	0.10	ug/l	10.0		50	0.1-227			
Fluoranthene	8.53	0.10	ug/l	10.0		85	26-137			
Fluorene	8.05	0.10	ug/l	10.0		80	59-121			
Indeno (1,2,3-cd) pyrene	6.24	0.10	ug/l	10.0		62	0.1-171			
Naphthalene	8.10	0.10	ug/l	10.0		81	21-133			
Phenanthrene	8.33	0.10	ug/l	10.0		83	54-120			
Pyrene	8.51	0.10	ug/l	10.0		85	52-115			
Surr: 2-Fluorobiphenyl	*3.75*		*ug/l*	*5.00*		*75*	*22-107*			
Surr: Nitrobenzene-d5	*3.94*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.39*		*ug/l*	*5.00*		*68*	*28-113*			
LCS Dup (W3L1446-BSD1)				Analyzed: 01/23/14 05:06						
Acenaphthene	8.67	0.10	ug/l	10.0		87	47-145	1	30	
Acenaphthylene	8.03	0.10	ug/l	10.0		80	33-145	1	30	
Anthracene	8.62	0.10	ug/l	10.0		86	27-133	5	30	
Benzo (a) anthracene	9.18	0.10	ug/l	10.0		92	33-143	5	30	
Benzo (a) pyrene	6.66	0.10	ug/l	10.0		67	17-163	4	30	
Benzo (b) fluoranthene	7.27	0.10	ug/l	10.0		73	24-159	4	30	
Benzo (g,h,i) perylene	4.87	0.10	ug/l	10.0		49	0.1-219	6	30	
Benzo (k) fluoranthene	7.56	0.10	ug/l	10.0		76	11-162	5	30	
Chrysene	8.75	0.10	ug/l	10.0		88	17-168	5	30	
Dibenzo (a,h) anthracene	5.20	0.10	ug/l	10.0		52	0.1-227	4	30	
Fluoranthene	8.99	0.10	ug/l	10.0		90	26-137	5	30	
Fluorene	8.26	0.10	ug/l	10.0		83	59-121	3	30	
Indeno (1,2,3-cd) pyrene	6.69	0.10	ug/l	10.0		67	0.1-171	7	30	
Naphthalene	8.31	0.10	ug/l	10.0		83	21-133	3	30	
Phenanthrene	8.65	0.10	ug/l	10.0		86	54-120	4	30	
Pyrene	9.08	0.10	ug/l	10.0		91	52-115	7	30	
Surr: 2-Fluorobiphenyl	*3.81*		*ug/l*	*5.00*		*76*	*22-107*			
Surr: Nitrobenzene-d5	*3.96*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.65*		*ug/l*	*5.00*		*73*	*28-113*			

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

RB-AR4952

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2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

CHAIN OF CUSTODY RECORD

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Analytical Laboratory Services - Since 1964

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Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

Page 1 Of 1

CLIENT NAME: AEI-CASC CONSULTING

PROJECT: EL MONTE WET WEATHER OUTFALLS

ADDRESS: 2740 W. MAGNOLIA BLVD SUITE 102 BURBANK, CA 91505

PHONE: 310-291-1150

FAX:

Email: e-suher@aei-casc.com

PO#:

PROJECT MANAGER: ED SUHER

Sampler: CM/ES

ANALYSES REQUESTED

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OIL + GREASE 1664A	TOTAL P 365.3	TOTAL N BY CALC	TSS SM 2540D	TDS SM 2540C	POLYNUCLEAR AROMAT 625	TOTAL COLIFORM 9221B	FECAL COLIFORM 9221E	E. COLI 9221F	Cu, Pb, Zn, Se 200.7
	2/6/14	1520	RW	RH-WW0-05	8	X	X	X	X	X	X	X	X	X	X
	2/6/14	1640	RW	SG-WW0-07	8	X	X	X	X	X	X	X	X	X	X

RB-AR4954

Special Handling
- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 4-5 Day Rush 75%
- ☐ Rush Extraction 50%
- ☒ 10-15 Business Days
- ☐ QA/QC Package

Charges will apply for weekends and holidays

Method of Shipment

COMMENTS

RELINQUISHED BY SIGNATURE	PRINT NAME	DATE / TIME	RECEIVED BY SIGNATURE	PRINT NAME	DATE / TIME
E.G. Suher	ED SUHER	2/6/14 18:15	Jamalimer		2/6/14 18:15

SAMPLE CONDITION:
Actual Temperature: 4.1°C
Received On Ice: Y / N
Preserved: Y / N
Evidence Seals Present: Y / N
Container Attacked: Y / N
Preserved at Lab: Y / N

SAMPLE TYPE CODE:
AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM).

SPECIAL REQUIREMENTS / BILLING INFORMATION

DISTRIBUTION: WHITE & CANARY - For Laboratory PINK - For Client

CERTIFICATE OF ANALYSIS

Client:	AEI-CASC Consulting 2740 W. Magnolia Blvd., Ste.102 Burbank CA, 91505	**Report Date:**	02/24/14 17:11
		Received Date:	02/06/14 18:15
		Turn Around:	Normal
Attention:	Ed Suher	**Client Project:**	El Monte Wet Weather Outfalls
Phone:	(818) 841-9004		
Fax:	(818) 841-8013		
Work Order(s):	4B06078		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Ed Suher :

Enclosed are the results of analyses for samples received 02/06/14 18:15 with the Chain of Custody document. The samples were received in good condition, at 4.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

RB-AR4955

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
RH-WWO-05	CM/ES		4B06078-01	Water	02/06/14 15:20
SG-WWO-07	CM/ES		4B06078-02	Water	02/06/14 16:40

ANALYSES

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Metals by EPA 200 Series Methods

Microbiological Parameters by Standard Methods

Semivolatile Organics - Low Level by GC/MS SIM Mode

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-01 **RH-WWO-05**

Sampled: 02/06/14 15:20 **Sampled By:** CM/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W4B0521 Prepared: 02/12/14 12:10 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	02/14/14 14:38	

Method: EPA 351.2 Batch: W4B0653 Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.91**	0.10	mg/l	1	02/18/14 13:17	

Method: EPA 353.2 Batch: W4B0589 Prepared: 02/13/14 14:03 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**590**	100	ug/l	1	02/13/14 17:19	

Method: EPA 365.3 Batch: W4B0393 Prepared: 02/10/14 12:58 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.076**	0.010	mg/l	1	02/14/14 18:26	

Method: SM 2540C Batch: W4B0489 Prepared: 02/11/14 17:53 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**190**	10	mg/l	1	02/12/14 11:15	

Method: SM 2540D Batch: W4B0321 Prepared: 02/07/14 17:21 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	02/07/14 18:45	

Method: Various Batch: [CALC] Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**1.5**	0.20	mg/l	1	02/18/14 13:17	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W4B0375 Prepared: 02/10/14 09:39 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.016**	0.010	mg/l	1	02/10/14 16:03	
Lead, Total	ND	0.0050	mg/l	1	02/10/14 16:03	
Selenium, Total	ND	0.030	mg/l	1	02/10/14 16:03	
Zinc, Total	ND	0.050	mg/l	1	02/10/14 16:03	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**10000**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

RB-AR4957

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-01 **RH-WWO-05**

Sampled: 02/06/14 15:20 **Sampled By:** CM/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**260**		40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221F Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**260**		40	MPN/100ml	20	02/06/14 18:50	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W4B0592 Prepared: 02/13/14 14:17 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
2-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
Acenaphthene	ND		0.10	ug/l	1	02/20/14 05:36	
Acenaphthylene	ND		0.10	ug/l	1	02/20/14 05:36	
Anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (a) anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (a) pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Chrysene	ND		0.10	ug/l	1	02/20/14 05:36	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Fluorene	ND		0.10	ug/l	1	02/20/14 05:36	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Naphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
Phenanthrene	ND		0.10	ug/l	1	02/20/14 05:36	
Pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Surr: 2-Fluorobiphenyl	*71 %*	Conc:*3.53*	*22-107*	%			
Surr: Nitrobenzene-d5	*78 %*	Conc:*3.90*	*27-111*	%			
Surr: Terphenyl-d14	*69 %*	Conc:*3.45*	*28-113*	%			

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Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-02 **SG-WWO-07**

Sampled: 02/06/14 16:40 **Sampled By:** CM/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W4B0521 Prepared: 02/12/14 12:10 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	02/14/14 14:38	

Method: EPA 351.2 Batch: W4B0653 Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**4.6**	0.40	mg/l	4	02/18/14 13:17	

Method: EPA 353.2 Batch: W4B0589 Prepared: 02/13/14 14:03 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**2000**	100	ug/l	1	02/13/14 17:21	

Method: EPA 365.3 Batch: W4B0393 Prepared: 02/10/14 12:58 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**1.2**	0.10	mg/l	1	02/14/14 18:26	M-06

Method: SM 2540C Batch: W4B0489 Prepared: 02/11/14 17:53 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**130**	10	mg/l	1	02/12/14 11:15	

Method: SM 2540D Batch: W4B0321 Prepared: 02/07/14 17:21 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**230**	5	mg/l	1	02/07/14 18:45	

Method: Various Batch: [CALC] Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**6.6**	0.50	mg/l	4	02/18/14 13:17	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W4B0375 Prepared: 02/10/14 09:39 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.072**	0.010	mg/l	1	02/10/14 16:06	
Lead, Total	**0.032**	0.0050	mg/l	1	02/10/14 16:06	
Selenium, Total	ND	0.030	mg/l	1	02/10/14 16:06	
Zinc, Total	**0.29**	0.050	mg/l	1	02/10/14 16:06	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**28000**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-02 **SG-WWO-07**

Sampled: 02/06/14 16:40 **Sampled By:** CM/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**1400**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221F Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
E. coli	**1400**	40	MPN/100ml	20	02/06/14 18:50	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W4B0592 Prepared: 02/13/14 14:17 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
2-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
Acenaphthene	ND		0.10	ug/l	1	02/20/14 06:09	
Acenaphthylene	ND		0.10	ug/l	1	02/20/14 06:09	
Anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (a) anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (a) pyrene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	02/20/14 06:09	
Chrysene	**0.14**		0.10	ug/l	1	02/20/14 06:09	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Fluoranthene	**0.19**		0.10	ug/l	1	02/20/14 06:09	
Fluorene	ND		0.10	ug/l	1	02/20/14 06:09	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	02/20/14 06:09	
Naphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
Phenanthrene	**0.12**		0.10	ug/l	1	02/20/14 06:09	
Pyrene	**0.15**		0.10	ug/l	1	02/20/14 06:09	
Surr: 2-Fluorobiphenyl	*86 %*	Conc:*4.28*	*22-107*	%			
Surr: Nitrobenzene-d5	*94 %*	Conc:*4.69*	*27-111*	%			
Surr: Terphenyl-d14	*86 %*	Conc:*4.32*	*28-113*	%			

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

QUALITY CONTROL SECTION

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Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4B0321 - SM 2540D

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0321-BLK1)				Analyzed: 02/07/14 18:45						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W4B0321-DUP1)	**Source: 4B06021-01**			Analyzed: 02/07/14 18:45						
Total Suspended Solids	ND	5	mg/l		0.00					
Duplicate (W4B0321-DUP2)	**Source: 4B06078-01**			Analyzed: 02/07/14 18:45						
Total Suspended Solids	4.00	5	mg/l		4.00			NR	20	

Batch W4B0393 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0393-BLK1)				Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W4B0393-BS1)				Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.205	0.010	mg/l	0.200		102	90-110			
Matrix Spike (W4B0393-MS1)	**Source: 4B05080-03**			Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.329	0.010	mg/l	0.200	0.136	97	90-110			
Matrix Spike Dup (W4B0393-MSD1)	**Source: 4B05080-03**			Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.328	0.010	mg/l	0.200	0.136	96	90-110	0.3	20	

Batch W4B0489 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0489-BLK1)				Analyzed: 02/12/14 11:15						
Total Dissolved Solids	ND	10	mg/l							
LCS (W4B0489-BS1)				Analyzed: 02/12/14 11:15						
Total Dissolved Solids	817	10	mg/l	824		99	96-102			
Duplicate (W4B0489-DUP1)	**Source: 4B06014-01**			Analyzed: 02/12/14 11:15						
Total Dissolved Solids	537	10	mg/l		535			0.4	10	
Duplicate (W4B0489-DUP2)	**Source: 4B11083-01**			Analyzed: 02/12/14 11:15						
Total Dissolved Solids	296	10	mg/l		289			2	10	

Batch W4B0521 - EPA 1664A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0521-BLK1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	ND	5.0	mg/l							
LCS (W4B0521-BS1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	19.5	5.0	mg/l	20.0		98	78-114			
LCS (W4B0521-BS2)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	4.80	5.0	mg/l	5.00		96	78-114			
LCS Dup (W4B0521-BSD1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	19.2	5.0	mg/l	20.0		96	78-114	2	18	

Batch W4B0589 - EPA 353.2

RB-AR4962

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2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4B0589 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0589-BLK1)				Analyzed: 02/13/14 17:15						
NO2+NO3 as N	ND	100	ug/l							
LCS (W4B0589-BS1)				Analyzed: 02/13/14 16:34						
NO2+NO3 as N	1030	100	ug/l	1000		103	90-110			
Matrix Spike (W4B0589-MS1)	**Source: 4B12061-03**			Analyzed: 02/13/14 16:42						
NO2+NO3 as N	5360	100	ug/l	2000	3370	99	90-110			
Matrix Spike (W4B0589-MS2)	**Source: 4B12061-04**			Analyzed: 02/13/14 16:49						
NO2+NO3 as N	6480	100	ug/l	2000	4570	96	90-110			
Matrix Spike Dup (W4B0589-MSD1)	**Source: 4B12061-03**			Analyzed: 02/13/14 16:44						
NO2+NO3 as N	5330	100	ug/l	2000	3370	98	90-110	0.6	20	
Matrix Spike Dup (W4B0589-MSD2)	**Source: 4B12061-04**			Analyzed: 02/13/14 16:51						
NO2+NO3 as N	6580	100	ug/l	2000	4570	100	90-110	1	20	

Batch W4B0653 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0653-BLK1)				Analyzed: 02/18/14 13:17						
TKN	ND	0.10	mg/l							
Blank (W4B0653-BLK2)				Analyzed: 02/18/14 13:17						
TKN	ND	0.10	mg/l							
LCS (W4B0653-BS1)				Analyzed: 02/18/14 13:17						
TKN	0.968	0.10	mg/l	1.00		97	90-110			
LCS (W4B0653-BS2)				Analyzed: 02/18/14 13:17						
TKN	0.969	0.10	mg/l	1.00		97	90-110			
Duplicate (W4B0653-DUP1)	**Source: 4B07076-01**			Analyzed: 02/18/14 13:17						
TKN	1.74	0.40	mg/l		1.77			2	10	
Matrix Spike (W4B0653-MS1)	**Source: 4B07070-01**			Analyzed: 02/18/14 13:17						
TKN	6.93	0.40	mg/l	4.00	2.91	100	90-110			
Matrix Spike (W4B0653-MS2)	**Source: 4B07073-01**			Analyzed: 02/18/14 13:17						
TKN	2.52	0.20	mg/l	2.00	0.670	93	90-110			
Matrix Spike Dup (W4B0653-MSD1)	**Source: 4B07070-01**			Analyzed: 02/18/14 13:17						
TKN	6.99	0.40	mg/l	4.00	2.91	102	90-110	0.9	10	
Matrix Spike Dup (W4B0653-MSD2)	**Source: 4B07073-01**			Analyzed: 02/18/14 13:17						
TKN	2.53	0.20	mg/l	2.00	0.670	93	90-110	0.3	10	

Metals by EPA 200 Series Methods - Quality Control

Batch W4B0375 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0375-BLK1)				Analyzed: 02/10/14 15:55						
Copper, Total	ND	0.010	mg/l							
Lead, Total	ND	0.0050	mg/l							

RB-AR4963

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Metals by EPA 200 Series Methods - Quality Control

Batch W4B0375 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0375-BLK1)				Analyzed: 02/10/14 15:55						
Selenium, Total	ND	0.030	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W4B0375-BS1)				Analyzed: 02/10/14 15:58						
Copper, Total	0.198	0.010	mg/l	0.200		99	85-115			
Lead, Total	0.204	0.0050	mg/l	0.200		102	85-115			
Selenium, Total	0.205	0.030	mg/l	0.200		102	85-115			
Zinc, Total	0.194	0.050	mg/l	0.200		97	85-115			
Matrix Spike (W4B0375-MS1)	**Source: 4B07077-01**			Analyzed: 02/10/14 16:31						
Copper, Total	0.227	0.010	mg/l	0.200	0.0178	105	70-130			
Lead, Total	0.211	0.0050	mg/l	0.200	0.00345	104	70-130			
Selenium, Total	0.215	0.030	mg/l	0.200	ND	107	70-130			
Zinc, Total	0.420	0.050	mg/l	0.200	0.211	104	70-130			
Matrix Spike (W4B0375-MS2)	**Source: 4B07059-01**			Analyzed: 02/10/14 16:36						
Copper, Total	0.277	0.010	mg/l	0.200	0.0632	107	70-130			
Lead, Total	0.204	0.0050	mg/l	0.200	ND	102	70-130			
Selenium, Total	0.221	0.030	mg/l	0.200	0.0101	105	70-130			
Zinc, Total	0.372	0.050	mg/l	0.200	0.155	109	70-130			
Matrix Spike Dup (W4B0375-MSD1)	**Source: 4B07077-01**			Analyzed: 02/10/14 16:33						
Copper, Total	0.232	0.010	mg/l	0.200	0.0178	107	70-130	2	30	
Lead, Total	0.217	0.0050	mg/l	0.200	0.00345	107	70-130	3	30	
Selenium, Total	0.224	0.030	mg/l	0.200	ND	112	70-130	4	30	
Zinc, Total	0.429	0.050	mg/l	0.200	0.211	109	70-130	2	30	
Matrix Spike Dup (W4B0375-MSD2)	**Source: 4B07059-01**			Analyzed: 02/10/14 16:38						
Copper, Total	0.279	0.010	mg/l	0.200	0.0632	108	70-130	0.8	30	
Lead, Total	0.204	0.0050	mg/l	0.200	ND	102	70-130	0.07	30	
Selenium, Total	0.228	0.030	mg/l	0.200	0.0101	109	70-130	3	30	
Zinc, Total	0.371	0.050	mg/l	0.200	0.155	108	70-130	0.3	30	

Microbiological Parameters by Standard Methods - Quality Control

Batch W4B0809 - SM 9221F

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0809-BLK1)				Analyzed: 02/06/14 18:50						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W4B0809-BLK2)				Analyzed: 02/06/14 23:00						
E. coli	ND	2.0	MPN/100 ml							

RB-AR4964

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Microbiological Parameters by Standard Methods - Quality Control

Batch W4B0809 - SM 9221E

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0809-BLK2)				Analyzed: 02/06/14 23:00						
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W4B0592 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0592-BLK1)				Analyzed: 02/20/14 03:55						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surr: 2-Fluorobiphenyl	*3.87*		*ug/l*	*5.00*		*77*	*22-107*			
Surr: Nitrobenzene-d5	*4.55*		*ug/l*	*5.00*		*91*	*27-111*			
Surr: Terphenyl-d14	*3.64*		*ug/l*	*5.00*		*73*	*28-113*			
LCS (W4B0592-BS1)				Analyzed: 02/20/14 04:29						
Acenaphthene	7.85	0.10	ug/l	10.0		78	47-145			
Acenaphthylene	8.58	0.10	ug/l	10.0		86	33-145			
Anthracene	8.66	0.10	ug/l	10.0		87	27-133			
Benzo (a) anthracene	8.89	0.10	ug/l	10.0		89	33-143			
Benzo (a) pyrene	7.76	0.10	ug/l	10.0		78	17-163			
Benzo (b) fluoranthene	8.39	0.10	ug/l	10.0		84	24-159			
Benzo (g,h,i) perylene	5.33	0.10	ug/l	10.0		53	0.1-219			
Benzo (k) fluoranthene	8.45	0.10	ug/l	10.0		84	11-162			
Chrysene	9.39	0.10	ug/l	10.0		94	17-168			
Dibenzo (a,h) anthracene	5.78	0.10	ug/l	10.0		58	0.1-227			

RB-AR4965

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2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W4B0592 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4B0592-BS1)				Analyzed: 02/20/14 04:29						
Fluoranthene	8.96	0.10	ug/l	10.0		90	26-137			
Fluorene	7.91	0.10	ug/l	10.0		79	59-121			
Indeno (1,2,3-cd) pyrene	5.80	0.10	ug/l	10.0		58	0.1-171			
Naphthalene	7.86	0.10	ug/l	10.0		79	21-133			
Phenanthrene	8.75	0.10	ug/l	10.0		88	54-120			
Pyrene	9.01	0.10	ug/l	10.0		90	52-115			
Surr: 2-Fluorobiphenyl	*3.77*		*ug/l*	*5.00*		*75*	*22-107*			
Surr: Nitrobenzene-d5	*4.17*		*ug/l*	*5.00*		*83*	*27-111*			
Surr: Terphenyl-d14	*3.61*		*ug/l*	*5.00*		*72*	*28-113*			
LCS Dup (W4B0592-BSD1)				Analyzed: 02/20/14 05:02						
Acenaphthene	7.39	0.10	ug/l	10.0		74	47-145	6	30	
Acenaphthylene	8.16	0.10	ug/l	10.0		82	33-145	5	30	
Anthracene	7.78	0.10	ug/l	10.0		78	27-133	11	30	
Benzo (a) anthracene	8.40	0.10	ug/l	10.0		84	33-143	6	30	
Benzo (a) pyrene	6.98	0.10	ug/l	10.0		70	17-163	11	30	
Benzo (b) fluoranthene	7.60	0.10	ug/l	10.0		76	24-159	10	30	
Benzo (g,h,i) perylene	4.85	0.10	ug/l	10.0		49	0.1-219	9	30	
Benzo (k) fluoranthene	7.55	0.10	ug/l	10.0		75	11-162	11	30	
Chrysene	8.36	0.10	ug/l	10.0		84	17-168	12	30	
Dibenzo (a,h) anthracene	5.28	0.10	ug/l	10.0		53	0.1-227	9	30	
Fluoranthene	8.11	0.10	ug/l	10.0		81	26-137	10	30	
Fluorene	7.34	0.10	ug/l	10.0		73	59-121	8	30	
Indeno (1,2,3-cd) pyrene	5.35	0.10	ug/l	10.0		53	0.1-171	8	30	
Naphthalene	7.42	0.10	ug/l	10.0		74	21-133	6	30	
Phenanthrene	7.94	0.10	ug/l	10.0		79	54-120	10	30	
Pyrene	8.12	0.10	ug/l	10.0		81	52-115	10	30	
Surr: 2-Fluorobiphenyl	*3.59*		*ug/l*	*5.00*		*72*	*22-107*			
Surr: Nitrobenzene-d5	*3.93*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.30*		*ug/l*	*5.00*		*66*	*28-113*			

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Legg Lake

El Monte's point source area for the Trash TMDL is approximately 0.10 square miles. LACFCD storm drain line BI 0529-Line B drains catch basins within that approximate 0.10 square mile portion of the City. The catch basins feeding the storm drain line are along Mountain View Road from approximately Garvey Avenue to the city limit boundary on south near Weaver Avenue. The storm drain line has a single outlet at North Lake. Six catch basins along Mtn. View Road have been retrofitted with trash exclusion devices. The devices consist of a combination of ARSs and FBIs at the highest traffic areas along this route. In order to address the required pollutant reductions for Legg Lake, six catch basins along Mountain View Road will be retrofitted with Modular Wetland Systems to remove both trash and nutrients.

The City is committed to trash reduction to the Legg Lake system and plans to retrofit more catch basins with trash excluders along this route as funding becomes available. The City will also explore increased frequency of sweeping along Mountain View Road, sweeping of alleyways, and increased frequency of sweeping of public parking lots. The discharge of trash from storm drains draining to Legg Lake will largely be controlled/reduced by the implementation of the trash excluders described above but additional measures for eliminating the trash impairment to Legg Lake (as described in the Trash TMDL for Legg Lake) will include placement of additional trash receptacles along Mountain View Road, Public Education regarding the Lake impairments, and Community Involvement to further promote water quality at the lake.

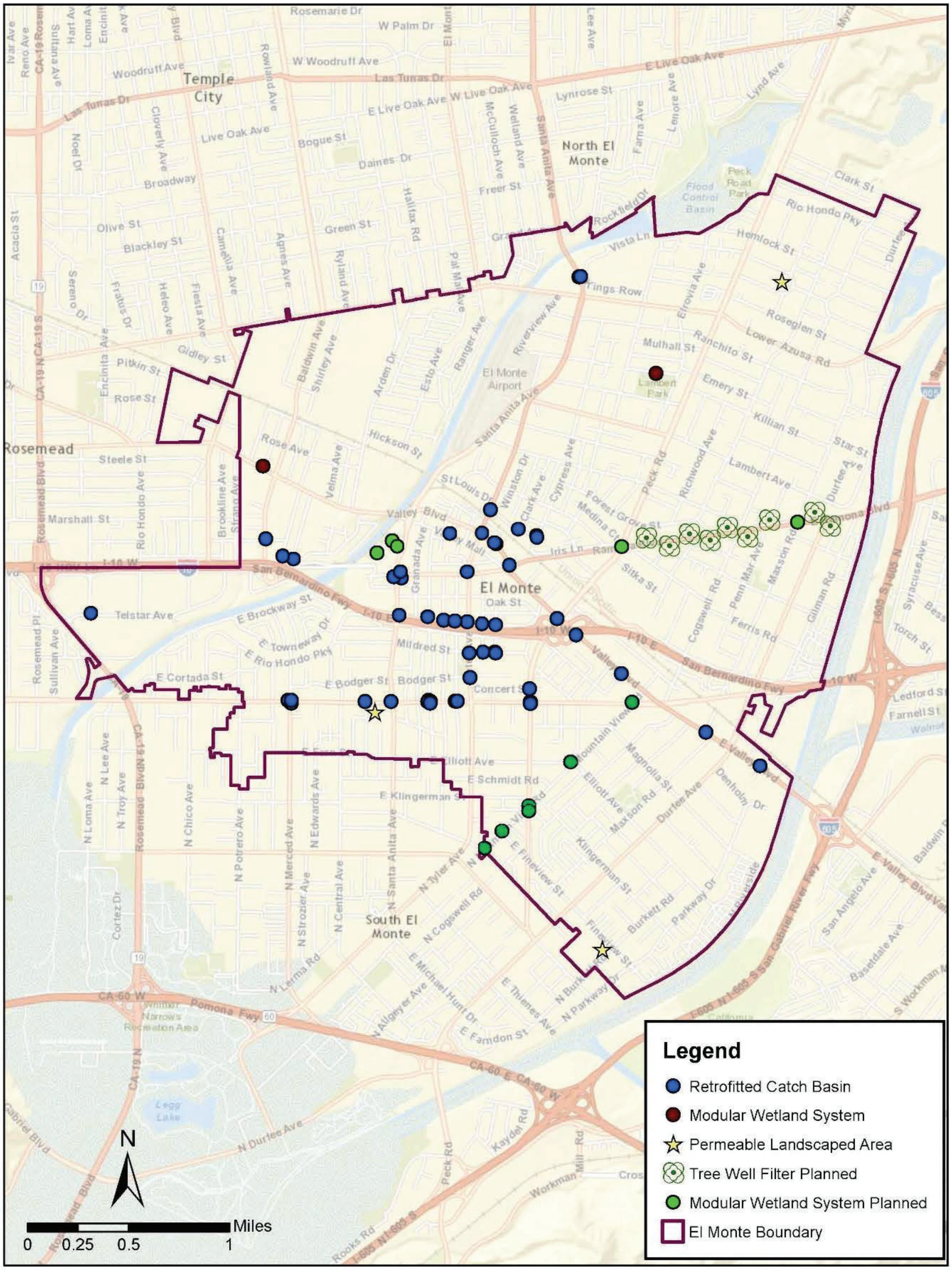
Peck Road Park Lake

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake.

1.8.4 EXISTING AND PLANNED STRUCTURAL CONTROL MEASURES

There are approximately 300 catch basins in the City's jurisdiction. Of the 300, a total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts account for 20 of the

Figure 1-10: Existing and Planned Control Measures



1.9. REASONABLE ASSURANCE ANALYSIS (RAA)

Permittees electing to develop a watershed management program (WMP) or enhanced watershed management program (EWMP) are required to submit a Reasonable Assurance Analysis (RAA) as part of their draft WMP to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of the watershed control measures proposed in WMP. The City will conduct a RAA for each water body pollutant combination (WBPC) addressed by its WMP. The RAA will be quantitative and performed using a peer-reviewed model in the public domain. The RAA will commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of QA/QC criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data shall only be drawn from peer-reviewed sources and statistically analyzed to determine the best estimate for the performance and confidence limits on that estimate for the pollutants to be evaluated. The Regional Board has prepared a guidance document to provide information and guidance to assist permittees in development of the RAA. The document provides clarification of the regulatory requirements of the RAA along with recommended criteria for the permittees to follow to prepare an appropriate RAA for Regional Board approval.

The objective of the RAA shall be to demonstrate the ability of the WMP to ensure that Permittees MS4 discharges achieve applicable WQBELS and do not cause or contribute to exceedances of RWLs.

1.9.1 MODELING REQUIREMENTS FOR RAA

The WMMS meets the model requirements of the Reasonable Assurance Guidelines and is appropriate for conducting the required RAA.

Model input files: the model input/output files will be uploaded with this WMP.

The City has chosen to use the Watershed Management Modeling System (WMMS) to support/demonstrate/conduct the RAA. The WMMS was developed by the Los Angeles County Flood Control District and the U.S. EPA. The WMMS meets the requirements of Section G. of the RAA Guidelines and is appropriate for conducting the required Reasonable Assurance Analysis. WMMS

modeled 38 subwatershed within City's jurisdiction. GIS "intersect" methods were used to include those portions of subwatersheds within the City's jurisdiction.

This RAA (using WMMS) and the associated IMP uses the Los Angeles County's HUC-12 equivalent boundaries. The City has verified with neighboring groups and cities that there are no gaps in the geographic areas addressed in the RAA or IMP.

Calibration

Since the original development of the WMMS LSPC model, Los Angeles County personnel have independently updated the model with meteorological data through 2012. The calibration of WMMS was fully documented, and is consistent with methods used in LSPC modeling efforts previously performed by the EPA to support TMDL development (Tetra Tech 2010). There is limited or insufficient storm flow and water quality data currently available near El Monte to facilitate additional calibration of modeling parameters. This lack of data was confirmed by Los Angeles County Department of Public Works employees that were involved in the development of the WMMS model. As the City collects monitoring data from both outfall and receiving water monitoring, the collected data will be used to further calibrate the model as part of the Adaptive Management Process.

Rain Data

The RAA is based on recorded rainfall depth metrics obtained for historical wet season data, classified as October 1st to April 30th, for the years 1986 to 2012. This wet season time period is referred to in the RAA as a "Wet Year", and was utilized to represent the evaluated critical condition, allowing for the modeling to capture variability of rainfall storm depths. Recorded rainfall depths were obtained from LA County Department of Public Works Rain Gage D108 data, located at El Monte Fire Station on Santa Anita Ave, between Valley Mall and Ramona Blvd. The wet year minimum, maximum and total annual rainfall depths are summarized in Table 1-7 below for only the last ten years of data, per the RAA Guidelines [1]). Based on the data from these last ten years, the 90th percentile rainfall value is 26.66 inches, which most closely corresponds to the 2004-2005 wet year. Therefore, the wet year for 2004-2005 was determined to be the representative year for the 90th percentile wet year.

1.9.2 MODELED POLLUTANT LOADING, ALLOWABLE LIMITS, AND REQUIRED PERCENT REDUCTION

The modeled (estimated) pollutant loadings, allowable limit, and percent reduction required to meet effluent limits are shown in tables and graphs in the subsections below.

1.9.2.1 LA River and Tributaries Metals TMDL

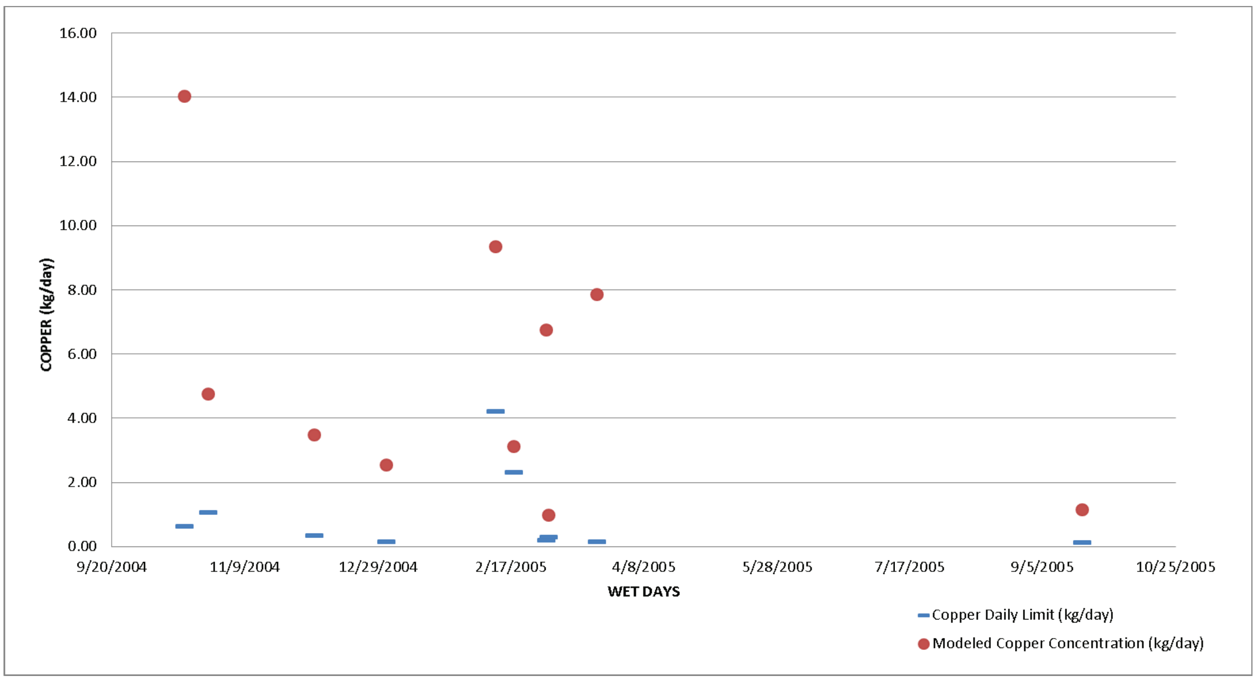
Table 1-8: Formula used for Metals Effluent Limit Calculation from Order R4-2012-0175

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER[1] x 2.8 x 10^{-9} x daily volume (L) – 1.8
Copper	WER[1] x 1.5 x 10^{-8} x daily volume (L) – 9.5
Lead	WER[1] x 5.6 x 10^{-8} x daily volume (L) – 3.85
Zinc	WER[1] x 1.4 x 10^{-7} x daily volume (L) – 83

Table 1-9: LA River Copper

Wet Days	Copper Daily Limit (kg/day)	Modeled Copper Concentration (kg/day)	Percent Reduction Required
10/17/2004	0.63	14.04	96%
10/26/2004	1.07	4.76	78%
12/5/2004	0.34	3.50	90%
1/1/2005	0.15	2.55	94%
2/11/2005	4.22	9.35	55%
2/18/2005	2.30	3.12	26%
3/2/2005	0.19	6.76	97%
3/3/2005	0.30	0.99	69%
3/21/2005	0.15	7.86	98%
9/20/2005	0.12	1.16	89%

Figure 1-11: Scatter Plot for LA River Copper



RB-AR4973

Table 1-10: LA River Lead

Wet Days	Lead Daily Limit (kg/day)	Modeled Lead Concentration (kg/day)	Percent Reduction Required
10/17/2004	2.75	12.41	78%
12/5/2004	1.63	3.16	48%
1/1/2005	0.94	1.87	50%
3/2/2005	1.08	6.10	82%
3/21/2005	0.93	7.15	87%

Figure 1-12: Scatter Plot for LA River Lead

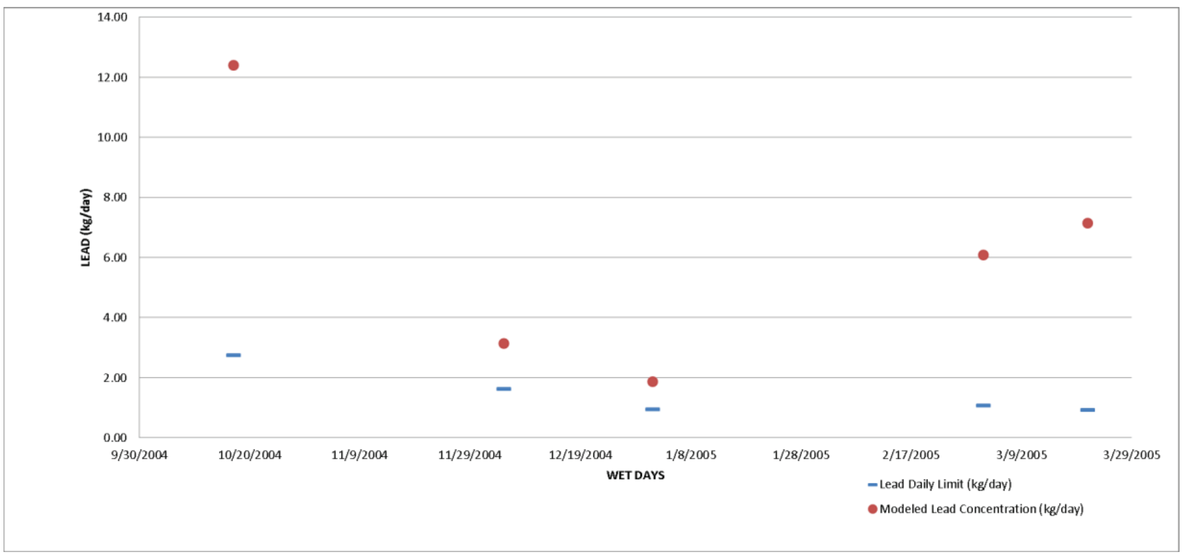
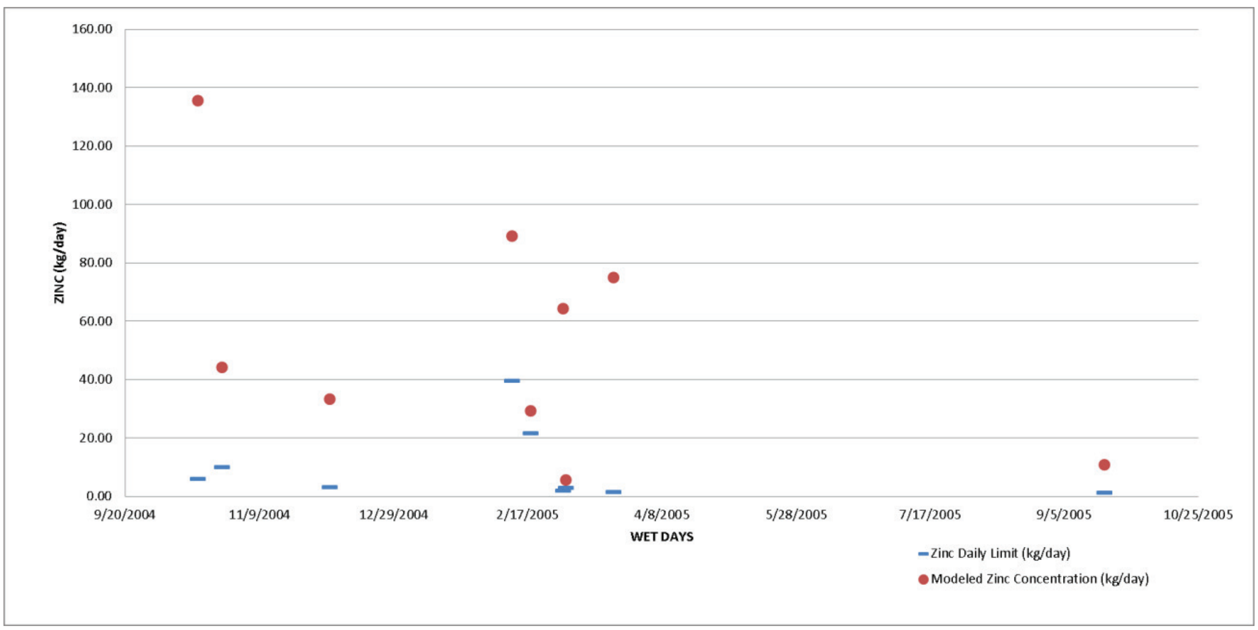


Table 1-11: LA River Zinc

Wet Days	Zinc Daily Limit (kg/day)	Modeled Zinc Concentration (kg/day)	Percent Reduction Required
10/17/2004	5.99	135.72	96%
10/26/2004	10.06	44.25	77%
12/5/2004	3.20	33.41	90%
2/11/2005	39.45	89.20	56%
2/18/2005	21.57	29.30	26%
3/2/2005	1.83	64.30	97%
3/3/2005	2.89	5.82	50%
3/21/2005	1.45	75.10	98%
9/20/2005	1.22	11.04	89%

Figure 1-13: Scatter Plot for LA River Zinc



1.9.2.3 LA River Watershed Bacterial TMDL

Table 1-14: LA River Bacteria

Wet Days	Modeled Fecal coliform Concentration(MPN/100ml)	Fecal coliform Limit* (MPN/100ml)	Percent Reduction Required
10/17/2004	226,946	400	99%
10/20/2004	145,482	400	99%
10/26/2004	190,556	400	99%
10/27/2004	115,818	400	99%
12/5/2004	144,759	400	99%
12/27/2004	196,810	400	99%
12/28/2004	196,928	400	99%
12/29/2004	193,972	400	99%
1/1/2005	164,171	400	99%
1/6/2005	160,153	400	99%
1/8/2005	184,944	400	99%
1/9/2005	192,883	400	99%
1/10/2005	117,454	400	99%
2/11/2005	133,256	400	99%
2/12/2005	109,231	400	99%
2/18/2005	111,080	400	99%
2/19/2005	143,016	400	99%
3/2/2005	175,000	400	99%
3/3/2005	154,757	400	99%
3/21/2005	198,547	400	99%
3/22/2005	142,444	400	99%
9/20/2005	100,956	400	99%

*Utilized fecal coliform as surrogate pollutant for E. coli in all modeling performed.

1.9.2.5 San Gabriel River and Impaired Tributaries Metals and Selenium TMDLs

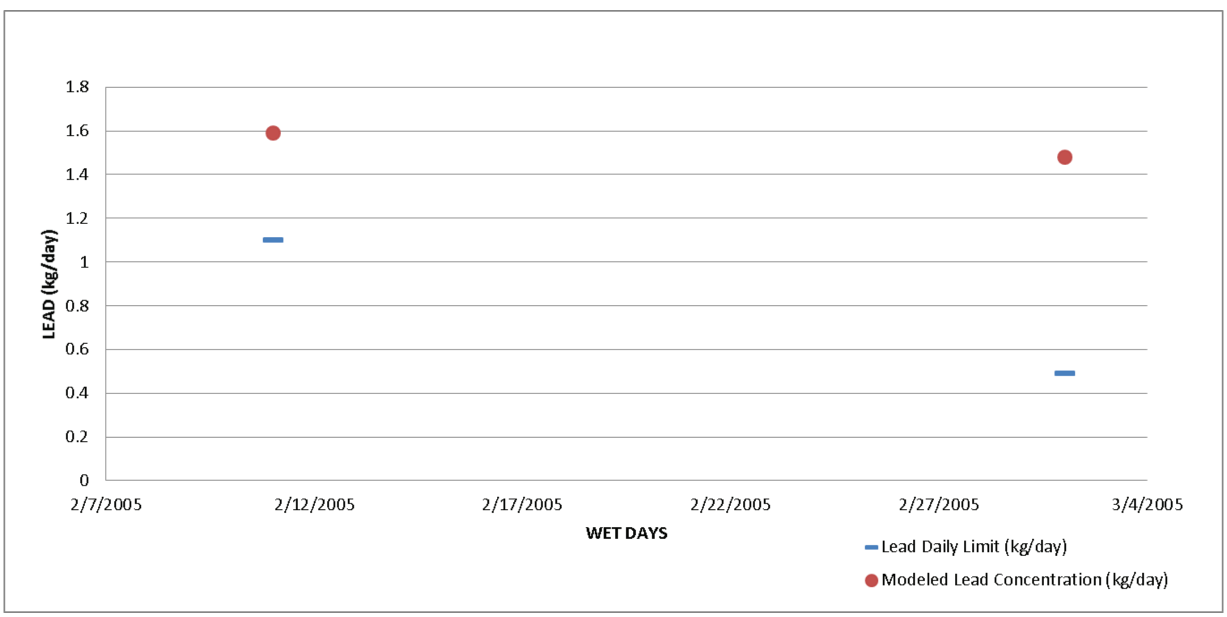
Table 1-18: Waste Load Allocation from Order R4-2012-0175

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
San Gabriel Reach 2	---	81.34 µg/L x daily storm volume (L)	---
Coyote Creek	24.71 µg/L x daily storm volume (L)	96.99 µg/L x daily storm volume (L)	144.57 µg/L x daily storm volume (L)

Table 1-19: San Gabriel River Lead

Wet Days	Lead Daily Limit (kg/day)	Modeled Lead Concentration (kg/day)	Percent Reduction Required
2/11/2005	1.1	1.59	31%
3/2/2005	0.49	1.48	67%

Figure 1-17: Scatter Plot for San Gabriel River Lead



1.9.2.6 San Gabriel River, Estuary and Tributaries Indicator Bacterial TMDL (Pending[8])

Table 1-20: San Gabriel River Bacteria

Wet Days	Modeled Fecal coliform Concentration(MPN/100ml)	Fecal coliform Limit* (MNP/100ml)	Percent Reduction Needed
1/8/2005	70,340	400	99%
1/9/2005	71,590	400	99%
1/10/2005	59,180	400	99%
1/23/2005	24,326	400	98%
1/24/2005	42,082	400	99%
1/26/2005	41,164	400	99%
2/10/2005	50,730	400	99%
2/11/2005	60,860	400	99%
2/12/2005	50,810	400	99%
2/16/2005	43,366	400	99%
2/18/2005	59,365	400	99%
2/19/2005	72,760	400	99%
3/2/2005	51,862	400	99%
3/3/2005	49,355	400	99%
3/4/2005	28,539	400	98%

*Utilized fecal coliform as surrogate pollutant for E. coli in all modeling performed.

[8] Pending Basin Plan Amendment Approval.

1.9.4 TMDL SUMMARY AND ACTION REQUIRED

Table 1-21: TMDL Summary and Action Required

TMDLs	Water Body	El Monte Action Required
Los Angeles River Watershed Trash TMDL	LA River	Retrofit catch basins with trash excluders for zero trash by Sept. 30, 2016
Los Angeles River Nitrogen Compounds and Related Effects TMDL	LA River	None; Modeled concentration below limit
Los Angeles River and Tributaries Metals TMDL	LA River	Install BMPs to achieve required percent reduction
Los Angeles River Watershed Bacteria TMDL	LA River	Wet – Implement/install BMPs to achieve required percent reduction
		Dry – Develop Load Reduction Strategy for Bacteria by March 23, 2016
Los Angeles Area Lakes TMDL (Peck Road Park Lake)	Peck Road Park Lake	None; no discharge to lake
Legg Lake Trash TMDL	LA River	Retrofit catch basins with trash excluders for zero trash by March 6, 2016
Los Angeles Area Lakes TMDL (Legg Lake Nutrients)	Legg Lake	Retrofit catch basins with BMPs to remove nutrients to comply with WLAs
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	LA River	Collaborate with Lower Los Angeles River Watershed Group on TMDL monitoring (yearly)
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	San Gabriel River	Collaborate with Lower San Gabriel River Watershed Management Group on TMDL monitoring (yearly)
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	San Gabriel River	Install BMPs to achieve required percent reduction
San Gabriel River Bacteria TMDL (Pending)	San Gabriel River	Implement/install BMPs to achieve required percent reduction

1.10. COMPLIANCE AND BMP IMPLEMENTATION SCHEDULES

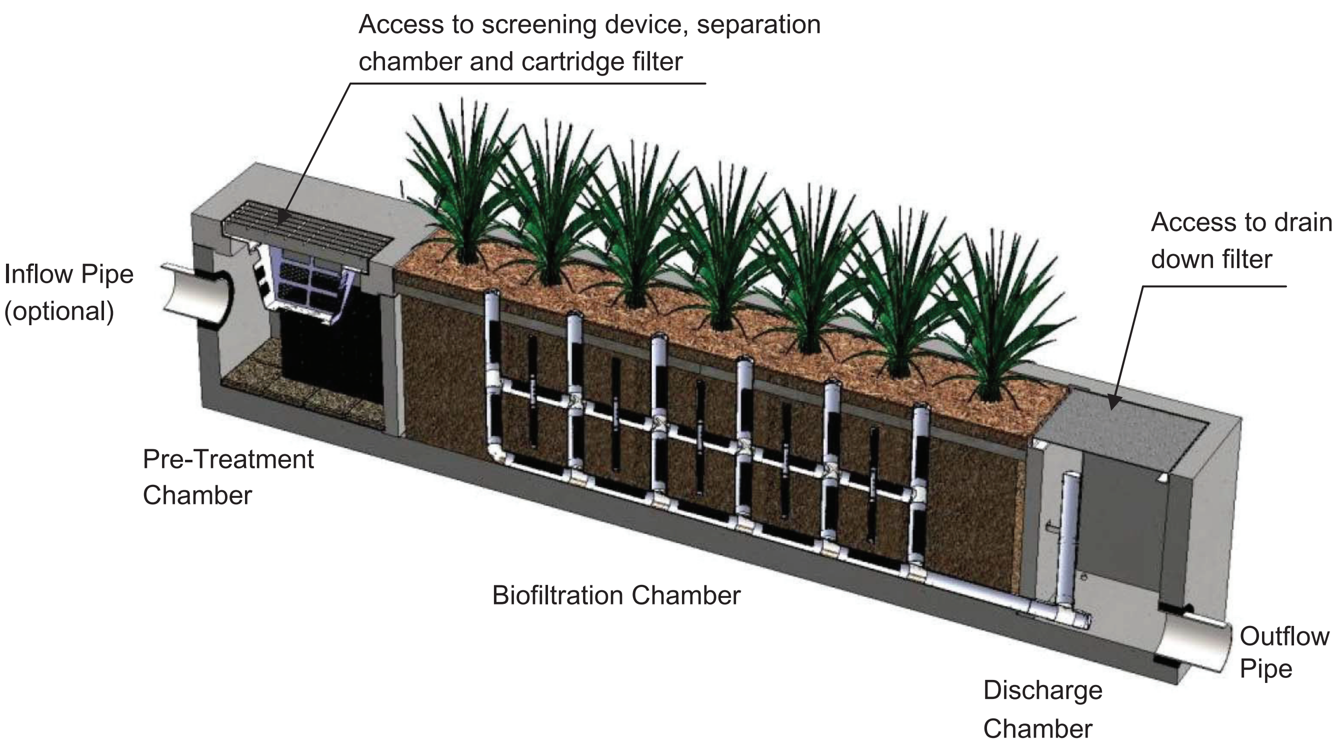
The City will implement the following BMPs per the schedules shown in order to be in compliance with the Trash TMDL for the Los Angeles River and the Trash and Nutrient TMDLs for Legg Lake.

Maintenance Guidelines for Modular Wetland System - Linear

Maintenance Summary

- Remove Trash from Screening Device – average maintenance interval is 6 to 12 months.
  - (*5 minute average service time*).
- Remove Sediment from Separation Chamber – average maintenance interval is 12 to 24 months.
  - (*10 minute average service time*).
- Replace Cartridge Filter Media – average maintenance interval 12 to 24 months.
  - (*10-15 minute per cartridge average service time*).
- Replace Drain Down Filter Media – average maintenance interval is 12 to 24 months.
  - (*5 minute average service time*).
- Trim Vegetation – average maintenance interval is 6 to 12 months.
  - (*Service time varies*).

System Diagram



Maintenance Procedures

Screening Device

1. Remove grate or manhole cover to gain access to the screening device in the Pre-Treatment Chamber. Vault type units do not have screening device. Maintenance can be performed without entry.
2. Remove all pollutants collected by the screening device. Removal can be done manually or with the use of a vacuum truck. The hose of the vacuum truck will not damage the screening device.
3. Screening device can easily be removed from the Pre-Treatment Chamber to gain access to separation chamber and media filters below. Replace grate or manhole cover when completed.

Separation Chamber

1. Perform maintenance procedures of screening device listed above before maintaining the separation chamber.
2. With a pressure washer spray down pollutants accumulated on walls and cartridge filters.
3. Vacuum out Separation Chamber and remove all accumulated pollutants. Replace screening device, grate or manhole cover when completed.

Cartridge Filters

1. Perform maintenance procedures on screening device and separation chamber before maintaining cartridge filters.
2. Enter separation chamber.
3. Unscrew the two bolts holding the lid on each cartridge filter and remove lid.
4. Remove each of 4 to 8 media cages holding the media in place.
5. Spray down the cartridge filter to remove any accumulated pollutants.
6. Vacuum out old media and accumulated pollutants.
7. Reinstall media cages and fill with new media from manufacturer or outside supplier. Manufacturer will provide specification of media and sources to purchase.
8. Replace the lid and tighten down bolts. Replace screening device, grate or manhole cover when completed.

Drain Down Filter

1. Remove hatch or manhole cover over discharge chamber and enter chamber.
2. Unlock and lift drain down filter housing and remove old media block. Replace with new media block. Lower drain down filter housing and lock into place.
3. Exit chamber and replace hatch or manhole cover.

Maintenance Notes

1. Following maintenance and/or inspection, it is recommended the maintenance operator prepare a maintenance/inspection record. The record should include any maintenance activities performed, amount and description of debris collected, and condition of the system and its various filter mechanisms.

2. The owner should keep maintenance/inspection record(s) for a minimum of five years from the date of maintenance. These records should be made available to the governing municipality for inspection upon request at any time.

3. Transport all debris, trash, organics and sediments to approved facility for disposal in accordance with local and state requirements.

4. Entry into chambers may require confined space training based on state and local regulations.

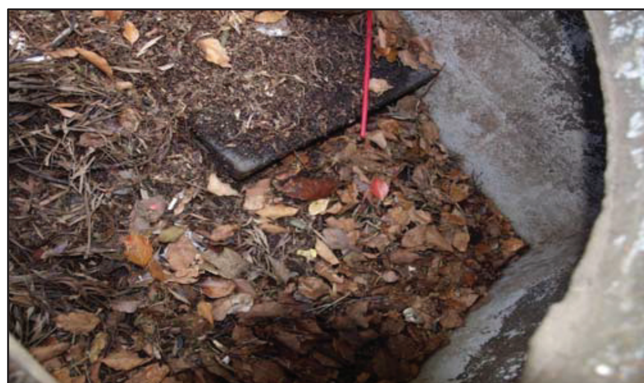
5. No fertilizer shall be used in the Biofiltration Chamber.

6. Irrigation should be provided as recommended by manufacturer and/or landscape architect. Amount of irrigation required is dependent on plant species. Some plants may require irrigation.

Maintenance Procedure Illustration

Screening Device

The screening device is located directly under the manhole or grate over the Pre-Treatment Chamber. It's mounted directly underneath for easy access and cleaning. Device can be cleaned by hand or with a vacuum truck.



Separation Chamber

The separation chamber is located directly beneath the screening device. It can be quickly cleaned using a vacuum truck or by hand. A pressure washer is useful to assist in the cleaning process.

www.modularwetlands.com

Cartridge Filters

The cartridge filters are located in the Pre-Treatment chamber connected to the wall adjacent to the biofiltration chamber. The cartridges have removable tops to access the individual media filters. Once the cartridge is open media can be easily removed and replaced by hand or a vacuum truck.

Drain Down Filter

The drain down filter is located in the Discharge Chamber. The drain filter unlocks from the wall mount and hinges up. Remove filter block and replace with new block.

Trim Vegetation

Vegetation should be maintained in the same manner as surrounding vegetation and trimmed as needed. No fertilizer shall be used on the plants. Irrigation per the recommendation of the manufacturer and or landscape architect. Different types of vegetation requires different amounts of irrigation.

Inspection Form

Modular Wetland System, Inc.
P. 760.433-7640
F. 760-433-3176
E. Info@modularwetlands.com

www.modularwetlands.com

RB-AR4986

BIO CLEAN ENVIRONMENTAL SERVICES, INC.

Inspection Report
Modular Wetlands System

MODULAR WETLANDS

For Office Use Only
(Reviewed By)
(Date) Office personnel to complete section to the left.

Project Name ____________________

Project Address ____________________ (city) (Zip Code)

Owner / Management Company ____________________

Contact ____________________ Phone ( ) –

Inspector Name ____________________ Date ____/____/______ Time ________ AM / PM

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition ____________________ Additional Notes ____________________

Inspection Checklist

Modular Wetland System Type (Curb, Grate or UG Vault): ____________ Size (22', 14' or etc.): ____________

Structural Integrity:	Yes	No	Comments
Damage to pre-treatment access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?			
Damage to discharge chamber access cover (manhole cover/grate) or cannot be opened using normal lifting pressure?			
Does the MWS unit show signs of structural deterioration (cracks in the wall, damage to frame)?			
Is the inlet/outlet pipe or drain down pipe damaged or otherwise not functioning properly?			
Working Condition:			
Is there evidence of illicit discharge or excessive oil, grease, or other automobile fluids entering and clogging the unit?			
Is there standing water in inappropriate areas after a dry period?			
Is the filter insert (if applicable) at capacity and/or is there an accumulation of debris/trash on the shelf system?			
Does the depth of sediment/trash/debris suggest a blockage of the inflow pipe, bypass or cartridge filter? If yes, specify which one in the comments section. Note depth of accumulation in in pre-treatment chamber.			Depth:
Does the cartridge filter media need replacement in pre-treatment chamber and/or discharge chamber?			Chamber:
Any signs of improper functioning in the discharge chamber? Note issues in comments section.			
Other Inspection Items:			
Is there an accumulation of sediment/trash/debris in the wetland media (if applicable)?			
Is it evident that the plants are alive and healthy (if applicable)? Please note Plant Information below.			
Is there a septic or foul odor coming from inside the system?			

Waste:	Yes	No
Sediment / Silt / Clay		
Trash / Bags / Bottles		
Green Waste / Leaves / Foliage		

Recommended Maintenance	
No Cleaning Needed	
Schedule Maintenance as Planned	
Needs Immediate Maintenance	

Plant Information	
Damage to Plants	
Plant Replacement	
Plant Trimming	

Additional Notes:

2972 San Luis Rey Road, Oceanside, CA 92058 P (760) 433-7640 F (760) 433-3176

MODULAR WETLANDS

Maintenance Report

Modular Wetland System, Inc.
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F. 760-433-3176
E. Info@modularwetlands.com

www.modularwetlands.com

RB-AR4988

Cleaning and Maintenance Report
Modular Wetlands System

Project Name ____________________

Project Address ____________________ (city) (Zip Code)

Owner / Management Company ____________________

For Office Use Only
(Reviewed By)
(Date)
Office personnel to complete section to the left.

Contact ____________________ Phone ( ) –

Inspector Name ____________________ Date / / Time ____________ AM / PM

Type of Inspection ☐ Routine ☐ Follow Up ☐ Complaint ☐ Storm Storm Event in Last 72-hours? ☐ No ☐ Yes

Weather Condition ____________________ Additional Notes ____________________

Site Map #	GPS Coordinates of Insert	Manufacturer / Description / Sizing	Trash Accumulation	Foliage Accumulation	Sediment Accumulation	Total Debris Accumulation	Condition of Media 25/50/75/100 (will be changed @ 75%)	Operational Per Manufactures' Specifications (If not, why?)
	Lat: Long:	MWS Catch Basins						
		MWS Sedimentation Basin						
		Media Filter Condition						
		Plant Condition						
		Drain Down Media Condition						
		Discharge Chamber Condition						
		Drain Down Pipe Condition						
		Inlet and Outlet Pipe Condition						

Comments:

2972 San Luis Rey Road, Oceanside, CA 92058 P. 760.433.7640 F. 760.433.3176

RB-AR4989

MWS-LINEAR 2.0 STORMWATER FILTRATION SYSTEM

NATURE AND TECHNOLOGY WORKING TOGETHER IN PERFECT HARMONY.

The need for a new stormwater treatment system is evident. Federal and state requirements on cities and industry to reduce stormwater runoff increase every year as our population explodes. The EPA is now reporting that stormwater runoff represents the nation's number one water quality problem, and is the reason why nearly half of our rivers and lakes are not even clean enough to support fishing or swimming. ***Nearly half.***

MODULAR WETLANDS

To combat this catastrophe, we turned to the expert in this field: **Nature.** By developing technology that imitates the processes found in nature, we've created the most advanced stormwater filtration system available. Years ahead of current EPA requirements, our clients understand that when they invest in our new technology, they are investing in the future. For all of us.


GRATE TYPE

CURB TYPE

MWS–LINEAR TESTED REMOVAL EFFICIENCIES

TSS	Nitrate	Copper	Zinc	Oils & Grease	Bacteria	Turbidity
82% - 98%	74%	>53% - 93%	79% - 81%	84% - 99%	60% - 89%	>90%

SIZING

Model #	Dimensions (ft)	WetlandMedia Surface Area (sq ft)	Treatment Flow Rate (cfs)
MWS-L-3-6	3 x 6	34	0.076
MWS-L-4-8	4 x 8	50	0.116
MWS-L-4-13	4 x 13	63	0.144
MWS-L-4-15	4 x 15	76	0.175
MWS-L-4-17	4 x 17	90	0.206
MWS-L-4-19	4 x 19	103	0.236
MWS-L-4-21	4 x 21	117	0.267

VOLUME SIZING

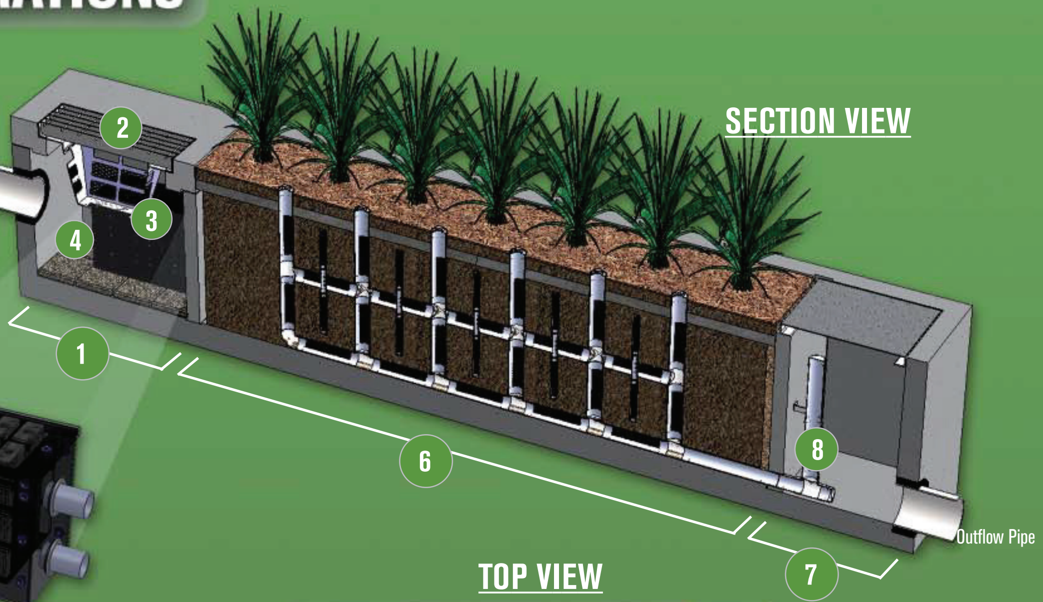
The Modular Wetland System is the only biofilter that can be installed downstream of detention systems.

T 760.433.7640 E info@modularwetlands.com www.modularwetlands.com

RB-AR4990

SYSTEM OPERATIONS

SECTION VIEW

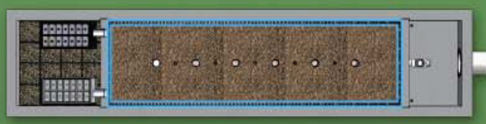


Pre-Filter Cartridge

35 sq ft surface area per cartridge ensures higher effectiveness and lower maintenance requirements.

This pre-filter eliminates maintenance in the Wetland Chamber.

TOP VIEW



Perimeter Wetland Chamber

Pre-filtered runoff entering the wetland chamber flows into a peripheral void area, maximizing the media surface area.

Over 2x to 3x more surface area than traditional downward flow bioretention systems.

INTERNAL HIGH FLOW BYPASS CONFIGURATION AVAILABLE

FEATURES

1. **PRE-TREATMENT CHAMBER**
Captures incoming runoff and contains the first three stages of treatment.
2. **GRATE TYPE CATCH BASIN INLET**
A standard 41” x 24” grate type traffic rated catch basin opening directs stormwater into the system.
3. **CATCH BASIN INSERT FILTER**
Provides the first stage of treatment by capturing trash & litter, gross solids, and sediment.
4. **SETTLING CHAMBER**
Provides the second stage of treatment by separating out larger suspended solids.
5. **PRE-FILTER CARTRIDGE**
Provides the third stage of treatment by physically and chemically capturing fine TSS, metals, nutrients, and bacteria.
6. **WETLAND CHAMBER**
Provides the final stage of treatment through a combination of physical, chemical and biological processes.
7. **DISCHARGE CHAMBER**
Contains flow control, high flow bypass and optional drain down filter.
8. **MULTI-LEVEL FLOW CONTROL**
Orifice plates and/or valves are used to control the flow through the treatment stages.

T 760.433.7640 E info@modularwetlands.com www.modularwetlands.com

UNIVERSITY OF MASSACHUSETTS
AT AMHERST
Water Resources Research Center
Blaisdell House, UMass
310 Hicks Way
Amherst, MA 01003

Massachusetts Stormwater Evaluation Project

(413) 545-5532
(413) 545-2304 FAX
www.mastep.net

MASTEP Technology Review

Technology Name: Modular Wetlands Systems Linear – by Modular Wetland Systems, Inc.

Studies Reviewed:
Technical Evaluation Report; Modular Wetland System Stormwater Treatment System Performance Monitoring. Herrera Environmental Consultants. 2013.

Date: December 27, 2013

Reviewer: Jerry Schoen

Rating: 2

Brief rationale for rating:
Generally well-run study. 28 storms and 16.5" rainfall were monitored. Sound methods, solid documentation. 38% of average annual rainfall, somewhat less than TARP requirement. Pollutant removal efficiencies reported according to statistical analysis that differs somewhat from TARP recommendations.

TARP Requirements Not Met:
- 45.7% of average annual rainfall monitored; TARP requires 50%.
- Sediment removal evaluated by TSS analysis method, but not by SSC method.

Other Comments
- 74%-84.9% TSS removal documented; 61.7% - 70.4% total phosphorus removal; 45% TKN; 60.5% - 63.3% dissolved zinc (68.55 total zinc) and 32.5% - 35.9% dissolved copper (68.5% total copper) removal documented.
- The unit tested was undersized for the basin it drains.
- The test site experienced unusually high sediment loads containing a large proportion of fine particles (silts and clays).
- These challenging conditions suggest that removal efficiencies reported above may be conservative: under less challenging conditions, improved performance may be obtainable.
- No mention of a scour test; this is usually not a significant issue with filter systems, which do not generally have a mechanism by which captured sediments can be re-entrained and exported.

WASHINGTON STATE DEPARTMENT OF ECOLOGY

April 2014

GENERAL USE LEVEL DESIGNATION FOR BASIC, ENHANCED, AND PHOSPHORUS TREATMENT

For the

MWS-Linear Modular Wetland

Ecology's Decision:

Based on Modular Wetland Systems, Inc. application submissions, including the Technical Evaluation Report, dated April 1, 2014, Ecology hereby issues the following use level designation:

1. General use level designation (GULD) for the MWS-Linear Modular Wetland Stormwater Treatment System for Basic treatment
   - Sized at a hydraulic loading rate of 1 gallon per minute (gpm) per square foot (sq ft) of wetland cell surface area. For moderate pollutant loading rates (low to medium density residential basins), size the Prefilters at 3.0 gpm/sq ft of cartridge surface area. For high loading rates (commercial and industrial basins), size the Prefilters at 2.1 gpm/sq ft of cartridge surface area.
2. General use level designation (GULD) for the MWS-Linear Modular Wetland Stormwater Treatment System for Phosphorus treatment
   - Sized at a hydraulic loading rate of 1 gallon per minute (gpm) per square foot (sq ft) of wetland cell surface area. For moderate pollutant loading rates (low to medium density residential basins), size the Prefilters at 3.0 gpm/sq ft of cartridge surface area. For high loading rates (commercial and industrial basins), size the Prefilters at 2.1 gpm/sq ft of cartridge surface area.
3. General use level designation (GULD) for the MWS-Linear Modular Wetland Stormwater Treatment System for Enhanced treatment
   - Sized at a hydraulic loading rate of 1 gallon per minute (gpm) per square foot (sq ft) of wetland cell surface area. For moderate pollutant loading rates (low to medium density residential basins), size the Prefilters at 3.0 gpm/sq ft of cartridge surface area. For high loading rates (commercial and industrial basins), size the Prefilters at 2.1 gpm/sq ft of cartridge surface area.

4. Ecology approves the MWS - Linear Modular Wetland Stormwater Treatment System units for Basic, Phosphorus, and Enhanced treatment at the hydraulic loading rate listed above. Designers shall calculate the water quality design flow rates using the following procedures:
   - Western Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using the latest version of the Western Washington Hydrology Model or other Ecology-approved continuous runoff model.
   - Eastern Washington: For treatment installed upstream of detention or retention, the water quality design flow rate is the peak 15-minute flow rate as calculated using one of the three methods described in Chapter 2.2.5 of the Stormwater Management Manual for Eastern Washington (SWMMEW) or local manual.
   - Entire State: For treatment installed downstream of detention, the water quality design flow rate is the full 2-year release rate of the detention facility.
5. These use level designations have no expiration date but may be revoked or amended by Ecology, and are subject to the conditions specified below.

Ecology's Conditions of Use:

Applicants shall comply with the following conditions:

1. Design, assemble, install, operate, and maintain the MWS – Linear Modular Wetland Stormwater Treatment System units, in accordance with Modular Wetland Systems, Inc. applicable manuals and documents and the Ecology Decision.
2. Each site plan must undergo Modular Wetland Systems, Inc. review and approval before site installation. This ensures that site grading and slope are appropriate for use of a MWS – Linear Modular Wetland Stormwater Treatment System unit.
3. MWS – Linear Modular Wetland Stormwater Treatment System media shall conform to the specifications submitted to, and approved by, Ecology.
4. Maintenance: The required maintenance interval for stormwater treatment devices is often dependent upon the degree of pollutant loading from a particular drainage basin. Therefore, Ecology does not endorse or recommend a "one size fits all" maintenance cycle for a particular model/size of manufactured filter treatment device.
   - Typically, Modular Wetland Systems, Inc. designs MWS - Linear Modular Wetland systems for a target prefilter media life of 6 to 12 months.
   - Indications of the need for maintenance include effluent flow decreasing to below the design flow rate or decrease in treatment below required levels.
   - Owners/operators must inspect MWS - Linear Modular Wetland systems for a minimum of twelve months from the start of post-construction operation to determine site-specific maintenance schedules and requirements. You must conduct inspections monthly during the wet season, and every other month during the dry season. (According to the SWMMWW, the wet season in western Washington is October 1 to April 30. According to SWMMEW, the wet season in eastern Washington is October 1 to June 30). After the

first year of operation, owners/operators must conduct inspections based on the findings during the first year of inspections.

- Conduct inspections by qualified personnel, follow manufacturer's guidelines, and use methods capable of determining either a decrease in treated effluent flowrate and/or a decrease in pollutant removal ability.
- When inspections are performed, the following findings typically serve as maintenance triggers:
  - Standing water remains in the vault between rain events, or
  - Bypass occurs during storms smaller than the design storm.
  - If excessive floatables (trash and debris) are present (but no standing water or excessive sedimentation), perform a minor maintenance consisting of gross solids removal, not prefilter media replacement.
  - Additional data collection will be used to create a correlation between pretreatment chamber sediment depth and pre-filter clogging (see *Issues to be Addressed by the Company* section below)

6. Discharges from the MWS - Linear Modular Wetland Stormwater Treatment System units shall not cause or contribute to water quality standards violations in receiving waters.

Applicant:	Modular Wetland Systems, Inc.
Applicant's Address:	*PO. Box 869* *Oceanside, CA 92054*

Application Documents:

- *Original Application for Conditional Use Level Designation*, Modular Wetland System, Linear Stormwater Filtration System Modular Wetland Systems, Inc., January 2011
- *Quality Assurance Project Plan*: Modular Wetland system – Linear Treatment System performance Monitoring Project, draft, January 2011.
- *Revised Application for Conditional Use Level Designation*, Modular Wetland System, Linear Stormwater Filtration System Modular Wetland Systems, Inc., May 2011
- *Memorandum: Modular Wetland System-Linear GULD Application Supplementary Data, April 2014*
- *Technical Evaluation Report: Modular Wetland System Stormwater Treatment System Performance Monitoring, April 2014.*

Applicant's Use Level Request:

General use level designation as a Basic, Enhanced, and Phosphorus treatment device in accordance with Ecology's Guidance for Evaluating Emerging Stormwater Treatment Technologies Technology Assessment Protocol – Ecology (TAPE) January 2011 Revision.

Applicant's Performance Claims:

- The MWS – Linear Modular wetland is capable of removing a minimum of 80-percent of TSS from stormwater with influent concentrations between 100 and 200 mg/l.
- The MWS – Linear Modular wetland is capable of removing a minimum of 50-percent of Total Phosphorus from stormwater with influent concentrations between 0.1 and 0.5 mg/l.
- The MWS – Linear Modular wetland is capable of removing a minimum of 30-percent of dissolved Copper from stormwater with influent concentrations between 0.005 and 0.020 mg/l.
- The MWS – Linear Modular wetland is capable of removing a minimum of 60-percent of dissolved Zinc from stormwater with influent concentrations between 0.02 and 0.30 mg/l.

Ecology Recommendations:

- Modular Wetland Systems, Inc. has shown Ecology, through laboratory and field-testing, that the MWS - Linear Modular Wetland Stormwater Treatment System filter system is capable of attaining Ecology's Basic, Total phosphorus, and Enhanced treatment goals.

Findings of Fact:

Laboratory Testing

The MWS-Linear Modular wetland has the:

- Capability to remove 99 percent of total suspended solids (using Sil-Co-Sil 106) in a quarter-scale model with influent concentrations of 270 mg/L.
- Capability to remove 91 percent of total suspended solids (using Sil-Co-Sil 106) in laboratory conditions with influent concentrations of 84.6 mg/L at a flow rate of 3.0 gpm per square foot of media.
- Capability to remove 93 percent of dissolved Copper in a quarter-scale model with influent concentrations of 0.757 mg/L.
- Capability to remove 79 percent of dissolved Copper in laboratory conditions with influent concentrations of 0.567 mg/L at a flow rate of 3.0 gpm per square foot of media.
- Capability to remove 80.5-percent of dissolved Zinc in a quarter-scale model with influent concentrations of 0.95 mg/L at a flow rate of 3.0 gpm per square foot of media.
- Capability to remove 78-percent of dissolved Zinc in laboratory conditions with influent concentrations of 0.75 mg/L at a flow rate of 3.0 gpm per square foot of media.

Field Testing

- Modular Wetland Systems, Inc. conducted monitoring of an MWS-Linear (Model # MWS-L-4-13) from April 2012 through May 2013, at a transportation maintenance facility in Portland, Oregon. The manufacturer collected flow-weighted composite samples of the system's influent and effluent during 28 separate storm events. The system treated approximately 75 percent of the runoff from 53.5 inches of rainfall during the monitoring period. The applicant sized the system at 1 gpm/sq ft. (wetland media) and 3gpm/sq ft. (prefilter).

- Influent TSS concentrations for qualifying sampled storm events ranged from 20 to 339 mg/L. Average TSS removal for influent concentrations greater than 100 mg/L (n=7) averaged 85 percent. For influent concentrations in the range of 20-100 mg/L (n=18), the upper 95 percent confidence interval about the mean effluent concentration was 12.8 mg/L.
- Total phosphorus removal for 17 events with influent TP concentrations in the range of 0.1 to 0.5 mg/L averaged 65 percent. A bootstrap estimate of the lower 95 percent confidence limit (LCL95) of the mean total phosphorus reduction was 58 percent.
- The lower 95 percent confidence limit of the mean percent removal was 60.5 percent for dissolved zinc for influent concentrations in the range of 0.02 to 0.3 mg/L (n=11). The lower 95 percent confidence limit of the mean percent removal was 32.5 percent for dissolved copper for influent concentrations in the range of 0.005 to 0.02 mg/L (n=14) at flow rates up to 28 gpm (design flow rate 41 gpm). Laboratory test data augmented the data set, showing dissolved copper removal at the design flow rate of 41 gpm (93 percent reduction in influent dissolved copper of 0.757 mg/L).

Issues to be addressed by the Company:

1. Modular Wetland Systems, Inc. should collect maintenance and inspection data for the first year on all installations in the Northwest in order to assess standard maintenance requirements for various land uses in the region. Modular Wetland Systems, Inc. should use these data to establish required maintenance cycles.
2. Modular Wetland Systems, Inc. should collect pre-treatment chamber sediment depth data for the first year of operation for all installations in the Northwest. Modular Wetland Systems, Inc. will use these data to create a correlation between sediment depth and pre-filter clogging.

Technology Description:
Download at http://www.modularwetlands.com/

Contact Information:

Applicant:	Greg Kent Modular Wetland Systems, Inc. P.O. Box 869 Oceanside, CA 92054 *gkent@biocleanenvironmental.net*

Applicant website: http://www.modularwetlands.com/

Ecology web link: http://www.ecy.wa.gov/programs/wg/stormwater/newtech/index.html

Ecology: Douglas C. Howie, P.E.
Department of Ecology
Water Quality Program
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Revision History

Date	**Revision**
June 2011	Original use-level-designation document
September 2012	Revised dates for TER and expiration
January 2013	Modified Design Storm Description, added Revision Table, added maintenance discussion, modified format in accordance with Ecology standard
December 2013	Updated name of Applicant
April 2014	Approved GULD designation for Basic, Phosphorus, and Enhanced treatment

El Monte Revised Draft WMP Comments/Response

Comment	Reviewer	Page	Section	Regional Water Board Staff Comment	Response
1	Board	WMP	Part VI. C.5.a. Water Quality Characterization (p.58)	The Regional Board staff acknowledges the City's initiative in conducting outfall monitoring to characterize their storm water and non-storm water discharges at two outfalls, one in the Rio Hondo sub watershed and one in the San Gabriel River watershed. The City states that, "the drainage(s) to the selected outfall (s) are representative of the land uses within the City's jurisdiction. The City's land use is: * 7% office * 10% industrial/commercial * 11% retail * 58% residential * 14% other amenities Corresponding land use for the drainage areas associated with Outfalls 5 and 7 should be presented for comparison.	A map showing the land use within the drainage areas has been added as well as a table showing the land use comparison for the two drainage areas. Text has been added regarding the comparison of City's overall land use to that of the two drainage areas.
2	Board	WMP	Part VI. C.5.a. Water Quality Characterization (p.58)	At a minimum, the last five years of Mass Emissions data for 510 (LA River) and 514 (SG River) should be considered. Additionally, applicable tributary monitoring data (such as for Rio Hondo @ TS06 conducted from 2002-04) should be considered as well as data collected during TMDL development for Legg Lake (and Peck Road Park Lake, if applicable).	Mass Emission data from 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, and 2013-2014 has now been reviewed and pollutants from those years have been included in the Water Quality Characterization section. Tributary monitoring data from 2002-2003 and 2003-2004 for the Rio Hondo (TS06 site) has also been review and included. Data from the Legg Lake TMDL was also included. The Los Angeles Area Lakes TMDL (specifically for Legg Lake) was reviewed during draft WMP development and now an additional reference has been added to the Legg Lake summary in the Receiving Water Quality Characterization section of the revised WMP.
3	Board	WMP	Part VI. C.5.a. Water Quality Characterization (p.59)	Category 1 Waterbody-Pollutant Combinations: * The City's draft WMP lists Category 1pollutants but did not include cadmium, for which there is a WQBEL applicable to storm water per the LA River Metals TMDL. * Cadmium is omitted from the RAA, as are dry weather WQBELs for Cu, Pb, and Zn in the LA River, as well as interim bacteria WQBELs. All WQBELs should be included in the RAA or should be accounted for using a surrogate pollutant.	Cadmium was added to Category 1 pollutants. Cadmium is not directly modeled by WMMS. The wet and dry weather source controls and treatment controls applied to remove Copper, Lead, and Zinc should also remove Cadmium.

4	Board	WMP	Part VI. C.5.a. Water Quality Characterization (p.59)	Category 2 Waterbody-Pollutant Combinations: The draft WMP should be revised to identify the applicable Receiving Water Limitations for Category 2 pollutants that are required to be addressed by the draft WMP. * Indicator Bacteria for San Gabriel River Reach 3 should be included as a Category 2 pollutant in accordance with the 2010 303(d) list. * Toxicity and pH for Rio Hondo should be included as Category 2 Pollutants in accordance with the 2010 303(d) list. * The draft WMP does not include Cyanide as a Category 2 pollutant though the WMP acknowledges water quality has been identified as having been impaired by Cyanide. The WMP needs to include Cyanide or explain why it was not included. * Lead, Odor, and Organic Enrichment/Low Dissolved Oxygen should be included as Category 2 pollutants for Peck Road Park Lake in accordance with the 2010 303(d) list, unless documentation confirming that there are no discharges from the City's MS4 to Peck Road Park Lake is included in the revised WMP. * Trash for Legg Lake and Peck Road Park Lake don't need to be included as Category 2 pollutants as they are already included as Category 1pollutants.	Receiving Water Limitations were added to Category 2 pollutants. Bacteria for San Gabriel River reach 3 was added to Category 2 pollutants. Toxicity and pH were added to Category 2 pollutants. Cyanide was added to Category 2 pollutants. Lead, odor, OE/LDO were removed from the Category 2 pollutants as El Monte has no direct or indirect discharges to Peck Road Park Lake. Trash for Legg Lake was removed from Category 2 pollutants because it is already included with Category 1 pollutants.
5	Board	WMP	Part VI. C.5.a. Water Quality Characterization (p.59)	Category 3 Waterbody-Pollutant Combinations: * The City's submittal does not summarize the findings from the review of Annual Reports, IC/ID reports, SWAMP, Industrial/Commercial Facility baseline exceedances information from SMARTS, which are data sources listed in Section 1.7.3 as being used by the City to identify waterbody pollutant combinations with exceedances of water quality objectives. The WMP should be revised to include the findings from the review of these data sources. * The draft W MP should be revised to identify the applicable Receiving Water Limitations for Category 3 pollutants that are required to be addressed by the draft WMP. * The WMP should also potentially include Diazanon and arsenic as Category 3 pollutants for Rio Hondo based on the tributary monitoring data from TS06. * Copper and Zinc for the Los Angeles River do not need to be included as Category 3 pollutants since they are already in Category 1. * Lead in the San Gabriel River does not need to be included as a Category 3 pollutant as it is already included as a Category 1 pollutant.	A summary of the findings from the various data sources has been added to Section 1.7.3. Applicable RWLs were added to the Category 3 pollutants. Diazanon was added to Category 3 pollutants based on a review of the data from the TS06 Rio Hondo Tributary Monitoring Site. Arsenic results from the TS06 site at 4.29 ug/L appear to be below the Basin Plan standard of 50 ug/L. Arsenic was highlighted in the 10/31/03 data as being an exceedance but it appears it was highlighted in error. Copper and Zinc were removed from Category 3 as they are already included in Category 1. Lead was removed from Category 3 as it is already included in Category 1 pollutants.
6	Board	WMP	Part VI.C.5.a.iii. Source Assessment (page 59-60)	* The City's draft WMP lists a variety of data sources used in developing the source assessment but does not preset the findings from these date sources. The WMP should be revised to present the findings from these data sources. The WMP should be revised to present the findings from the review of the data sources identified in Section 1.6. * The draft WMP did not include data and conclusions from TMDL source investigations regarding known and suspected stormwater and non-stormwater pollutant sources in discharges to the MS4 and from the MS4 to receiving waters. The data and conclusions from TMDL source investigations regarding known and suspected stormwater and non-stormwater pollutant sources should be included in the draft WMP's source assessment.	A summary of the findings from the various data sources was added to Section 1.6. No TMDL source investigations were found in proximity to El Monte.

7	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	* Section 1.8 of the draft WMP lists a genera l strategy to implement pollutant controls but few details are included and watershed control measures are not presented for the City's MS4 discharges to the San Gabriel River. Regional Board staff acknowledges that to a large degree the selection of watershed controls is based on the City's RAA, which indicates no pollutant reduction is required for the following pollutants: * Nitrogen-Peck Rd Park Lake * Lead-San Gabriel River * Copper, Zinc, and Lead-LA River * Nitrogen Compounds-LA River However, some waterbody-pollutant combinations were omitted from the RAA, including cadmium in the LA River, non-stormwater discharges of copper, lead and zinc to the LA River, bacteria in the LA River and San Gabriel River, etc. Detailed comments on the City's RAA are provided in a separate memorandum.	TMDL control measures for Lead and bacteria have been added to the draft WMP for the San Gabriel River. Cadmium for the LA River has been added to Category 1 pollutants and text has been added to the RAA regarding dry weather discharges of copper , lead, and zinc to the LA River and bacteria to the LA and San Gabriel Rivers.
8	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	* The draft WIMP needs to include greater specificity in detailing how non-stormwater discharges will be identified and what measures will be taken to eliminate them, particularly in order to achieve applicable WQBELs for bacteria, copper, lead and zinc for non-stormwater discharges to the LA River per applicable interim and final compliance deadlines in the LA County MS4 Permit. * The draft WMP needs to include greater specificity on watershed control measures including how the pollutants identified in Categories 1, 2 and 3 are each addressed by the proposed control measures.	Text has been added to the draft WMP to describe in greater detail how non-stormwater discharges will be identified and the control measures that will be implemented to eliminate non-stormwater discharges. Text has been added to the draft WMP to describe in greater detail how watershed control measures will be implemented to eliminate pollutants in all Categories.
9	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	The draft WMP needs to include documentation demonstrating that the City's MS4 does not discharge to Peck Road Park Lake.	A map showing the catch basins and storm drain lines in the area of Peck Road Park Lake has been added along with a description of the field investigation conducted for this portion of the watershed.
10	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	The draft WMP references trash control BMPs (full capture inserts) but does not reference any other control measures identified in TMDLs and corresponding TMDL implementation plans, specifically the Los Ange les River & Tributaries Total Maximum Daily Loads for Metals Final Implementation Plan for Reach 2 Participating Jurisdictions.	Additional TMDL control measures have been added to this section. Control measures recommended in the Los Angeles River and Tributaries TMDL for Metals Implementation Plan have been added as well.
11	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	The draft WMP needs to ensure controls identified in TMDLs and TMDL Implementation plans are incorporated in the WMP.	Control measures identified in TMDL documents and TMDL Implementation Plans have been incorporated into the WMP.
12	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	Figure 1-7 in the draft WMP is fairly detailed; listing the location and type of structural controls proposed for implementation but the narrative language in the WMP is fairly general and does not match up with Figure 1-7 . The WMP should be revised to include specific narrative language that is consistent with Figure 1-7.	Additional text has been added to clarify the control measures shown in Figure 1-7.
13	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	Interim milestones for BMP implementation were only included for trash for the LA River and trash and nutrients for Legg Lake (Section 1.10). The WMP needs to be revised to include interim milestones for the implementation of each structural control and non-structural best management practice identified in Sections 1.8.3 and 1.8.4 and on Figure 1.7 to comply with interim and final compliance deadlines for the LA River metals and bacteria TMDLs as well as interim milestones for addressing pollutants in Categories 2 and 3.	Additional schedules have been added to the draft WMP to address interim and final milestones.
14	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	The draft WMP needs to include documentation that the City has the necessary legal authority to implement the Watershed Control Measures identified in the WMP, or that other legal authority exists to compel implementation of the Watershed Control Measures.	A Legal Authority Letter is included in Appendix A.
15	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	The WMP does not specify a strategy for pollutants in Categories 2 and 3. Section 1.8 lists a general strategy that concludes with the statement, "The City will implement Watershed Control Measures based on the results of its watershed modeling and the necessary pollutant reductions." The WMP needs to be revised to specify a strategy for pollutants in Categories 2 and 3.	Additional control measures and strategies for reducing and/or eliminating pollutants in Categories 2 and 3 have been added to Section 1.8.
16	Board	WMP	Part VI. C.5.b Selection of Watershed Control Measures (pages 61-64)	As stated above, the RAA did not include all pollutants identified in Categories 1,2 and 3, as required. The RAA needs to include these other pollutants and the City needs to propose appropriate BMPs in the WMP where the RAA indicates that load reductions for these pollutants are required.	All pollutants have now been added to the appropriate Categories in the draft WMP.

17	Board	WMP	Reasonable Assurance Analysis - Category 1 Pollutants Part VI.C.5.b.iv (5)	Not all Category 1 pollutants were included in the RAA. All Category 1 pollutants or surrogates need to be included in the RAA	All pollutants have now been added to the appropriate Categories in the draft WMP.
18	Board	WMP	Reasonable Assurance Analysis - Categories 2 and 3 Pollutants Part VI.C.5.b.iv (5)	The WMP did not model any pollutants in Categories 2 and 3. These pollutants or surrogates need to be included in the RAA	WMMS does not model Cyanide, pH, Ammonia, Diazanon, or Toxicity.
A. General comments on the draft Reasonable Assurance Analysis section of the Watershed Management Program					
19	Board	RAA	A	Pursuant to Part Vl.C.5.a.iv(1) and Vl.C.5.b.iv.(3)-(4), pages 60 and 62-63 of the MS4 Permit, the City is subject to final water quality-based effluent limitations pursuant to (i) Attachment 0, Part A "Los Ange les River Watershed Trash TMDL", Part B "Los Angeles River Nitrogen Compounds and Related Effects TMDL", Part C "Los Angeles River and Tributaries Metals TMDL", Part D "Los Angeles River Watershed Bacteria TMDL", Part E "Legg Lake Trash TMDL", Part G.7 "Legg lake System Nutrient TMDL, Part G.8 to 13 "Peck Road Park Lake Nutrient, PCBs, Chlordane, DDT, Dieldrin, and Trash TMDLs", and (ii) Attachment P, Part A "San Gabriel River and Impaired Tributaries Metals and Selenium TMDL." As identified below, some pollutants with applicable water quality-based effluent limitations (WQBELs) appear to have been omitted from the RAA, including bacteria in the Los Angeles River and non-stormwater discharges of copper, lead and zinc to the Los Angeles River.	Bacteria for LA River is now included in the RAA. The WMMS model does not model dry weather conditions. Control measures implemented for wet weather pollutants will remove dry weather pollutants.
20	Board	RAA	A	The City has provided an evaluation of the existing water quality conditions for receiving water to which the City's MS4 discharges, including the Los Angeles River and San Gabriel River. However, lead for San Gabriel River and cadmium and nitrogen compounds for Los Angeles River were not summarized and included the receiving water characterization section (Section 1.2 of the draft Watershed Management Program). A summary of water quality conditions for these pollutants should be added to the revised WMP.	Lead for the San Gabriel River and Cadmium and Nitrogen Compounds for Los Angeles River have been summarized and included in the receiving water characterization section.
21	Board	RAA	A	The City has estimated nutrient baseline loading and the required reduction for Peck Road Park Lake. However, the City did not include any pollutant reduction plan to reduce nutrient loading to the lake based on the review of the City and LACFCD that there is no direct or indirect discharge from the City to the Lake (Section 1.8.3 TMDL Control Measures of the draft WMP). The City must submit the record and evidence to support the City's conclusion that there are no MS4 discharges from the City to Peck Road Park Lake.	A map showing the catch basins and storm drain lines in the area of Peck Road Park Lake has been added along with a description of the field investigation conducted for this portion of the watershed.
22	Board	RAA	A	Model simulation for pollutants in Categories 2 and 3 was not included in the RAA.	WMMS does not model Cyanide, pH, Ammonia, Diazanon, or Toxicity.
B. Modeling comments regarding analysis of dissolved copper, dissolved lead, dissolved zinc, and nitrogen loads for Los Angeles River; nitrogen and phosphorus loads for Legg Lake and Peck Road Park Lake; and dissolved lead loads for San Gabriel River:					
23	Board	RAA	B	The model predicted mass contributions of pollutants from the City shown in Table 1-6 through Table 1-14 and Figure 1-8 through Figure 1-11 are not consistent with those values directly from the model output (see attached Figure A and Figure B. for an example) . As such, the conclusion that no pollutant reduction is required should be re- evaluated.	Modeled predicted mass contributions data was re-evaluated and appears to represent El Monte's predicted pollutants for all subwatersheds. The attached comparison was for only one subwatershed and may not be representative of City's entire jurisdiction.
24	Board	RAA	B	The RAA did not include the model results for cadmium, nitrogen compounds and bacteria for Los Angeles River. There are too many uncertainties involved in converting modeled TSS concentrations to predicted concentrations of nitrate + nitrite as nitrogen, as presented in Table 1-9. The RAA should present instead the directly modeled concentrations of nitrate + nitrite as nitrogen. Additionally, the RAA should include model output for cadmium loading as is done for copper, lead and zinc loading to the · Los Angeles River or alternatively, include the rationale on how cadmium loading will be addressed by addressing the other metals.	Cadmium is not directly modeled by WMMS. The wet and dry weather source controls and treatment controls applied to remove Copper, Lead, and Zinc should also remove Cadmium. Modeled Nitrogen and Bacteria have been added to the RAA.
25	Board	RAA	B	Section 1.9 of the draft WMP 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.	Text was added to the RAA to explain model calibration.
26	Board	RAA	B	The 90th percentile wet year was selected. However, the report did not present the precipitation data and frequency analysis used to select the critical condition for the modeling. 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 presentation of the process and data used for identifying critical conditions is needed prior to the modeling analysis. A summary of TMDL critical conditions relevant to MS4 discharges was provided in Appendix B of the RAA Guidelines for Permittee's reference.	Precipitation data and frequency analysis have been added to the RAA and additional text was added to explain the modeling periods being simulated for the critical condition.
27	Board	RAA	B	The report presents mass contributions of copper, lead and zinc , but does not present the runoff volumes and concentrations of those pollutants under the critical condition	Runoff volumes and concentration for copper, lead, and zinc have been added to the RAA.

28	Board	RAA	B	The ID number for each of the 313 sub watersheds from the model input file must be provided and be shown in the simulation domain to present the geographic relationship of these sub watersheds within the surrounding watershed area and within the City's boundaries, which are simulated in the LSPC model.	The 38 subwatersheds are identified and their geographic relationship within the surrounding watershed area are shown in Figure 1-2.
29	Board	RAA	B	Where pollutant reductions are necessary, the model output should include the storm water runoff volume, flow, water quality concentration and pollutant loads in time series at the jurisdiction boundary of each sub watershed for 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).	Runoff volume, flow, water quality concentration, and pollutant load have been added for Legg Lake.
30	Board	RAA	B	Per the RAA Guidelines, the required load reduction should be evaluated at the jurisdictional boundary of each sub watershed 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.	As Legg Lake is outsider the jurisdictional boundary of the City, the required load reduction for subwatershed 6133 was evaluated to ensure that discharges from the City do not cause or contribute to receiving water limitations. Neighboring cities and WMP/EWMP groups were contacted during WMP development to ensure that subwatersheds that cross jurisdictional boundaries are all covered by the various WMP/EWMP Programs.
31	Board	RAA	B	Model simulation under the dry weather condition for dissolved copper, lead and zinc for Los Angeles River and for bacteria in the Los Angeles River was not included in the RAA.	The WMMS model does not model dry weather conditions. Control measures implemented for wet weather pollutants will remove dry weather pollutants.

REVISED DRAFT

INTEGRATED MONITORING PROGRAM

City of El Monte, California

March 2015

City of El Monte

Department of Public Works

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El Monte, CA 91731-3293

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RB-AR5004

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FIGURES

TABLES

APPENDIX A

APPENDIX B

ACRONYMS AND ABBREVIATIONS

Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BMP	Best Management Practices
CCR	California Code of Regulations
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of El Monte
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles County MS4 Permittee
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
EWMP	Enhanced Watershed Management Program
GIS	Geographical Information System
gpd	gallons per day
HUC	Hydrologic Unit Code
IC/ID	Illicit Connection and Illicit Discharge Elimination
LA	Load Allocations
LACDPW	Los Angeles County Department of Public Works
LID	Low Impact Development

µg/L	micrograms per Liter
MCM	Minimum Control Measure
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
ND	Not Detected
NPDES	National Pollutant Discharge Elimination System
NTR	National Toxics Rule
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
Order	Order R4-2012-0175 (“the Los Angeles County MS4 Permit”)
Permittee	Agency named in Order as being responsible for permit conditions within its jurisdiction
PIPP	Public Information and Participation Program
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
SIC	Standard Industrial Classification
State Water Board	California State Water Resources Control Board
SWQDv	Storm Water Quality Design Volume
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load

TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WDID	Waste Discharge Identification
WLA	Waste Load Allocations
WMA	Watershed Management Area
WMP	Watershed Management Program
WQBELs	Water Quality-Based Effluent Limitations
WQO	Water Quality Objective
WQS	Water Quality Standards

EXECUTIVE SUMMARY

The Clean Water Act and Title 40 of the Code of Federal Regulations require that all National Pollutant Discharge Elimination Systems (NPDES) Permits include monitoring and reporting requirements. The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is authorized by California Water Code Section 13383 to issue NPDES Permits and has issued Order R4-2102-0175 (Order) which applies to the City of El Monte (City). Attachment E of the Order includes the requirements for the City to develop and implement a Monitoring and Reporting Program (MRP). This document contains that program.

The primary objectives of the MRP are to:

- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Assess the chemical, physical, and biological impacts of discharges from the municipal storm water sewer system (MS4) on receiving waters.
- Assess compliance with RWLs and WQBELs established to implement TMDL wet weather and dry weather WLAs.
- Measure and improve the effectiveness of pollutant controls implemented under the current Order.

The Order provides the flexibility to allow the City to develop an Integrated Monitoring Program (IMP) or Coordinated Integrated Monitoring Program (CIMP) to satisfy the monitoring requirements of the MRP. Permittees are encouraged to coordinate monitoring efforts on a watershed or subwatershed basis to leverage monitoring resources in an effort to increase cost-efficiency and effectiveness and to closely align monitoring with TMDL monitoring requirements. The City of El Monte has chosen to collaborate with other permittees/groups in adjoining Watershed Management Areas (WMAs) to address the Receiving Water (RW) monitoring and TMDL monitoring for its WMAs.

The City has developed this IMP to address the following monitoring elements:

- Receiving Water/TMDL Monitoring (to be addressed collaboratively with other groups)
- Storm Water Based Outfall Monitoring
- Non-storm Water based Outfall Monitoring
- New Development/Re-Development Effectiveness Tracking
- Regional Studies (collaborative program)

By implementing the IMP and participating in collaborative programs, the City will fulfill its applicable monitoring requirements. This IMP also includes the details of the annual reporting process.

1 MONITORING AND REPORTING PROGRAM (MRP)

The Clean Water Act and Title 40 of the Code of Federal Regulations require that all National Pollutant Discharge Elimination Systems (NPDES) Permits include monitoring and reporting requirements. The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) is authorized by California Water Code Section 13383 to issue NPDES Permits and has issued Order R4-2102-0175 (Order) which applies to the City of El Monte (City). Attachment E of the Order includes the requirements for the City to develop and implement a Monitoring and Reporting Program (MRP).

1.1 PURPOSE

The purpose of the MRP is to refine the control measures being implemented or proposed for implementation for the reduction of pollutant loading and the protection and enhancement of the beneficial uses of the receiving waters within the WMAs covered by the MRP, and to evaluate and assess existing water quality conditions.

1.2 PRIMARY OBJECTIVES

The primary objectives of the MRP to:

- Characterize pollutant loads in MS4 discharges.
- Identify sources of pollutants in MS4 discharges.
- Assess the chemical, physical, and biological impacts of discharges from the municipal storm water sewer system (MS4) on receiving waters.
- Assess compliance with RWLs and WQBELs established to implement TMDL wet weather and dry weather WLAs.
- Measure and improve the effectiveness of pollutant controls implemented under the current Order.

1.3 INTEGRATED MONITORING PROGRAM APPROACH

The Order provides the flexibility to allow the City to develop an Integrated Monitoring Program (IMP) or Coordinated Integrated Monitoring Program (CIMP) to satisfy the monitoring requirements of the MRP. The City of El Monte will collaborate with other permittees/groups in adjoining WMAs to address the Receiving Water (RW) monitoring and TMDL monitoring for its WMAs. The City has developed an

IMP to address the monitoring requirements. By implementing the IMP and participating in collaborative programs, the City will fulfill its applicable monitoring requirements. The monitoring program will include the following elements:

- Receiving Water (RW) Monitoring (to be addressed collaboratively with other groups)
- Storm Water Based Outfall Monitoring
- Non-storm Water based Outfall Monitoring
- New Development/Re-Development Effectiveness Tracking
- Regional Studies (City will contribute to SMC monitoring efforts)

1.3.1 RECEIVING WATER MONITORING (COLLABORATIVELY WITH ADJACENT GROUPS)

The objectives of the receiving water monitoring are:

- To determine whether receiving water limitations are being achieved
- To assess trends in pollutant concentrations over time or during specified conditions
- To determine if designated beneficial uses are being affected

The following information pertains to receiving water/TMDL monitoring:

- The City will collaborate with the Upper San Gabriel River EWMP Group on the RW/TMDL monitoring in the San Gabriel River. The City will also collaborate with the Rio Hondo/San Gabriel River Water Quality Group on RW/TMDL monitoring in the Rio Hondo (tributary to the LA River).
- The proposed receiving water monitoring locations and the Mass Emissions stations are shown in Figure 1-1. The collaboratively monitored RW locations are RH/SGR_RW and USGR_R4_RAM.
- The proposed monitoring locations will provide representative measurement of the effects of the City's MS4 discharges on receiving waters because the land use in the areas discharging upstream of the monitoring sites are representative of the City's land use.
- The City will collaborate with both the Lower San Gabriel River Group and the Lower LA River Group to satisfy the requirement of monitoring for the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxics Pollutants TMDL. (for the appropriate portions

(acreage) of the Los Angeles River WMA and the San Gabriel River WMA). Copies of the Commitment Letters for RW cost sharing are included in Appendix B. Other collaboration letters will be included in the IMP once the groups have established the appropriate cost share.

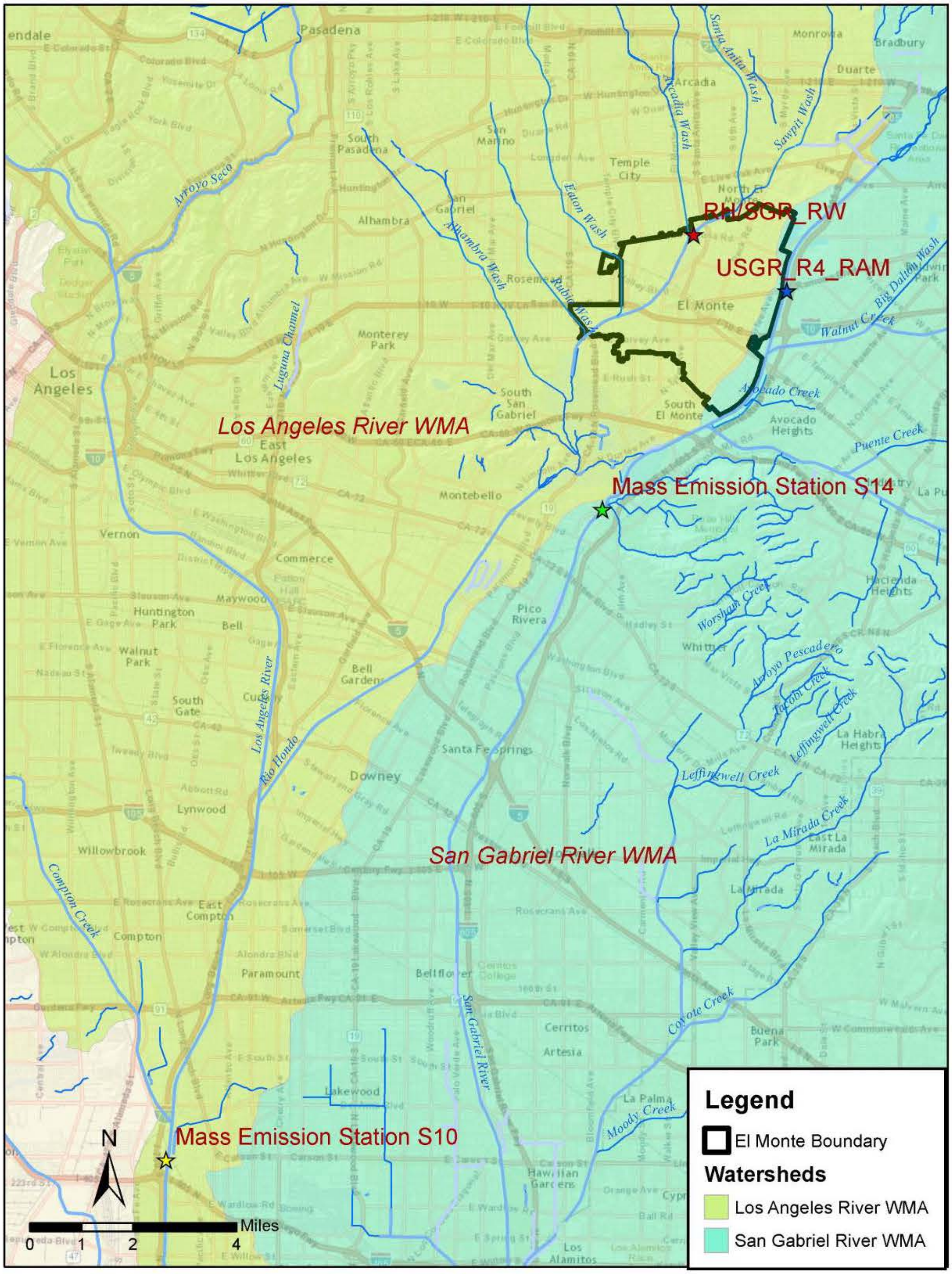
- It is the City's understanding that the Mass Emissions data will be available to all Permittees.
- The City recognizes that it is responsible for complying with all Receiving Water monitoring requirements in the event that any of its collaborative partner's monitoring plans are not approved.
- The City recognizes that it is responsible for complying with all TMDL monitoring requirements in the event that any of its collaborative partner's monitoring plans are not approved.

Monitoring shall be performed (in the receiving water during wet weather conditions), defined for the purposes of this monitoring program as follows:

- When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or an alternative threshold as provided for in an approved IMP or CIMP, or as defined by effective TMDLs within the watershed.
- Monitoring shall occur during wet weather conditions, including targeting the first significant rain event of the storm year following the criteria below, and at least two additional wet weather events within the same wet weather season.
- Permittees shall target the first storm event of the storm year with a predicted rainfall of at least 0.25 inch at a seventy percent probability of rainfall at least 24 hours prior to the event start time.
- Permittees shall target subsequent storm events that forecast sufficient rainfall and runoff to meet program objectives and site specific study needs. Sampling events shall be separated by a minimum of three days of dry conditions (less than 0.1 inch of rain each day).
- Receiving water monitoring shall begin as soon as possible after storm water outfall-based monitoring, in order to be reflective of potential impacts from MS4 discharges.

- The Receiving Water and TMDL monitoring conducted collaboratively with the two adjacent CIMPs and the two downstream CIMPs plus data from the Mass Emissions Stations plus data from Outfall Monitoring should adequately fulfill the Receiving Water and TMDL monitoring requirements.

Figure 1-1: Proposed collaborative receiving water monitoring sites



The TMDLs applicable to the City's two WMAs are listed below:

Los Angeles River WMA:

1. Los Angeles River Watershed Trash TMDL
2. Los Angeles River Nitrogen Compounds and Related Effects TMDL
3. Los Angeles River and Tributaries Metals TMDL
4. Los Angeles River Watershed Bacteria TMDL
5. Legg Lake Trash TMDL
6. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL
7. Los Angeles Area Lakes TMDLs (Legg Lake and Peck Road Park Lake)

San Gabriel River WMA:

1. San Gabriel River and Impaired Tributaries Metals and Selenium TMDL

The Mass Emission (ME) Stations that the City will obtain data from for its MWAs are listed below:

- Los Angeles River Mass Emissions Station (S10)
- San Gabriel River Mass Emissions Station (S14)

The Mass Emissions Station monitoring data will be used to assess if RWLs are being achieved and also to asses pollutant trends over time.

1.3.2 STORM DRAINS, CHANNELS, AND OUTFALLS MAP(S) AND /OR DATABASE

Through research of existing records combined with field reconnaissance, the City has developed a series of GIS maps and a database for the City's MS4.

GIS data includes:

- Surface water bodies within the City's jurisdiction
- Sub-watershed (HUC 12) boundaries
- Land use

- Effective Impervious Area (if available) (in development)
- Jurisdictional boundaries
- The location and length of open channels and underground pipes 18 inches in diameter or greater (with the exception of catch basin connector pipes)
- The location of dry weather diversions (none)
- The location of major MS4 outfalls (greater than or equal to 36 inches in diameter) (in development)
- The location of outfalls greater than 12 inches in diameter that drain from industrial areas greater than 2 acres (in development)
- Notation of outfalls with significant non-storm water discharges (pending; to be updated annually)
- Storm drain outfall catchment areas for each major outfall within the City's jurisdiction (in development)
- Each mapped MS4 outfall will be linked to a database containing descriptive and monitoring data associated with the outfall. The data will include:
- Ownership (pending)
- Coordinates
- Physical description
- Photographs of the outfall (to track operation and maintenance needs over time)

Figure 1-2 shows an example of a GIS map showing the preliminary outfall screening data plus a hyperlink to an outfall attribute. Figure 1-3 shows the City's open channels. Copies of the outfall screening data sheets for those outfalls screened in November 2013 are included in Appendix A. A sample of the Outfall Screening Form is included in Appendix A.

Figure 1-2: Example Map showing outfalls with data attribute

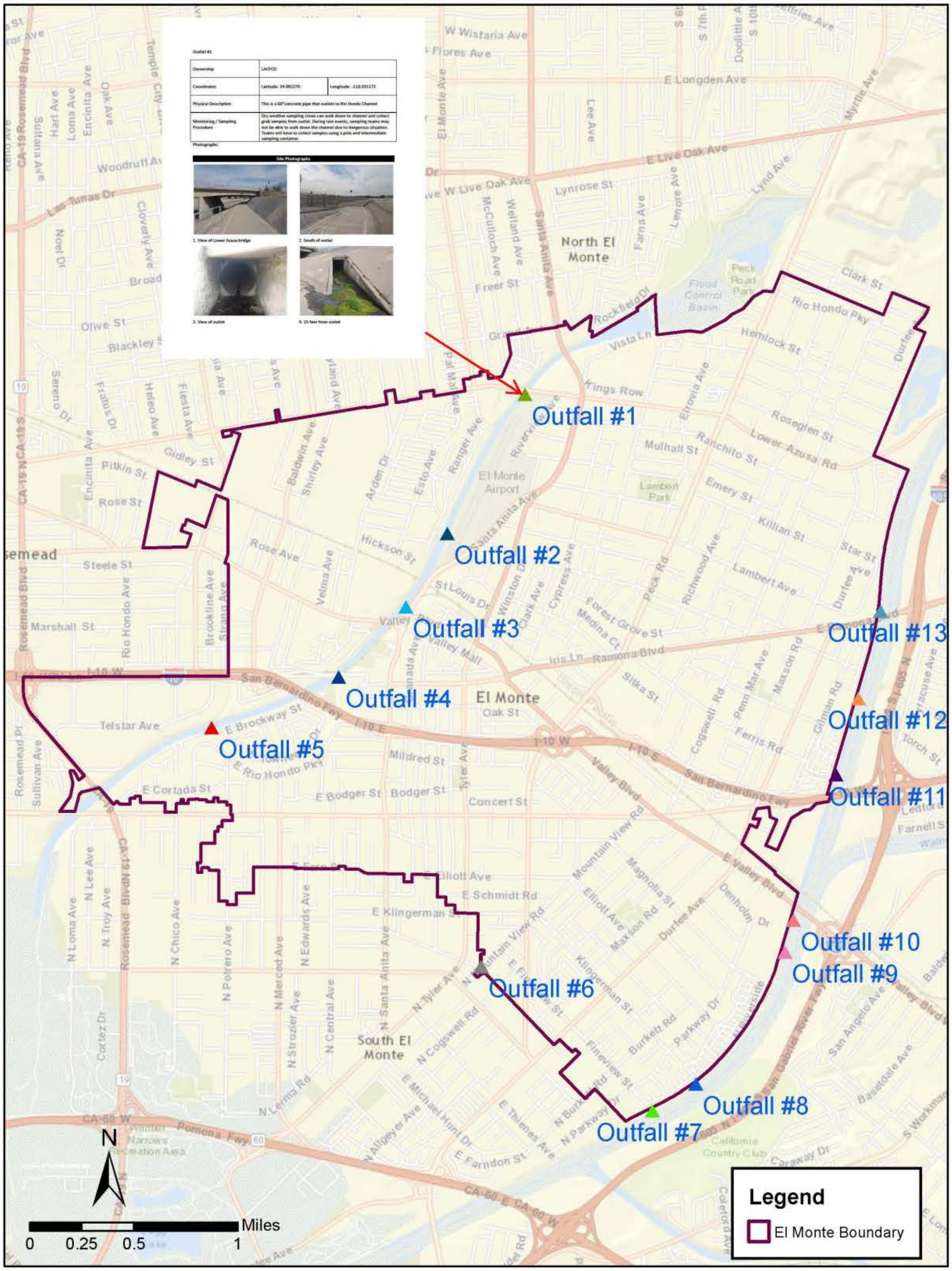
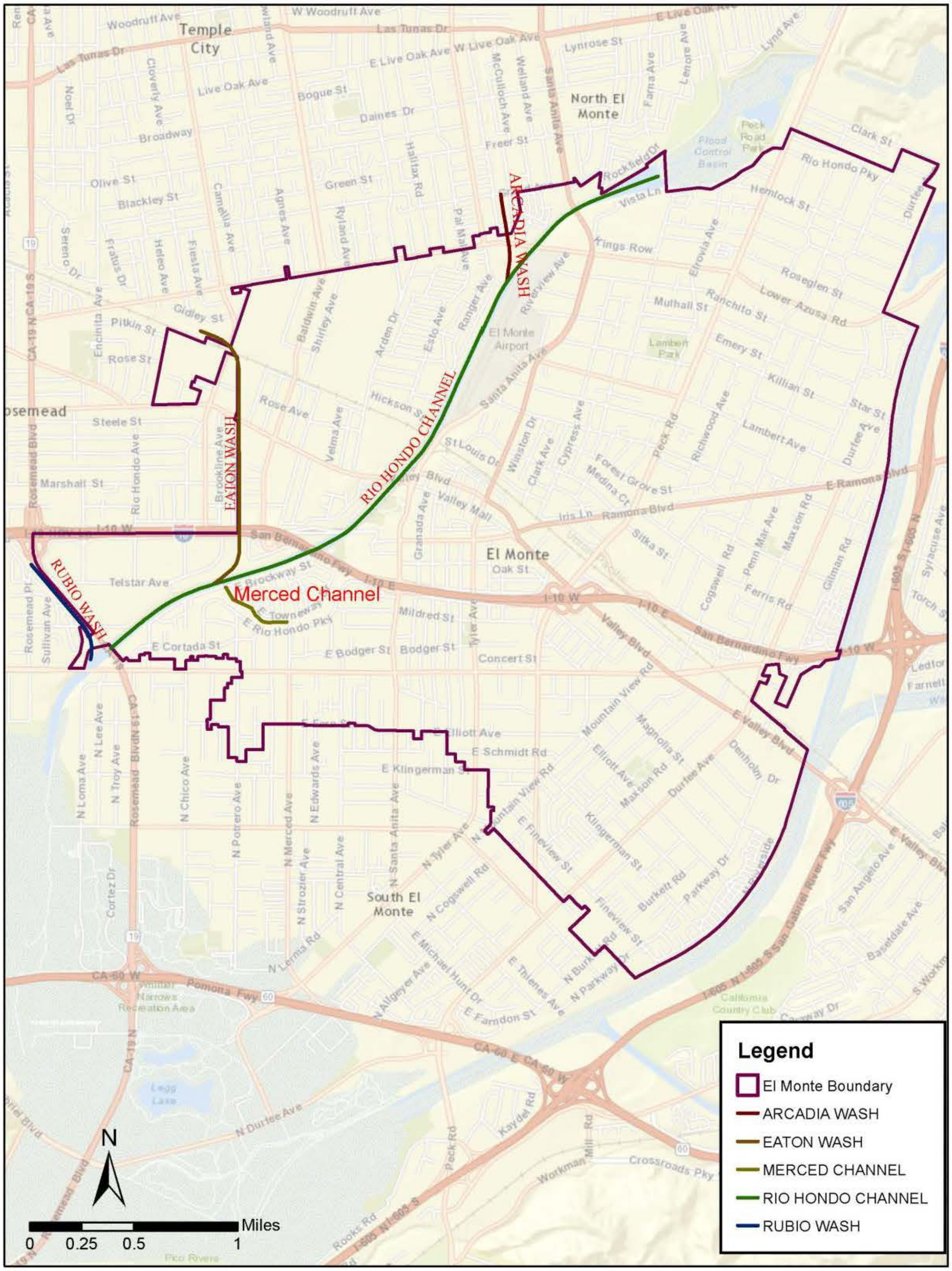


Figure 1-3: Open Channels



1.3.3 STORM WATER OUTFALL BASED MONITORING

Storm water discharges from the MS4 will be monitored at outfalls and/or alternative access points such as manholes or in channels at the City's jurisdictional boundary.

The City considered the following criteria when selecting outfalls for storm water discharge monitoring:

- The storm water outfall monitoring program will ensure representative data by monitoring approximately one major outfall per HUC 12 drainage area, within the City's jurisdiction, or alternate approaches as approved. The City will monitor approximately one outfall per HUC 12 boundary and has proposed three outfall monitoring locations.
- The drainage(s) to the selected outfall(s) are representative of the land uses within the City's jurisdiction. The City's land use is:
    - 7% office
    - 10% industrial/commercial
    - 11% retail
    - 58% residential
    - 14% other amenities (schools, open space)
- The selected outfalls are exclusive to the City. The selected outfalls will not receive drainage from another jurisdiction so the City will not have to conduct "upstream" and "downstream" monitoring as the system enters and exits the City's jurisdiction.
- Outfalls will be selected with configurations that facilitate accurate flow measurement and in consideration of safety of monitoring personnel.
- The specific location of sample collection may be within the MS4 upstream of the actual outfall to the receiving water if field safety or accurate flow measurement require it. (as long as the point selected remains representative of the outfall point.)

The IMP will incorporate all the requirements of Attachment E of the Order regarding the Minimum Storm Water Outfall based Monitoring Requirements.

Monitoring shall be performed at the selected outfalls during wet weather conditions, defined for the purposes of this monitoring program as follows:

- When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or an alternative threshold as provided for in an approved IMP or CIMP, or as defined by effective TMDLs within the watershed.
- Monitoring of storm water discharges shall occur during wet weather conditions resulting from the first rain event of the year, and at least two additional wet weather events within the same wet weather season. Permittees shall target the first storm event of the storm year with a predicted rainfall of at least 0.25 inch at a seventy percent probability of rainfall at least 24 hours prior to the event start time. Permittees shall target subsequent storm events that forecast sufficient rainfall and runoff to meet program objectives and site specific study needs. Sampling events shall be separated by a minimum of three days of dry conditions (less than 0.1 inch of rain each day).

At a minimum, the following parameters shall be monitored unless a surrogate pollutant has been approved by the Executive Officer of the Regional Water Board.

- Flow,
- Pollutants assigned a receiving water limitation derived from TMDL WLAs (See Attachments L-R of this Order),
- Other pollutants identified on the CWA section 303(d) List for the receiving water or downstream receiving waters,
- Total Suspended Solids (TSS) and Suspended-Sediment Concentration (SSC) if the receiving water is listed on the CWA section 303(d) list for sedimentation, siltation or turbidity,
- Field measurements applicable to inland freshwater bodies only: hardness, pH, dissolved oxygen, temperature, and specific conductivity,
- Aquatic Toxicity (twice per year, once during first storm event of the storm year as specified above).

- Additionally, the screening parameters in Table E-2 shall be monitored in the first year of monitoring during the first significant rain event of the storm year. If a parameter is not detected at the Method Detection Limit (MDL) for its respective test method or the result is below the lowest applicable water quality objective, and is not otherwise identified, it need not be further analyzed. If a parameter is detected exceeding the lowest applicable water quality objective then the parameter shall be analyzed for the remainder of the Order during wet weather at the receiving water monitoring station where it was detected.

The proposed storm water outfall monitoring locations within the HUC 12 drainage areas are shown on Figure 1-4. The land use for each HUC 12 drainage area is shown on Figure 1-5. A tabular land use comparison for each HUC 12 drainage area is shown in Table 1-1.

Figure 1-4: Proposed outfall monitoring locations and HUC 12 Equivalent Boundaries

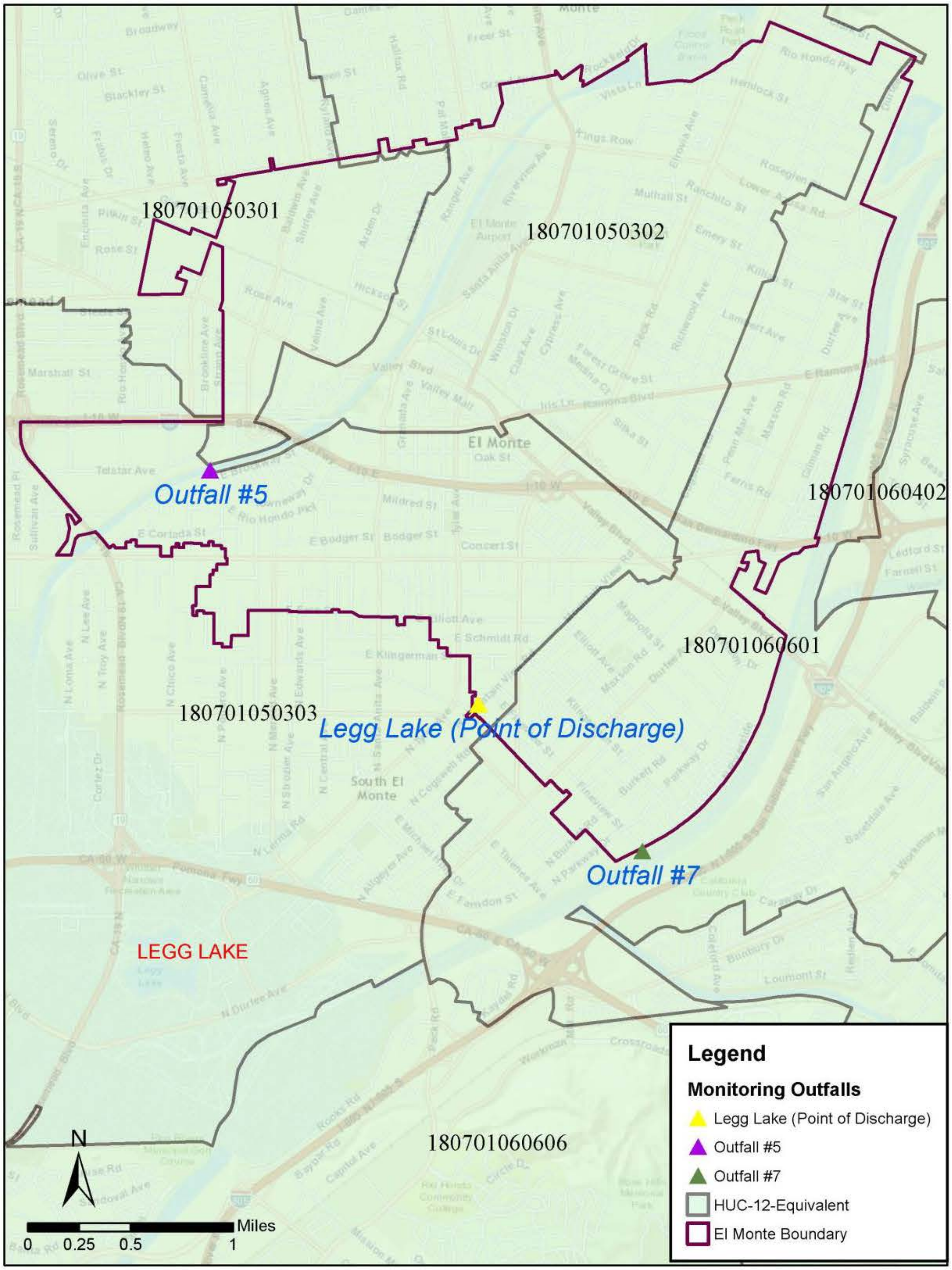


Figure 1-5: HUC 12 Drainage Area Land Use

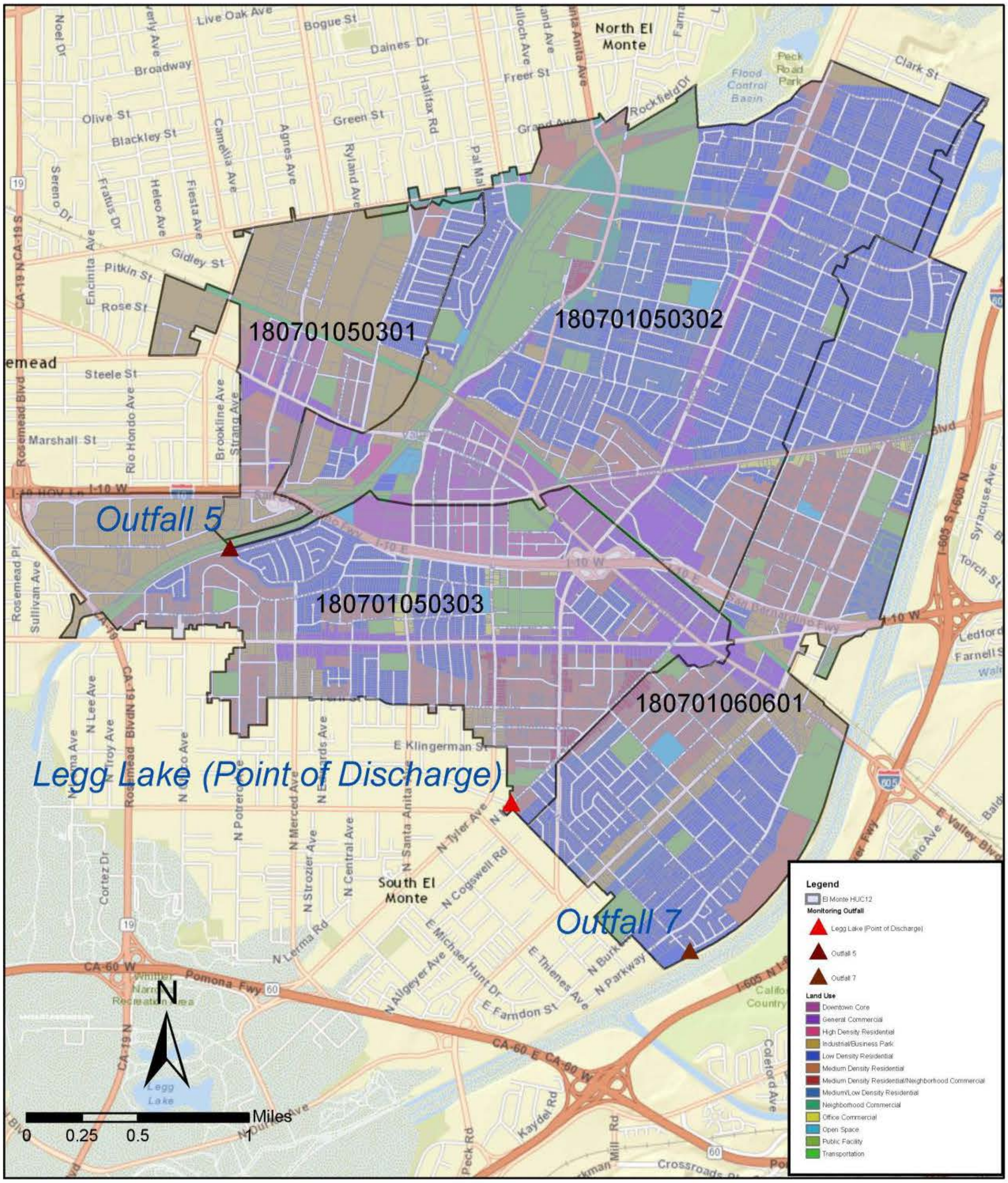


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Table 1-1: Land Uses Per Drainage Area

Land Use Type	Overall City Land Use %	Land Use % Per Drainage Area			
		HUC - 180701050301	HUC- 180701050302	HUC- 1080701050303	HUC- 180701060601
Residential	58%	50.1%	77%	59.1%	69.3%
Industrial/Commercial/ Retail	21%	53.8%	34.1%	30.2%	14.9%
Office	7%	0%	0.2%	0.9%	0.6%
Other Amenities (schools, open space)	14%	5%	12.5%	6.8%	10%

1.3.4 NON-STORM WATER OUTFALL BASED SCREENING AND MONITORING

The Non-Storm Water Outfall Screening and Monitoring process include the following:

- An outfall inventory will be performed, data collected, and incorporated into a GIS map and/or entered into a database. The City will assess and identify outfalls with significant non-storm water discharges during the term of the Order.
- For outfalls determined to have significant non-storm water flow, the City will determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, natural flows, or from unknown sources. IC/ID flows will be investigated and eliminated.
- The City will prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules. Land use types will also be used to prioritize the monitoring.
- The City will conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.
- The City will conduct monitoring or other investigations to identify the source of pollutants in non-storm water discharges.

- The results of the screening process will be used to evaluate the conditionally exempt non-storm water discharges as identified in Parts III.A.2 and III.A.3 of the Order and the City will take appropriate actions pursuant to Part III.A.4.d of the Order for those discharges that have been found to be a source of pollutants.

The City's non-storm water outfall based screening and monitoring program and procedures are explained in the following subsections. The procedures will be updated as needed to reflect the City's program.

The City will conduct at least one re-assessment of its non-storm water outfall-based screening and monitoring program during the term of the Order to determine whether changes or updates are needed. Where changes are needed, the Permittee shall make the changes in its written program documents, implement these changes in practice, and describe the changes within the next annual report.

The City is in the process of developing and maintaining an electronic inventory of MS4 outfalls and identifying those with known, significant non-storm water discharges and those requiring no further assessment. If the MS4 outfall requires no further assessment, the inventory will include the rationale for the determination of no further action required. This inventory will be recorded in a database with outfall locations linked to the Storm Drains, Channels and Outfalls map as required in Part VII.A of Attachment E.

The City will record existing data from past outfall screening and monitoring and initiate data collection efforts as warranted. The data will include the physical attributes of those MS4 outfalls or alternative monitoring locations determined to have significant nonstorm water discharges. Attributes to be obtained shall, at a minimum, include those listed In Attachment E of the Order.

The non-stormwater outfall based screening and monitoring for the Bacteria TMDL for the LA River WMA will follow the outfall monitoring requirements as outlined in a Load Reduction Strategy (LRS) being developed.

The City's non-stormwater outfall based screening and monitoring process is outlined in the following subsections.

1.3.4.1 INVENTORY OF OUTFALLS

The outfall inventory elements include:

- A desktop search/records search of outfalls and drainages (completed in November 2013)
- A review of County and City GIS maps and records (completed in November 2013)
- The creation of an electronic inventory of outfalls (created in November 2013)

The outfall data collected in November 2013 is included in Appendix A.

1.3.4.2 FIELD SCREENING

The field screening elements include:

- Initial screening (completed in November 2013)
- Outfalls greater than or equal to 36 inches in diameter located and mapped (in progress; initial screening completed in November 2013)
- Remaining outfall screening in progress
- Outfalls will be observed two additional times (three days or longer after a rain event)
- Observations conducted during working hours
- During future observations, staff will complete an Outfall Screening Form containing at least the following information about their observations:
    - date, time, weather, ponding
    - Flow amount: no flow; a trickle; similar to garden hose flow; similar to fire hydrant flow
    - Visual and olfactory observations: turbidity, trash, floatables, foam, algae, odor, etc.
    - photographs

An example Outfall Screening Form is included in Appendix A.

1.3.4.3 NO FURTHER ASSESSMENT

No Further Assessment will be reported in the Inventory database if criteria a, b, or c is met:

a) No flow observed or a trickle of flow observed on at least 2 out of 3 visits.

b) The source is confirmed to be from NPDES permitted or categorically exempt essential flow.

c) Flow is categorized as not significant.

1.3.4.4 SIGNIFICANT NON-STORM WATER DISCHARGES

Discharges with the following characteristics will be considered significant:

- Discharges from major outfalls subject to dry weather TMDLs
- Discharges for which existing monitoring data exceeds non-storm water Action Levels identified in Attachment G
- Non-Storm water discharges that have caused or have the potential to cause overtopping of downstream diversions (if applicable)
- Discharges exceeding a proposed threshold discharge rate
- Other characteristics determined during the field screening:
    - Garden hose amount of flow or greater (~5 gpm)
    - Persistent Flows (flow observed twice from same outfall)
    - Visual and olfactory observations: turbidity, trash, floatables, foam, algae, odor, etc.
    - Flows that are conditionally exempt or natural flows

1.3.4.5 PRIORITIZED SOURCE IDENTIFICATION

The following priorities will be used for source identification:

- Outfalls discharging directly to receiving waters with WQBELs or receiving water limitations in the TMDL provisions for which final compliance deadlines have passed
- All major outfalls and other outfalls that discharge to a receiving water subject to a TMDL shall be prioritized according to TMDL compliance schedules
- Outfalls for which monitoring data exist and indicate recurring exceedances of one or more of the Action Levels identified in Attachment G of the Order

- All other major outfalls identified to have significant non-storm water discharges

1.3.4.6 PRIORITIZED SOURCE IDENTIFICATION SCHEDULE

The City's schedule is as follows:

- The City will complete 25% of source identification inventory by 12/28/15 and 100% 12/28/17 (25% within 3 years of Order effective date, 100% completed within 5 years of Order effective date)

(The City began the screening process in November 2013.)

1.3.4.7 IMPLEMENT/CONDUCT SOURCE IDENTIFICATION

If necessary, the City will implement source identification as follows:

- in the prioritization order
- consistent with the City's IC/ID Program
- contributions will be quantified if discharge is comprised of multiple sources
- efforts to identify unknown sources described and documented
- upstream jurisdictions and RWQCB will be notified if sources originate outside jurisdiction

1.3.4.8 MONITOR NON-STORM WATER DISCHARGES EXCEEDING CRITERIA

Beginning within 90 days of completing source identification or after the Executive Officer of the Regional Board approves the IMP, whichever is later, the City will monitor those outfalls as described below:

- Outfalls conveying significant discharges comprised of unknown or conditionally exempt non-storm water discharges, or continuing illicit discharges
- Outfalls in order of Source Prioritization as described above
- Outfalls subject to an approved dry weather TMDL will be monitored per the TMDL Monitoring Plan
- Outfalls not subject to dry weather TMDLs shall be monitored 4 times for the first year, approximately quarterly.

- Monitoring frequency will be reduced to twice per year beginning the second year of monitoring if pollutant concentrations during the first year do not exceed WQBELs, non-storm water action levels, or water quality standards identified on the 303(d) list for receiving waters.
- Outfall flows will be monitored for the parameters listed on page E27 of Attachment E of the Order.

1.3.4.9 SAMPLING METHODS

Sampling will be conducted as follows:

- Dry weather samples will be collected on days when there has be no measurable precipitation within the last 72 hours.
- One dry weather monitoring event will occur during the month with the lowest instream flows, or where instream flow data is not available, during the historically driest month for outfall monitoring.
- Wet weather samples will be collected for the first storm event of the season when there is a 70% probability of rain and a forecast rainfall depth of at least 0.25 inches in 24 hours. Subsequent samples will be collected when there is a 70% probability of rain and a forecast rainfall depth of at least of at least 1 inch.

Storm Water Outfall Based Monitoring (wet weather)

- Where feasible, automated flow monitoring and sampling equipment will be used to collect flow weighted composite samples during the first 24 hours of the storm water discharge, or for the entire storm water discharge if it is less than 24 hours. In locations where the outfall cannot be sampled using automated sampling equipment (continuous sampler), grab samples will be collected and composited into one composite sample for analysis.

Composited grab sampling method:

- The outfall samples will be collected manually by taking at least three discrete grab samples during each of the first three hours of discharge (if the event lasts longer than three hours). If the event lasts less than three hours at least three discrete grab samples shall be collected during each hour of discharge for the entire duration of the storm event. Samples must be collected at least 15 minutes apart. The result will be at least nine discrete samples. These samples will be composited into a single flow-weighted sample. Flow at the outfall will be estimated by recording the time required to fill a container of known volume.

Non-Storm Water Outfall Based Monitoring (dry weather)

In areas where the outfall cannot be sampled using automated sampling equipment (continuous sampler), grab samples will be collected and composited into one composite sample for analysis.

Composited grab sampling method:

- If flow is evident at a non-storm water sampling location, a 1-hour composite sample will be taken. Samples must be collected at least 15 minutes apart. Flow will be recorded at the time each sample is taken. Flow at the outfall will be estimated by recording the time required to fill a container of known volume. The result will be at least three discrete samples. These samples will be composited into a single flow-weighted sample that will be sent to the lab for analysis.

The grab sampling will also meet the following Order/MRP requirements:

- Grab samples will be taken for constituents that are required to be collected by grab sampling methods (e.g., pathogen indicator bacteria, oil and grease, cyanides, and volatile organics).
- Grab samples will be collected in instances where grab samples are generally expected to be sufficient to characterize water quality conditions (primarily dry weather).
- Grab samples will be collected where the sample location limits City's ability to install an automated sampler, as provided for in an approved IMP or CIMP.
- Sufficient volume of sample will be collected to perform required biological and chemical tests.

- Sampling, monitoring methods, and reporting for trash monitoring will be conducted in accordance with the applicable requirements specified in Part VI.E.5 of the Order.
- Flow will be estimated using USEPA methods at receiving water monitoring sites where flow measuring equipment is not in place.
- Flow will be estimated for storm water outfall monitoring sites based on drainage area, impervious cover, and precipitation data.

1.3.4.10 ANALYTICAL PROCEDURES

Analytical Procedures will be conducted as follows:

- Sample analysis will be performed at an ELAP certified lab with QA/QC procedures and protocols consistent with 40 CFR Part 136.
- Suspended-Sediment Concentration (SSC), if necessary, will be analyzed per American
- Society for Testing and Materials (ASTM) Standard Test Method D-3977-97.
- Aquatic toxicity will be monitored in accordance with Part XII of the MRP.
- If the discharge from an outfall exhibits aquatic toxicity, then a TIE shall be conducted and those TIE identified pollutants shall be added to the analysis list.
- Monitoring is required for pollutants identified in a TIE (conducted at the nearest downstream receiving water monitoring station) during the most recent sampling event, or where the TIE conducted on the receiving water sample was inconclusive, aquatic toxicity.
- Monitoring for PCBs (in sediment or water) will be reported as the summation of aroclors and a minimum of 40 congeners (preferably at least 50 congeners) using EPA Methods 8270 and 1668C (as appropriate) and high resolution mass spectrometry.
- For Mercury, EPA Method 245.7 or 1631E will be utilized to get sufficiently sensitive minimum level analytical results for comparison to water quality objectives.
- Samples will be analyzed for any and all parameters that exceed the lowest water quality objective in the nearest downstream receiving water monitoring station.
- Other parameters shall be analyzed according to the provisions of the Standard Provisions for Monitoring described in Attachment D of the Order and Part XIV of the MRP.

The Standard Operation Procedures (SOPs) for the Monitoring and Reporting Program will be provided to the Regional Water Board upon request as stated in item J of Part XIV (page E-37).

1.3.4.11 MONITORING AND REPORTING

Monitoring and reporting will be conducted as follows:

- Monitoring and reporting will be conducted in accordance with the Standard Monitoring Provisions specified in Part XIV of the MRP and in accordance with the requirements specified in Attachment D of the Order.
- Records of monitoring information will include the information required under Attachment D of the Order (Part IV, Standard Provisions - Records).
- Applications, reports, plans, or other information submitted to the Regional Water Board, State Water Board, and/or USEPA will be signed and certified in accordance with Attachment D of the Order.
- Monitoring results submitted to the Regional Water Board will be consistent with the requirements identified in Part XVIII.A.5 and Part XVIII.A.7 of the MRP.

1.3.4.12 RE-ASSESSMENT

Re-assessment will be conducted as follows:

- The City will conduct at least one re-assessment of its non-storm water outfall-based screening and monitoring program during the term of the Order.
- Needed changes to the program will be made in writing, implemented, and described in the next Annual Report.

1.3.5 NEW DEVELOPMENT/RE-DEVELOPMENT EFFECTIVENESS TRACKING

The City will maintain in its database the following information for each new development/re-development that is approved by the City on or after the effective date of the Order:

- Name of the Project and Developer
- Project location and map (linked to the GIS storm drain map)
- 85th percentile storm event for the project design (inches per 24 hours)
- 95th percentile storm event for projects draining to natural water bodies (inches per 24 hours)
- Other design criteria required to meet hydromodification requirements for drainages to natural water bodies
- Project design storm (inches per 24-hours)
- Project design storm volume (gallons, ac-ft, or MGD)
- Percent of design storm volume to be retained on site
- Design volume for water quality mitigation treatment BMPs, if any
- If flow through water quality treatment BMPs are approved, provide the one year, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist
- Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site
- Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project
- Location and maps (preferably linked to the GIS storm drain map required in Part VII.A of this MRP) of off-site mitigation, groundwater replenishment, or retrofit sites
- Documentation of issuance of requirements to the developer

1.3.6 REGIONAL STUDIES

The Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program was initiated in 2008. This program is conducted in collaboration with the Southern California Coastal Water Research Project (SCCWRP), State Water Board’s Surface Water Ambient Monitoring Program, three Southern California Regional Water Quality Control Boards (Los Angeles, Santa Ana, and San Diego) and several county storm water agencies (Los Angeles, Ventura, Orange, Riverside, San

Bernardino and San Diego). SCCWRP acts as the facilitator to organize the program and completes data analysis and report preparation.

The SMC monitoring program seeks to coordinate and leverage existing monitoring efforts to produce regional estimates of condition, improve data comparability and quality assurance, and maximize data availability, while conserving monitoring expenditures. The primary goal of this program is to implement an ongoing, large-scale regional monitoring program for southern California's coastal streams and rivers. The monitoring program addresses three main questions:

- What is the condition of streams in southern California?
- What are the stressors that affect stream condition?; and
- Are conditions getting better or worse?

In order to continue the implementation efforts of the SMC monitoring program, the City will support or provide monitoring data as described at the SMC sites within the watershed management area(s) that overlap with the City's jurisdictional area.

2 ANNUAL REPORTING REQUIREMENTS

The annual reporting process is discussed below.

2.1 ANNUAL REPORT SUMMARY INFORMATION

The City will provide information in the annual reporting process that allows the Regional Water Board to assess the following:

- The City's participation in one or more Watershed Management Programs.
- The impact of the City's storm water and non-storm water discharges on receiving waters.
- The City's compliance with receiving water limitations, numeric water quality-based effluent limitations, and non-storm water action levels.
- The effectiveness of the City's control measures in reducing discharges of pollutants from the MS4 to receiving waters.
- Whether the quality of MS4 discharges and the health of receiving waters is improving, staying the same, or declining as a result watershed management program efforts, and/or TMDL implementation measures, or other Minimum Control Measures.
- Whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects.

The data and information will be provided in an accessible format that will allow the Regional Water Board to verify the conclusions presented in the City's summary information. The data and conclusions will be presented in a manner so as to allow review and understanding by the general public. The annual reporting process will provide the opportunity to discuss the effectiveness of its past and ongoing control measure efforts and to convey its plans for future control measures. Reporting efforts will focus on watershed condition, water quality assessment, and the effectiveness of control measures.

2.2 WATERSHED SUMMARY INFORMATION, ORGANIZATION AND CONTENT

The City will include the information requested below in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information will be provided for each WMA within the City's jurisdiction.

Since the City is participating in a WMP it will provide the requested information through the development and submission of the WMP and any updates thereto.

1.1.1 WATERSHED MANAGEMENT AREAS

The following information will be included for each WMA within the City's jurisdiction, where not already included in the WMP:

- A description of effective TMDLs, applicable WQBELs and receiving water limitations, and implementation and reporting requirements, and compliance dates
- CWA section 303(d) listings of impaired waters not addressed by TMDLs
- Results of regional bioassessment monitoring
- A description of known hydromodifications to receiving waters and a description, including locations, of natural drainage systems
- A description of groundwater recharge areas including number and acres
- Maps and/or aerial photographs identifying the location of ESAs, ASBS, natural drainage systems, and groundwater recharge areas

1.1.2 SUBWATERSHED (HUC12 OR EQUIVALENT) DESCRIPTION

Since the City has individually developed a WMP, reference to the WMP and any revisions thereto will suffice for baseline information regarding the subwatershed (HUC-12 or equivalent) descriptions, where the required information is already included in the WMP. Only changes to the HUC 12 or subwatersheds will be included in the Annual Report.

1.1.3 DESCRIPTION OF CITY'S DRAINAGE AREA WITHIN SUBWATERSHED

Since the City has individually developed a WMP, reference to the WMP and any revisions thereto will suffice for baseline information regarding the drainage area descriptions, where the required information is already included in the WMP. Only changes to the drainage areas will be included in the Annual Report.

2.3 ANNUAL ASSESSMENT AND REPORTING

The City will format its Annual Report to align with the reporting requirements for each WMA within the City's jurisdiction as detailed in Attachment E of the Order for the items identified below:

- Storm Water Control Measures.
- Effectiveness Assessment of Storm Water Control Measures
- Non-Storm Water Control Measures
- Effectiveness Assessment of Non-Storm Water Control Measures
- Integrated Monitoring Compliance Report
- Adaptive Management Strategies
- Supporting Data and Information

3 REFERENCES

Order No. R4-2012-0175, California Regional Water Quality Control Board, Los Angeles Region, November 8, 2012.

Monitoring and Reporting Program No. CI-6948, California Regional Water Quality Control Board, Los Angeles Region, November 8, 2012.

APPENDIX A

Outfall screening data sheets (November 2013)

Example of Outfall Screening Form

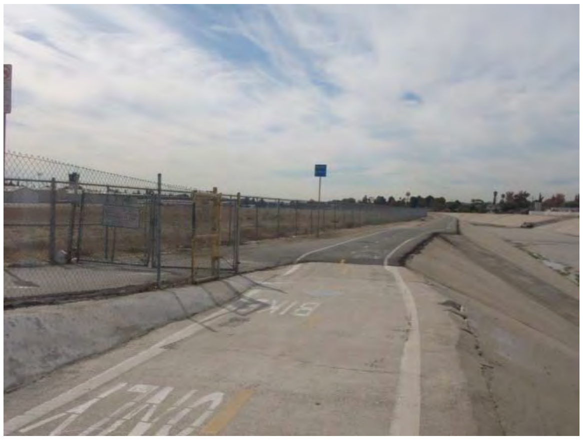
Outfall #1

Ownership	LACFCD	
Coordinates	Latitude: 34.092270	Longitude: -118.031172
Physical Description	This is a 60"concrete pipe that outfalls to Rio Hondo Channel	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of Lower Azusa bridge from top of outfall



2. Looking South from top of outfall

3. View of outfall

4. 15 feet from outfall

5. Markings near outfall

Outfall #2

Ownership	LACFCD	
Coordinates	Latitude: 34.082498	Longitude: -118.037535
Physical Description	This is a 60”concrete pipe that discharges to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of outfall from Rio Hondo

2. Marking on outfall

Outfall #3

Ownership	LACFCD	
Coordinates	Latitude: 34.077765	Longitude: -118.040547
Physical Description	This is a 60"concrete pipe that outlets to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

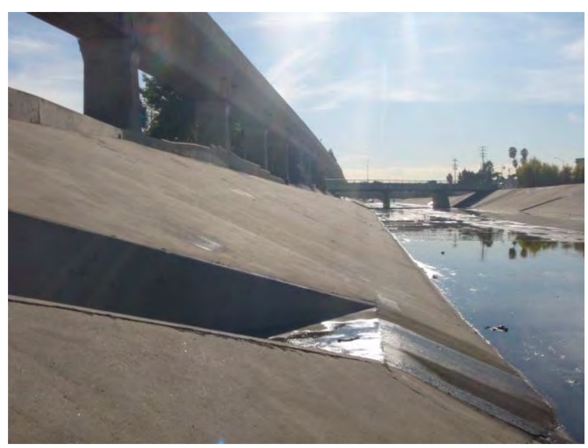
Photographs:

Site Photographs

1. View of outfall from bike path

2. 15 feet from outfall

3. View of outfall



4. Looking south toward outfall

Outfall #4

Ownership	Unknown	
Coordinates	Latitude: 34.072502	Longitude: -118.046323
Physical Description	This is a 36”concrete pipe that outfalls to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of outfall north of railroad bridge

2. View of outfall

3. View of outfall

4.Close up of outfall

Outfall #5

Ownership	LACFCD	
Coordinates	Latitude: 34.068816	Longitude: -118.057081
Physical Description	Three (3) 48" concrete pipes that outfall to Rio Hondo Channel.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfalls. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View of Merced Channel opposite outfalls

2. View looking South toward the three outfalls

5. View of outfalls from bike path

4. View of outfalls from Rio Hondo

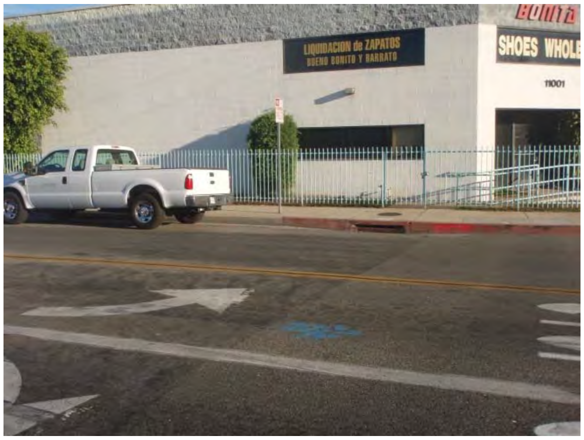
Outfall #6

Ownership	LACFCD	
Coordinates	Latitude: 34.051025	Longitude: -118.035839
Physical Description	Drainage plans show storm drain ultimately discharges to Legg Lake. Catch basin/manhole location is last accessible location that can be sampled within the city of El Monte.	
Monitoring /Sampling Procedure	Sampling crews may be able to remove manhole cover and lower an intermediate sampling container to obtain a representative sample. (Access permit required.)	

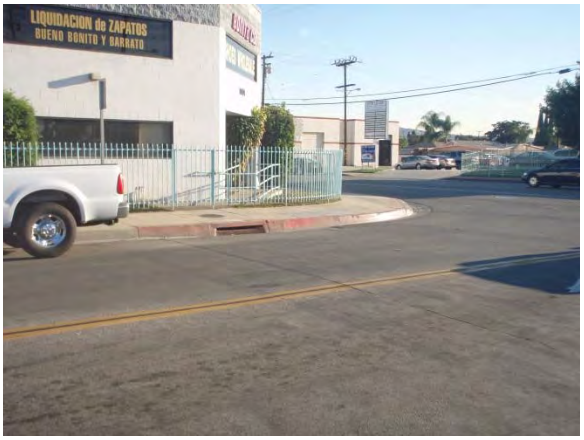
Photographs:

Site Photographs

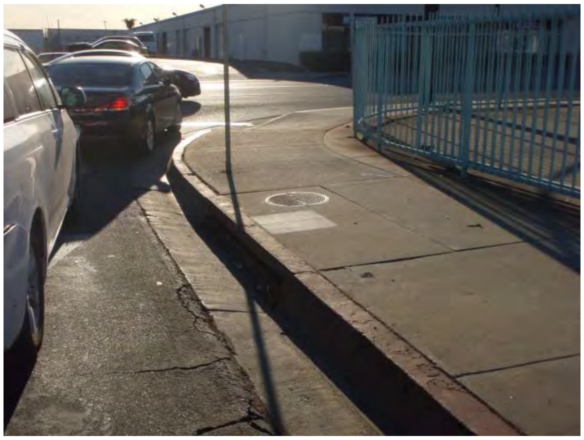
1. Intersection location



2. View of east catch basin



3. View of east catch basin



4. View of west catch basin

5. West manhole close up

Outfall #7

Ownership	LACFCD	
Coordinates	Latitude: 34.042331	Longitude: -118.019868
Physical Description	48” concrete pipe with cover discharges to San Gabriel River	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View looking down at outfall

2. Access to San Gabriel RIver

3. View of outfall

4. 15 feet from outfall

Outfall #8

Ownership	LACFCD	
Coordinates	Latitude: 34.044254	Longitude: -118.016240
Physical Description	42" reinforced concrete pipe outfalls to San Gabriel River.	
Monitoring Sampling Procedure	Sampling crews may use gate north of sampling site to gain access. However crews must walk down rocky slope with caution. During rain events it may be too dangerous to access for sampling. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View looking down at outfall

2. View looking down at outfall

3. View looking down at outfall

4. 5. Gate entrance near outfall

Outfall #9

Ownership	LACFCD	
Coordinates	Latitude: 34.053293	Longitude: -118.009092
Physical Description	36” pipe outlet with automated cover outfalls to San Gabriel River	
Monitoring / Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams can collect sample with an intermediate container using a pole or collect sample from the manhole on the opposite side of the bike path.	

Photographs:

Site Photographs

1. Unit connected to outfall from bike path

2. Close up view outfall

3. View of high school from outfall

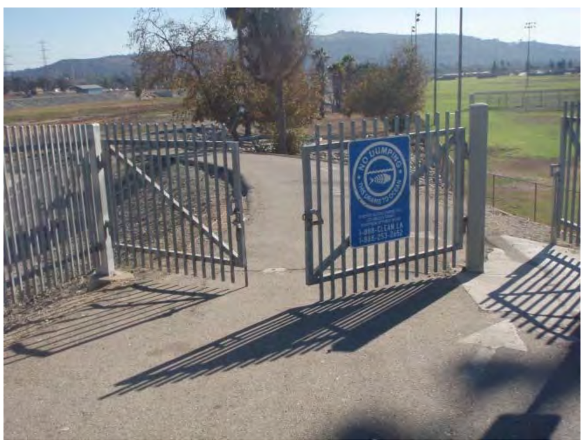
4. 15 feet from outfall

Outfall #10

Ownership	Unknown	
Coordinates	Latitude: 34.055751	Longitude: -118.008222
Physical Description	Unknown because cannot access.	
Monitoring /Sampling Procedure	Fence limits access of outlet but there is a gate that is locked in the vicinity. Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down to the channel due to dangerous conditions.	

Photographs:

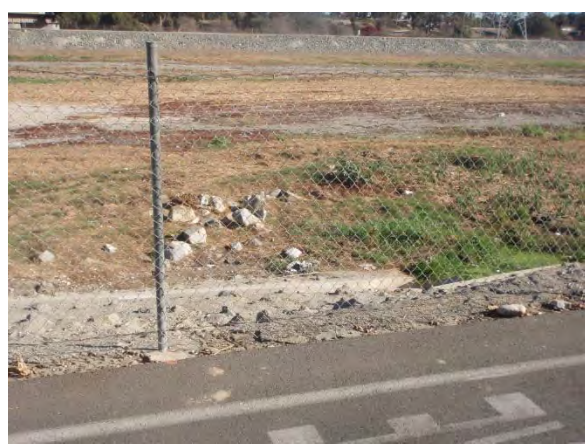
Site Photographs



1. Valley Blvd access to SGR Bike Path

2. View from top of outfall

3. View of outfall looking towards Valley Blvd



4. View of outfall and fence

Outfall #11

Ownership	LACFCD	
Coordinates	Latitude: 34.065846	Longitude: -118.004757
Physical Description	72" concrete pipe outfalls to San Gabriel River	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View looking down at outfall

2. 15 feet from outfall

3. Close up view of outfall

4. 20 feet from outfall

Outfall #12

Ownership	LACFCD	
Coordinates	Latitude: 34.071001	Longitude: -118.002996
Physical Description	48" concrete pipe outfalls to San Gabriel River	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outlet. During rain events, sampling teams may not be able to walk down the channel due to dangerous conditions. Teams may have to collect sample using a pole with an intermediate container.	

Photographs:

Site Photographs

1. View across bike path opposite outfall

2. View from above outfall

3. View of outfall

4. 15 feet from outfall

Outfall #13

Ownership	LACFCD	
Coordinates	Latitude: 34.077360	Longitude: -118.001074
Physical Description	Two (2) 48" pipe discharge with covers but do not seem to be tied into storm drain system. The two pipes daylight on the opposite side of the bike path but no connections could be seen. People looked to be residing in storm drains that day light on the west side of the bike path.	
Monitoring /Sampling Procedure	Dry weather sampling crews can walk down to channel and collect grab samples from outfall. During rain events, sampling teams may not be able to walk down to the channel due to dangerous conditions. Teams may have to collect sample using a pole and an intermediate container.	

Photographs:

Site Photographs

1. Ramona Bike Path entrance

2. View from above outfall

3. 20' from outfalls

4. View of outfalls

5. Possible inlets on west side of bike path

6. View showing possible habitation of pipes

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data

Subwatershed:		Outfall ID:	
Today's date:		Time (Military):	
Investigators:		Form completed by:	
Temperature (°F):	Rainfall (in.): Last 24 hours: Last 48 hours:		
Latitude:	Longitude:	GPS Unit:	GPS LMK #:
Camera:		Photo #s:	

Land Use in Drainage Area (Check all that apply):

- ☐ Industrial
- ☐ Ultra-Urban Residential
- ☐ Suburban Residential
- ☐ Commercial
- ☐ Open Space
- ☐ Institutional
- Other: ____________________
- Known Industries: ____________________

Notes (e.g.., origin of outfall, if known):

Section 2: Outfall Description

LOCATION	MATERIAL		SHAPE		DIMENSIONS (IN.)	SUBMERGED
☐ **Closed Pipe**	☐ RCP ☐ PVC ☐ Steel ☐ Other: ______	☐ CMP ☐ HDPE	☐ Circular ☐ Elliptical ☐ Box ☐ Other: _____	☐ Single ☐ Double ☐ Triple ☐ Other: _____	Diameter/Dimensions: ______________	In Water: ☐ No ☐ Partially ☐ Fully With Sediment: ☐ No ☐ Partially ☐ Fully
☐ **Open drainage**	☐ Concrete ☐ Earthen ☐ rip-rap ☐ Other: _____		☐ Trapezoid ☐ Parabolic ☐ Other: _____		Depth: _____ Top Width: _____ Bottom Width: _____	
☐ **In-Stream**	**(applicable when collecting samples)**					
Flow Present?	☐ Yes	☐ No	***If No, Skip to Section 5***			
Flow Description (If present)	☐ Trickle	☐ Moderate	☐ Substantial			

Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS				
PARAMETER		**RESULT**	**UNIT**	**EQUIPMENT**
☐Flow #1	Volume		Liter	Bottle
	Time to fill		Sec	
☐Flow #2	Flow depth		In	Tape measure
	Flow width	_____' _____"	Ft, In	Tape measure
	Measured length	_____' _____"	Ft, In	Tape measure
	Time of travel		S	Stop watch
Temperature			°F	Thermometer
pH			pH Units	Test strip/Probe
Ammonia			mg/L	Test strip

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? ☐ Yes ☐ No *(If No, Skip to Section 5)*

INDICATOR	CHECK if Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
Odor	☐	☐ Sewage ☐ Rancid/sour ☐ Petroleum/gas ☐ Sulfide ☐ Other:	☐ 1 – Faint	☐ 2 – Easily detected	☐ 3 – Noticeable from a distance
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red ☐Other:	☐ 1 – Faint colors in sample bottle	☐ 2 – Clearly visible in sample bottle	☐ 3 – Clearly visible in outfall flow
Turbidity	☐	See severity	☐ 1 – Slight cloudiness	☐ 2 – Cloudy	☐ 3 – Opaque
Floatables -Does Not Include Trash!!	☐	☐ Sewage (Toilet Paper, etc.) ☐ Suds ☐ Petroleum (oil sheen) ☐ Other:	☐ 1 – Few/slight; origin not obvious	☐ 2 – Some; indications of origin (e.g., possible suds or oil sheen)	☐ 3 - Some; origin clear (e.g., obvious oil sheen, suds, or floating sanitary materials)

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? ☐ Yes ☐ No *(If No, Skip to Section 6)*

INDICATOR	CHECK if Present	DESCRIPTION	COMMENTS
Outfall Damage	☐	☐ Spalling, Cracking or Chipping ☐ Peeling Paint ☐ Corrosion	
Deposits/Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ Other:	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor pool quality	☐	☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Suds ☐ Excessive Algae ☐ Other:	
Pipe benthic growth	☐	☐ Brown ☐ Orange ☐ Green ☐ Other:	

Section 6: Overall Outfall Characterization

☐ Unlikely ☐ Potential (presence of two or more indicators) ☐ Suspect (one or more indicators with a severity of 3) ☐ Obvious

Section 7: Data Collection

1.	Sample for the lab?	☐ Yes	☐ No	
2.	If yes, collected from:	☐ Flow	☐ Pool	
3.	Intermittent flow trap set?	☐ Yes	☐ No	If Yes, type: ☐ OBM ☐ Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

RB-AR5059

APPENDIX B

Collaboration Letters for Receiving Water/TMDL Monitoring

CITY OF EL MONTE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Frank Senteno, P.E.
Director of Public Works

Cesar Roldan
Senior Engineer

November 12, 2014

James Carlson
Rio Hondo/San Gabriel River Water Quality Group
City of Sierra Madre
232 W. Sierra Madre
Sierra Madre, CA 91024

Dear Mr. Carlson:

LETTER OF COMMMITMENT TO COLLABRATIVELY COST-SHARE THE RECEIVING WATER MONITORING FOR THE LOS ANGELES (RIO HONDO) WATERSHED MANAGEMENT AREA

The City of El Monte commits to collaborating and sharing costs with the Rio Hondo/ San Gabriel Water Quality Group in the receiving water monitoring for Los Angeles River (Rio Hondo) Watershed. The monitoring will be conducted at the Receiving Water Monitor location, which is currently proposed to be in the proximity of the confluence of the Rio Hondo River and Arcadia Wash. This is a requirement of the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175.

The City of El Monte looks forward to working with you in developing an equitable cost share for the city's contribution in this monitoring.

Should you have any questions on this matter, please contact Ed Suher from AEI-CASC Consulting at (310) 291-1150.

Sincerely,

Frank Senteno, P.E.
Public Works Director

CITY OF EL MONTE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Frank Senteno, P.E.
Director of Public Works

Cesar Roldan
Senior Engineer

November 12, 2014

Gary Hildebrand
Assistant Deputy Director
County of Los Angeles Department of Public Works
Watershed Management Division, 11th Floor
900 South Fremont Avenue
Alhambra, CA 91803-1331

Dear Mr. Hildebrand:

LETTER OF COMMMITMENT TO COLLABRATIVELY COST-SHARE THE RECEIVING WATER MONITORING FOR THE UPPER SAN GABRIEL RIVER WATERSHED

The City of El Monte commits to collaborating and sharing costs with the Upper San Gabriel River Enhanced Water Management Plan (EWMP) Group in the receiving of water monitoring for the Upper San Gabriel River Watershed. The monitoring is a requirement of the National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Permit Order No. R4-2012-0175.

The City of El Monte looks forward to working with you in developing an equitable cost share for the city's contribution in this monitoring.

Should you have any questions on this matter, please contact Ed Suher from AEI-CASC Consulting at (310) 291-1150.

Sincerely,

Frank Senteno, P.E.
Public Works Director

LOWER LOS ANGELES RIVER
WATERSHED COMMITTEE

January 8, 2015

Attention all Watershed Chairs/Stormwater Coordinators for:

Upper Los Angeles River Enhanced Watershed Management Program Group,
Rio Hondo/San Gabriel River Water Quality Group, and the Cities of
Compton
Carson
El Monte
Irwindale
South El Monte

Subject: Invitation to participate in a joint DC/Harbor Toxics TMDL Monitoring Program

As you know, the Dominguez Channel and Greater Harbors Toxic TMDL requires cities tributary to the Los Angeles River to monitor for toxic pollutants as defined by that TMDL. These pollutants and the associated testing method require the installation of specialized monitoring equipment. As part of the Coordinated Integrated Monitoring Program, the Lower Los Angeles River Watershed Group (LLAR) is planning to install this equipment at the existing mass emission station near the confluence of the Los Angeles River. The LLAR is inviting interested groups to participate on a shared cost basis.

Attached is the estimated cost share matrix, Invoices are anticipated to go out on or about July 1, 2015 to coincide with the start of the CIMP and IMP programs. The costs were developed using baseline and area factors and should be regarded as preliminary until the number of participants is established and cost estimates are confirmed by the LLAR's subcontractors. Rather than developing separate MOUs with each entity, the LLAR's preference will be to invoice each watershed group or individual WMP city. How each groups/city decides to allocate funds within the group is left to that group to decide.

So that we may move forward, if you are interested in participating, please respond within the next 30-days to me at smyrter@cityofsignalhill.org with an e-copy to Jhunter@jlha.net. In their CIMP comments, Regional Board has asked for additional information regarding this issue and they are being copied on this invitation.

Thank you,

Steve Myrter, P.E.
Chair, Lower Los Angeles River Watershed Group

cc: Regional Board
Storm water coordinators, all cities tributary to the Los Angeles River.

Artesia
Bellflower
Cerritos
Diamond Bar
Downey
Hawaiian Gardens
La Mirada
Lakewood
Long Beach
Norwalk
Pico Rivera
Santa Fe Springs
Whittier
Los Angeles County Flood Control District

Lower San Gabriel River Watershed Committee

Invitation to participate in a joint DC/Harbor Toxics TMDL Monitoring Program

January 8, 2015

Attention all Watershed Chairs/Stormwater Coordinators for:

Upper San Gabriel River Enhanced Watershed Management Program Group,
East San Gabriel Valley Watershed Management Group,
Rio Hondo/San Gabriel River Water Quality Group, and the individual cities of:

El Monte
La Habra Heights
Irwindale
South El Monte
Walnut
West Covina

As you know, the Dominguez Channel and Greater Harbors Toxic TMDL requires cities tributary to the San Gabriel River to monitor for toxic pollutants as defined by that TMDL. These pollutants and the associated testing method require the installation of specialized monitoring equipment. As part of the Coordinated Integrated Monitoring Program, the Lower San Gabriel River Watershed Group (LSGR) is planning to install this equipment at two locations: (1) near the confluence of the San Gabriel River and the estuary and (2) near the confluence of Coyote Creek and the estuary. The LSGR is inviting interested groups to participate on a shared cost basis.

Attached are estimated cost share matrices for both sampling stations. Invoices are anticipated to go out on or about July 1, 2015 to coincide with the start of the CIMP and IMP programs. The costs were developed using baseline and area factors and should be regarded as preliminary until the number of participants is established and cost estimates are confirmed by the LSGR's subcontractors. Rather than developing separate MOUs with each entity, the LSGR's preference will be to invoice each watershed group or individual WMP city. How each groups/city decides to allocate funds within the group is left to that group to decide.

So that we may move forward, please respond within the next 30-days to me at afigueroa@norwalkca.gov with an e-copy to Jhunter@jlha.net if you are interested in participating. In their CIMP comments, the Regional Board has asked for additional information regarding this issue and they are being copied on this invitation.

Thank you and we look forward to your prompt responses.

Adriana Figueroa

Adriana Figueroa
Chair, Lower San Gabriel River Watershed Group

ec: Los Angeles Regional Water Quality Control Board
Storm water coordinators and all MS4 Permittees tributary to the San Gabriel River.

April 28, 2015

Mr. Frank Senteno, City Engineer
City of El Monte
Department of Public Works
11333 Valley Blvd.
El Monte, CA 91731

APPROVAL, WITH CONDITIONS, OF THE CITY OF EL MONTE'S WATERSHED MANAGEMENT PROGRAM (WMP), PURSUANT TO THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Mr. Senteno:

On November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board or Board) adopted Order No. R4-2012-0175, *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* (hereafter, LA County MS4 Permit). Part VI.C of the LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or an 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 allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E and Attachments L through R (Total Maximum Daily Load Provisions), and by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures), except the Planning and Land Development Program. Pursuant to Part VI.C.4.c of the LA County MS4 Permit, the City of El Monte (City) submitted a draft WMP dated June 30, 2014, to the Los Angeles Water Board for review.

Public Review and Comment

On July 3, 2014, the Board provided public notice and a 46-day period to allow for public review and comment on the City's draft WMP. A separate notice of availability regarding the draft WMPs, including the City's WMP, was directed to State Senators and Assembly Members within the Coastal Watersheds of Los Angeles County. The Board received two comment letters that had comments applicable to the City's draft WMP. One joint letter was from the Natural Resources Defense Council (NRDC), Heal the Bay, and Los Angeles Waterkeeper, and the other letter was from the Construction Industry Coalition on Water Quality (CICWQ). On October 9, 2014, the Board held a workshop at its regularly scheduled Board meeting on the draft WMPs. The Board also held a public meeting on April 13, 2015 for permittees and interested persons to discuss the revised draft WMPs with the Executive Officer and staff. During its initial review and its review of the revised draft WMP, the Los Angeles Water Board considered those comments applicable to the City's proposed WMP.

Los Angeles Water Board Review

Concurrently with the public review, the Los Angeles Water Board, along with U.S. EPA Region IX staff, reviewed the draft WMPs. On October 22, 2014, the Los Angeles Water Board sent a letter to the City detailing the Board's comments on the draft WMP and identifying the revisions that needed to be addressed prior to the Board's approval of the City's WMP. The letter directed the City to submit a revised draft WMP addressing the Los Angeles Water Board's comments. The City submitted its revised draft WMP on January 22, 2015 for Los Angeles Water Board review and approval. After the City's submittal of the revised draft WMP, Board staff had several telephone and e-mail exchanges with City representatives and consultants to discuss the Board's remaining comments and necessary revisions to the January 22, 2015 revised draft WMP, including the supporting reasonable assurance analysis (RAA). On April 27, 2015, the City submitted additional revisions to the revised draft WMP for Los Angeles Water Board review and approval, which consisted of the following:

1. Figure 1-10 "Existing and Planned Control Measures," which clarifies the location of planned modular wetland systems and tree well filters. As per Figure 1-10, 6 planned modular wetland systems are located along Mountain View Road where the MS4 discharges to Legg Lake.
2. Table 1-9 "LA River Copper" and Figure 1-11 "Scatter Plot for LA River Copper," which show that a 26-98 percent load reduction is required for copper.
3. Table 1-10 "LA River Lead" and Figure 1-12 "Scatter Plot for LA River Lead," which show that a 48-87 percent load reduction is required for lead.
4. Table 1-11 "LA River Zinc" and Figure 1-13 "Scatter Plot and LA River Zinc," which show that a 26-98 percent load reduction is required for zinc.
5. Section 1.9.2.3 LA River Watershed Bacteria TMDL and Table 1-14 "LA River Bacteria," which show that a 99 percent load reduction is required for bacteria.
6. Section 1.9.2.5 San Gabriel River and Impaired Metals and Selenium TMDLs, Table 1-19 "San Gabriel River Lead", and Figure 1-17 "Scatter Plot for San Gabriel River Lead," which show that a 31-67 percent load reduction is required for lead.
7. Section 1.9.2.6 "San Gabriel River, Estuary and Tributaries Indicator Bacteria TMDL (Pending)" and Table 1-20 "San Gabriel River Bacteria," which shows that a 98-99 percent load reduction is required for bacteria.

8. Table 1-21 "TMDL Summary and Action Required," which revises the actions required for Los Angeles River Tributaries Metals TMDL, Los Angeles River Watershed Bacteria TMDL, San Gabriel River and Impaired Tributaries Metals and Selenium TMDL, and San Gabriel River Bacterial TMDL (Pending), stating that BMPs will be installed/implemented to achieve required percent reductions.
9. Text was added to Section 1.8.3 under sub-section Legg Lake stating, "In order to address the required pollutant reductions for Legg Lake, six catch basins along Mountain View Road will be retrofitted with Modular Wetland Systems to remove both trash and nutrients."
10. "Maintenance Guidelines for Modular Wetland System – Linear," which is a reference document for the Appendix outlining the procedures for maintaining the modular wetland systems.
11. "General Use Level Designation for Basic, Enhanced, and Phosphorus Treatment," which is a reference document for the Appendix giving expected percent pollutant load reductions as per laboratory and field testing by the Washington State Department of Ecology.
12. "MWS-Linear 2.0 Stormwater Filtration System," which is a reference document for the Appendix giving the expected percent pollutant load reductions as per the manufacturer.
13. "MASTEP Technology Review," which is a reference document for the Appendix giving the expected pollutant load reductions as per a study by the University of Massachusetts at Amherst.
14. Text was added to Section 1.9.1 under sub-section Calibration stating, "There is limited or insufficient storm flow and water quality data currently available near El Monte to facilitate additional calibration of modeling parameters. This lack of data was confirmed by Los Angeles County Department of Public Works employees that were involved in the development of the WMMS model. As the City collects monitoring data from both outfall and receiving water monitoring, the collected data will be used to further calibrate the model as part of the Adaptive Management Process."

Approval of WMP, with Conditions

The Los Angeles Water Board hereby approves, subject to the following conditions, the City's January 22, 2015 revised draft WMP, as supplemented by the April 27, 2015 additional revisions noted above. The Board may rescind this approval if all of the following conditions are not met to the satisfaction of the Board within the timeframe provided below.

1. Remove selenium from Table 1-4 ("WBPCs with TMDLs (Category 1))" of the revised draft WMP. The City's MS4 discharges are not subject to the dry-weather selenium waste load allocations (WLAs) in the San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (Attachment P of the LA County MS4 Permit) assigned to discharges to the San Jose Reach 1 and 2.
2. Remove Trash for Legg Lake from Table 1-5 of the revised draft WMP ("WBPCs on 2010 303(d) list (Category 2))". Trash for Legg Lake is a Category 1 pollutant already addressed in Table 1-4.

3. Ammonia, odor, and pH for Legg Lake and pH for Los Angeles River are Category 1 pollutants, since they are being addressed through the Legg Lake Nutrients TMDL and Los Angeles River Nitrogen Compounds and Related Effects TMDL. Move these Category 1 pollutants from Table 1-5 to Table 1-4 of the revised draft WMP.
4. Although Sections 1.2.1, 1.2.2, and 1.2.3 of the revised draft WMP provide a summary of recent data on pollutant exceedances, include further discussion in Section 1.7.3 on each of the Category 3 pollutants listed in Table 1-6 explaining how monitoring data sources show exceedances and possible sources of those exceedances. Additionally, clarify or remove the entry for indicator bacteria in the San Gabriel River in Table 1-6, since indicator bacteria is identified as a Category 2 pollutant for San Gabriel River (Reach 3) in Table 1-5.
5. Add applicable Receiving Water Limitations where left blank in Tables 1-5 and 1-6 of the revised draft WMP.
6. Specify that the effluent limitations applicable to the City in Table 1-12 of the revised draft WMP are those for the Los Angeles Tributaries.
7. Use the suggested BMP performance parameters given in the RAA Guidelines in Table 4-2 of the revised draft WMP (p. 18) to provide the estimated pollutant load reduction for the proposed BMPs. Include demonstration that the proposed BMPs will achieve pollutant load reductions needed for those pollutants addressed in the RAA (as shown in Tables 1-9, 1-10, 1-11, 1-14, 1-19, and 1-20 provided as a supplement to the revised draft WMP) consistent with interim milestones within this permit term and the next permit term (i.e., through December 2022).
8. Revise Table 1-25 of the revised draft WMP, TMDL Milestones for Los Angeles River, for Los Angeles River Watershed Bacteria TMDL by separating the deadlines for wet and dry as is done for other pollutants in the table. March 23, 2037 is the final deadline for compliance in wet weather. Dry weather deadlines are per the applicable schedule in Table O-1 of Attachment O in the LA County MS4 Permit, as follows.
    a. First Phase actions and deadlines:
        i. "Submit a Load Reduction Strategy (LRS) for Segment B tributaries (*or submit an alternative compliance plan*) by March 23, 2016;
        ii. "Complete Implementation of LRS" by September 23, 2020;
        iii. "Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board" by September 23, 2023;
    b. Second Phase actions and deadlines:
        i. "Submit a New LRS" by September 23, 2024;
        ii. "Complete Implementation of LRS" by March 23, 2028;
        iii. "Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board" by March 23, 2030.
9. Revise Table 1-26 of the revised draft WMP, TMDL Milestones for San Gabriel River, to include interim milestones consistent with the San Gabriel River and Impaired Tributaries Metals and Selenium TMDL Implementation Plan adopted by the Los Angeles Water Board through Resolution No. R13-004. These milestones include: a 10% reduction in the difference between the current loadings and the wet-weather WLAs

at MS4 outfalls (or a demonstration that 10% of the total drainage area to the San Gabriel River within the City is effectively meeting the wet-weather WLAs) by September 30, 2017; a 35% reduction by September 30, 2020; a 65% reduction by September 30, 2023; and a 100% reduction by September 30, 2026.

10. Review and revise the entire revised draft WMP for correct table and figure labeling and referencing.

The City shall submit a final WMP to the Los Angeles Water Board that satisfies all of the above conditions, and also includes all of the additional revisions submitted on April 27, 2015 as listed under "Los Angeles Water Board Review" above, no later than June 12, 2015.

Determination of Compliance with WMP

Pursuant to Part VI.C.6 of the LA County MS4 Permit, the City shall begin implementation of the approved WMP immediately. To continue to be afforded the opportunity to implement permit provisions within the framework of the WMP, the City must fully and timely implement all actions per associated schedules set forth in the approved WMP regardless of any contingencies indicated in the approved WMP (e.g., funding) unless a modification to the approved WMP, including any extension of deadlines where allowed, is approved by the Los Angeles Water Board pursuant to Part VI.C.6.a or Part VI.C.8.a.ii-iii. The Los Angeles Water Board will determine the City's' compliance with the WMP on the basis of the compliance actions and milestones included in the WMP, including, but not limited to, the following:

- Section 1.8 "Selection of Watershed Control Measures"
- Section 1.8.1 "Minimum Control Measures (MCMs)"
- Section 1.8.2 "Non-Storm Water Discharge Control Measures"
- Section 1.8.3 "TMDL Control Measures"
- Section 1.8.4 "Existing and Planned Structural Control Measures," including Figure 10 (as revised on April 27, 2015)
- Table 1-9 "LA River Copper" (as revised on April 27, 2015)
- Table 1-10 "LA River Lead" (as revised on April 27, 2015)
- Table 1-11 "LA River Zinc" (as revised on April 27, 2015)
- Table 1-14 "LA River Bacteria" (as revised on April 27, 2015)
- Table 1-15 "Legg Lake Modeled Nutrients Reduction Required"
- Table 1-19 "San Gabriel River Lead" (as revised on April 27, 2015)
- Table 1-20 "San Gabriel River Bacteria" (as revised on April 27, 2015)
- Table 1-21 "TMDL Summary and Action Required" (as revised on April 27, 2015)
- Table 1-23 "Los Angeles River Trash TMDL BMP Implementation Schedule"
- Table 1-24 "Legg Lake Trash and Nutrients TMDL BMP Implementation Schedule"
- Table 1-25 "TMDL Milestones for Los Angeles River"
- Table 1-26 "TMDL Milestones for San Gabriel River"

Pursuant to Parts VI.C.3 and VI.E.2.d.i.(4)(a) of the LA County MS4 Permit, the City's full and timely compliance with all actions and dates for their achievement in its approved WMP shall constitute compliance with permit provisions pertaining to applicable WQBELs/WLAs in Part VI.E and Attachment O and P of the LA County MS4 Permit. Further, per Part VI.C.2.b of the LA County MS4 Permit, the City's' full compliance with all requirements and dates for their achievement in its approved WMP constitutes compliance with the receiving water limitations provisions of Part V.A of the LA County MS4 Permit for the specific waterbody-pollutant combinations addressed by the approved WMP.

If the City fails to meet any requirement or date for its achievement in the approved WMP, which will be demonstrated through the City's' Annual Reports and program audits (when conducted), the City shall be subject to the baseline requirements of the LA County MS4 Permit, including but not limited to demonstrating compliance with applicable receiving water limitations and TMDL-based WQBELs/WLAs through outfall and receiving water monitoring. See Parts VI.C.2.c and VI.E.2.d.i.(4)(c).

Annual Reporting

The City shall report on achievement of actions and milestones within the reporting year, as well as progress towards future milestones related to multi-year projects, through its Annual Report per Attachment E, Part XVIII of the LA County MS4 Permit. For multi-year efforts, the City shall include the status of the project, which includes the status with regard to standard project implementation steps. These steps include, but are not limited to, adopted or potential future changes to municipal ordinances to implement the project, site selection, environmental review and permitting, project design, acquisition of grant or loan funding and/or municipal approval of project funding, contractor selection, construction schedule, start-up, and effectiveness evaluation (once operational), where applicable. For all stormwater retention projects, LID due to new/redevelopment, and green streets, the City shall report annually on the volume of stormwater retained in each subwatershed area (i.e., Legg Lake subwatershed, Rio Hondo subwatershed, and San Gabriel River subwatershed).

The City shall also include in its Annual Report the source(s) of funds used during the reporting year, and those funds proposed for the coming year, to meet necessary expenditures related to implementation of the actions identified in its WMP per Part VI.A.3 of the LA County MS4 Permit. Further, as part of the annual certification concerning a permittee's legal authority required by Part VI.A.2.b of the LA County MS4 Permit, the City shall also certify in the Annual Report that it has the necessary legal authority to implement each of the actions and milestones in the approved WMP as required by Part VI.C.5.b.iv.(6). If the City does not have legal authority to implement an action or milestone at the time it submits the Annual Report, the City shall propose a schedule to establish and maintain such legal authority.

Adaptive Management

The City shall conduct a comprehensive evaluation of its WMP no later than April 28, 2017, and subsequently, every two years thereafter pursuant to the adaptive management process set forth in Part VI.C.8 of the Los Angeles County MS4 Permit. As part of this process, the City must evaluate progress toward achieving:

- Applicable WQBELs/WLAs in Attachment O and P of the LA County MS4 Permit according to the milestones set forth in its WMP;
- Improved water quality in MS4 discharges and receiving waters;
- Stormwater retention milestones; and
- Multi-year efforts that were not completed in the current year and will continue into the subsequent year(s), among other requirements.

The City's evaluation of the above shall be based on both progress implementing actions in the WMP and an evaluation of outfall-based monitoring data and receiving water data. Per Attachment E, Part XVIII.6 of the LA County MS4 Permit, the City shall implement adaptive management strategies, including but not limited to:

- Refinement and recalibration of the Reasonable Assurance Analysis (RAA) based on data specific to the City's WMP area that are collected through the City's Integrated Monitoring Program and other data as appropriate;
- Identifying the most effective control measures, why they are the most effective, and how other control measures can be optimized based on this understanding;
- Identify the least effective control measures, why they are ineffective, and how the control measures can be modified or replaced to be more effective;
- Identify significant changes to control measures during the prior year(s) and the rationale for the changes; and
- Describe all significant changes to control measures anticipated to be made in the next year(s) and the rationale for each change.

As part of the adaptive management process, any modifications to the WMP, including any requests for extension of deadlines not associated with TMDL provisions, must be submitted to the Los Angeles Water Board for review and approval. The City must implement any modifications to the WMP upon approval by the Los Angeles Water Board or its Executive Officer, or within 60 days of submittal of modifications if the Los Angeles Water Board or its Executive Officer expresses no objections. Note that the City's Report of Waste Discharge (ROWD) is due no later than July 1, 2017. To align any modifications to the WMP proposed through the adaptive management process with permit reissuance, results of the first adaptive management cycle should be submitted in conjunction with the City's ROWD.

The Los Angeles Water Board appreciates the participation and cooperation of the City in the implementation of the LA County MS4 Permit. If you have any questions, please contact Ivar Ridgeway, Storm Water Permitting, at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Jesus Gomez, Assistant City Manager
Edmond Suher, Senior Project Engineer, CASC Engineering and Consulting

WATERSHED MANAGEMENT PROGRAM

City of El Monte, California

June 2015

City of El Monte

Department of Public Works

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RB-AR5075

TABLES

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ACRONYMS AND ABBREVIATIONS

Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BMP	Best Management Practices
CCR	California Code of Regulations
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City	City of El Monte
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
Discharger	Los Angeles County MS4 Permittee
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	California Department of Public Health Environmental Laboratory Accreditation Program
EWMP	Enhanced Watershed Management Program
GIS	Geographical Information System
gpd	gallons per day
HUC	Hydrologic Unit Code
IC/ID	Illicit Connection and Illicit Discharge Elimination
LA	Load Allocations
LACDPW	Los Angeles County Department of Public Works
LID	Low Impact Development
µg/L	micrograms per Liter
MCM	Minimum Control Measure
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
ND	Not Detected

NPDES	National Pollutant Discharge Elimination System
NTR	National Toxics Rule
Ocean Plan	Water Quality Control Plan for Ocean Waters of California
Order	Order R4-2012-0175 ("the Los Angeles County MS4 Permit")
Permittee	Agency named in Order as being responsible for permit conditions within its jurisdiction
PIPP	Public Information and Participation Program
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RAA	Reasonable Assurance Analysis
Regional Water Board	California Regional Water Quality Control Board, Los Angeles Region
SIC	Standard Industrial Classification
State Water Board	California State Water Resources Control Board
SWQDv	Storm Water Quality Design Volume
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TSS	Total Suspended Solids
USEPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WDID	Waste Discharge Identification
WLA	Waste Load Allocations
WMA	Watershed Management Area
WMMS	Watershed Management Modeling System
WMP	Watershed Management Program
WQBELs	Water Quality-Based Effluent Limitations
WQO	Water Quality Objective
WQS	Water Quality Standards

EXECUTIVE SUMMARY

The National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Order R4-2012-0175 (Order) became effective on December 28, 2012. The Order ensures that the MS4s are not causing or contributing to exceedances of water quality objectives (WQOs) and that the beneficial uses of receiving waters are supported. The Order gives Permittees some flexibility on how to meet the requirements of the Order and its accompanying Monitoring and Reporting Program (MRP).

The City is located in two watersheds which are the Los Angeles River Watershed and the San Gabriel River Watershed. Water quality in these two watersheds has been identified as impaired by:

- Bacteria
- Copper
- Lead
- Zinc
- Cadmium
- Cyanide
- Trash
- Nitrogen Compounds
- Nutrients
- Diazinon

The City of El Monte (City) has chosen to exercise the option of developing a Watershed Management Program (WMP) and accompanying Integrated Monitoring Program (IMP) to meet the requirements of the Order. This WMP outlines the process for complying with the requirements of the Order for each of the City's Watershed Management Areas (WMA) and includes the following:

- Identification of water quality priorities
- Water quality characterization
- Pollutant classification
- Source assessment
- Prioritization and sequencing of control efforts based on impairments
- Selection of watershed control measures

- Reasonable Assurance Analysis (RAA) including pollutant modeling and load reduction

The WMP also includes details of the following:

- Implementation schedules for structural and nonstructural BMPs
- Integrated watershed monitoring and assessment
- Stakeholder involvement
- Adaptive management process and elements

The program set forth in the WMP will be implemented over time. Adaptive management processes will be implemented as part of the WMP to evaluate the success of the WMP in achieving its objectives, and based on the outcome of the evaluations, the WMP will be adjusted.

The near-term critical elements of the WMP include the requirements for the City to address the pollutants with Total Daily Maximum Loads (TMDLs) and State listed impairments as well as other exceedances. The long-term requirements of the City will be to monitor receiving waters and outfalls to receiving waters to ensure that it is not causing or contributing to exceedances of WQOs or affecting beneficial uses. The modeled results indicate that the City is in compliance with metals and nitrogen compounds TMDLs but will need to implement BMPs to achieve reductions for nutrients and trash. A Load Reduction Strategy will be developed to address the bacteria TMDL.

As part of the early actions and consistent with the Order, the City drafted a Low Impact Development (LID) Ordinance and Green Streets policy. The LID Ordinance outlines strategies for the incorporation of infiltration devices as a shift from storm water treatment to the use of devices and policies that promote the capture, re-use, and infiltration of stormwater. The draft LID Ordinance was reviewed by Board staff and all staff comments (including those comments issued in a Memo to all Permittees on April 16, 2014) were incorporated into the LID Ordinance which was then adopted by the El Monte City Council on June 10, 2014. Board comments were also incorporated into the City's final Green Streets Policy and the policy has been put into effect. New Development and Redevelopment Projects are being conditioned by the LID Ordinance and Green Street elements are being incorporated into applicable municipal and private projects. A certified copy of the LID Ordinance and a copy of the Green Streets Policy are included in Appendix A

The City is dedicated to informing their citizens, municipal staff, and developers of the importance or water quality as evidenced by the City's continued distribution of educational materials at community activities and special events and distribution of free devices to encourage recycling of used oil and waste products. The City has provided every citizen and business with a DVD of information entitled "Green Street Scene" to further inform residents and businesses regarding water use and water quality. The City is also active with local stakeholder groups to improve water quality through education and the modification of areas within the City (parks, trails, etc.) in order to promote storm water infiltration, capture, and re-use.

SECTION 1 - WATERSHED MANAGEMENT PROGRAM DEVELOPMENT

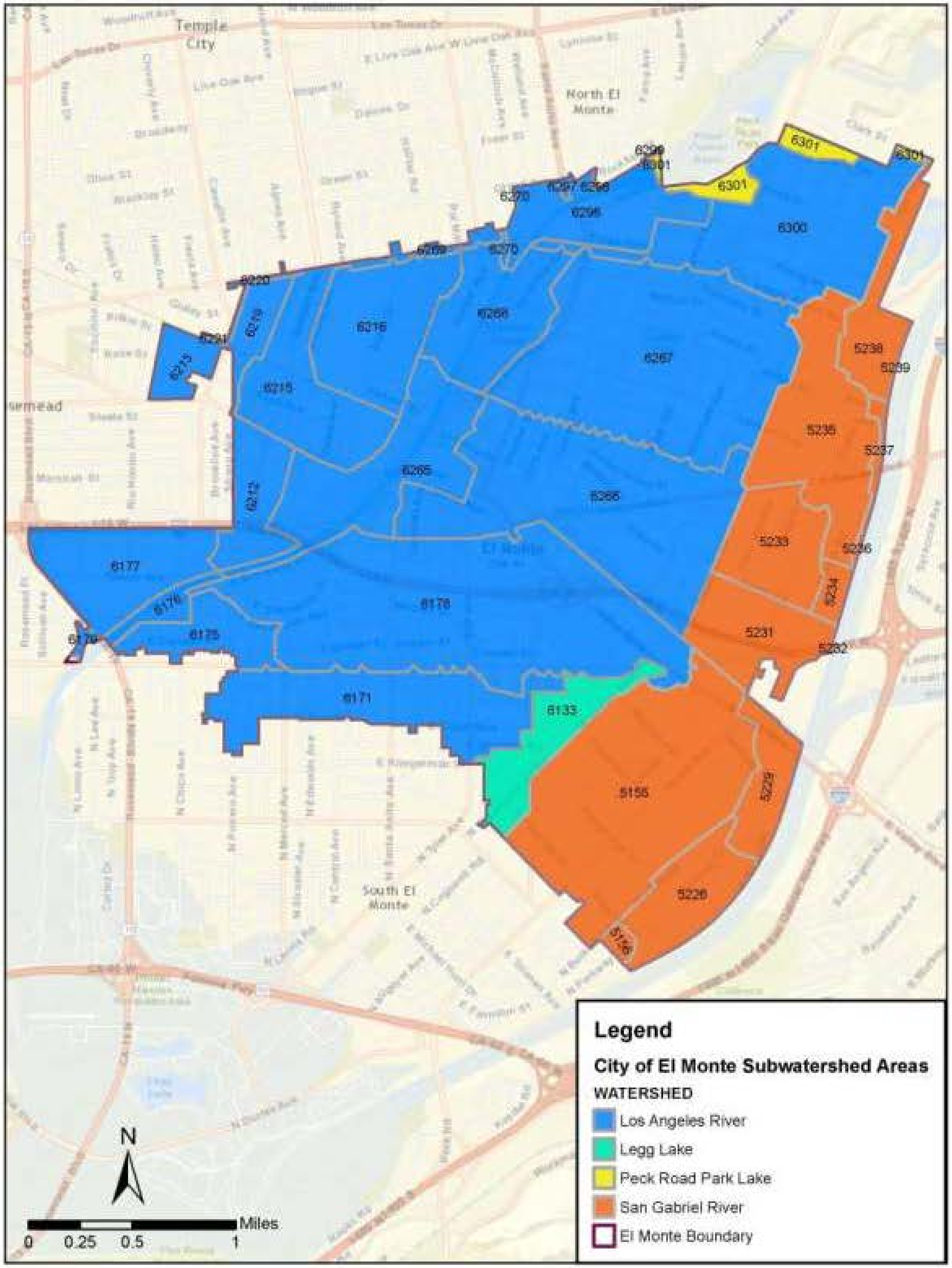
Storm water and non-storm water discharges within the Coastal Watersheds of Los Angeles County consist of surface runoff from various land uses. This runoff enters the Municipal Separate Storm Sewer System (MS4), commonly referred to as the storm drain system, which then conveys the discharges to receiving waters throughout the region. Discharges of storm water and non-storm water can carry pollutants which can have a damaging effect on both human and aquatic health. The Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) Program to regulate MS4 discharges. The Los Angeles Regional Water Quality Control Board (Regional Water Board) issued Order Number R4-2012-0175 to address MS4 discharges within the Coastal Watershed of Los Angeles County. The Order was adopted by the Regional Water Board on November 8, 2012 and became effective December 28, 2012. The Order allows Permittees the flexibility to develop a Watershed Management Program (WMP) to implement the requirements of the Order through customized strategies, control measure, and Best Management Practices (BMPs). This document describes the steps, processes, implementation, and timelines associated with the City of El Monte's Watershed Management Program (WMP).

1.1. IDENTIFICATION OF WATER QUALITY PRIORITIES

The Order requires Permittees to identify water quality priorities within each Watershed Management Area (WMA). The Order redefines WMAs consistent with the delineations used in the Regional Water Board's Watershed Management Initiative. A map depicting El Monte's WMAs is shown in Figure 1-1. The subwatersheds and drainage areas to each WMA (Los Angeles River or San Gabriel River) are shown in Figure 1-2 and Table 1-1. The process for identifying the water quality priorities within each WMA is broken into Water Quality Characterization, Water Body Pollutant Classification, Source Assessment, and Prioritization. Each category is explained in detail in the sections below.

Figure 1-1: Watershed Management Areas

Figure 1-2: Subwatersheds



The four digit number represents the identification number for the particular subwatershed.

Table 1-1: List of Subwatersheds within City of El Monte

Subwatershed ID	Area (ac)	Water Body
5155	584.99	San Gabriel River
5156	8.91	San Gabriel River
5226	150.69	San Gabriel River
5229	91.05	San Gabriel River
5231	155.87	San Gabriel River
5233	150.81	San Gabriel River
5234	24.97	San Gabriel River
5235	283.21	San Gabriel River
5236	2.66	San Gabriel River
5237	16.3	San Gabriel River
5238	112.38	San Gabriel River
5239	0.33	San Gabriel River
6133	129.58	Legg Lake
6171	287.93	Los Angeles River
6174	0.16	Los Angeles River
6175	101.04	Los Angeles River
6176	34.88	Los Angeles River
6177	208.19	Los Angeles River
6178	778.58	Los Angeles River
6179	5.82	Los Angeles River
6212	111.43	Los Angeles River
6213	51.23	Los Angeles River
6215	215.27	Los Angeles River
6216	231.36	Los Angeles River
6219	52.71	Los Angeles River
6220	3.51	Los Angeles River
6221	1.3	Los Angeles River
6265	277.08	Los Angeles River
6266	579.69	Los Angeles River
6267	655.75	Los Angeles River
6268	197.11	Los Angeles River
6269	15.81	Los Angeles River
6270	1.65	Los Angeles River
6296	170.88	Los Angeles River
6297	1.47	Los Angeles River
6299	0.23	Los Angeles River
6300	397.06	Los Angeles River

The total acreage for the subwatersheds within the City's jurisdiction is approximately 6,131 acres.

1.2. RECEIVING WATER QUALITY CHARACTERIZATION

In order to support identification and prioritization of management actions, the Order requires Permittees to provide an evaluation of existing water quality conditions within each WMA. Monitoring data for sites within the Los Angeles River and San Gabriel River WMAs were reviewed. The sources of the data researched included monitoring data from:

- Council for Watershed Health (CWH)
- California Environmental Data Exchange Network (CEDEN)
- Los Angeles County Sanitation District (LACSD)
- Los Angeles County Department of Public Works (LACDPW) Annual StormWater Monitoring Reports (2008-2014)
- LACDPW Stormwater Monitoring Reports (2002-2003, 2003-2004)

The CWH monitoring had limited data for sites within the Los Angeles and San Gabriel River WMAs. A search of CEDEN revealed no monitoring data within the two WMAs. The 2012-2013 LACDPW Annual Stormwater Monitoring Report provided the most recent and relevant data for the receiving water conditions in both WMAs. Also reviewed were the 2010 303(d) Listing, the State's Listing Policy, and documents for TMDLs for which the City is listed as a responsible party.

The pollutants detected in the various monitoring programs and databases were used to characterize the receiving waters within each WMA.

Monitoring data for each receiving water is summarized in the following subsections:

1.2.1 LOS ANGELES RIVER

Mass Emissions Site S10 monitoring summary (2012-2013 LACDPW Annual Stormwater Monitoring Report): E.coli concentrations were above the water quality objective (WQO) of 235 MPN/100ml during all seven storm events monitored for bacteria. E.coli concentrations ranged from 8,310 to 57,300 MPN/100mL. pH was not within the WQO range of 6.5- 8.5 pH units for one of the eight wet weather samples. Dissolved copper concentrations were above the hardness-based WQO for all eight wet weather samples collected. Dissolved copper concentrations ranged from 19.4 to 77.2 ug/L. Hardness values ranged from 40 to 200 mg/L. Dissolved lead was above the hardness-based WQO for one of the eight wet weather samples collected. Dissolved lead concentrations ranged from 7.75 to 70.0 ug/L. Dissolved zinc concentrations were above the hardness-based WQO for all but one of the samples collected. Dissolved zinc concentrations ranged from 117 to 665 ug/L. E.coli did not meet the applicable WQO for one of the two monitored dry weather events. E.coli concentrations ranged from 46 to 959 MPN/100mL. Cyanide was above the WQO of 0.022mg/L during one of the two dry weather events. Cyanide concentrations ranged from 0.015 to 0.026 mg/L. PH was not within the QWO range of 6.5-8.5 pH units during one of the two dry weather events[1].

Tributary Monitoring Site TS06 (Rio Hondo) summary: During wet weather (2002-2003), total coliform, fecal coliform, and fecal enterococcus exceeded the public health criteria for the Basin Plan for each storm 100% of the time. Diazinon was exceeded in 40% of the samples. Total zinc exceeded the Ocean Plan water quality standard. Samples exceeded the California Toxic Rule (CTR) water quality standard 100% of the time for dissolved copper and 40% of the time for dissolved lead. No exceedances were identified during dry weather (2002-2003). Similar results were observed during wet weather (2003-2004) with total coliform, fecal coliform, and fecal enterococcus exceeding the public health criteria for the Basin Plan for each storm 100% of the time. Diazinon was exceeded in 25% of the samples. Total copper and total lead samples exceeded the Ocean Plan water quality standard. During dry weather (2003-2004), the ratio of fecal coliform to total coliform Basin Plan water quality standard was exceeded 50% of the time. Cyanide and total copper exceeded the Ocean Plan water quality standard in 100% of the samples and zinc exceedances were observed in 50% of the samples. Dissolved copper exceeded the CTR water quality standard in 50% of the samples.

The pollutants of concern for the Los Angeles River are:

- E.coli, total coliform, fecal coliform, and fecal enterococcus
- Copper
- Lead
- Zinc

[1] (Source: Los Angeles County Department of Public Works (LACDPW) Annual Stormwater Monitoring Report, 2012-2013)

- Cyanide
- Trash
- Diazinon
- Cadmium
- Nitrogen Compounds

1.2.2 SAN GABRIEL RIVER

Mass Emissions Site S14 monitoring summary: E.coli concentrations were above the water quality objective (WQO) of 235 MPN/100ml during all five storm events monitored for bacteria. E.coli concentrations ranged from 1,842 to 127,400 MPN/100mL. pH was not within the WQO range of 6.5-8.5 pH units for one of the five wet weather samples. Dissolved copper concentrations were above the hardness-based WQO for two of the five wet weather samples collected. Dissolved copper concentrations ranged from 8.53 to 32.7 ug/L. Hardness values ranged from 90 to 210 mg/L. Dissolved zinc concentrations were above the hardness-based WQO for one of the five samples collected. Dissolved zinc concentrations ranged from 69.9 to 286 ug/L. Cyanide was above the WQO of 0.022mg/L for one storm event. Cyanide concentrations ranged from non-detect to 0.031 mg/L. No dry weather samples were collected due to dry conditions (no flow).

The pollutants of concern for the San Gabriel River are:

- E.coli
- Copper
- Zinc
- Cyanide
- Lead

1.2.3 LEGG LAKE

Legg Lake data summary: according to the 2010 303(d) list, Legg Lake is impaired for Ammonia, Copper, Lead, Odor, pH, and Trash. There is also a Nutrient TMDL for Legg Lake. According to the TMDL document, there was one ammonia exceedance in 50 samples. Therefore, Legg Lake meets ammonia water quality standards and the USEPA concludes that preparing a TMDL for ammonia is unwarranted at this time. The U.S. EPA recommends that Legg Lake not be identified as impaired for ammonia in

California's next 303 (d) listing[2]. In addition to the impairments listed on the 303(d) list, Legg Lake also has a trash TMDL and a nutrient TMDL (Los Angeles Area Lakes TMDL).

The pollutants of concern for Legg Lake are:

- Ammonia
- Copper
- Lead
- Nutrients (Nitrogen and Phosphorus)
- Trash

1.2.4 PECK ROAD PARK LAKE

Peck Road Park Lake data summary: The Peck Road Park Lake Chlordane impairment is primarily due to historical loading and storing within the lake sediments, with some ongoing contribution by watershed wet weather loads. Elevated fish tissue concentrations of Chlordane is primarily due to the storage of historic loads of Chlordane in the lake sediments. Watershed loads of Chlordane may arise from past pesticide applications, improper disposal, and atmospheric deposition (and possible erosion of Chlordane contaminated soils). There is no definitive information on specific sources within the watershed at this time. Chlordane is no longer in use and fish tissue concentrations are likely to decline. Total Chlordane concentrations in water flowing into Peck Road Park Lake are below detection limits, and most Chlordane load is expected to move in association with sediment[3].

The Dichlorodiphenyltrichloroethane (DDT) impairment present 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. Watershed loads of DDT may arise from past pesticide applications, improper disposal, and atmospheric deposition. There is no definitive information on specific sources of elevated DDT within the watershed at this time. Incoming loads of DDT will mainly be absorbed to sediment particles conveyed by stormwater runoff (eroded from legacy contaminations sites or from atmospheric conditions). DDT in water flowing into Peck Road Park Lake are below detection limits, and most DDT load is expected to move in association with sediment. The legacy DDT stored in lake sediment is the major cause of exposure to aquatic organisms and sport fish. DDT, like PCBs and

[2] Source: U.S. EPA Los Angeles Area Lakes TMDLs, March 2012.
[3] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012.

Chlordane is an organochlorine compound that is strongly sorbed to sediments and lipids and is no longer in production[4].

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. There is no definitive information on specific sources of Dieldrin within the watershed at this time. Dieldrin is a chlorinated insecticide originally developed as an alternative to DDT and was in use from the 1950s to the 1970s. Dieldrin in the environment arises from the use of the insecticide Aldrin. The use of both Dieldrin and Aldrin was discontinued in the 1970s. Dieldrin, like PCBs, Chlordane and DDT is an organochlorine compound that is strongly sorbed to sediments and lipids (fats) and is no longer in production. Most Dieldrin load is expected to move in association with sediment. Stormwater loads from the watershed could not be directly estimated because all sediment and water sample results were below detection limits. The manufacture and use of Dieldrin is currently banned[5].

Trash is an impairment at Peck Road Park Lake and is comprised of plastic bags, plastic pieces, paper items, plastic and glass bottles, Styrofoam, bottle caps, and cigarette butts. Uncovered trash cans at the lake can be a source of trash and the trash can be transported by wind and animals. The largest accumulations of trash were observed near picnic areas, near industrial facilities, and near the ends of storm drain outfalls discharging to the lake. The major source of trash in Peck Road Park Lake is due to littering, either intentional or accidental.

The pollutants of concern for Peck Road Park Lake are:

- Nutrients (Nitrogen and Phosphorus)
- PCBs
- DDT
- Dieldrin
- Trash

[4] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012
[5] Source: U.S. EPA, Los Angeles Area Lakes TMDLs, March 2012

1.3. DISCHARGE WATER QUALITY CHARACTERIZATION

Two outfalls in the City were selected for characterizing discharge water quality from the City. The two outfalls were sampled during dry weather in December 2013 and again during a rain event (wet weather) in February 2014. The results of these two sampling events provide information on the current characteristics of dry weather and wet weather discharges from the City's jurisdiction.

A map showing the locations of the two outfalls and their corresponding drainage areas and corresponding land use are shown in Figures 1-3 and 1-4, respectively. A drainage area land use comparison is shown in Table 1-2. Analytical results are provided in Tables 1-3 and 1-4. Copies of the Chain of Custody Records and Laboratory Reports for the discharge characterization sampling are included in Appendix B.

Figure 1-3: Dry and Wet Weather Outfall Monitoring Locations

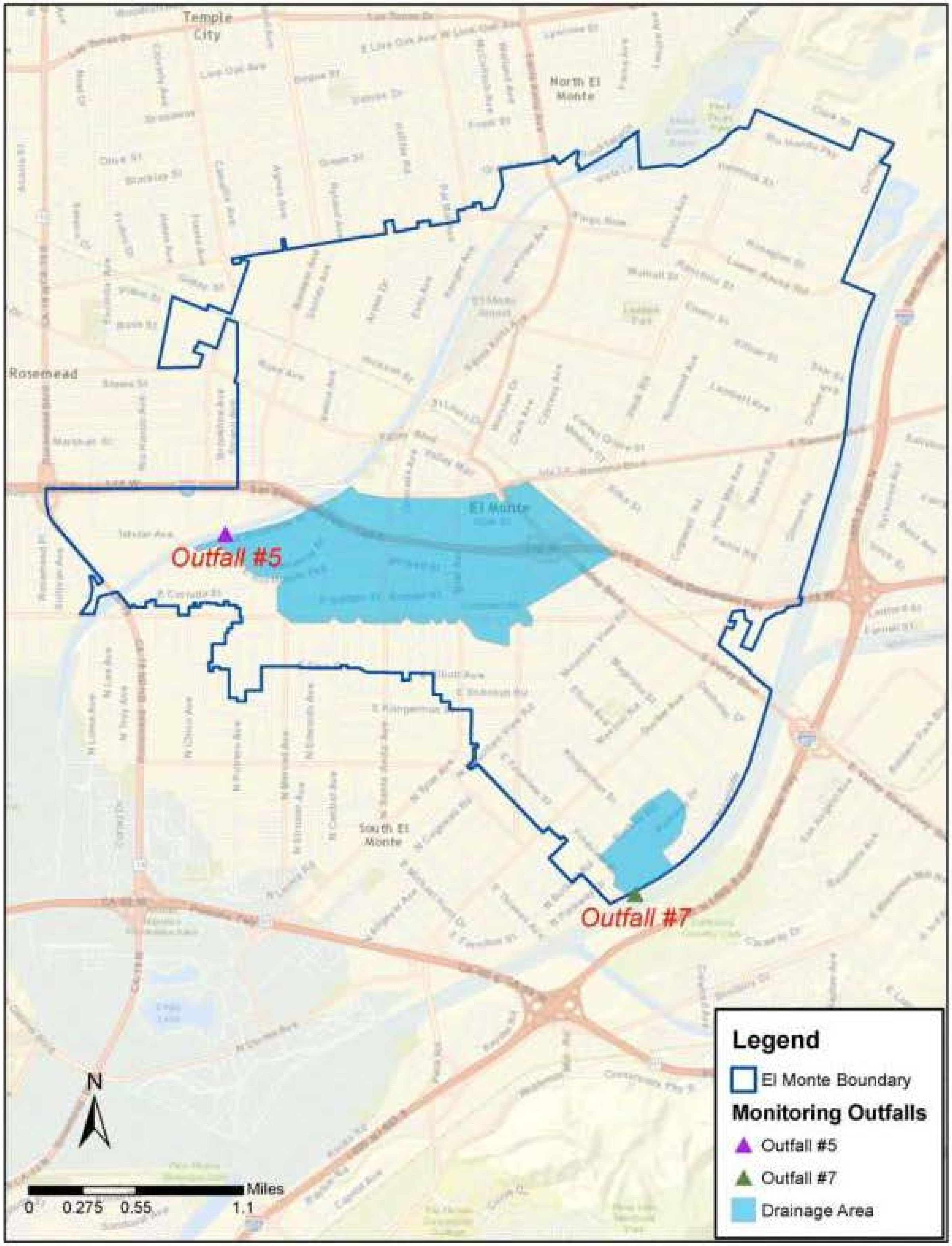


Figure 1-4: Dry and Wet Weather Outfall Drainage Area Land Use

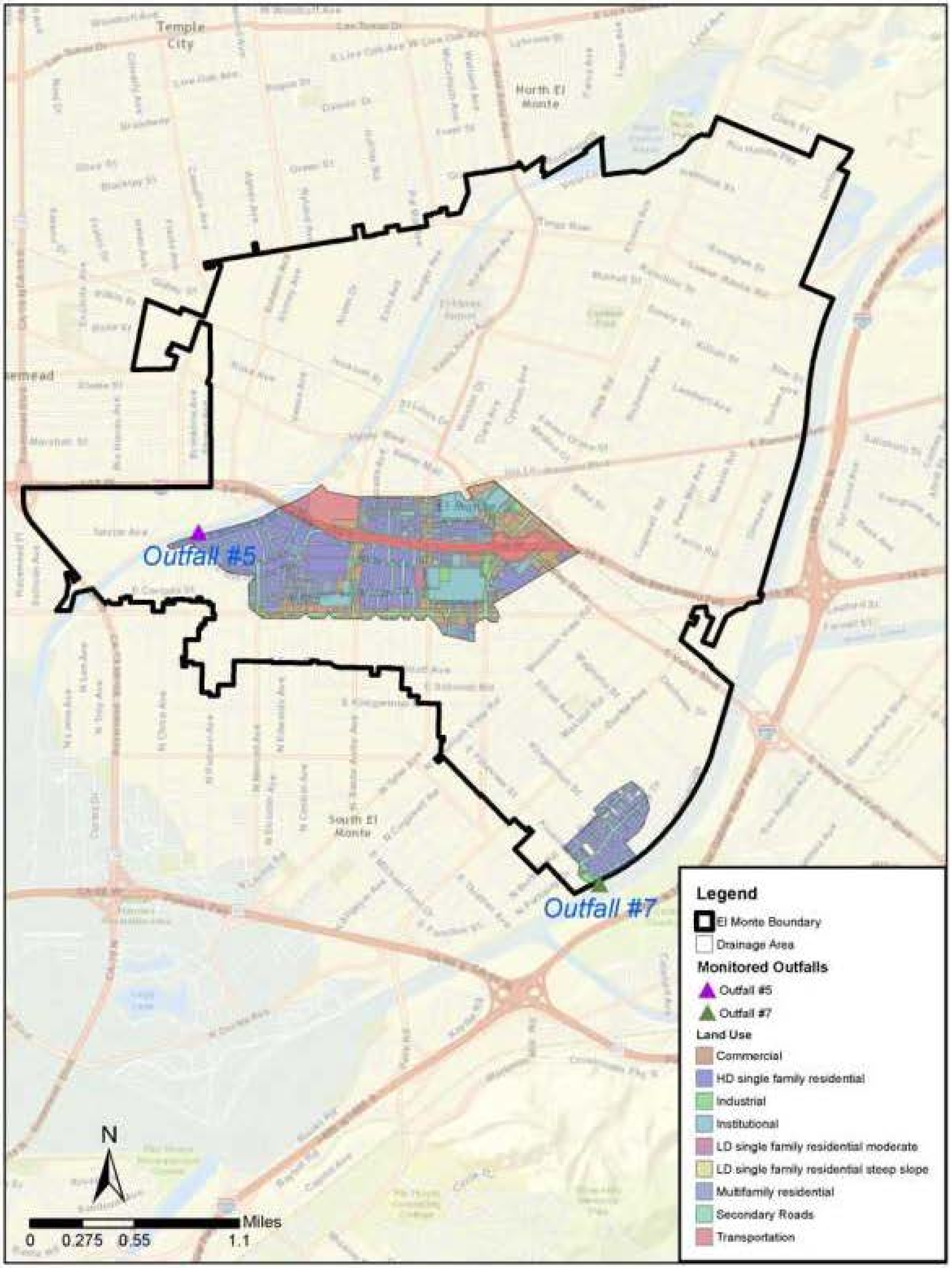


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Table 1-2: Drainage Area Land Use Comparison

Land Use Type	Land Use within drainage area to Outfall 5	Land Use within drainage area to Outfall 7	City Land Use
Residential	41%	71%	58%
Industrial/Commercial/Retail	15.1%	2.3%	10%
Office	11%	0%	7%
Other Amenities	32.9%	26.7%	14%

The land use within the drainage area for Outfall 5 more closely resembles that of the entire city. The land use within the drainage area of Outfall 7 more closely resembles the residential sections of the city. The data from samples collected from Outfall 5 provide information on the types and concentrations of pollutants being discharged from a mixed residential/commercial/other amenities area while data from Outfall 7 provides information on the types and concentration of pollutants being discharged from predominately residential areas. The outfall data collected from the two types of land use provide useful information for identifying the types of pollutants associated with each land use.

Table 1-3: Outfall No. 5 - Dry and Wet Weather Sampling Results

Outfall #	Constituent	Dry Weather Results	Wet Weather Results	Outfall Receiving Water Body
5	Oil & Grease	ND	ND	Rio Hondo
5	TKN	0.32 mg/L	0.91 mg/L	Rio Hondo
5	NO2 +NO3 as N	180 ug/L	590 ug/L	Rio Hondo
5	Total Phosphorus as P	0.052 mg/L	0.076 mg/L	Rio Hondo
5	Total Dissolved Solids	180 mg/L	190 mg/L	Rio Hondo
5	Total Suspended Solids	ND	ND	Rio Hondo
5	Total Nitrogen	0.50 mg/L	1.50 mg/L	Rio Hondo
5	Total Copper	0.010 mg/L	0.016 mg/L	Rio Hondo
5	Total Lead	ND	ND	Rio Hondo
5	Total Selenium	ND	ND	Rio Hondo
5	Total Zinc	ND	ND	Rio Hondo
5	Total Coliform	20 MPN/100 ml	10,000 MPN/100 ml	Rio Hondo
5	Fecal Coliform	1,700 MPN/100 ml	260 MPN/100 ml	Rio Hondo
5	E. coli	20 MPN/100 ml	260 MPN/100 ml	Rio Hondo
5	1-Methylnaphthalene	ND	ND	Rio Hondo
5	2-Methylnaphthalene	ND	ND	Rio Hondo
5	Acenaphthene	ND	ND	Rio Hondo
5	Acenaphthyene	ND	ND	Rio Hondo
5	Anthracene	ND	ND	Rio Hondo
5	Benzo (a) anthracene	ND	ND	Rio Hondo
5	Benzo (b) pyrene	ND	ND	Rio Hondo
5	Benzo (b) fluoranthene	ND	ND	Rio Hondo
5	Benzo (g, h, i) perylene	ND	ND	Rio Hondo
5	Benzo (k) fluoranthene	ND	ND	Rio Hondo
5	Chrysene	ND	ND	Rio Hondo
5	Dibenzo (a, h) anthracene	ND	ND	Rio Hondo
5	Fluoranthene	ND	ND	Rio Hondo
5	Fluorene	ND	ND	Rio Hondo
5	Indeno (1,2,3-cd) pyrene	ND	ND	Rio Hondo
5	Naphthalene	ND	ND	Rio Hondo
5	Phenanthrene	ND	ND	Rio Hondo
5	Pyrene	ND	ND	Rio Hondo

Table 1-4: Outfall No. 7 - Dry and Wet Weather Sampling Results

Outfall #	Constituent	Dry Weather Results	Wet Weather Results	Outfall Receiving Water Body:
7	Oil & Grease	ND	ND	San Gabriel River
7	TKN	2.6 mg/L	4.6 mg/L	San Gabriel River
7	NO2 +NO3 as N	4,000 ug/L	2,000 ug/L	San Gabriel River
7	Total Phosphorus as P	0.63 mg/L	1.2 mg/L	San Gabriel River
7	Total Dissolved Solids	460 mg/L	130 mg/L	San Gabriel River
7	Total Suspended Solids	21 mg/L	230 mg/L	San Gabriel River
7	Total Nitrogen	6.6 mg/L	6.6 mg/L	San Gabriel River
7	Total Copper	0.034 mg/L	0.72 mg/L	San Gabriel River
7	Total Lead	0.0056 mg/L	0.32 mg/L	San Gabriel River
7	Total Selenium	ND	ND	San Gabriel River
7	Total Zinc	0.084 mg/L	0.29 mg/L	San Gabriel River
7	Total Coliform	14,000 MPN/100 ml	28,000 MPN/100 ml	San Gabriel River
7	Fecal Coliform	90,000 MPN/100 ml	1,400 MPN/100 ml	San Gabriel River
7	E. coli	14,000 MPN/100 ml	1,400 MPN/100 ml	San Gabriel River
7	1-Methylnaphthalene	ND	ND	San Gabriel River
7	2-Methylnaphthalene	ND	ND	San Gabriel River
7	Acenaphthene	ND	ND	San Gabriel River
7	Acenaphthyene	ND	ND	San Gabriel River
7	Anthracene	ND	ND	San Gabriel River
7	Benzo (a) anthracene	ND	ND	San Gabriel River
7	Benzo (b) pyrene	ND	ND	San Gabriel River
7	Benzo (b) fluoranthene	ND	ND	San Gabriel River
7	Benzo (g, h, i) perylene	ND	ND	San Gabriel River
7	Benzo (k) fluoranthene	ND	ND	San Gabriel River
7	Chrysene	ND	0.14 ug/L	San Gabriel River
7	Dibenzo (a, h) anthracene	ND	ND	San Gabriel River
7	Fluoranthene	ND	0.19 ug/L	San Gabriel River
7	Fluorene	ND	ND	San Gabriel River
7	Indeno (1,2,3-cd) pyrene	ND	ND	San Gabriel River
7	Naphthalene	ND	ND	San Gabriel River
7	Phenanthrene	ND	0.12 ug/L	San Gabriel River
7	Pyrene	ND	0.15 ug/L	San Gabriel River

In summary, the discharge water quality characterization supports:

- Pollutant identification
- Modeled pollutant concentration correlation

1.4. WATERSHED CHARACTERISTICS

The City discharges primarily into two major watersheds, the San Gabriel River Watershed on the East and the Los Angeles River Watershed on the West. A small section (approximately 130 acres) in the south part of the City drains to Legg Lake.

1.4.1 GEOGRAPHIC SETTING

Located approximately 12 miles east of downtown Los Angeles, El Monte has a population of approximately 120,000. The City, located below the mountains, is relatively flat, and is between two majors drainage features, the San Gabriel River and the Rio Hondo. The Rio Hondo is a tributary of the Los Angeles River. The Rio Hondo also links the double watersheds of the Los Angeles and San Gabriel Rivers. Although it is now a major tributary of the Los Angeles River, the Rio Hondo once formed the main bed of the San Gabriel River. The six major tributaries of the Rio Hondo are the Alhambra, Rubio, Eaton, Arcadia, Santa Anita, and Sawpit Washes. (Source: "Rio Hondo Watershed Management Plan") http://www.rmc.ca.gov/plans/rio_hondo/Rio%20Hondo%20Water%20Management%20Plan_small.pdf

The San Gabriel River watershed is divided into three sections: upper watershed, lower watershed, and mainstem. The watershed drains into the San Gabriel River from the San Gabriel Mountains flowing 58 miles south until its confluence with the Pacific Ocean. Major tributaries to the San Gabriel River include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains entering from the 19 cities along the San Gabriel River. Channel flows pass through different sections in the San Gabriel River, diverting from the riverbed into four different spreading grounds, held behind several rubber dams for controlled flow and ground water recharge and controlled through 10 miles of concrete channel bottom from below Whittier Narrows Dam to past Coyote Creek. (Source: LA Department of Public Works – San Gabriel Watershed http://ladpw.org/wmd/watershed/sg/

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake. Below is a map showing the City of El Monte and the County of Los Angeles' drainage system. Additional field investigations verified that the City of El Monte does not discharge into Peck Road Park Lake.

Legg Lake is south of the City and receives runoff from a small portion of the City (approximately 130 acres).

Figure 1-5: City of El Monte GIS Shape File – MS4 Catch Basins and Drainage System

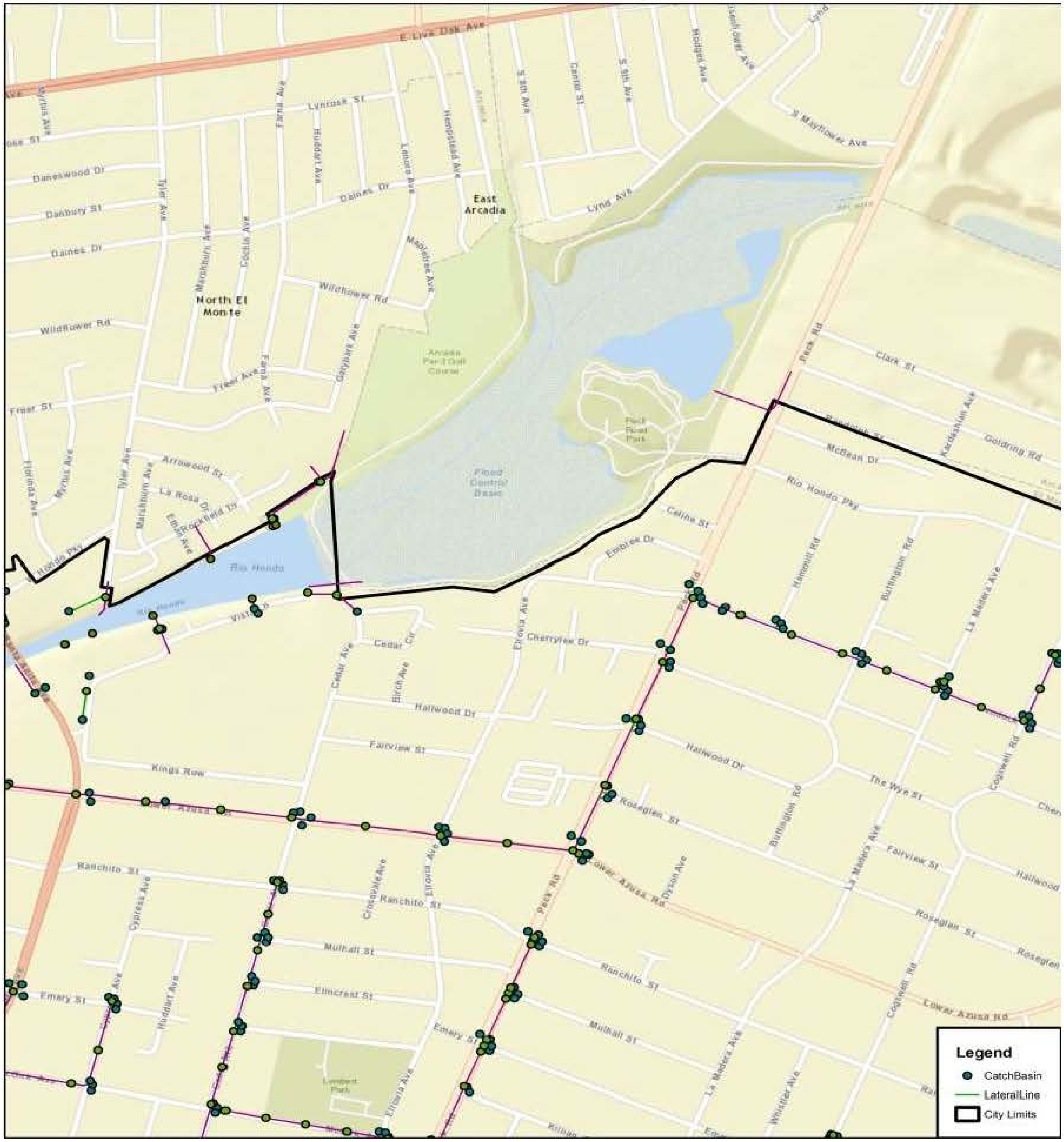
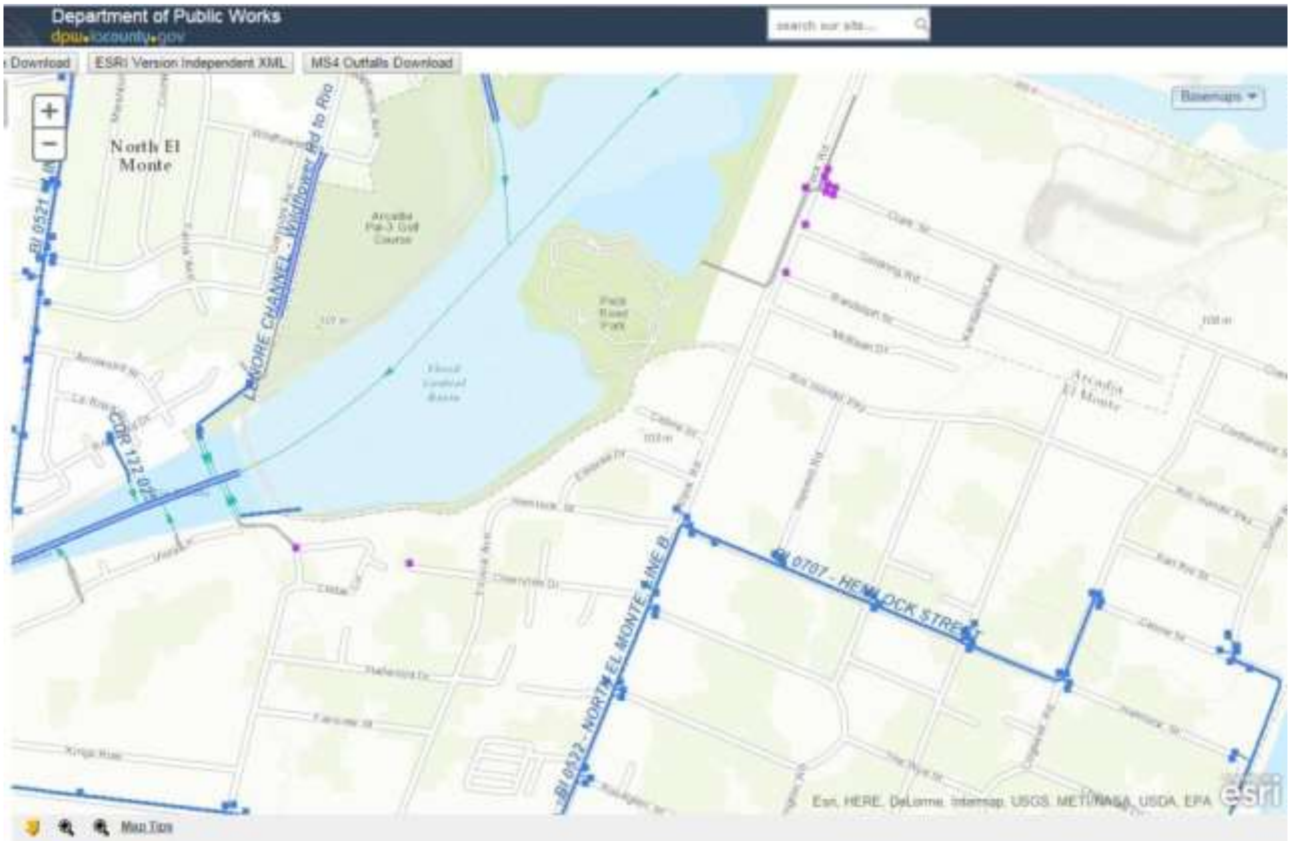


Figure 1-6: LA County Dept of Public Works GIS Shape File – MS4 Catch Basins and Drainage System



1.4.2 GEOLOGIC SETTING

In the northwestern half of the City, subsurface and surficial deposits tend to consist of varying amounts of sand, gravel, and silt layers that are incorporated within large, composite alluvial fans associated with the Alhambra, Rubio, Eaton, Arcadia, Santa Anita, and Sawpit washes. In the southeastern part of the City, flood plain and overbank deposits associated with the San Gabriel River make up most of the subsurface and surficial deposits.

1.4.3 CLIMATE

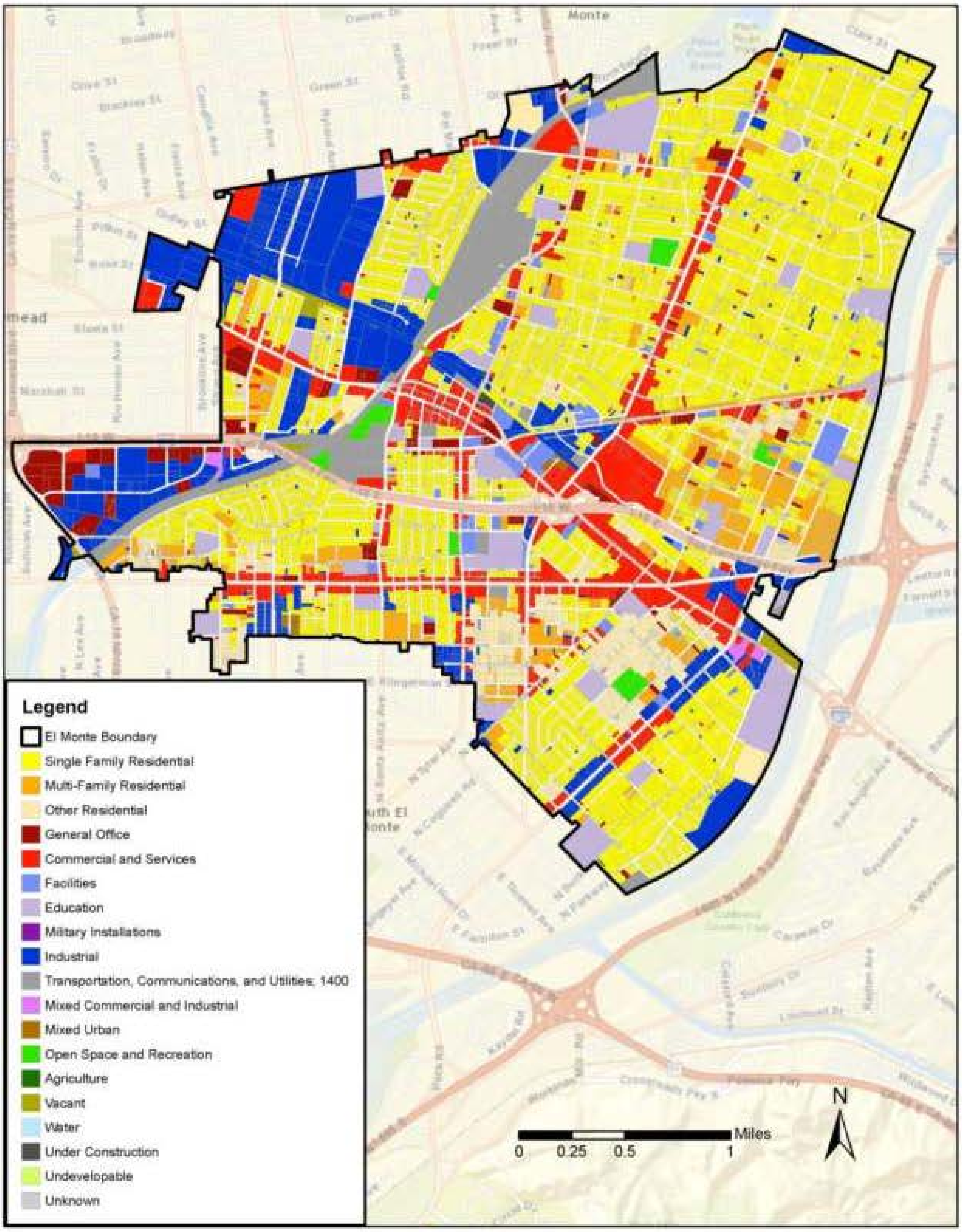
The El Monte climate is warm during summer when temperatures tend to be in the 70's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is August with an average maximum temperature of 90.20 degrees Fahrenheit, while the coldest month of the year is December with an average minimum temperature of 41.90 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 27 degrees Fahrenheit, and moderate during winter with an average difference of 27 degrees Fahrenheit. The annual average precipitation at El Monte is 18.56 Inches. Winter months tend to be wetter than summer months. The wettest month of the year is February with an average rainfall of 4.66 Inches. (Source: www.idcide.com/**weather/ca/el-monte**.htm)

1.4.4 LAND USE

The land uses within the City's approximate 10 square mile area are comprised of 58 percent residential, 11 percent retail, 10 percent industrial, 7 percent office/retail, and 14 percent other of amenities[6]. See Figure 1-7 for a map of land use.

[6] Source: City of El Monte website- General Description.

Figure 1-7: Land Use Map



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1.5. WATER BODY POLLUTANT CLASSIFICATION

On the basis of the evaluation of existing water quality conditions, Water Body-Pollutant Combinations (WBPCs) will be classified into one of the following three categories:

- Category 1 (Highest Priority) Pollutants for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E TMDL Provisions and Attachments L through R of the MS4 Permit.

- Category 2 (High Priority) Pollutants for which data indicate water quality impairment in the receiving water according to the State Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State's Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.

- Category 3 (Medium Priority) Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.

1.6. POLLUTANT SOURCE ASSESSMENT

In order to identify potential stormwater and non-storm water pollutant sources in discharges to the MS4 in each WMA, the City reviewed data from the following:

- Findings from the IC/ID Elimination Program
- Findings from the Industrial/Commercial Facilities Inspections Program
- Findings from the Development Construction Program
- Findings from the Public Activities Program
- Findings from US EPA TMDL Documentation
- Watershed Model Results and Regional Monitoring Programs Results
- Findings from exceedances from facilities with coverage under the Industrial General Permit (from SMARTS)
- Results from review of Los Angeles River Metals TMDL Coordinated Monitoring Plan
- Los Angeles Area Lakes TMDLs document

- San Gabriel River and Impaired Tributaries TMDL document
- Findings from review of the State's Listing Policy (potential exceedances of WQ objectives)
- Results from dry weather and wet weather outfall sampling conducted by the City

The pollutants associated with the above findings are prioritized in Section 1.7. Not all sources produced pollutant data for El Monte. The IC/ID Elimination Program review indicated discharges but did not identify the pollutant(s). The 303 (d) list and the Los Angeles County Monitoring Reports and Tributary Monitoring Reports provided the most recent and extensive data on impairments and exceedances.

The major outfalls from the City are shown in Figure 1-8.

Figure 1-8: Major Outfalls

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1.7. PRIORITIZATION

Based on findings of the source assessment, the water quality issues will be prioritized and sequenced in the same order as the Pollutant Classification.

- Category 1 will be WBPCs with TMDLs
- Category 2 will be WBPCs listed on the 303(d) list
- Category 3 will be WBPCs with other exceedances.

1.7.1 WBPCS WITH TMDLS

WBPCs with TMDLs from Attachments O and P of the Order are summarized in Table 1-5.

Table 1-5: WBPCs with TMDLs (Category 1)

TMDL Pollutant	Water Body
Nutrients	Legg Lake
Trash	Legg Lake
Ammonia*	Legg Lake
Odor	Legg Lake
pH	Legg Lake and Los Angeles River
Cadmium, Copper, Zinc, Lead	Los Angeles River
E. coli (Bacteria)	Los Angeles River
Nitrogen Compounds	Los Angeles River
Trash	Los Angeles River
Lead	San Gabriel River

* Recommended for removal by EPA due to lack of sample results testing positive for ammonia.

1.7.2 WBPCS FROM 303(D) LISTED WATER BODIES

Table 1-6 contains the pollutants and water bodies as listed on the 2010 303(d) list impairment or exceedances of RWLs.

Table 1-6: WBPCs on 2010 303(d) List (Category 2)

Impairment	Water Body	Receiving Water Limitations
Copper	Legg Lake	12 ug/L
Trash	Legg Lake	0 trash by 3/6/2016
Cyanide	Los Angeles River and San Gabriel Rivers	0.2 mg/L
Toxicity	Los Angeles River (Rio Hondo)	TBD
Indicator Bacteria	San Gabriel River (Reach 3)	400 MPN/100 ml

1.7.3 WBPCS WITH EXCEEDANCES OF WATER QUALITY OBJECTIVES

Data from Annual Reports, IC/ID reports, SWAMP, Industrial/ Commercial Facility baseline exceedances information from SMARTS, Mass Emissions Stations sampling, Tributary Monitoring sampling (Site TS06, Rio Hondo) and dry weather and wet weather outfall sampling conducted by the City indicated exceedances for the pollutants listed in Table1-7. Cyanide results from Site TS06 exceeded the Ocean Plan water quality standard in 100% of the samples during the 2003-2004 dry weather sampling. Diazinon was exceeded in 40% of the samples collected during wet weather in 2002-2003 and in 25% of the samples collected in 2003-2004. Copper concentrations were above the Water Quality Objective (WQO) for two of the five samples collected at Mass Emissions Site S14 during g the 2012-2013 season while, etc. Zinc concentrations were above the WQO for one of five samples collected during the same season. Possible sources of Cyanide are electroplating and metal mining processes, metal cleaning, certain pesticide applications, and some pharmaceutical industries. Diazinon sources include pesticide use in residential, commercial, and gardening/farming areas. Possible sources of Copper and Zinc include automobiles, bridges, industrial areas, corroding metal surfaces, and atmospheric deposition.

Table 1-7: WBPCs with exceedances (Category 3)

Constituent	Water Body	Receiving Water Limitations
Cyanide	Los Angeles River (Rio Hondo)	0.2 mg/L
Diazinon	Los Angeles River (Rio Hondo)	0.05 mg/L
Copper	San Gabriel River	12 ug/L
Zinc	San Gabriel River	80 ug/L

1.8. SELECTION OF WATERSHED CONTROL MEASURES

The City will identify strategies, control measures, and BMPs to implement through storm water management programs and on a watershed scale (for both WMAs) with the goal of creating an efficient program to focus individual/collective resources on watershed priorities.

The objectives of the Watershed Control Measures are:

- To implement pollutant controls necessary to achieve all applicable interim and final WQBELs and /or RWLs pursuant to compliance schedules.
- To ensure that discharges from the MS4 do not cause or contribute to exceedances of RWLs.
- To prevent or eliminate non-stormwater discharges to MS4 that are a source of pollutants form the MS4 to receiving waters.

The Watershed Control Measures will include combinations of:

- Structural and/or non-structural controls and operation and maintenance of procedures designed to achieve applicable WQBELs and/or RWLs;
- Retrofitting areas of existing development known or suspected to contribute to the highest water quality priorities with regional controls or management measures; and
- Stream and/or habitat rehabilitation or restoration projects where necessary.

The City will implement Watershed Control Measures based on the results of its watershed modeling and the necessary pollutant reductions.

1.8.1 MINIMUM CONTROL MEASURES (MCMS)

Until the WMP is approved, the City will continue to implement their existing storm water management programs , including those actions within each of the minimum control measures consistent with 40 CFR 122.26(d)(2)(iv)(A)-(D). The MCMs are listed below, with a sub bullet emphasizing the major

- Development Construction Program
- Industrial Commercial Program
- IC/ID Detection and Elimination Program
- Public Agency Activities Program
    - Install trash excluders in catch basins (to comply with WQBEL of zero trash by September 30, 2016)

- Develop an inventory of facilities and BMPs for retrofitting opportunities
- Public Information and Participation Program
- Planning and Land Development Program
  - Low Impact Development Strategies (LID Ordinance adopted June 10, 2014)
  - New Development/Redevelopment Effectiveness Tracking

The City will assess the MCMs to identify opportunities for focusing on high priority issues and identify potential modifications for each of the MCMs. Currently, the City does not anticipate customizing any of the MCMs. If the City elects to eliminate a control measure because that specific control measure is not applicable to the City, the City will provide justification for its elimination. The City understands that the Planning and Land Development Program is not eligible for elimination.

1.8.2 NON-STORM WATER DISCHARGE CONTROL MEASURES

Where the City identifies non-storm water discharges from the MS4 as a source of pollutants that cause or contribute to exceedances of RWLs, drainage area control measures, and /or BMPs will be implemented to effectively eliminate the source of pollutants. These measures may include prohibiting additional non-storm water discharges to the MS4, adding BMPs to reduce the pollutants, and/or diversion of the runoff to a sanitary sewer.

The dry weather screening of outfalls to the Rio Hondo and San Gabriel River three times per year will identify possible dry weather flows that can be eliminated. The training of City Public Works staff and Code Enforcement staff in the recognition and reporting of non-stormwater discharges is an important step in eliminating non-stormwater discharges. Public information and education regarding water conservation and irrigation reduction will results in less runoff.

1.8.3 TMDL CONTROL MEASURES

The City will implement control measures that have been identified in TMDLs and corresponding implementation plans. The City will also evaluate and identify control measures as follows:

- Where necessary, TMDL measures shall include control measure to address both storm water and non-storm water discharges from the MS4.
- TMDL control measures may include baseline or customized activities covered under the general MCM categories as well as BMPs and control measures covered under non-storm water discharge provisions.

- The WMP includes actions that will be implemented during the permit term to achieve interim and/or final WQBELs and/or RWLs with compliance deadlines within the permit term.

Los Angeles River

A total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts (FBIs) account for 20 of the retrofitted catch basins and the remaining are Automatic Retractable Screens (ARSs). Two Modular Wetland Systems have also been installed and three additional modular Wetland Systems are planned for a housing and retail development currently being constructed. The Los Angeles River Trash TMDL compliance strategies include installation of full capture devices, or partial capture devices with institutional controls. Implementation measures include Daily Generation Rate studies.

A map showing the location of catch basins and drain lines within the City's jurisdiction is shown in Figure 1-9. The existing and planned control measures are shown in Figure 1-10.

TMDL control measures for Cadmium, Copper, Lead, and Zinc for both wet weather and dry weather will include a robust Industrial/Commercial Facilities Inspection Program. The program will emphasize the proper implementation of source control BMPs at facilities that have the potential to discharge metals to the MS4. Facilities with known exposure or a history of discharge will be inspected at twice the frequency of other facilities. The Los Angeles River and Tributaries TMDL for Metals recommendations for non-structural controls include more frequent and appropriately timed catch basin cleaning, enhanced street sweeping, and source reduction through increased detection methods resulting in elimination of illicit discharges and dry weather flows. Structural control recommendations include infiltration or filter devices specifically designed to reduce metals or diversion to treatment facilities.

TMDL control measures for Nutrients in wet weather will be largely associated with implementation of the LID Ordinance and Green Street Policy. Control measures for both wet and dry weather will include implentation of enhanced street sweeping, irrigation reduction/water conservation ordinances, and capture and use/infiltration control measures.

TMDL control measures for Diazinon for both wet weather and dry weather will include identifying facilities within any sampled drainage area that show an elevated level of pesticides and then inspecting them specifically for use of and the presence of known pesticides and if warranted, the city may elect to sample discharges from that facility and subject the facility to enforcement actions.

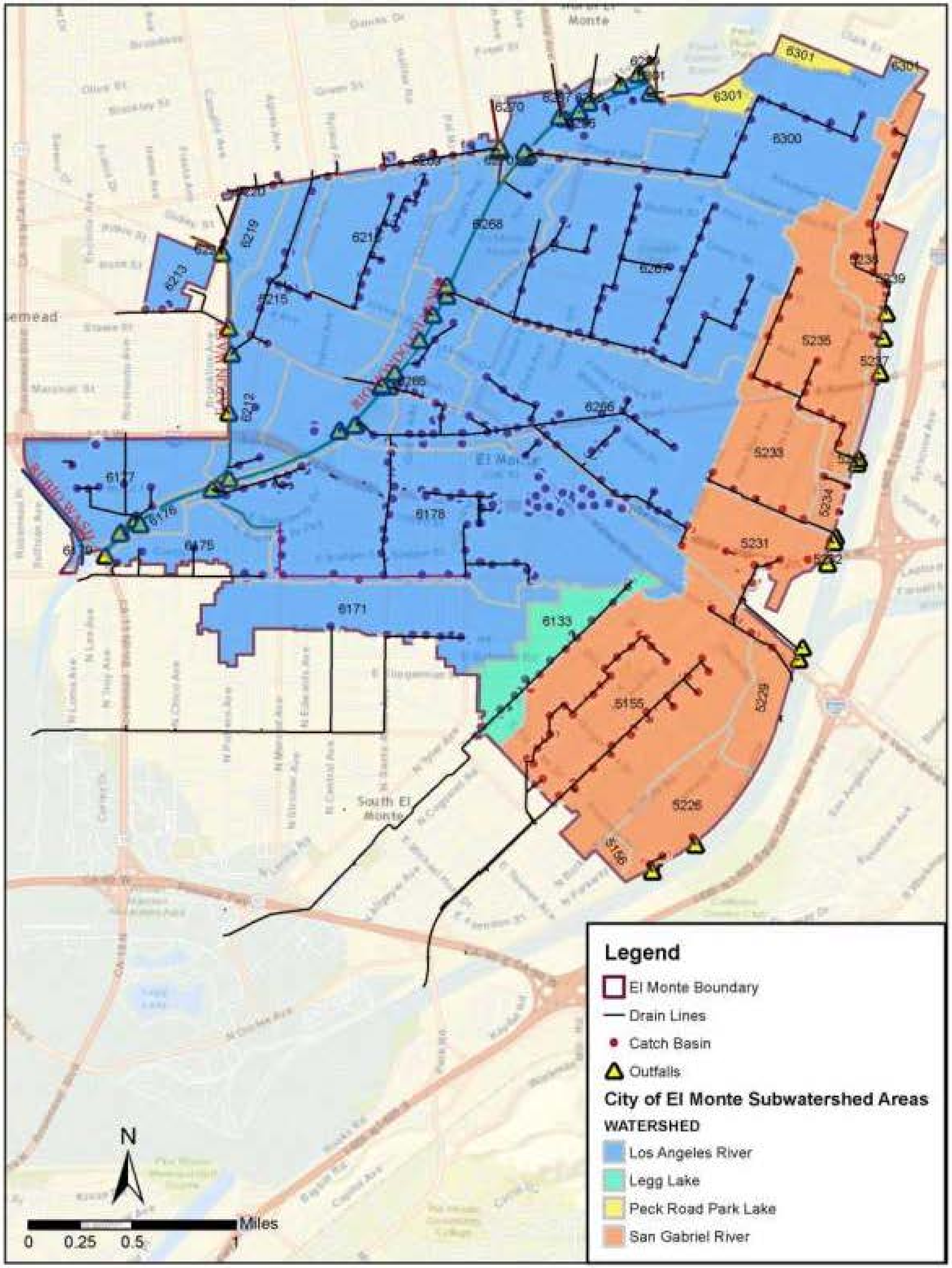
San Gabriel River

TMDL control measures for Lead for wet weather will include a robust Industrial/Commercial Facilities Inspection Program. The program will emphasize the proper implementation of source control BMPs at facilities that have the potential to discharge metals to the MS4. Facilities with known exposure or a history of discharge will be inspected at twice the frequency of other facilities. Control measures for dry weather bacteria will include source reduction through increased detection methods resulting in elimination of illicit discharges and dry weather flows, irrigation reduction/water conservation ordinances, and capture and use/infiltration control measures.

Watershed control measures for Category 1, 2, and 3 pollutants include:

The City will develop protocols for investigating and following up on all non stormwater discharges (regardless of receiving water) discovered by City or County staff or reported through the County Hotline. An enhanced enforcement policy will be developed to ensure the elimination of all illicit discharges.

Figure 1-9: Catch Basins and Drain Lines



RB-AR5113

Legg Lake

El Monte's point source area for the Trash TMDL is approximately 0.10 square miles. LACFCD storm drain line BI 0529-Line B drains catch basins within that approximate 0.10 square mile portion of the City. The catch basins feeding the storm drain line are along Mountain View Road from approximately Garvey Avenue to the city limit boundary on south near Weaver Avenue. The storm drain line has a single outlet at North Lake. Six catch basins along Mtn. View Road have been retrofitted with trash exclusion devices. The devices consist of a combination of ARSs and FBIs at the highest traffic areas along this route. In order to address the required pollutant reductions for Legg Lake, six catch basins along Mountain View Road will be retrofitted with Modular Wetland Systems to remove both trash and nutrients.

The City is committed to trash reduction to the Legg Lake system and plans to retrofit more catch basins with trash excluders along this route as funding becomes available. The City will also explore increased frequency of sweeping along Mountain View Road, sweeping of alleyways, and increased frequency of sweeping of public parking lots. The discharge of trash from storm drains draining to Legg Lake will largely be controlled/reduced by the implementation of the trash excluders described above but additional measures for eliminating the trash impairment to Legg Lake (as described in the Trash TMDL for Legg Lake) will include placement of additional trash receptacles along Mountain View Road, Public Education regarding the Lake impairments, and Community Involvement to further promote water quality at the lake.

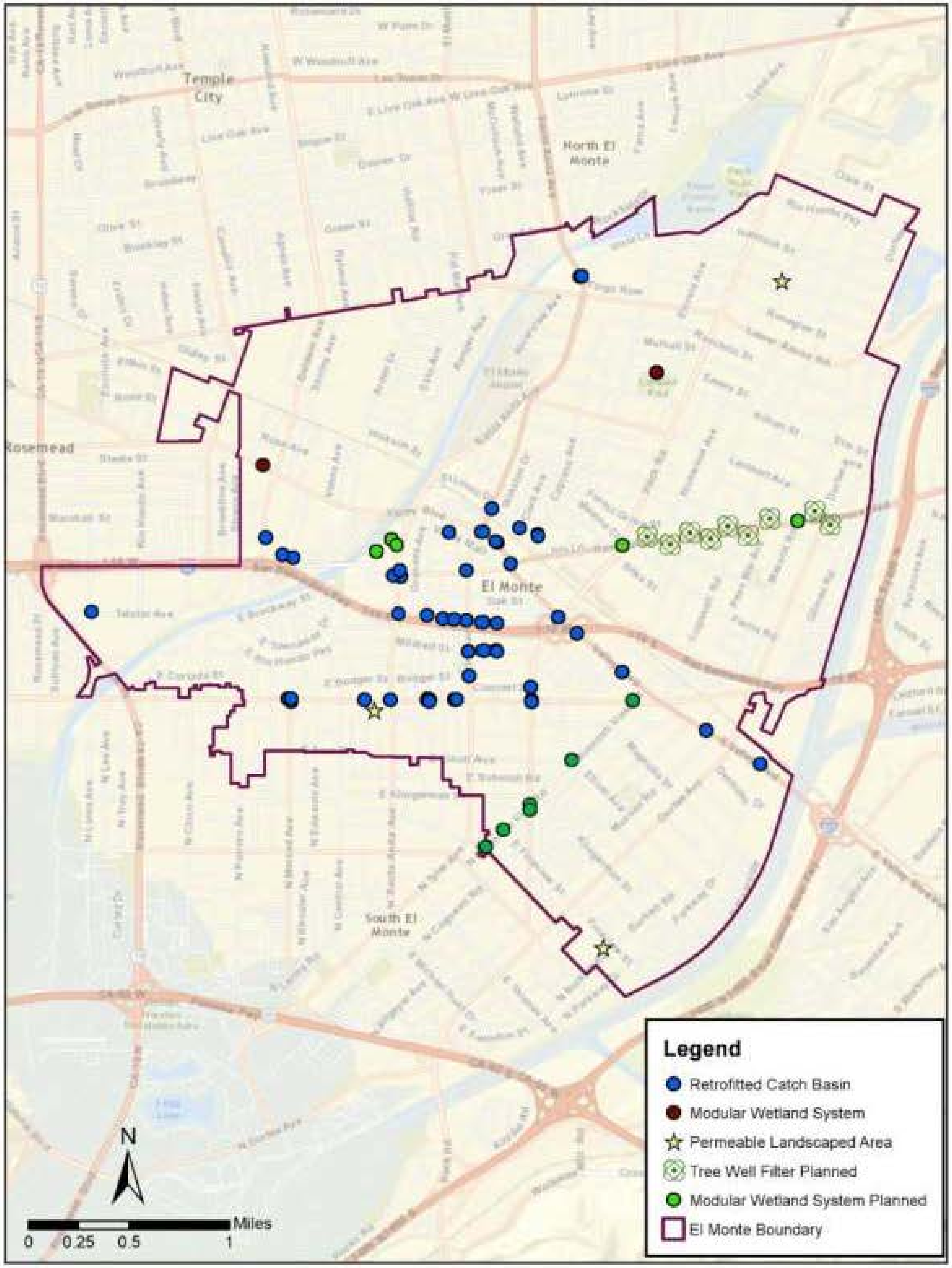
Peck Road Park Lake

Peck Road Park Lake is located north of the City. Although Attachment K of the Order lists the City as a responsible party to the Peck Road Park Lake TMDLs, research does not identify any direct or indirect storm water discharge originating from the City to the lake. A review of LACFCD maps and City records plus a field investigation supports this conclusion. Discharges from a residential area west of the lake drain into a spillway into the Rio Hondo downstream of the lake. See Figure 1-6.

1.8.4 EXISTING AND PLANNED STRUCTURAL CONTROL MEASURES

There are approximately 300 catch basins in the City's jurisdiction. Of the 300, a total of 57 catch basins have been retrofitted to exclude trash and other debris. Filter Basket Inserts account for 20 of the retrofitted catch basins and the remaining are Automatic Retractable Screens. Two Modular Wetland Systems have also been installed and three additional Modular Wetland Systems are planned for a housing and retail development currently being constructed. Permeable landscaped areas have been installed at three schools and two additional Modular Wetland Systems plus nine Tree Well Filters are planned for the Ramona Boulevard Improvement Project. The locations of the devices are shown on Figure 1-10.

Figure 1-10: Existing and Planned Control Measures



1.9. REASONABLE ASSURANCE ANALYSIS (RAA)

Permittees electing to develop a watershed management program (WMP) or enhanced watershed management program (EWMP) are required to submit a Reasonable Assurance Analysis (RAA) as part of their draft WMP to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of the watershed control measures proposed in WMP. The City will conduct a RAA for each Water Body pollutant combination (WBPC) addressed by its WMP. The RAA will be quantitative and performed using a peer-reviewed model in the public domain. The RAA will commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of QA/QC criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data shall only be drawn from peer-reviewed sources and statistically analyzed to determine the best estimate for the performance and confidence limits on that estimate for the pollutants to be evaluated. The Regional Board has prepared a guidance document to provide information and guidance to assist permittees in development of the RAA. The document provides clarification of the regulatory requirements of the RAA along with recommended criteria for the permittees to follow to prepare an appropriate RAA for Regional Board approval.

The objective of the RAA shall be to demonstrate the ability of the WMP to ensure that Permittees MS4 discharges achieve applicable WQBELS and do not cause or contribute to exceedances of RWLs.

1.9.1 MODELING REQUIREMENTS FOR RAA

The WMMS meets the model requirements of the Reasonable Assurance Guidelines and is appropriate for conducting the required RAA.

Model input files: the model input/output files will be uploaded with this WMP.

The City has chosen to use the Watershed Management Modeling System (WMMS) to support/demonstrate/conduct the RAA. The WMMS was developed by the Los Angeles County Flood Control District and the U.S. EPA. The WMMS meets the requirements of Section G. of the RAA Guidelines and is appropriate for conducting the required Reasonable Assurance Analysis. WMMS

modeled 38 subwatersheds within City's jurisdiction. GIS "intersect" methods were used to include those portions of subwatersheds within the City's jurisdiction.

This RAA (using WMMS) and the associated IMP uses the Los Angeles County's HUC-12 equivalent boundaries. The City has verified with neighboring groups and cities that there are no gaps in the geographic areas addressed in the RAA or IMP.

Calibration

Since the original development of the WMMS LSPC model, Los Angeles County personnel have independently updated the model with meteorological data through 2012. The calibration of WMMS was fully documented, and is consistent with methods used in LSPC modeling efforts previously performed by the EPA to support TMDL development (Tetra Tech 2010). There is limited or insufficient storm flow and water quality data currently available near El Monte to facilitate additional calibration of modeling parameters. This lack of data was confirmed by Los Angeles County Department of Public Works employees that were involved in the development of the WMMS model. As the City collects monitoring data from both outfall and receiving water monitoring, the collected data will be used to further calibrate the model as part of the Adaptive Management Process.

Rain Data

The RAA is based on recorded rainfall depth metrics obtained for historical wet season data, classified as October 1st to April 30th, for the years 1986 to 2012. This wet season time period is referred to in the RAA as a "Wet Year", and was utilized to represent the evaluated critical condition, allowing for the modeling to capture variability of rainfall storm depths. Recorded rainfall depths were obtained from LA County Department of Public Works Rain Gauge D108 data, located at El Monte Fire Station on Santa Anita Ave, between Valley Mall and Ramona Blvd. The wet year minimum, maximum and total annual rainfall depths are summarized in Table 1-8 below for only the last ten years of data, per the RAA Guidelines [1]). Based on the data from these last ten years, the 90th percentile rainfall value is 26.66 inches, which most closely corresponds to the 2004-2005 wet year. Therefore, the wet year for 2004-2005 was determined to be the representative year for the 90th percentile wet year.

Table 1-8: 90th Percentile Wet Year Selection

Wet Year Start	Wet Year End	Average Wet Year Rainfall (in/yr)	Minimum Size Storm Depth per Wet Year (in/event)	Maximum Size Storm Depth Per Wet Year (in/event)
2001	2002	19.47	0.01	1.8
2002	2003	9.09	0.01	1.11
2003	2004	9.09	0.01	1.11
2004	**2005**	**27.22**	**0.01**	**2**
2005	2006	12.86	0.01	1.9
2006	2007	4.07	0.01	1.84
2007	2008	14.44	0.04	0.72
2008	2009	11.01	0.04	0.51
2009	2010	28.04	0.04	0.51
2010	2011	21.3	0.03	0.51
	90th Percentile Year			

The WMMS model estimates sediment (TSS), Copper, Lead, Zinc, Total Nitrogen, Total Phosphorus, and fecal coliform. Cadmium and trash are not modeled by WMMS. Although Cadmium is not directly modeled by WMMS, the BMPs implemented to remove other heavy metals will remove Cadmium. Additionally, a review of Los Angeles County monitoring data for five sampling events during the 2002-2003 wet season showed no hits for dissolved or total Cadmium for the Rio Hondo Channel. Similarly for four sampling events during the 2003-2004 wet season and two sampling event in the dry season, again Cadmium was not detected in the Rio Hondo.

1.9.2 MODELED POLLUTANT LOADING, ALLOWABLE LIMITS, AND REQUIRED PERCENT REDUCTION

The modeled (estimated) pollutant loadings, allowable limit, and percent reduction required to meet effluent limits are shown in tables and graphs in the subsections below.

1.9.2.1 LA River and Tributaries Metals TMDL

Table 1-9: Formula used for Metals Effluent Limit Calculation from Order R4-2012-0175

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER[1] x 2.8×10^{-9} x daily volume (L) – 1.8
Copper	WER[1] x 1.5×10^{-8} x daily volume (L) – 9.5
Lead	WER[1] x 5.6×10^{-8} x daily volume (L) – 3.85
Zinc	WER[1] x 1.4×10^{-7} x daily volume (L) – 83

Table 1-10: LA River Copper, Lead and Zinc

Wet Days*	Flow from Wardlow gauge (cf/sec)	L/day	Copper Daily Limit (kg/day)	Copper From Model	Percent Reduction Required	Lead Daily Limit (kg/day)	Lead From Model	Percent Reduction Required	Zinc Daily Limit (kg/day)	Zinc From Model	Percent Reduction Required
10/17/2004	1700	4,159,178,435	0.63	1.90	66.60%	2.75	1.54	N/A	5.99	19.03	68.5%
10/20/2004	12900	31,560,824,595	5.57	0.00	N/A	21.16	0.00	N/A	52.03	0.00	N/A
10/26/2004	2690	6,581,288,230	1.07	0.06	N/A	4.38	0.05	N/A	10.06	0.58	N/A
10/27/2004	4860	11,890,357,173	2.03	0.00	N/A	7.94	0.00	N/A	18.98	0.00	N/A
11/21/2004	910	2,226,383,751	0.29	0.00	N/A	1.45	0.00	N/A	2.74	0.00	N/A
12/5/2004	1020	2,495,507,061	0.34	0.00	N/A	1.63	0.00	N/A	3.20	0.00	N/A
12/27/2004	531	1,299,131,617	0.12	0.00	N/A	0.83	0.00	N/A	1.19	0.00	N/A
12/28/2004	16800	41,102,469,240	7.28	0.03	N/A	27.57	0.03	N/A	68.06	0.31	N/A
12/29/2004	12100	29,603,564,155	5.21	0.03	N/A	19.85	0.02	N/A	48.74	0.26	N/A
1/1/2005	602	1,472,838,481	0.15	0.02	N/A	0.94	0.02	N/A	1.48	0.24	N/A
1/2/2005	1150	2,813,561,883	0.39	0.00	N/A	1.84	0.00	N/A	3.73	0.02	N/A
1/3/2005	8950	21,896,851,173	3.83	0.00	N/A	14.67	0.00	N/A	35.79	0.00	N/A
1/4/2005	1290	3,156,082,460	0.45	0.00	N/A	2.07	0.00	N/A	4.31	0.02	N/A
1/6/2005	557	1,362,742,581	0.13	0.00	N/A	0.87	0.00	N/A	1.29	0.00	N/A
1/7/2005	7470	18,275,919,359	3.18	0.80	N/A	12.24	0.06	N/A	29.71	0.63	N/A
1/8/2005	10100	24,710,413,055	4.33	0.00	N/A	16.56	0.00	N/A	40.52	0.00	N/A
1/9/2005	44900	109,851,242,195	19.66	0.05	N/A	73.77	0.04	N/A	183.55	0.53	N/A
1/10/2005	41800	102,266,857,990	18.29	0.00	N/A	68.68	0.00	N/A	170.81	0.00	N/A
1/11/2005	31400	76,822,472,270	13.71	0.00	N/A	51.58	0.00	N/A	128.07	0.00	N/A
1/12/2005	10500	25,689,043,275	4.51	0.00	N/A	17.22	0.00	N/A	42.16	0.00	N/A
1/13/2005	6000	14,679,453,300	2.53	0.00	N/A	9.82	0.00	N/A	23.67	0.00	N/A
1/14/2005	4580	11,205,316,019	1.90	0.00	N/A	7.48	0.00	N/A	17.83	0.00	N/A
1/15/2005	2630	6,434,493,697	1.04	0.00	N/A	4.28	0.00	N/A	9.81	0.00	N/A

1/16/2005	2180	5,333,534,699	0.85	0.00	N/A	3.54	0.00	N/A	7.96	0.00	N/A
1/17/2005	1300	3,180,548,215	0.46	0.00	N/A	2.09	0.00	N/A	4.35	0.00	N/A
1/18/2005	927	2,267,975,535	0.29	0.00	N/A	1.48	0.00	N/A	2.81	0.00	N/A
1/19/2005	651	1,592,720,683	0.17	0.00	N/A	1.02	0.00	N/A	1.68	0.00	N/A
1/20/2005	562	1,374,975,459	0.13	0.00	N/A	0.88	0.00	N/A	1.31	0.00	N/A
1/22/2005	502	1,228,180,926	0.11	0.00	N/A	0.78	0.00	N/A	1.07	0.00	N/A
1/28/2005	1030	2,519,972,817	0.34	0.00	N/A	1.65	0.00	N/A	3.24	0.00	N/A
2/11/2005	9840	24,074,303,412	4.22	0.00	N/A	16.13	0.00	N/A	39.45	0.00	N/A
2/12/2005	3010	7,364,192,406	1.21	0.00	N/A	4.90	0.00	N/A	11.38	0.00	N/A
2/18/2005	5490	13,431,699,770	2.30	0.00	N/A	8.98	0.00	N/A	21.57	0.00	N/A
2/19/2005	23300	57,005,210,315	10.15	0.00	N/A	38.26	0.00	N/A	94.77	0.00	N/A
2/20/2005	18200	44,527,675,010	7.90	0.00	N/A	29.88	0.00	N/A	73.81	0.00	N/A
2/21/2005	38000	92,969,870,900	16.62	0.00	N/A	62.43	0.00	N/A	155.19	0.00	N/A
2/22/2005	18100	44,283,017,455	7.86	0.00	N/A	29.71	0.00	N/A	73.40	0.00	N/A
2/23/2005	12600	30,826,851,930	5.43	0.00	N/A	20.67	0.00	N/A	50.79	0.00	N/A
2/24/2005	5390	13,187,042,215	2.26	0.00	N/A	8.82	0.00	N/A	21.16	0.00	N/A
2/25/2005	3970	9,712,904,934	1.63	0.00	N/A	6.48	0.00	N/A	15.32	0.00	N/A
2/26/2005	2620	6,410,027,941	1.04	0.00	N/A	4.26	0.00	N/A	9.77	0.00	N/A
2/27/2005	2270	5,553,726,499	0.89	0.00	N/A	3.69	0.00	N/A	8.33	0.00	N/A
2/28/2005	1570	3,841,123,614	0.58	0.00	N/A	2.54	0.00	N/A	5.46	0.01	N/A
3/1/2005	649	1,587,827,532	0.17	0.00	N/A	1.02	0.00	N/A	1.67	0.00	N/A
3/2/2005	688	1,683,243,978	0.19	0.31	39.04%	1.08	0.26	N/A	1.83	3.05	39.9%
3/3/2005	945	2,312,013,895	0.30	0.01	N/A	1.51	0.01	N/A	2.89	0.06	N/A
3/4/2005	2270	5,553,726,499	0.89	0.00	N/A	3.69	0.00	N/A	8.33	0.00	N/A
3/5/2005	983	2,404,983,766	0.32	0.00	N/A	1.57	0.00	N/A	3.04	0.00	N/A
3/6/2005	910	2,226,383,751	0.29	0.00	N/A	1.45	0.00	N/A	2.74	0.00	N/A
3/7/2005	895	2,189,685,117	0.28	0.00	N/A	1.43	0.00	N/A	2.68	0.00	N/A
3/8/2005	935	2,287,548,139	0.30	0.00	N/A	1.49	0.00	N/A	2.85	0.00	N/A
3/9/2005	1040	2,544,438,572	0.34	0.00	N/A	1.66	0.00	N/A	3.28	0.00	N/A

3/10/2005	920	2,250,849,506	0.29	0.00	N/A	1.47	0.00	N/A	2.79	0.00	N/A
3/11/2005	574	1,404,334,366	0.14	0.00	N/A	0.90	0.00	N/A	1.36	0.00	N/A
3/12/2005	646	1,580,487,805	0.17	0.00	N/A	1.02	0.00	N/A	1.66	0.00	N/A
3/13/2005	652	1,595,167,259	0.17	0.00	N/A	1.03	0.00	N/A	1.68	0.00	N/A
3/14/2005	680	1,663,671,374	0.19	0.00	N/A	1.07	0.00	N/A	1.80	0.00	N/A
3/15/2005	811	1,984,172,771	0.24	0.00	N/A	1.29	0.00	N/A	2.34	0.00	N/A
3/16/2005	999	2,444,128,974	0.33	0.00	N/A	1.60	0.00	N/A	3.11	0.01	N/A
3/17/2005	869	2,126,074,153	0.27	0.00	N/A	1.38	0.00	N/A	2.58	0.00	N/A
3/18/2005	880	2,152,986,484	0.27	0.00	N/A	1.40	0.00	N/A	2.62	0.00	N/A
3/19/2005	1270	3,107,150,949	0.45	0.00	N/A	2.04	0.00	N/A	4.22	0.00	N/A
3/20/2005	1100	2,691,233,105	0.37	1.17	68.34%	1.76	0.95	N/A	3.53	11.70	69.9%
3/21/2005	596	1,458,159,028	0.15	0.00	N/A	0.93	0.00	N/A	1.45	0.00	N/A
3/22/2005	4880	11,939,288,684	2.04	0.00	N/A	7.98	0.00	N/A	19.06	0.00	N/A
3/23/2005	2340	5,724,986,787	0.92	0.00	N/A	3.80	0.00	N/A	8.62	0.00	N/A
4/28/2005	3760	9,199,124,068	1.54	0.00	N/A	6.14	0.00	N/A	14.46	0.00	N/A
5/6/2005	505	1,235,520,653	0.11	0.00	N/A	0.78	0.00	N/A	1.08	0.00	N/A
9/20/2005	540	1,321,150,797	0.12	0.00	N/A	0.84	0.00	N/A	1.22	0.00	N/A

*Wet weather is defined as any day when the maximum daily flow in the LA River is equal to or greater than 500 cfs measured at the Wardlow gauge station (Appendix O-5, R4-2012-0175)

Scatter plots for Copper and Zinc are shown in Figures 1-11 and 1-12, respectively.

Figure 1-11: Scatter Plot for LA River Copper

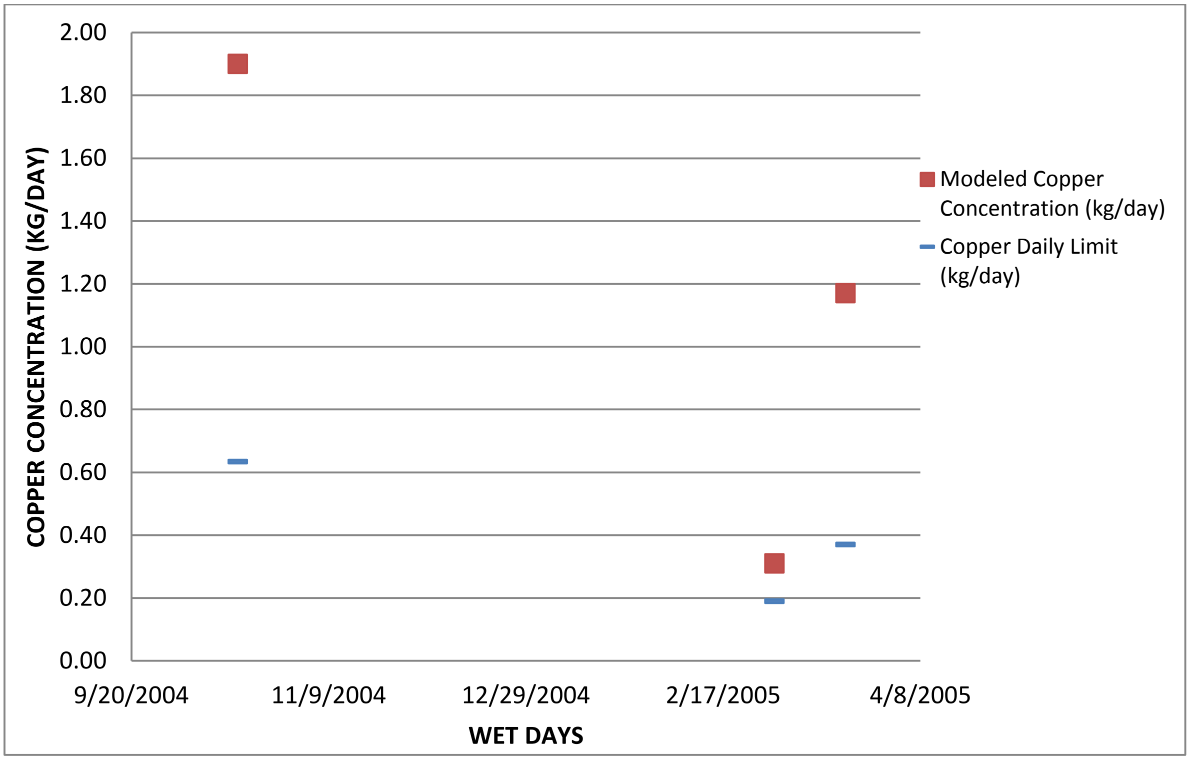
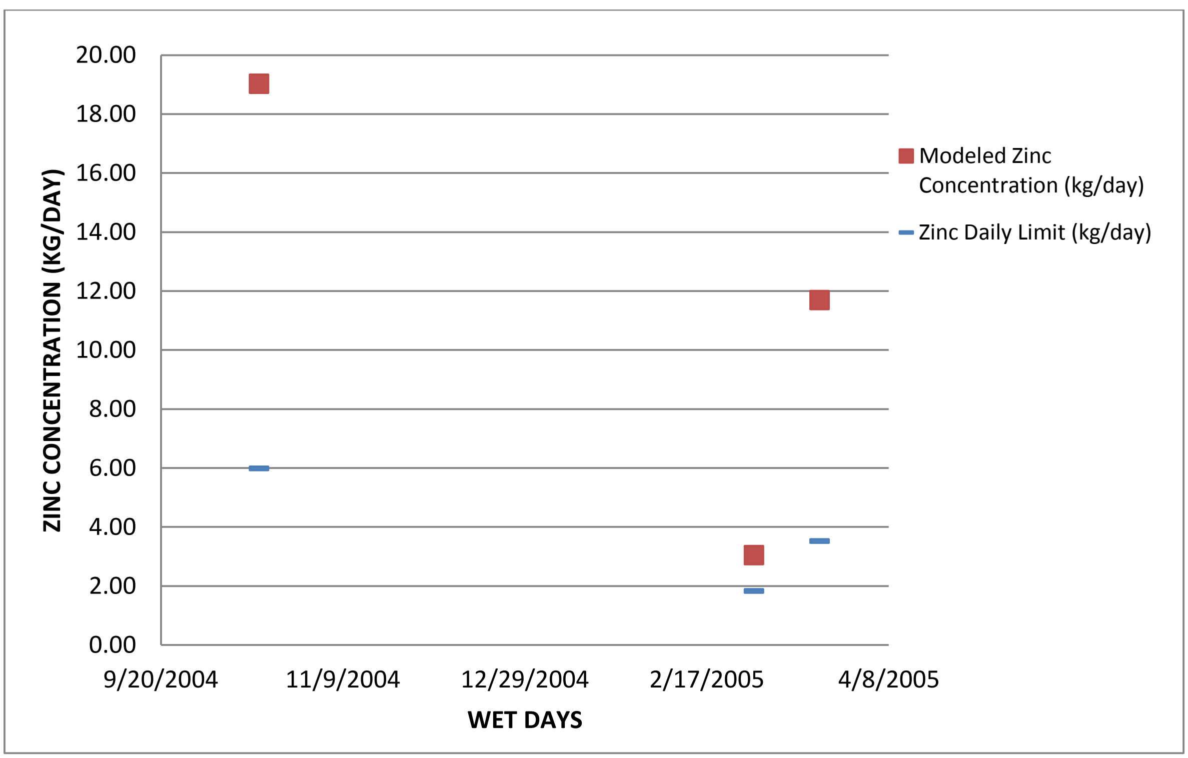


Figure 1-12: Scatter Plot for LA River Zinc



A 68% pollutant reduction is required for Copper and a 70% reduction is required for Zinc by January 11, 2028. To achieve these reductions, the City will implement a combination of nonstructural BMPs and structural BMPs including infiltration and/or flow-through BMPs to achieve a 45%-46% flow reduction. Figures 1-13 and 1-14 show the relationship between the required pollutant reduction and the associated flow reduction. The US EPA National Stormwater Calculator was used to estimate the necessary BMPs to achieve the required flow reduction (by infiltration). The City makes the following assumptions with regards to the proposed BMPs:

- Enhanced Street Sweeping: 3%
- Retrofit of Catch Basins with Full Capture Devices: 2%
- Low Impact Development Ordinance and Green Streets Policy Implementation: 1%

Using an estimated 6% reduction for the above listed nonstructural BMPs, the remaining pollutant reductions would be achieved by implementation of the structural BMPs as listed below.

- Installation of Porous Pavement (Porous Gutter/Porous sidewalk): 23% of the impervious area.
- Tree Well Filters, Biofilters, and Street Planter Infiltration areas (Permeable Landscaping): 9% of the impervious area.

Figure 1-15 illustrates that the structural BMPs would provide enough infiltration to achieve the required flow (runoff) reductions. The City will focus BMP implementation first on those subwatersheds with the highest density of Industrial /Commercial areas in order to reduce the largest amount of potential metals pollutants. To provide additional runoff reduction, the City will also encourage residents and business owners to install rain harvesting and infiltration BMPs (rain gardens, rain barrels, porous pavers, etc.) on their properties.

The City will evaluate if additional structural BMPs are needed based on the results of the monitoring conducted during implementation of the Integrated Monitoring Program (IMP).

The modeled Lead pollutant concentration was below the effluent limit.

Figure 1-13: LA River - Copper Reduction versus Flow Reduction

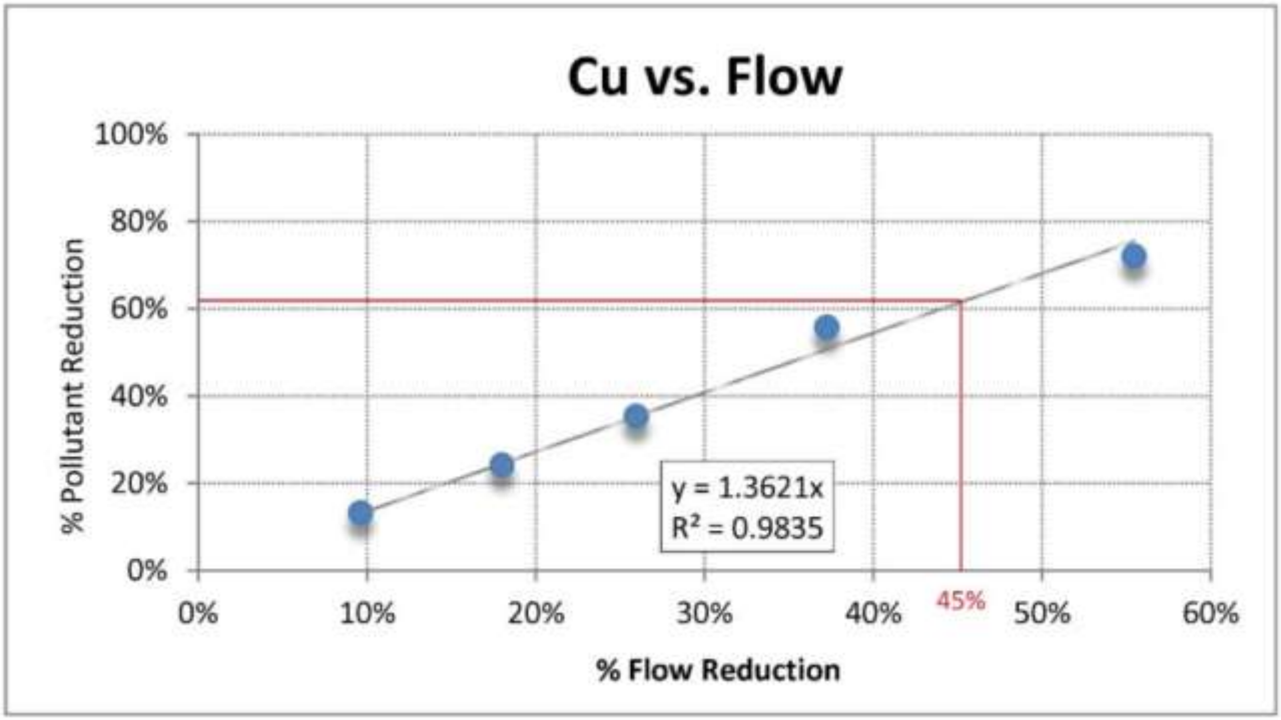


Figure 1-14: LA River - Zinc Reduction versus Flow Reduction

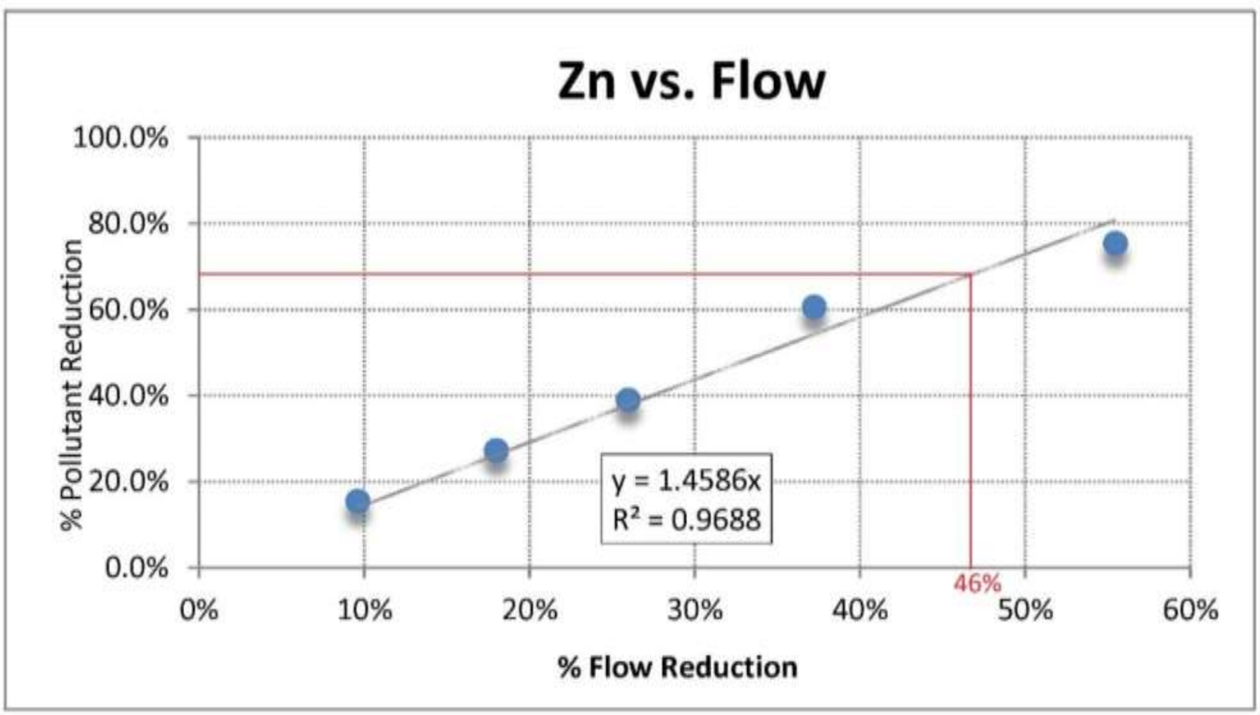


Figure 1-15: Copper and Zinc - National Stormwater Calculator Report for Subwatershed 6177 – LA River

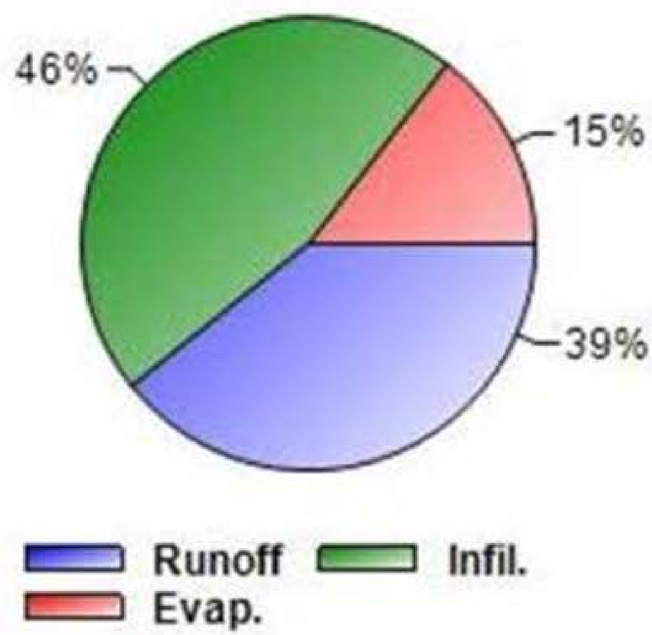
Parameter	Current Scenario	Baseline Scenario
Site Area (acres)	208.19	
Hydrologic Soil Group	C	
Hydraulic Conductivity (in/hr)	0.04	
Surface Slope (%)	5	
Precip. Data Source	WHITTIER NARROWS D...	
Evap. Data Source	MONTEBELLO	
Climate Change Scenario	Median/Near Term	
% Forest	0	
% Meadow	0	
% Lawn	14	
% Desert	0	
% Impervious	86	
Years Analyzed	20	
Ignore Consecutive Wet Days	False	
Wet Day Threshold (inches)	0.10	

LID Control	Current Scenario	Baseline Scenario
Disconnection	0	
Rain Harvesting	0	
Rain Gardens	0	
Green Roofs	0	
Street Planters	40 / 9	
Infiltration Basins	0	
Porous Pavement	35 / 23	

% of impervious area treated / % of treated area used for LID

Figure 1-15 cont.: Copper and Zinc - National Stormwater Calculator Report for subwatershed 6177 – LA River

Statistic	Current Scenario	Baseline Scenario
Average Annual Rainfall (inches)	14.92	
Average Annual Runoff (inches)	5.87	
Days per Year With Rainfall	21.39	
Days per Year with Runoff	10.29	
Percent of Wet Days Retained	51.87	
Smallest Rainfall w/ Runoff (inches)	0.16	
Largest Rainfall w/o Runoff (inches)	0.54	
Max. Rainfall Retained (inches)	1.53	



1.9.2.2 LA River Nitrogen Compounds and Related Effects TMDL

Table 1-11: Nitrogen Compounds Effluent Limits from Order R4-2012-0175

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
Los Angeles River above Los Angeles-Glendale WRP (LAG)	4.7	1.6	8.0	1.0	8.0
Los Angeles River below LAG	8.7	2.4	8.0	1.0	8.0
Los Angeles Tributaries	10.1	2.3	8.0	1.0	8.0

Table 1-12: LA River Nitrogen Compounds

Subwatershed	Month	Nitrogen Concentration (mg/l)	Effluent Limit (mg/l)	Reduction Required
6177	10/31/2004	0.44	8.00	N/A
6177	11/30/2004	0.20	8.00	N/A
6177	12/31/2004	0.58	8.00	N/A
6177	1/31/2005	0.81	8.00	N/A
6177	2/28/2005	0.37	8.00	N/A
6177	3/31/2005	0.44	8.00	N/A
6177	4/30/2005	0.13	8.00	N/A
6177	5/31/2005	0.13	8.00	N/A
6177	6/30/2005	0.00	8.00	N/A
6177	7/31/2005	0.00	8.00	N/A
6177	8/31/2005	0.00	8.00	N/A
6177	9/30/2005	0.19	8.00	N/A

All modeled Nitrogen concentrations were below the effluent limit therefore no pollutant reduction was required.

1.9.2.3 LA River Watershed Bacteria TMDL

The table below includes the modeled concentrations for fecal coliform.

Table 1-13: LA River Bacteria

Wet Days*	Modeled Fecal coliform Concentration(#/100ml)	Fecal coliform Limit (#/100ml)	Percent Reduction Required
10/17/2004	12,400	400	96.8%
10/20/2004	93	400	N/A
10/26/2004	12,200	400	96.7%
10/27/2004	764	400	47.6%
11/21/2004	0	400	N/A
12/5/2004	10,900	400	96.3%
12/27/2004	12,100	400	96.7%
12/28/2004	11,900	400	96.6%
12/29/2004	12,300	400	96.7%
1/1/2005	10,800	400	96.3%
1/2/2005	9,380	400	95.7%
1/3/2005	731	400	45.3%
1/4/2005	10,200	400	96.1%
1/6/2005	11,800	400	96.6%
1/7/2005	11,800	400	96.6%
1/8/2005	11,600	400	96.6%
1/9/2005	11,400	400	96.5%
1/10/2005	1,360	400	70.6%
1/11/2005	1,130	400	64.6%
1/12/2005	916	400	56.3%
1/13/2005	724	400	44.8%
1/14/2005	564	400	29.1%
1/15/2005	430	400	7.0%
1/16/2005	320	400	N/A
1/17/2005	231	400	N/A
1/18/2005	162	400	N/A
1/19/2005	112	400	N/A
1/20/2005	75	400	N/A
1/22/2005	32	400	N/A
1/28/2005	38	400	N/A
2/11/2005	176	400	N/A
2/12/2005	131	400	N/A

2/18/2005	120	400	N/A
2/19/2005	84	400	N/A
2/20/2005	64	400	N/A
2/21/2005	33	400	N/A
2/22/2005	25	400	N/A
2/23/2005	13	400	N/A
2/24/2005	9	400	N/A
2/25/2005	6	400	N/A
2/26/2005	5	400	N/A
2/27/2005	3	400	N/A
2/28/2005	11,900	400	96.6%
3/1/2005	10,500	400	96.2%
3/2/2005	12,400	400	96.8%
3/3/2005	11,600	400	96.6%
3/4/2005	113	400	N/A
3/5/2005	82	400	N/A
3/6/2005	56	400	N/A
3/7/2005	38	400	N/A
3/8/2005	27	400	N/A
3/9/2005	18	400	N/A
3/10/2005	12	400	N/A
3/11/2005	8	400	N/A
3/12/2005	6	400	N/A
3/13/2005	3	400	N/A
3/14/2005	0	400	N/A
3/15/2005	0	400	N/A
3/16/2005	12,000	400	96.7%
3/17/2005	0	400	N/A
3/18/2005	0	400	N/A
3/19/2005	0	400	N/A
3/20/2005	12,400	400	96.8%
3/21/2005	12,100	400	96.7%
3/22/2005	9,330	400	95.7%
3/23/2005	260	400	N/A
4/28/2005	11	400	N/A
5/6/2005	38	400	N/A
9/20/2005	0	400	N/A

*Utilized fecal coliform as surrogate pollutant for E. coli in all modeling performed.

The present reductions needed to meet the fecal coliform limit range between 7% and 97%. To reduce bacteria concentrations, the City proposes to create curb cuts to existing and planned landscaped areas and retrofit street side parking areas with permeable pavement and other infiltration features. The City has joined a group of cities to have a Load Reduction Strategy (LRS) prepared to address the dry weather portion of the LA River Bacteria TMDL.

1.9.2.4 Legg Lake Nutrients TMDLs

Table 1-14: Annual mass-based allocations from Order R4-2012-0175

Subwatershed	Permittee	Flow (ac-ft/yr)	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Northwestern	County of Los Angeles	33.5	53.6	148.7
Northwestern	South El Monte	308	526.3	1,500.6
Northeastern	El Monte	122	226.6	590.3
Northeastern	County of Los Angeles	8.18	12.8	39.2
Northeastern	South El Monte	287	498.7	1,394.8

Table 1-15: Legg Lake Modeled Nutrients Reduction Required

Subwatershed ID	Pollutants	Modeled (lb/yr)	Limits (lb/yr)	Percent Reduction
6133	Nitrogen	678.4	590.3	13%
	Phosphorous	594.7	226.6	62%

RB-AR5131

Table 1-16: Legg Lake - Nutrient Flow, Volume & Loading

Sub-watershed ID	Land Use	Total Phosphorus	lb/yr	Nitrogen	lb/yr	Flow	in-acre/yr
6133	HD_SF_RESIDENTIAL	PO_TP	61.24	PO_TN	64.45	SURO	142.20
6133	LD_SF_RES_MODERATE	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	LD_SF_RES_STEEP	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	MF_RES	PO_TP	524.81	PO_TN	552.36	SURO	1218.72
6133	COMMERCIAL	PO_TP	170.46	PO_TN	113.63	SURO	250.72
6133	INSTITUTIONAL	PO_TP	53.89	PO_TN	85.51	SURO	188.68
6133	INDUSTRIAL	PO_TP	1.13	PO_TN	1.79	SURO	3.95
6133	TRANSPORTATION	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	SECONDARY_ROADS	PO_TP	101.29	PO_TN	202.51	SURO	446.83
6133	URBAN_GRASS_IRRIGATED	PO_TP	25.55	PO_TN	47.32	SURO	59.67
6133	URBAN_GRASS_NONIRRIGATED	PO_TP	4.01	PO_TN	7.43	SURO	9.00
6133	AGRICULTURE_MODERATE_B	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	AGRICULTURE_MODERATE_D	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT _MODERATE_B	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT _MODERATE_D	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_A	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_B	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_C	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	VACANT_STEEP_D	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	WATER	PO_TP	0.00	PO_TN	0.00	SURO	0.00
6133	WATER_REUSE	PO_TP	0.00	PO_TN	0.00	SURO	0.00
Totals			942.37		1075.00		2319.77
Flow in ac-ft/yr							193.31
Volume in L/yr							238,449,261.2

A 13% reduction is required for Total Nitrogen and a 62% reduction is required for Total Phosphorus. To achieve this, the City will implement a combination of nonstructural BMPs and infiltration and/or flow-through BMPs to achieve a 7%-44% flow reduction. Figures 1-16 and 1-17 show the relationship between the required pollutant reduction and the associated flow reduction. The US EPA National

Stormwater Calculator was used to estimate the necessary BMPs to achieve the required flow reduction (by infiltration). The City makes the following assumptions with regards to the proposed BMPs:

- Enhanced Street Sweeping: 2%
- Retrofit of Catch Basins with Full Capture Devices: 1%
- Low Impact Development Ordinance and Green Streets Policy Implementation: 1%

Using an estimated 4% reduction for the above listed nonstructural BMPs, the remaining pollutant reduction would be achieved by implementation of the structural BMPs as listed below.

- Installation of Porous Pavement (Porous Gutter/Porous sidewalk) : 22%
- Tree Well Filters, Biofilters, and Street Planter Infiltration areas (Permeable Landscaping): 8%
- Modular Wetland Systems: 1%

Figure 1-18 illustrates that the structural BMPs would provide enough infiltration to achieve the required flow reductions. The City will focus BMP implementation in the Industrial/Commercial area along Mountain View Road and then in the surrounding mixed commercial/residential areas. To provide additional runoff reduction, the City will also encourage residents and business owners to install rain harvesting and infiltration BMPs (rain gardens, rain barrels, porous pavers, etc.) on their properties.

The City will evaluate if additional structural BMPs are needed based on the results of the monitoring conducted during implementation of the Integrated Monitoring Program (IMP).

Figure 1-16: Legg Lake – Total Nitrogen Reduction versus Flow Reduction

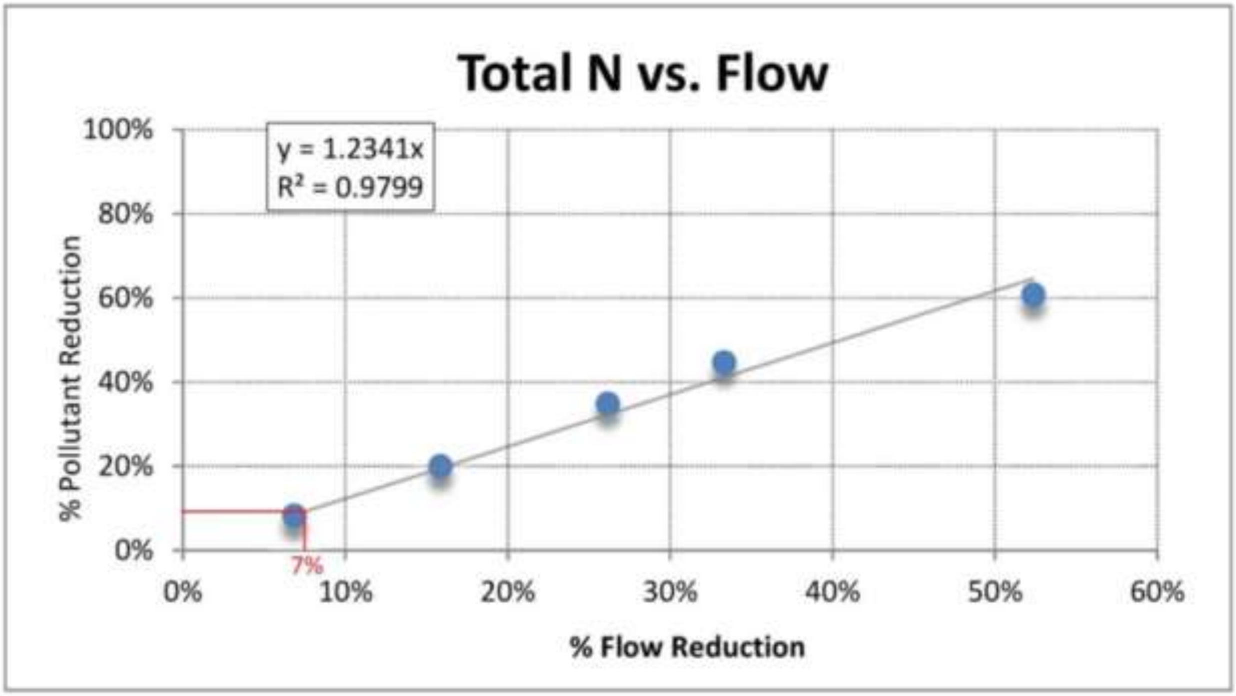


Figure 1-17: Legg Lake – Total Phosphorus Reduction versus Flow Reduction

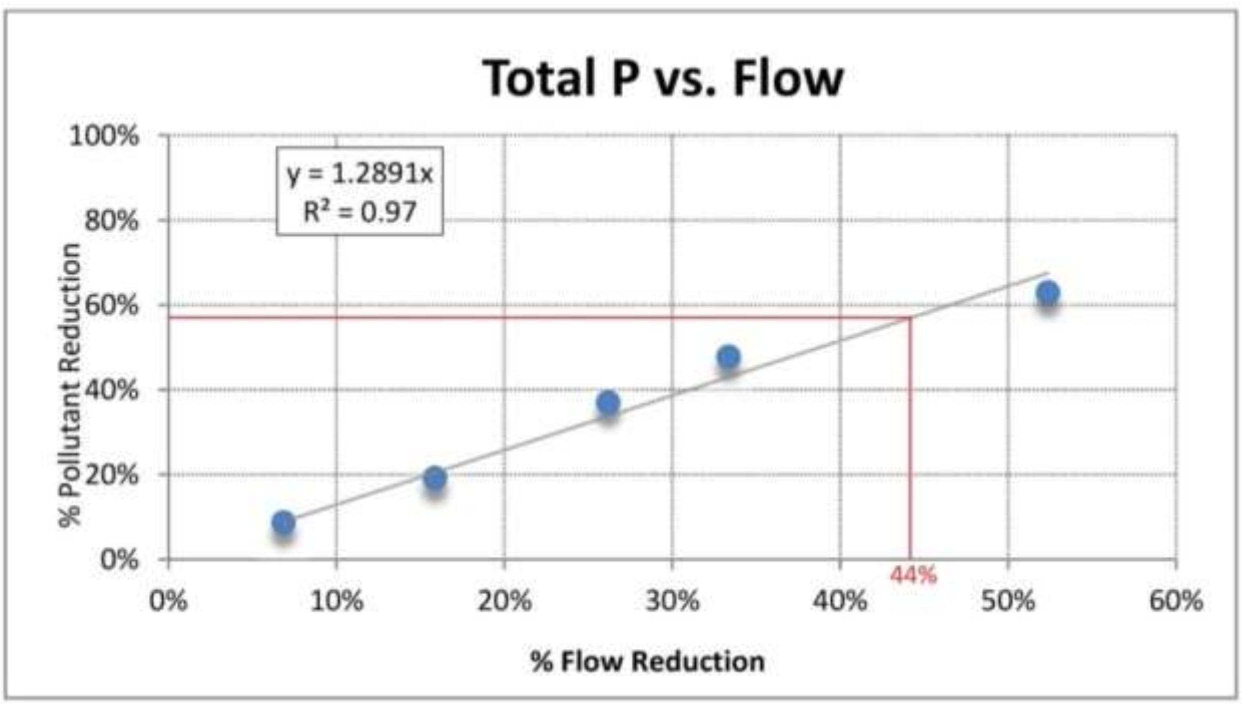


Figure 1-18: Total N and P - National Stormwater Calculator Report for subwatershed 6133 – Legg Lake

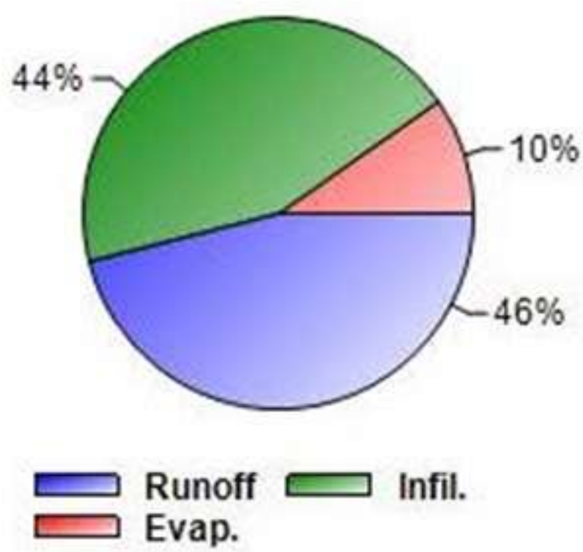
Parameter	Current Scenario	Baseline Scenario
Site Area (acres)	129.58	
Hydrologic Soil Group	C	
Hydraulic Conductivity (in/hr)	0.08	
Surface Slope (%)	5	
Precip. Data Source	WHITTIER NARROWS D...	
Evap. Data Source	MONTEBELLO	
Climate Change Scenario	Median/Near Term	
% Forest	0	
% Meadow	0	
% Lawn	25	
% Desert	0	
% Impervious	75	
Years Analyzed	20	
Ignore Consecutive Wet Days	False	
Wet Day Threshold (inches)	0.10	

LID Control	Current Scenario	Baseline Scenario
Disconnection	0	
Rain Harvesting	0	
Rain Gardens	0	
Green Roofs	0	
Street Planters	28 / 8	
Infiltration Basins	0	
Porous Pavement	19 / 22	

% of impervious area treated / % of treated area used for LID

Percent Reduction Required 1-18 cont.: Total N and P - National Stormwater Calculator Report for Subwatershed 6133 – Legg Lake

Statistic	Current Scenario	Baseline Scenario
Average Annual Rainfall (inches)	14.92	
Average Annual Runoff (inches)	6.88	
Days per Year With Rainfall	21.39	
Days per Year with Runoff	14.04	
Percent of Wet Days Retained	34.35	
Smallest Rainfall w/ Runoff (inches)	0.16	
Largest Rainfall w/o Runoff (inches)	0.33	
Max. Rainfall Retained (inches)	1.38	



1.9.2.5 San Gabriel River and Impaired Tributaries Metals and Selenium TMDLs

Table 1-17: Waste Load Allocation from Order R4-2012-0175

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
San Gabriel Reach 2	---	81.34 µg/L x daily storm volume (L)	---
Coyote Creek	24.71 µg/L x daily storm volume (L)	96.99 µg/L x daily storm volume (L)	144.57 µg/L x daily storm volume (L)

Table 1-18: San Gabriel River Lead

Wet Days*	USGS Station 11085000 (cf/s)	L/Day	Lead Daily Limit (kg/day)	Lead from model (kg/day)	Percent Reduction Required
1/8/2005	2,940	7,192,932,117	5.32	0.03	N/A
1/9/2005	10,900	26,667,673,495	19.74	0.01	N/A
1/10/2005	14,700	35,964,660,585	26.62	0.00	N/A
1/23/2005	635	1,553,575,474	1.15	0.00	N/A
1/24/2005	617	1,509,537,114	1.12	0.00	N/A
1/26/2005	610	1,492,411,086	1.10	0.00	N/A
2/10/2005	618	1,511,983,690	1.12	0.07	N/A
2/11/2005	608	1,487,517,934	1.10	0.00	N/A
2/12/2005	848	2,074,696,066	1.54	0.00	N/A
2/16/2005	609	1,489,964,510	1.10	0.00	N/A
2/18/2005	746	1,825,145,360	1.35	0.00	N/A
2/19/2005	1,980	4,844,219,589	3.59	0.00	N/A
3/2/2005	270	660,575,399	0.49	0.00	N/A
3/3/2005	351	858,748,018	0.64	0.00	N/A
3/4/2005	339	829,389,111	0.61	0.00	N/A

*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 measure at USGS station 11085000. (Appendix P-1, R4-2012-0175)

All modeled Lead concentrations were below the daily limit therefore no pollutant reduction was required.

1.9.2.6 San Gabriel River, Estuary and Tributaries Indicator Bacteria TMDL (Pending[7])

The table below includes the modeled concentrations for fecal coliform.

Table 1-19: San Gabriel River Bacteria

Wet Days**	Modeled Fecal coliform Concentration(#/100ml)*	Fecal coliform Limit (MNP/100ml)	Percent Reduction Required
1/8/2005	5,850	400	93.2%
1/9/2005	5,830	400	93.1%
1/10/2005	5,500	400	92.7%
1/23/2005	1,260	400	68.3%
1/24/2005	150	400	NA
1/26/2005	791	400	49.4%
2/10/2005	6,800	400	94.1%
2/11/2005	6,050	400	93.4%
2/12/2005	4,730	400	91.5%
2/16/2005	672	400	40.5%
2/18/2005	6,280	400	93.6%
2/19/2005	5,660	400	92.9%
3/2/2005	652	400	38.7%
3/3/2005	3,980	400	89.9%
3/4/2005	2,110	400	81.0%

*Utilized fecal coliform as surrogate pollutant for E. coli in all modeling performed.

**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 measure at USGS station 11085000. (Appendix P-1, R4-2012-0175)

The present reductions needed to meet the fecal coliform limit range between 41% and 94%. To reduce bacteria concentrations, the City proposes to create curb cuts to existing and planned landscaped areas and retrofit street side parking areas with permeable pavement and other infiltration features.

[7] Pending Basin Plan Amendment Approval.

1.9.3 POLLUTANT REDUCTION PLAN

Compliance Determination

- Compliance points are located at the compliance points required in the TMDLs that are within the area covered by the WMP.

- Compliance points for MS4 discharges from the area covered by the WMP to the Receiving Waters of the Los Angeles River (via the Rio Hondo) and the San Gabriel River will be at the outfall(s) (or immediately upstream of the outfalls if safety concerns preclude sampling at the outfalls.

- The compliance point for the Legg Lake system of lakes will be the last catch basin (manhole) on Mountain View Road nearest the City's southernmost jurisdictional boundary. This point corresponds to a point on the single storm drain line from the City to the North Lake at the City's jurisdictional boundary.

- The compliance point for the Peck Road Park Lake has not been fully determined at this point. A review of City and LACFCD records show no direct discharge from the City to the lake. LACFCD maps show catch basins within the residential area discharging to the concrete spillway downstream of the lake. Subwatershed 6301 also does not appear to have a direct connection to the lake.

1.9.4 TMDL SUMMARY AND ACTION REQUIRED

Table 1-20: TMDL Summary and Action Required

<table>
<tr><th>TMDL</th><th>Water Body</th><th>Action Required</th></tr>
<tr><td>Los Angeles River Watershed Trash TMDL</td><td>LA River</td><td>Retrofit catch basins with trash excluders for zero trash by Sept. 30, 2016</td></tr>
<tr><td>Los Angeles River Nitrogen Compounds and Related Effects TMDL</td><td>LA River</td><td>None; Modeled concentration below limit</td></tr>
<tr><td>Los Angeles River and Tributaries Metals TMDL</td><td>LA River</td><td>Install BMPs to achieve required percent reduction</td></tr>
<tr><td rowspan="2">Los Angeles River Watershed Bacteria TMDL</td><td rowspan="2">LA River</td><td>Wet – Implement/install BMPs to address pollutant</td></tr>
<tr><td>Dry – Develop Load Reduction Strategy for Bacteria by March 23, 2016</td></tr>
<tr><td>Los Angeles Area Lakes TMDL (Peck Road Park Lake)</td><td>Peck Road Park Lake</td><td>None; no discharge to lake</td></tr>
<tr><td>Legg Lake Trash TMDL</td><td>LA River</td><td>Retrofit catch basins with trash excluders for zero trash by March 6, 2016</td></tr>
<tr><td>Los Angeles Area Lakes TMDL (Legg Lake Nutrients)</td><td>Legg Lake</td><td>Retrofit catch basins with BMPs to remove nutrients to comply with WLAs</td></tr>
<tr><td>Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL</td><td>LA River</td><td>Collaborate with Lower Los Angeles River Watershed Group on TMDL monitoring (yearly)</td></tr>
<tr><td>Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL</td><td>San Gabriel River</td><td>Collaborate with Lower San Gabriel River Watershed Management Group on TMDL monitoring (yearly)</td></tr>
<tr><td>San Gabriel River and Impaired Tributaries Metals and Selenium TMDL</td><td>San Gabriel River</td><td>Install BMPs to achieve required percent reduction</td></tr>
<tr><td>San Gabriel River Bacteria TMDL (Pending)</td><td>San Gabriel River</td><td>Implement/install BMPs to address pollutant</td></tr>
</table>

1.10. COMPLIANCE AND BMP IMPLEMENTATION SCHEDULES

The City will implement the following BMPs per the schedules shown in order to be in compliance with TMDLs in the Los Angeles River, Legg Lake and San Gabriel River.

Table 1-21: Los Angeles River Trash TMDL BMP Implementation Schedule

Subwatershed ID	Area (ac)	Approx. Catch Basins*	Existing Retrofitted Catch Basins	Planned Catch Basin Retrofits	BMP Type	Schedule	
6178	778.6	101	30	71	ARS**	30 retrofitted by 2015	41 retrofitted by 2016
6267	655.8	70	0	70	ARS	35 retrofitted by 2015	35 retrofitted by 2016
6266	579.7	50	11	39	ARS	20 retrofitted by 2015	19 retrofitted by 2016
6300	397.1	40	0	40	ARS	20 retrofitted by 2015	20 retrofitted by 2016
6216	231.4	25	0	25	ARS	12 retrofitted by 2015	13 retrofitted by 2016

*Catch basins that City of El Monte is responsible for.

**ARS: Automatic Retractable Screen.

Table 1-22: Legg Lake Trash and Nutrients TMDL BMP Implementation Schedule

Subwatershed ID	Drainage Area (ac)	Predominant Land Use	Pollutant of Concern	BMP Type	Schedule**	
6133 (Legg Lake)	129.6	Commercial/High Density Residential	Nutrients & Trash	MWS*	80% of drainage area by March 6, 2015	100% of drainage area by March 6, 2016

*MWS: Modular Wetland System or additional equivalent BMPs

**Schedule from Legg Lake Trash TMDL

Table 1-23: Bacteria TMDL Milestones for Los Angeles River

TMDL	Constituent	Compliance Goal	Dry/ Wet	Compliance Milestone	
				Phase 1	Phase 2
LA River Bacteria	Fecal Coliform	Meet WQBELs	Dry	Submit LRS for Segment B tributary by March 23, 2016.	Submit New LRS by September 23, 2024.
				Complete Implementation of LRS by March 23, 2020.	Complete Implementation of LRS by March 23, 2028.
				Achieve interim (or final) WQBELs and submit report to Regional Water Board by Sept. 23, 2023.	Achieve final WQBELs or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board by March 23, 2030.
			Wet	Meet WQBELs by March 23, 2037.	

Table 1-24: TMDL Milestones for Los Angeles River

TMDL	Constituents	Compliance Goal	Dry/Wet	Compliance Milestone					
				2012	2020	2024	2028	2032	2037
LAR Nutrients	Nitrogen Compounds	Meet WQBELs	All	Final					
				Pre2012					
LAR Metals	Copper, Lead, Zinc, Cadmium	% of MS4 Area/Meet WQBELs	Wet	25%		50%	100%		
				1/11		1/11	1/11		
	Copper, Lead	% of MS4 Area/Meet WQBELs	Dry	50%	75%	100%			
				1/11	1/11	1/11			
Dominguez Channel/Harbor Toxics	DDTs, PCBs, Copper, Lead, Zinc, PAHs	Meet WQBELs	All	Interim				Final	
				12/28				3/23	

Table 1-25: Interim and Final WQBELs for Metals for LA River

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations
	Wet Weather
January 11, 2020	25%
January 11, 2024	50%
January 11, 2028	100%

Table 1-26: TMDL Milestones for San Gabriel River

TMDL	Constituents	Compliance Goal	Dry/ Wet	Compliance Milestone					
				2012	2013	2014	2015	2016	2032
SGR Metals	Lead	Meet WQBELs	Wet						
Dominguez Channel/Harbor Toxics	DDTs, PCBs, Copper, Lead, Zinc, PAHs	Meet WQBELs	All	Interim 12/28					Final 3/23

Table 1-27: TMDL Milestones for San Gabriel River Metals

Date	Dry/Wet	To Achieve WLAs Requirement (Resolution No. R13-004)
September 30, 2017	Dry	30% of total drainage area to SGR is effectively meeting WLAs.
	Wet	10% of total drainage area to SGR is effectively meeting WLAs.
September 30, 2020	Dry	70% of total drainage area to SGR is effectively meeting WLAs.
	Wet	35% of total drainage area to SGR is effectively meeting WLAs.
September 30, 2023	Dry	100% of total drainage area to SGR is effectively meeting WLAs.
	Wet	60% of total drainage area to SGR is effectively meeting WLAs.
September 30, 2026	All	100% of total drainage area to SGR is effectively meeting WLAs.

1.11. STAKEHOLDER INVOLVEMENT

The City is committed to identifying and involving stakeholders in the development and implementation of the Watershed Management Program. The City has and continues to inform and seek input from stakeholders and incorporate that feedback throughout the development and implementation of the Watershed Management Programs. The City has posted water quality information on the City website. The Watershed Management Program and Monitoring and Reporting Program was also explained to the City Council and public with a formal presentation during the open session portion of a council meeting.

City representatives attended all scheduled Technical Advisor Meetings (TAC) meetings and have sought Regional Board staff input regarding the review of the City's draft LID Ordinance and Green Streets Policy.

Stakeholders associated with the City of El Monte WMP are:

- Amigos de Rios
- San Gabriel Valley Conservation Corps
- City departments that may be involved with portions of WMP implentation (plus LID, GS)
    - Public Works:
        - Engineering
        - Environmental Services
        - Building
        - PW Maintenance
        - Transportation
    - Economic Development:
        - Planning
        - Neighborhood Services
    - Parks & Recreation

1.11.1 CITY AND STAKEHOLDER PROJECTS IN PROGRESS

The City, in partnership with the San Gabriel Valley Conservation Corps (SGVCC), is completing a project in Lambert Park. The name of the project is the Rio Hondo/San Gabriel River Watershed Enhancement Project/ Lambert Park. The project is being funded by Proposition 84 funding obtained by the SGVCC for watershed rehabilitation projects. The project will convert a portion of the park's impervious area into a woodland garden and a watershed garden, both of which will allow for infiltration of stormwater runoff. Other City/SGVCC partnership projects that have promoted soil conservation and watershed improvements include:

- City of El Monte, CA – Tree Planting – Maintenance Services
- Madrid Middle School, El Monte, CA.- Tree Planting
- Cogswell Elementary, El Monte, CA School Garden & Tree Planting
- Emerald Necklace, El Monte, CA – Tree Planting & Erosion Control
- Baldwin Mini Park, El Monte, CA – Beautifications Projects
- Centennial Liberty Garden, El Monte, CA – Tree Planting and Shrubs Planting

Rio Hondo/San Gabriel River Watershed Enhancement Project at Lambert Park

Porous pavers and tree well at Lambert Park

Mulched infiltration swale at Lambert Park

Mulched infiltration swale at Lambert Park

The City has provided every citizen and business with a DVD of information entitled "Green Street Scene" to further inform residents and businesses regarding water use and water quality. Active stakeholder groups around and within El Monte that work with the City to improve water quality through education and the modification of areas within the City (parks, trails, etc.) in order to promote storm water infiltration, capture, and re-use.

"Green Street Scene" DVD provided to citizens

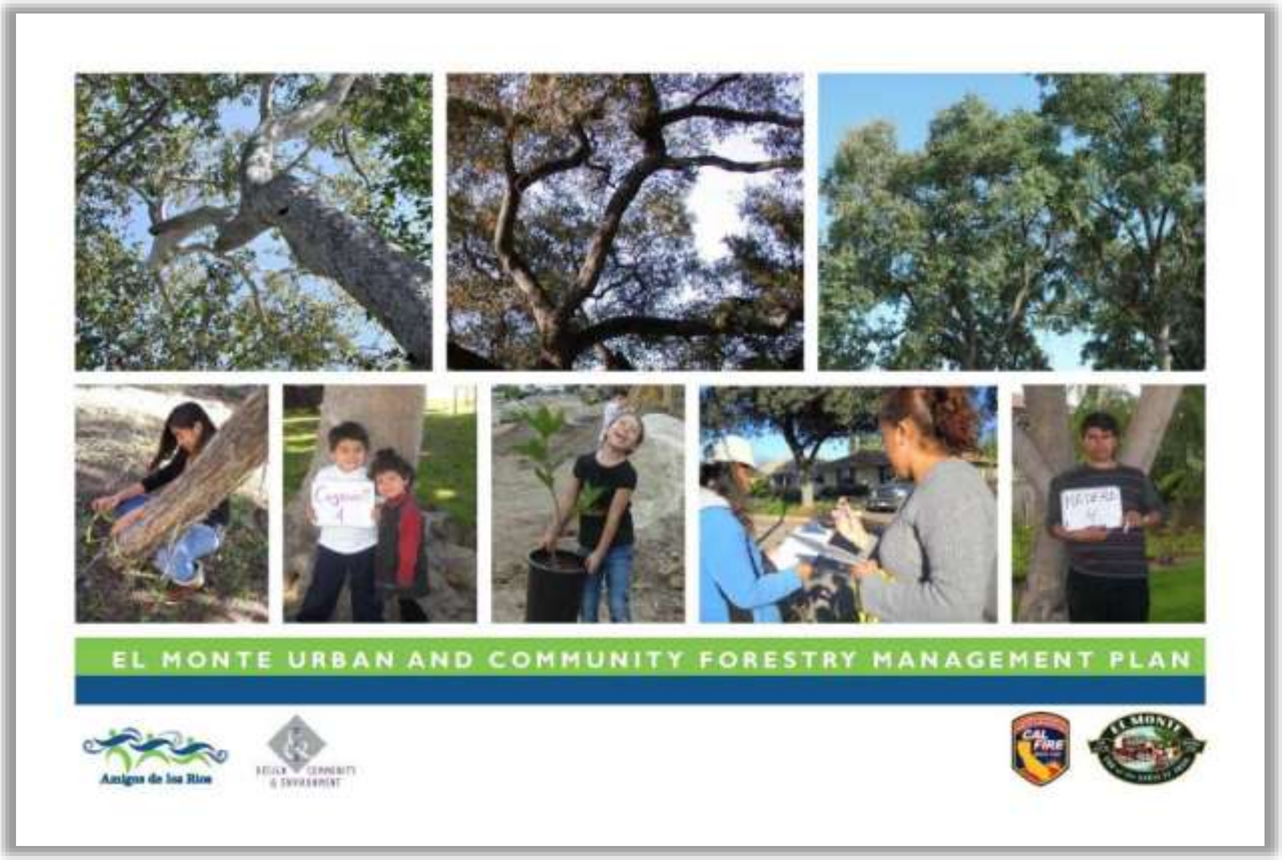
1.11.2 CITY AND RESIDENTS WORK TOGETHER TO RECYLE AND ILIMINATE POLLUTION

The City promotes cleaner water by providing free oil drain containers to all City residents as well as free paper shredding/recycling and free electronic waste collection during the 2014 Earth Day celebration at Arceo Park in El Monte. The City is dedicated to informing their citizens, municipal staff, and developers of the importance or water quality as evidenced by the City's continued distribution of educational materials at community activities and special events.

City of El Monte Environmental Program at Arceo Park

The City also has active and dedicated Public Works and Economic Development Departments as evidenced by their Urban and Community Forestry Management Plan Manual.

City of El Monte Urban and Community Forestry Management Plan Manual



Both Departments use the manual to promote the following benefits:

- Connection with Nature – Support Habitat. Trees provide shelter and food for birds and other small animals. A varied tree population supports a wide diversity of animals. In addition to being beneficial on a regional and global level, local habitat diversity creates a dynamic, educational, and enjoyable environment for humans.

- Improved Public Health. Nearly all of the benefits provided by trees contribute to health. While clean air and water directly benefit physical health, the provision of shade and aesthetically pleasing streets encourages walking and physical activity. Research has also demonstrated that trees and other vegetation soothe nerves, helping to accelerate healing processes and reduce behavioral problems in children.

- Improved Air Quality. Trees can play several roles in improving air quality. The most direct way that trees help to improve air quality is by absorbing and filtering air pollutants. In addition, trees reduce air pollution by creating cool microclimates and by reducing the demand for air conditioning in buildings. When trees shade buildings and reduce the need for air conditioning, they also indirectly improve air quality. Air pollution increases with higher temperatures, so maintaining cool microclimates can actually improve air quality.

- Stormwater Management. Trees improve the quality of stormwater by reducing the amount of stormwater runoff that enters storm drains. The leaves of a tree capture rain and other precipitation. This slows the rate of rainfall, reduces runoff volume, and increases water infiltration directly into the soil, which filters the water. Roots and duff (fallen leaf layer on top of the soil) hold soil in place during storm events and allow more time for water to infiltrate into the soil[8].

[8] Source: El Monte Urban and Community Forestry Management Plan Manual, 2010.

SECTION 2 - IMPLEMENTATION

The City will begin implementing the WMP immediately upon approval of the plan by the Regional Water Board or the Executive Officer. It is understood that the City may request an extension of deadlines for achievement of interim milestones only.

As the City was preparing its WMP and IMP, the following items were completed or in progress:

- The LID Ordinance was reviewed by Board staff and adopted by the City on June 10, 2014
- The Greens Streets Policy was reviewed by Board staff and implemented on June 10,2014
- The MCMs were reviewed and modifications were considered
- The City attended the Catch Basin Retrofit Workshop hosted by LACDPW
- The Development Tracking Program was implemented
- The list of Industrial Commercial facilities for inspection was determined and inspections began

SECTION 3 - INTEGRATED WATERSHED MONITORING AND ASSESSMENT

The City has developed an Integrated Monitoring Program (IMP) as set forth in Part IV of the MRP (Attachment E of Order R4-2012-0175). The IMP assesses progress toward achieving the WQBELs and/or RWLs per the compliance schedules and progress toward addressing the water quality priorities of each WMA. The IMP will be subject to approval by the Executive Officer following a public comment period. To increase the cost effectiveness and efficiency of the monitoring program, the City of El Monte has collaborated with several groups on Receiving Water and TMDL monitoring. The IMP includes and addresses the following monitoring program elements:

- Receiving Water Monitoring
- Storm Water Outfall Monitoring
- Non-storm Water Outfall Monitoring
- New Development/Redevelopment Effectiveness Tracking
- Regional Studies

Please refer to the IMP for the details of the Monitoring and Reporting Program (MRP) (as an accompanying document) submitted with this Watershed Management Program.

SECTION 4 - ADAPTIVE MANAGEMENT PROCESS

4.1. WMP ADAPTIVE MANAGEMENT ELEMENTS

Every two years, from the date of program approval, the City of El Monte will implement an adaptive management process for each WMA, adapting the WMP to become more effective, based on, but not limited to the following:

- Progress toward achieving interim and/or final WQBELs and/or RWLs;
- Progress toward achieving improved water quality in MS4 discharges and achieving RWLs through implementation of the watershed control measures based on an elevation of outfall-based monitoring and RW monitoring data;
- Achievement of interim milestones;
- Re-evaluation of the water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the RWs and a reassessment of sources of pollutants in MS4 discharges;
- Availability of new information and data from sources other than the City's monitoring program(s) within the WMAs that forms the effectiveness of the actions implemented by the City;
- Regional Board recommendations; and
- Recommendations for modifications to the Watershed Management Program solicited through a public participation process.

4.2. MODIFICATIONS MADE TO IMPROVE WMP

Based on results of the adaptive management process, the City will report any modification, including where appropriate new compliance deadlines and interim milestones (with the exception of those compliance deadlines established in a TMDL, necessary to improve the effectiveness of the WMP in the Annual Report (as required by the MRP and as part of the ROWD required pursuant to Part II.B of Attachment D).

The adaptive management process fulfills the requirements of Part V.A.4 to address continuing exceedances of RWLs.

4.3. SCHEDULE FOR IMPLEMENTATION MODIFICATIONS

The City will implement any modifications to the WMP upon approval by the Regional Board or within 60 days of submittal (if no objections from the Regional Board).

SECTION 5 - REFERENCES

GUIDELINES FOR CONDUCTING REASONABLE ASSURANCE ANALYSIS IN A WATERSHED MANAGEMENT PROGRAM, INCLUDING AN ENHANCED WATERSHED MANAGEMENT PROGRAM, Prepared by Thanhloan Nguyen, Dr. C. P. Lai, Ivar Ridgeway, Dr. Jun Zhu, Los Angeles Regional Water Quality Control Board, March 25, 2014.

Los Angeles County Department of Public Works (LACDPW) Annual Storm Water Monitoring Reports, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014

Los Angeles County Stormwater Monitoring Reports (Tributary Monitoring), 2002-2003, 2003-2004

Los Angeles Area Lakes TMDLs, U.S. EPA, March 2012

Tetra Tech 2010. Los Angeles County Watershed Model Configuration and Calibration—Part II: Water Quality. Prepared for Los Angeles County Department of Public Works

Total Maximum Daily Loads for Metals and Selenium, San Gabriel River and Impaired Tributaries, U.S. EPA, March 2007

Total Maximum Daily Loads for Metals, Los Angeles River and Tributaries, June 2, 2005

Trash Total Maximum Daily Load for Legg Lake, California Regional Water Quality Control Board, Los Angeles Region, July 11, 2007

Trash Total Maximum Daily Loads for Los Angeles River, California Regional Water Quality Control Board, Los Angeles Region, July 27, 2007

California Environmental Data Exchange Network (CEDEN)

www.idcide.com/**weather/ca/el-monte**.htm) - City of El Monte, CA Weather

2010 303(d) listing website

Water Quality Policy for Developing California's Clean Water Act Section 303(d) List, State of California State Water Resources Control Board, September, 2004

http://dpw.lacounty.gov/wmd/wmms/ - LA County Department of Public Works BMP Selection Tool

http://water.epa.gov/infrastructure/greeninfrastructure/gi_modelingtools.cfm- EPA National Stormwater Calculator

APPENDIX A

LID Ordinance

Green Streets Policy

Legal Authority Letter

APPENDIX B

Chain of Custody Records and laboratory reports from outfall monitoring

APPENDIX A

LID Ordinance

Green Streets Policy

Legal Authority Letter

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS
CITY OF EL MONTE)

I, M. Helen Mireles, Chief Deputy City Clerk, do hereby certify this to be a true and correct copy of City Council Agenda Item No. 13.3, Urgency Ordinance No. 2840, An Urgency Ordinance of the El Monte City Council Amending Section 13.20 Storm water and Urban Runoff Pollution Control to Expand the Applicability of the Existing Section 13.20.150 – Post Construction Pollution Reduction Requirements by Imposing Low Impact Development (LID) Strategies on Projects that Require Building Permits and/or Encroachment Permits. Approved and adopted at the regular agenda meeting, of the City of El Monte, held on Tuesday, June 10, 2014.

M. Helen Mireles

M. Helen Mireles, Chief Deputy City Clerk
El Monte California

URGENCY ORDINANCE NO. 2840

AN URGENCY ORDINANCE OF THE EL MONTE CITY COUNCIL AMENDING SECTION 13.20 STORMWATER AND URBAN RUNOFF POLLUTION CONTROL TO EXPAND THE APPLICABILITY OF THE EXISTING SECTION 13.20.150 – POST-CONSTRUCTION POLLUTION REDUCTION REQUIREMENTS BY IMPOSING LOW IMPACT DEVELOPMENT (LID) STRATEGIES ON PROJECTS THAT REQUIRE BUILDING PERMITS AND/OR ENCROACHMENT PERMITS

WHEREAS, The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity; and

WHEREAS, The City 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 State's water quality; and

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; and

WHEREAS, The City has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan; and

WHEREAS, The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, and economic considerations; and

WHEREAS, Urbanization has led to increased impervious surface areas resulting in increased water runoff causing the transport of pollutants to downstream receiving waters; and

WHEREAS, The City needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization; and

WHEREAS, LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge; and

WHEREAS, It is the intent of the City 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.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EL MONTE DOES FIND AND ORDAIN AS FOLLOWS:

SECTION 1. The facts set forth in the recitals above are true and correct and are incorporated by reference as though fully set forth herein.

SECTION 2. Section 13.20 Stormwater and Urban Runoff Pollution Control of the El Monte Municipal Code ("EMMC") to expand the applicability of the existing Section 13.20.150 is modified in its entirety to read per Exhibit "**A**":

SECTION 3. Inconsistent Provisions. Any provision of the El Monte Municipal Code or appendices thereto that conflicts with the provisions of this Ordinance, to the extent of such conflict and no further, is hereby repealed or modified to the extent necessary to affect the provisions of this Ordinance.

SECTION 4. Severability. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or any part thereof is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsection, subdivision, paragraph, sentence, clause or phrase would be subsequently declared invalid or unconstitutional.

SECTION 5. Publication. The Mayor shall sign and the City Clerk shall attest to the passage of this Ordinance. The City Clerk shall cause the same to be published once in the official newspaper within fifteen (15) days after its adoption. This Ordinance shall become effective thirty (30) days after adoption.

PASSED, APPROVED AND ADOPTED by the City Council of the City of El Monte at the regular meeting of this 10 day of June, 2014.

Andre Quintero, Mayor

ATTEST:

Jonathan Hawes, City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:
CITY OF EL MONTE)

I, Jonathan Hawes, City Clerk of the City of EL Monte, hereby certify that the foregoing Ordinance No. 2840 was passed and adopted by the City Council of the City of El Monte, signed by the Mayor and attested by the City Clerk at a regular meeting of said Council held on the 10 day of June, 2014 and that said Resolution was adopted by the following vote, to-wit:

AYES: Mayor Quintero, Mayor Pro Tem Patel, Councilmembers Gomez, Macias and Martinez

NOES: None

ABSTAIN: None

ABSENT: None

Jonathan Hawes

Jonathan Hawes, City Clerk

EXHIBIT A

EXHIBIT A

Low Impact Development Ordinance

Urgency ORDINANCE NO. 2840

An ordinance amending MUNICIPAL CODE Chapter 13.20 of the City of El Monte Municipal Code to expand the applicability of the existing Stormwater and Urban Runoff Pollution Control Section 13.20.150 – Post-Construction Pollution reduction requirements by imposing Low Impact Development (LID) strategies on projects that require building permits and/or encroachment permits.

Findings.

A. The City of El Monte ("City") is authorized by Article XI, §5 and §7 of the State of California Constitution to exercise the police power of the State by adopting regulations to promote public health, public safety and general prosperity.

B. The City 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 State's water quality.

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 consistent with the Planning and Land Development Program requirements contained within the Permit.

D. The City has applied an integrated approach to incorporate wastewater, stormwater runoff, and recycled water management into a single strategy through its Integrated Resources Plan.

E. The City is committed to a stormwater management program that protects water quality and water supply by employing watershed-based approaches that balance environmental, social, conservation, 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 needs to take an alternate approach to managing rainwater and urban runoff while mitigating the undesirable impacts of development and urbanization.

H. LID is widely recognized as a sensible approach to managing the quantity and quality of stormwater and non-stormwater runoff. It sets standards and practices that maintain, improve or restore the natural hydrological contours of the site, reduce runoff, improve water quality, and provide groundwater recharge.

Municipal Code Chapter 13.20 of the City of El Monte Municipal Code is amended in its entirety to read as follows:

13.20.010 Definitions.

Except as specifically provided herein, any term used in this Section13.20 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 in effect at the City at the time of development application, 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, City 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.

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.

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.

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. 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.

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.

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.

City means the City of El Monte.

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.

Construction Activity means any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in land disturbance. Construction activity also covers any activity that requires coverage under the State General Construction Permit by the State of California General Permit for Storm Water Discharges Associated with Industrial Activities or for Stormwater Discharges Associated with Construction Activities.

Control means to minimize, reduce or eliminate by technological, legal, contractual, or other means, the discharge of pollutants from an activity or activities.

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.

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.

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.

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.

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.

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.

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.

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.

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.

LID means Low Impact Development. LID consists of building and landscape features designed to retain or filter stormwater runoff.

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))

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".

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.

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.

Non-Stormwater Discharge means any discharge to a municipal storm drain system that is not composed entirely of stormwater.

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.

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.

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).

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.

Receiving Water means "water of the United States" into which waste and/or pollutants are or may be discharged.

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.

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).

Retail Gasoline Outlet means any retail gasoline outlet per SIC 5541.

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.

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.

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.

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 El Monte.

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 project.

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.

13.20.020. SHORT TITLE

(A) The ordinance codified in this chapter shall be known as the "Low Impact Development (LID) Ordinance of the City of El Monte" and may be so cited.

13.20.020. STORMWATER POLLUTION CONTROL MEASURES FOR DEVELOPMENT PLANNING AND CONSTRUCTION ACTIVITIES

(A) **Objective**. The provisions of this section contain requirements for site design and post-construction BMP operation and maintenance of Development and Redevelopment projects to comply with the City of El Monte's Municipal NPDES permit (Permit) currently in effect at the time of development application submittal, to 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.

(B) **Scope.** This Section contains requirements for stormwater pollution control measures in Development and Redevelopment projects and authorizes the City of El Monte 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 alternative compliance for technical infeasibility, as allowed by the Municipal NPDES Permit currently in effect at the time of development application, and collect fees from projects granted exceptions. Except as otherwise provided herein, the City of El Monte shall administer, implement and enforce the provisions of this Section. Any guidance documents supporting implementation of the Municipal NPDES permit requirements, currently in effect at the time of development application submittal, meeting application in this Ordinance, are hereby incorporated by reference.

(C) Applicability. This Section is applicable to projects as defined below:

1) All Development and Redevelopment projects, termed "Planning Priority Projects," as defined in the Municipal NPDES Permit currently in effect at the time of the development application, shall comply with subsection E of Section 13.20.020.

2) Street and Road Construction projects of ten thousand (10,000) square feet or more of impervious surface, in addition to complying with all other applicable provisions of Section 13.20.020, shall follow USEPA guidance regarding "Managing West Weather with Green Infrastructure: Green Streets" (December 2008, EPA-833-F-08-009) to the maximum extent practicable. This subsection applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects, including Capital Improvement Projects (CIPs).

3) Single Family Hillside Homes (as defined in City Code 13.20.010 Part C), in addition to complying with all other applicable provisions of Section 13.20.020, shall implement the following measures:

   i. Conserve natural areas

   ii. Protect slopes and channels

   iii. Provide storm drain stenciling and signage

   iv. Divert roof runoff to vegetated areas before discharge unless the diversion would results in slope instability

   v. Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

4) Any other project, as deemed appropriate by the Department, submitted for complete discretionary or non-discretionary permit application filed with the Department after December 31, 2012.

(D) Effective Date. The Planning and Land Development requirements contained in this Ordinance shall become effective 30 Days from the adoption of this Ordinance. This includes all applicable projects listed in subsection C of Section 13.20.020 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 30 days of adoption of this Ordinance. Projects that have been deemed complete within 30 days of adoption of this Ordinance are not subject to the requirements of this Chapter.

(E) Stormwater Pollution Control Requirements. All applicable projects listed in subsection C of Section 13.20.020 shall be designed to control pollutants, pollutant loads, and runoff volumes 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. All applicable projects shall prepare a LID Plan that is submitted to and approved by the Department. All LID plans shall comply with the following:

a. Low Impact Development Standards and BMP Implementation hierarchy: All project Applicants shall:

   i. Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function and avoid breeding of vectors.

   ii. Prioritize the selection of BMPs to remove Stormwater pollutants, reduce Stormwater runoff volume, and beneficially use Stormwater to support an integrated approach to protecting water quality and managing water resources in the following order:

      1. On-site infiltration, bioretention and/or rainfall harvest and use; then

      2. On-site biofiltration, offsite groundwater replenishment, and/or off-site retrofit.

         a. If using biofiltration due to demonstrated technical infeasibility, then the volume to be biofiltrated shall be calculated using the following equation:

         $B_V = 1.5 * [SWQD_V - R_V$

         Where:

         B_V = biofiltration volume

         $SWQD_V$ = the storm water runoff from a 0.75 inch, 24-hour storm or the 85th percentile storm, whichever is greater

         R_V = volume reliably retained on-site

b. Retain onsite the Stormwater Quality Design Volume (SWQDv) as required per the Permit currently in effect at the time of development application submittal.

c. When 100 percent onsite retention of the SWQDv is technically infeasible, partially or fully, the infeasibility shall be demonstrated in the submitted LID Plan and approved by the Department. 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 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. Projects that have successfully demonstrated technical infeasibility for full retention of the SWQDv to the Department, shall implement alternate compliance measures (alternate mitigation options) as designated in the Permit currently in effect at the time of development application submittal.

e. Additional alternative compliance options, such as offsite infiltration, may be available to the project. The project applicant should contact the Department to determine eligibility. Alternative compliance options are as further specified in the Permit currently in effect at the time of development application submittal.

f. A Multi-Phased Project shall comply with the standards and requirements of this section for all of its phases by:

i. Designing a system acceptable to the Department to satisfy these standards and requirements for the entire Site during the first phase; and/or

ii. Implementing these standards and requirements for each phase of Development or Redevelopment of the project 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.

iii. For purposes of this subsection, "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.

g. Minimize hydromodification impacts by maintaining the project's pre-development storm water runoff volumes, flow rates, and durations by maintaining the Erosion Potential (EP) in streams at 1, or implementing hydromodification control BMPs and/or LID strategies, or other restoration measures to meet Hydromodification Control Criteria as designated in the Permit currently in effect at the time of development application submittal.

h. Department may exempt certain applicable projects listed in subsection C of Section 13.20.020 from hydromodification control requirements where assessments of downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to beneficial uses of natural drainage systems are unlikely:

i. The replacement, maintenance or repair of existing, publicly-maintained flood control facilities, storm drains, or transportation networks.

ii. Redevelopment of a previously developed site in an urbanized area that does not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.

iii. Projects that have any increased discharge directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has an estimated 100-year peak flow of 25,000 cubic feet per second or more, or other receiving water that is not susceptible to hydromodification impacts.

iv. Projects that discharge directly or through a storm drain into concrete or other engineered (not natural) channels (e.g. channelized or armored rip rap, shotcrete, etc.) which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts.

v. Single family homes that incorporate LID BMPs.

(F) LID Plan Review. The applicant for any development project shall submit a LID plan to the Department for review and approval that provides a comprehensive, technical discussion of how the development project will comply with this Section 13.20.020. A deposit and fee to recover associated review costs shall be required. Timing for obtaining LID plan approval shall be as follows:

a. For subdivisions, the LID Plan shall be approved prior to the tentative map.

b. For any development project requiring a Conditional Use Permit (CUP) or other discretionary entitlement required under (City Code 16.38.010 General Purposes), the LID plan shall be approved prior to the issuance of any such CUP or other discretionary entitlement.

c. For all development projects, the LID plan shall be approved prior to issuance of a grading permit for the development project, or when no grading permit is required, prior to the issuance of a building permit. When no grading or building permit is required, LID plan approval shall be prior to the commencement of any development activity or as otherwise indicated in the non-discretionary land use approval.

(G) Ongoing Maintenance.

a. All project's LID and hydromodification control features shall be maintained and shall remain operable at all times and shall not be removed from the project unless and until such features have been replaced with other LID and/or hydromodification control features in accordance with this Section.

b. Unless excused by the Department, all LID plans shall include an operation and maintenance plan and monitoring plan for all LID practices, LID BMPs and hydromodification control features incorporated into the project.

c. The owner of the subject development project site shall record a covenant or agreement, approved by the Department, in the office of the Los Angeles County Registrar-Recorder/County Clerk indicating that the owner of the subject development project site is aware of and agrees to the requirements in this

subsection. The covenant or agreement shall also include a diagram of the development project site indicating the location and type of each LID and hydromodification control feature incorporated into the development project. The time to record such convenient or agreement shall be as follows:

i. For any subdivision, prior to final map approval.

ii. For any other development project, prior to issuance of a grading plan approval for the development project, and when no grading plan approval is required, prior to issuance of building plan approval for the development project.

(H) Other Agencies of the City of El Monte. All City of El Monte departments, offices, entities and agencies, shall establish administrative procedures necessary to implement the provisions of this Ordinance on all applicable projects, as listed in subsection C of Section 13.20.020, and report their activities annually to the Department.

(I) 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 that are declared to be severable.

(J) 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 El Monte, at its meeting of June 10, 2014.

Jonathan Hawes

Jonathan Hawes, City Clerk

By ____________________
Deputy

Approved June 10, 2014

André Quintero

Andre Quintero, Mayor

Approved as to Form ~~and Legality~~ RP

~~Rick Olivarez, City Attorney~~

By ____________________

Richard Padilla

Asst. ~~Deputy~~ City Attorney

REVIEWED TO
TO FORM ONLY

Date June 10, 2014

File No. ____________________

RB-AR5177

City of El Monte Green Streets Policy

Purpose

The City of El Monte (City) Department of Public Works (Department) shall implement Green Streets' Best Management Practices (BMPs) for the addition of new streets, redevelopment projects, and roadway improvement projects, including Capital Improvement Projects (CIPs), as described in Section A below.

Green Streets provide many benefits including water quality improvements, groundwater replenishment, and attractive streetscapes by optimizing public space to integrate green techniques into transportation design. Green Streets is defined as public right-of-way areas that incorporate infiltration, biofiltration, and/or storage and use BMPs to collect, retain, or detain stormwater runoff.

Policy

A. Application:

Department shall require all new developments, redevelopment projects, roadway construction projects, and CIP projects conducted within the public right-of-way, hereafter referred to as "roadway projects," to incorporate Green Streets' BMPs to the maximum extent practicable (MEP). For the purposes of this policy, MEP determination shall be on a project-by-project basis and at the discretion of the Public Works Director. Roadway projects requiring Green Street's BMPs shall meet one of the following criteria:

1. Street and road construction of 10,000 square feet or more of impervious surface area, including:
    a. Standalone street and road projects
    b. Standalone highway and freeway projects
    c. Streets within larger projects
2. Street and road developments resulting in the creation or addition or replacement of 5,000 square feet or more of impervious surface on an already developed site. 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.

3. Street and road improvements with a cost of $500,000 or more.

B. Criteria and Constraints:

Project characteristics or constraints may reduce the ability to incorporate Green Streets' BMPs. When planning for incorporation of BMPs and/or techniques into a roadway project, consideration should be given to the following:

- Right-of-way availability
- Adjacent agency owned land where BMPs, such as bioretention and infiltration basins, may be incorporated into the project.
- Existing utilities – availability of stormdrains or confliction with existing utility locations
- Soil type and elevated groundwater.
- Safety concerns – siting limitations or potential maintenance access concerns

C. Feasibility and Implementation:

Implementation of BMPs within roadway projects requires that drainage patterns be considered such that drainage may be routed to the BMPs prior to entering the storm drain system or exiting the project area. Design of BMPs shall utilize available topography in order to utilize gravity for conveyance to and through each BMP designed into the project. Flow paths of higher flows must be considered when designing BMPs to ensure flooding or ponding does not occur in peak flow situations. See also Section D.4 of this policy regarding peak flow considerations.

All roadway projects shall incorporate the following techniques and/or BMPs into the project design to the MEP standard:

- Conservation of natural areas to the extent feasible
- Use of landscaping that minimizes irrigation and runoff, and promotes surface infiltration
- Street trees to increase the canopy cover of a street
- Planter boxes/tree boxes to the extent feasible, and in compliance with City codes

The extent to which BMPs may be incorporated into a project depends on the project type and project-specific feasibility. Feasibility of implementing BMPs may be affected by regulatory requirements, site-specific characteristics, and infrastructure and project-specific characteristics. Therefore, each roadway project shall also evaluate the feasibility of incorporating the following BMPs into their project design to the MEP standard. This is in addition to those techniques and BMPs listed above:

- Vegetated curb extensions
- Bioswales
- Permeable pavers
- Alternative street widths
- Infiltration basins, if City owned land is project adjacent and infiltration is determined to be feasible for the site

D. Infiltration Infeasibility:

Use of any BMP relying solely on infiltration for drainage, such as permeable pavement without underdrains, shall confirm that project soils are appropriate for infiltration to ensure no standing water within the BMPs after 72 hours. A complete geotechnical or soils report should be performed to determine existing ground water depth, site soil types, and field measured infiltration rates. Projects whose underlying soils are determined to infiltrate at a measured rate lower than 0.3"/hr are determined to be technically infeasible for use of any BMP relying solely on infiltration for drainage.

E. Target Sizing Criteria:

The larger of the 0.75", 24-hour rain event, or the 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile isohyetal map, should be utilized to size all proposed BMPs in roadway projects. Using available soils information, topography, and in compliance with City codes and ordinances, identify the appropriate BMPs for incorporation into the roadway project. Implementation of several BMP types in succession may also be utilized and is commonly referred to as a *BMP treatment train*. The following steps should be followed for all roadway projects:

1. Determine overall tributary area to each proposed BMP location and compute imperviousness.
2. Using a published BMP design standard, determine the appropriate BMP sizing method and calculate the target sizing criteria.
3. Design BMPs into the roadway project to capture the target sizing criteria.
4. If determination is made that a proposed BMP, or a BMP treatment train, cannot adequately capture the target sizing criteria, then provide capture for the greatest portion of the target sizing criteria that can be reasonably achieved.

   If BMPs are undersized for their overall tributary area, the BMP must have the inlet, outlet and any energy dissipation device properly designed for the entire tributary area's peak flows. Consideration must be given for bypass of peak flows

to ensure that all BMPs are not eroded, scoured and/or overwhelmed in larger storm events.

Documentation of any infeasibility and/or project-specific constraints should be placed in the Project development file.

F. Amenities:

Department 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 construction projects and CIPs.

G. Guidance Documents:

Department shall use USEPA's *Managing Wet Weather with Green Infrastructure Municipal Handbook: Green Streets*[1] or develop an equivalent guidance for use in public and private developments. Any Department developed guidance shall be reviewed by the Department every two years and updated accordingly.

H. Retrofit Scope:

Department shall use the City's Watershed Management Program to identify opportunities for Green Streets' BMP retrofits. Final decisions regarding implementation will be determined by the Director of Public Works, or designee, based on the availability of adequate funding.

I. Training:

Department shall incorporate aspects of Green Streets' BMPs into internal annual staff trainings.

[1] US Environmental Protection Agency, EPA-833-F-08-009, December 2008.

CITY OF EL MONTE

OFFICE OF THE CITY ATTORNEY

January 13, 2015

Via Federal Express

Samuel Unger, P.E.
Executive Officer
Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Re: Statement of Legal Authority to Implement and Enforcement Requirements of 40 CFR 122.26(d)(2)(i)(A-F) and National Pollutant Discharge Elimination System Municipal Separate Store Sewer System Permit Order No. R4-2012-0175

Dear Mr. Unger:

The City of El Monte (the "City") hereby submits this Statement of Legal Authority pursuant to Section VI (A)(2) of Order No. R4-2012-0175, NPDES Permit No. CAS004001, issued by the California Regional Water Quality Contract Board ("RWQCB"), Los Angeles Region on November 8, 2012 and titled "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" (the "Permit").

The undersigned Assistant City Attorney for the City hereby states that the City has implemented legal authority to necessary comply with a majority of the legal requirements imposed upon the City by Order No. R4-2012-0175 (the "Order"), consistent with the requirements set forth under 40 CFR Section 122.26(d)(2)(i)(A-F), to the extent permitted by State and Federal law, but subject to the limitations on municipal actions under the California and the United States Constitutions. In so far as certain, legal requirements are not yet in place, the City is actively working to approve ordinances and enter into interagency arrangements that will help the City meet all of the requirements indicated. Parenthetically, nothing herein is intended nor shall be construed as waived by the City of any right to challenge the Permit or to seek cost recovery for complying with any unfunded State mandate. The City reserves all rights, and does not waive any remedy available by law or in equity.

The following is a listing of the requirements of 40 CFR Section 122.26(d)(2)(i)(A-F) as set forth under Section VI (A)(2) of the Order along with reference to the corresponding legal authority of the City to implement the requirement:

1. **Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit as well as to those sites that do not have coverage under an NPDES permit.**

   See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

   Section 13.16.100 – Reduction of pollutants from stormwater

   Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

   Section 13.20.050(B) – Regulatory compliance
   Section 13.20.110 – Control of pollutants from industrial activities
   Section 13.20.120(B) – Control of pollutants from demolition and/or construction activities
   Section 13.20.130 – Control of pollutants from other construction activities.

2. **Prohibit all non-stormwater discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A.**

   See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

   Section 13.16.020 – Purpose and Intent (of Chapter 13.16 which includes elimination of non-stormwater discharges)
   Section 13.16.100(e) – Illicit discharge and illicit connections
   Section 13.16.110(C),(E)(2), and (F) - Authority to Inspect
   Section 13.16.200 (B)(1) – Administrative Enforcement Powers
   Section 13.16.250 – Coordination with hazardous materials inventory and response program

   Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

   Section 3.20.060 – Illicit discharge and non-stormwater discharge

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3. **Prohibit and eliminate illicit discharges and illicit connections to the MS4.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.090 – Illicit Discharge and illicit connections
Section 13.16.100(e) – Illicit discharge and illicit connections
Section 13.16.110(C) and (F) – Authority to Inspect
Section 13.16.250 – Coordination with hazardous material inventory and response program

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 3.20.060 – Illicit discharge and non-stormwater discharge

4. **Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.110(E)(1)-(2) – Authority to Inspect

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.020(A)(2) – Purpose and Intent (including control of discharges into municipal storm drains caused by spills or dumping
Section 13.20.070 – Illegal disposal/dumping
Section 13.20.150(A)(1)-(2) – Post-construction pollution reduction.

5. **Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows).**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.070(B) – Discharge of pollutants
Section 13.16.100 – Reduction of pollutants in stormwater

Section 13.16.120 (A) – Regulatory Compliance

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.050 (A) –Regulatory compliance
Section 13.20.110(A)-(B) – Authority to Inspect
Section 13.20.140 – Control of pollutants from new development
Section 13.20.170(A) – Plan review and approval (for building and grading permits)
Section 13.20.190(D), (E) – Installation and maintenance (as relates to structural and treatment control BMP's in general and residential properties in particular)
Section 13.20.210 – Inspections

6. **Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders.**

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.170 - Violations deemed a public nuisance
Section 13.16.130 – Penalty for Violation
Section 13.16.190 – Civil Actions
Section 13.16.200 – Administrative enforcement powers
Section 13.16.220 – Remedies not exclusive

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.220 – Violation
Section 13.20.230 – Nuisance
Section 13.20.240 – Remedies not exclusive
Section 13.20.250 - Inspections, searches.

7. **Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees.**

The City of El Monte is not currently a party to an "interagency agreement" with other permittees. Nevertheless, the City's draft Integrated Monitoring Program sets as one of the City's goals, the execution of collaborative receiving water monitoring and cost sharing agreements with other public agencies including the Upper San Gabriel Valley

Municipal Water District, the Rio Hondo/San Gabriel Water Quality Group, the Lower San Gabriel River Watershed Management Group and the Lower Los Angeles River Watershed Group.

8. **Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation.**

   The City of El Monte is not currently a party to an "interagency agreement" with other permittees. Nevertheless, the City's draft Integrated Monitoring Program sets as one of the City's goals, the execution of collaborative receiving water monitoring and cost sharing agreements with other public agencies including the Upper San Gabriel Valley Municipal Water District, the Rio Hondo/San Gabriel Water Quality Group, the Lower San Gabriel River Watershed Management Group and the Lower Los Angeles River Watershed Group.

9. **Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4.**

   See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

   See Article III of Chapter 13.16 - Inspection and Enforcement

   Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

   Section 13.20.050(C) – Regulatory compliance
   Section 13.20.210 – Inspections

10. **Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations.**

   See: *Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:*

Section 13.20.120(C) – Control of pollutants from demolition and/or construction activities
Section 13.20.150(F)(4) – Post construction pollution reduction

Chapter 13.10 (Fats, Oils and Grease Control Program)

11. Require that structural BMPs are properly operated and maintained.

See: *Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:*

Section 13.20.040 – Standards, guidelines and criteria
Section 13.20.100 – Control of pollutants from commercial facilities
Section 13.20.130 – Control of pollutants from other construction activities
Section 13.20.140 – Control of pollutants from new developments
Section 13.20.150(A),(F), (G) and (H) – Post-construction pollution reduction
Section 13.20.210 (D) - Inspections

12. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.

See: *Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code:*

Section 13.16.110(F) – Authority to inspection (which includes imposition of duty to undertake monitoring activities and analysis and furnish reports)

Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of the El Monte Municipal Code:

Section 13.20.050(A) – Regulatory compliance (including production of proof of compliance with all stormwater discharge requirements of the United States Environmental Protection Agency, the California State Water Resources Control Board and the California Regional Water Quality Control Board, Los Angeles Region)
Section 13.20.190(D) Installation and maintenance (including imposition of condition on certain property transfers that require successor property owner or lessee to conduct maintenance inspections of all

structural or treatment control BMP's at least once a year and retain proof of inspection)

Section 13.20.210(D) – Inspections (including inspections of records relating to BMP inspections conducted by owner, contractor, developer or occupant)

The City's enforcement authority is set forth under Article III (Inspection and Enforcement) of Chapter 13.16 (Stormwater Management and Discharge Control) of the El Monte Municipal Code and under Sections 13.20.220, 13.20.230, 13.20.240 and 13.20.250 of Chapter 13.20 (Stormwater and Urban Runoff Pollution Control) of El Monte Municipal Code. Violations are punishable as misdemeanors under the foregoing authority. The City may also enforce certain provisions by civil judicial action which includes remedies such as temporary or permanent injunctions, assessments for the recovery of costs of enforcement and costs incurred by the City in removing, correcting or terminating the adverse effects of any violation. (See Section 13.16.190(A)-(D)).

The City may also avail itself of an administrative enforcement process involving the issuance cease and desist orders. (See Sections 13.16.160 and 13.16.200(A)). The City's administrative enforcement tools also include the ability to issue "Notices to Clean" to owners or occupants of parcels that are the source certain pollutants that have entered or at risk of entering the municipal separate store sewer system. (Section 13.16.200(B)). Violations of Chapters 13.16 and 13.20 may also constitute public nuisances and may be abated as such (See Sections 13.16.170 and 13.20.030).

It should also be observed that in addition to general criminal, civil and administrative code enforcement remedies set forth in the City's Municipal Code, the City also has the ability to avail itself of State and Federal law remedies, e.g., remedies that may be available under the Federal Resource Conservation and Recovery Act (RCRA – 42 USC Section 6901 et seq.) and the Federal Clean Water Act (33 U.S.C. Section 1251 et seq.).

The City's efforts to enhance and improve its ability to enforce the Permit are ongoing. On June 10, 2014, the City adopted a low impact development ("LID") ordinance. The City has also:

- Implemented a green streets policy which, among other things, strives to reduce excess stormwater runoff;
- Prepared a draft Watershed Management Program and draft Integrated Monitoring Program which it has submitted to the State Regional Water Quality Control Board following feedback provided by the Los Angeles Regional Water Quality Control Board in its correspondence of October 22, 2014;
- Completed a first round of Commercial/Industrial inspections;
- Completed initial municipal employee training;

- Completed implementation a post-construction BMP tracking system;
- Commenced, and is continuing with, the implementation of a Minimum Control Measures program; and
- Implemented ordinance amendments to implement fines of up to $500 for the wasteful water practices, including cleaning impervious surfaces with potable water which, in turn, enters municipal storm drains.

Please do not hesitate to contact the undersigned should you have any questions or need any additional information with respect to any of the above, and thank you for your consideration of these matters.

Sincerely,

Richard Padilla
Assistant City Attorney

APPENDIX B

Chain of Custody Records and laboratory reports from outfall monitoring

W L

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

CHAIN OF CUSTODY RECORD

3L26030

14859 East Clark Avenue : Industry : CA 91745
Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

Page 1 Of 1

CLIENT NAME: AEI-CASC CONSULTING	PROJECT: EL MONTE DRY WEATHER OUTFALLS
ADDRESS: 2740 W. MAGNOLIA BLVD SUITE 102 BURBANK, CA 91505	PHONE: 310-291-1150
	FAX:
	Email: e_suher@AEI-CASC.COM
	PO#:
PROJECT MANAGER ED SUHER	Sampler CM/LZ/ES

ANALYSES REQUESTED

Special Handling

- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 4-5 Day Rush 75%
- ☐ Rush Extraction 50%
- ☒ 10-15 Business Days
- ☐ QA/QC Package

Charges will apply for weekends and holidays

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OIL + GREASE 1664A	TOTAL P 365.3	TOTAL N BY CALC	TSS SM 2540 D	TDS SM 2540 C	POLYNUCLEAR AROMATICS 625	TOTAL COLIFORM 9221B	FECAL COLIFORM 9221E	E. COLI 9221F	Cu, Pb, Zn, SE 200.7		Method of Shipment / COMMENTS
	12-26-13	1310	RW	RH-DWO-05	8	X	X	X	X	X	X	X	X	X	X		
	12-26-13	1500	RW	SG-DWO-07	8	X	X	X	X	X	X	X	X	X	X		

RB-AR5191

RELINQUISHED BY SIGNATURE	PRINT NAME	DATE / TIME	RECEIVED BY SIGNATURE	PRINT NAME	DATE / TIME
Ed G. Suher	EDMOND G. SUHER	12-26-13 / 1610	[signature]	Adrian Talaby	122613 16:10
SIGNATURE	PRINT NAME		SIGNATURE	PRINT NAME	
SIGNATURE	PRINT NAME		SIGNATURE	PRINT NAME	

SAMPLE CONDITION:

Actual Temperature: 1.9°C

- Received On Ice Y / N — Y
- Preserved Y / N — Y
- Evidence Seals Present Y / N — N
- Container Attacked Y / N — N
- Preserved at Lab Y / N — N

SAMPLE TYPE CODE:
AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM).

SPECIAL REQUIREMENTS / BILLING INFORMATION

DISTRIBUTION: WHITE & CANARY - For Laboratory PINK - For Client

CERTIFICATE OF ANALYSIS

Client:	AEI-CASC Consulting 2740 W. Magnolia Blvd., Ste.102 Burbank CA, 91505	**Report Date:**	01/23/14 16:00
		Received Date:	12/26/13 16:10
		Turn Around:	Normal
Attention:	Ed Suher	**Client Project:**	El Monte Dry Weather Outfalls
Phone:	(818) 841-9004		
Fax:	(818) 841-8013		
Work Order(s):	3L26030		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Ed Suher :

Enclosed are the results of analyses for samples received 12/26/13 16:10 with the Chain of Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

RB-AR5192

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
RH-DWO-05	CM/LZ/ES		3L26030-01	Water	12/26/13 13:10
SG-DWO-07	CM/LZ/ES		3L26030-02	Water	12/26/13 15:00

ANALYSES

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Metals by EPA 200 Series Methods

Microbiological Parameters by Standard Methods

Semivolatile Organics - Low Level by GC/MS SIM Mode

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-01 **RH-DWO-05**

Sampled: 12/26/13 13:10 **Sampled By:** CM/LZ/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W3L1437 Prepared: 12/31/13 09:03 Analyst: qvn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	12/31/13 15:15	

Method: EPA 351.2 Batch: W3L1467 Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.32**	0.10	mg/l	1	01/08/14 12:34	

Method: EPA 353.2 Batch: W3L1341 Prepared: 12/27/13 13:20 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**180**	100	ug/l	1	12/27/13 17:27	

Method: EPA 365.3 Batch: W3L1314 Prepared: 12/27/13 09:21 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.052**	0.010	mg/l	1	12/31/13 09:57	

Method: SM 2540C Batch: W3L1456 Prepared: 12/31/13 10:59 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**180**	10	mg/l	1	12/31/13 17:15	

Method: SM 2540D Batch: W3L1304 Prepared: 12/26/13 17:16 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	12/26/13 19:00	

Method: Various Batch: [CALC] Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**0.50**	0.20	mg/l	1	01/08/14 12:34	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W3L1403 Prepared: 12/30/13 15:43 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.010**	0.010	mg/l	1	01/02/14 11:21	
Lead, Total	ND	0.0050	mg/l	1	01/02/14 11:21	
Selenium, Total	ND	0.030	mg/l	1	01/02/14 11:21	
Zinc, Total	ND	0.050	mg/l	1	01/02/14 11:21	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**20**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

RB-AR5194

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-01 **RH-DWO-05**

Sampled: 12/26/13 13:10 **Sampled By:** CM/LZ/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**1700**		2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221F Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**20**		2.0	MPN/100ml	1	12/26/13 16:40	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W3L1446 Prepared: 12/31/13 10:34 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
2-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
Acenaphthene	ND		0.10	ug/l	1	01/23/14 03:29	
Acenaphthylene	ND		0.10	ug/l	1	01/23/14 03:29	
Anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (a) anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (a) pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	01/23/14 03:29	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Chrysene	ND		0.10	ug/l	1	01/23/14 03:29	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	01/23/14 03:29	
Fluoranthene	ND		0.10	ug/l	1	01/23/14 03:29	
Fluorene	ND		0.10	ug/l	1	01/23/14 03:29	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Naphthalene	ND		0.10	ug/l	1	01/23/14 03:29	
Phenanthrene	ND		0.10	ug/l	1	01/23/14 03:29	
Pyrene	ND		0.10	ug/l	1	01/23/14 03:29	
Surr: 2-Fluorobiphenyl	*78 %*	Conc:*3.90*	*22-107*	%			
Surr: Nitrobenzene-d5	*81 %*	Conc:*4.04*	*27-111*	%			
Surr: Terphenyl-d14	*79 %*	Conc:*3.96*	*28-113*	%			

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-02 **SG-DWO-07**

Sampled: 12/26/13 15:00 **Sampled By:** CM/LZ/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W3L1437 Prepared: 12/31/13 09:03 Analyst: qvn

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	12/31/13 15:15	

Method: EPA 351.2 Batch: W3L1467 Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**2.6**	0.10	mg/l	1	01/08/14 12:34	

Method: EPA 353.2 Batch: W3L1341 Prepared: 12/27/13 13:20 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**4000**	100	ug/l	1	12/27/13 17:29	

Method: EPA 365.3 Batch: W3L1314 Prepared: 12/27/13 09:21 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.63**	0.020	mg/l	1	12/31/13 09:57	M-06

Method: SM 2540C Batch: W3L1456 Prepared: 12/31/13 10:59 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**460**	10	mg/l	1	12/31/13 17:15	

Method: SM 2540D Batch: W3L1304 Prepared: 12/26/13 17:16 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**21**	5	mg/l	1	12/26/13 19:00	

Method: Various Batch: [CALC] Prepared: 12/31/13 12:09 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**6.6**	0.20	mg/l	1	01/08/14 12:34	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W3L1403 Prepared: 12/30/13 15:43 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.034**	0.010	mg/l	1	01/02/14 11:23	
Lead, Total	**0.0056**	0.0050	mg/l	1	01/02/14 11:23	
Selenium, Total	ND	0.030	mg/l	1	01/02/14 11:23	
Zinc, Total	**0.084**	0.050	mg/l	1	01/02/14 11:23	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**14000**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

RB-AR5196

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

3L26030-02 **SG-DWO-07**

Sampled: 12/26/13 15:00 **Sampled By:** CM/LZ/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**90000**	2.0	MPN/100ml	1	12/26/13 16:40	

Method: SM 9221F Batch: W3L1394 Prepared: 12/26/13 16:40 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
E. coli	**14000**	2.0	MPN/100ml	1	12/26/13 16:40	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W3L1446 Prepared: 12/31/13 10:34 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
2-Methylnaphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
Acenaphthene	ND		0.10	ug/l	1	01/23/14 04:02	
Acenaphthylene	ND		0.10	ug/l	1	01/23/14 04:02	
Anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (a) anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (a) pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	01/23/14 04:02	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Chrysene	ND		0.10	ug/l	1	01/23/14 04:02	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	01/23/14 04:02	
Fluoranthene	ND		0.10	ug/l	1	01/23/14 04:02	
Fluorene	ND		0.10	ug/l	1	01/23/14 04:02	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Naphthalene	ND		0.10	ug/l	1	01/23/14 04:02	
Phenanthrene	ND		0.10	ug/l	1	01/23/14 04:02	
Pyrene	ND		0.10	ug/l	1	01/23/14 04:02	
Surr: 2-Fluorobiphenyl	*75 %*	Conc:*3.77*	*22-107*	%			
Surr: Nitrobenzene-d5	*77 %*	Conc:*3.85*	*27-111*	%			
Surr: Terphenyl-d14	*82 %*	Conc:*4.08*	*28-113*	%			

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QUALITY CONTROL SECTION

AEI-CASC Consulting
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Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L1304 - SM 2540D

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1304-BLK1)				Analyzed: 12/26/13 19:00						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W3L1304-DUP1)	**Source: 3L24045-01**			Analyzed: 12/26/13 19:00						
Total Suspended Solids	ND	5	mg/l		0.00					

Batch W3L1314 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1314-BLK1)				Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W3L1314-BS1)				Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.206	0.010	mg/l	0.200		103	90-110			
Matrix Spike (W3L1314-MS1)	**Source: 3L23090-01**			Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.425	0.010	mg/l	0.200	0.214	105	90-110			
Matrix Spike Dup (W3L1314-MSD1)	**Source: 3L23090-01**			Analyzed: 12/31/13 09:57						
Phosphorus as P, Total	0.421	0.010	mg/l	0.200	0.214	103	90-110	0.9	20	

Batch W3L1341 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1341-BLK1)				Analyzed: 12/27/13 16:57						
NO2+NO3 as N	ND	100	ug/l							
LCS (W3L1341-BS1)				Analyzed: 12/27/13 16:59						
NO2+NO3 as N	998	100	ug/l	1000		100	90-110			
Matrix Spike (W3L1341-MS1)	**Source: 3L26032-01**			Analyzed: 12/27/13 17:08						
NO2+NO3 as N	5270	100	ug/l	2000	3330	97	90-110			
Matrix Spike Dup (W3L1341-MSD1)	**Source: 3L26032-01**			Analyzed: 12/27/13 17:44						
NO2+NO3 as N	5240	100	ug/l	2000	3330	95	90-110	0.7	20	

Batch W3L1437 - EPA 1664A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1437-BLK1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	ND	5.0	mg/l							
LCS (W3L1437-BS1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	19.2	5.0	mg/l	20.0		96	78-114			
LCS (W3L1437-BS2)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	4.60	5.0	mg/l	5.00		92	78-114			
LCS Dup (W3L1437-BSD1)				Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	17.3	5.0	mg/l	20.0		86	78-114	10	18	
Matrix Spike (W3L1437-MS1)	**Source: 3L26029-01**			Analyzed: 12/31/13 15:15						
Oil & Grease (HEM)	19.7	5.0	mg/l	20.9	2.50	82	78-114			

Batch W3L1456 - SM 2540C

RB-AR5199

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Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L1456 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1456-BLK1)				Analyzed: 12/31/13 17:15						
Total Dissolved Solids	ND	10	mg/l							
LCS (W3L1456-BS1)				Analyzed: 12/31/13 17:15						
Total Dissolved Solids	823	10	mg/l	824		100	96-102			
Duplicate (W3L1456-DUP1)	**Source: 3L30053-03**			Analyzed: 12/31/13 17:15						
Total Dissolved Solids	4960	10	mg/l		4940			0.5	10	
Duplicate (W3L1456-DUP2)	**Source: 3L30053-04**			Analyzed: 12/31/13 17:15						
Total Dissolved Solids	3640	10	mg/l		3630			0.3	10	

Batch W3L1467 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1467-BLK1)				Analyzed: 01/08/14 12:34						
TKN	ND	0.10	mg/l							
Blank (W3L1467-BLK2)				Analyzed: 01/08/14 12:34						
TKN	ND	0.10	mg/l							
LCS (W3L1467-BS1)				Analyzed: 01/08/14 12:34						
TKN	1.01	0.10	mg/l	1.00		101	90-110			
LCS (W3L1467-BS2)				Analyzed: 01/08/14 12:34						
TKN	1.01	0.10	mg/l	1.00		101	90-110			
Matrix Spike (W3L1467-MS1)	**Source: 3L27018-01**			Analyzed: 01/08/14 12:34						
TKN	1.23	0.10	mg/l	1.00	0.186	104	90-110			
Matrix Spike (W3L1467-MS2)	**Source: 3L27018-02**			Analyzed: 01/08/14 12:34						
TKN	1.29	0.10	mg/l	1.00	0.221	107	90-110			
Matrix Spike Dup (W3L1467-MSD1)	**Source: 3L27018-01**			Analyzed: 01/08/14 12:34						
TKN	1.23	0.10	mg/l	1.00	0.186	104	90-110	0.4	10	
Matrix Spike Dup (W3L1467-MSD2)	**Source: 3L27018-02**			Analyzed: 01/08/14 12:34						
TKN	1.29	0.10	mg/l	1.00	0.221	107	90-110	0.01	10	

Metals by EPA 200 Series Methods - Quality Control

Batch W3L1403 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1403-BLK1)				Analyzed: 01/02/14 11:03						
Copper, Total	ND	0.010	mg/l							
Lead, Total	ND	0.0050	mg/l							
Selenium, Total	ND	0.030	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W3L1403-BS1)				Analyzed: 01/02/14 11:05						
Copper, Total	0.211	0.010	mg/l	0.200		105	85-115			
Lead, Total	0.199	0.0050	mg/l	0.200		100	85-115			
Selenium, Total	0.207	0.030	mg/l	0.200		104	85-115			

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Date Received: 12/26/13 16:10
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Metals by EPA 200 Series Methods - Quality Control

Batch W3L1403 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L1403-BS1)				Analyzed: 01/02/14 11:05						
Zinc, Total	0.194	0.050	mg/l	0.200		97	85-115			
Matrix Spike (W3L1403-MS1)	**Source: 3L19098-01**			Analyzed: 01/02/14 11:33						
Copper, Total	0.213	0.010	mg/l	0.200	0.0118	101	70-130			
Lead, Total	0.192	0.0050	mg/l	0.200	ND	96	70-130			
Selenium, Total	0.203	0.030	mg/l	0.200	ND	102	70-130			
Zinc, Total	0.364	0.050	mg/l	0.200	0.177	94	70-130			
Matrix Spike Dup (W3L1403-MSD1)	**Source: 3L19098-01**			Analyzed: 01/02/14 11:36						
Copper, Total	0.215	0.010	mg/l	0.200	0.0118	102	70-130	1	30	
Lead, Total	0.196	0.0050	mg/l	0.200	ND	98	70-130	2	30	
Selenium, Total	0.208	0.030	mg/l	0.200	ND	104	70-130	2	30	
Zinc, Total	0.366	0.050	mg/l	0.200	0.177	95	70-130	0.5	30	

Microbiological Parameters by Standard Methods - Quality Control

Batch W3L1394 - SM 9221F

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1394-BLK1)				Analyzed: 12/16/13 12:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK2)				Analyzed: 12/19/13 17:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK3)				Analyzed: 12/23/13 13:00						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK4)				Analyzed: 12/24/13 13:15						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							

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Date Received: 12/26/13 16:10
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Microbiological Parameters by Standard Methods - Quality Control

Batch W3L1394 - SM 9221B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1394-BLK4)				Analyzed: 12/24/13 13:15						
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W3L1394-BLK5)				Analyzed: 12/26/13 16:40						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W3L1446 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1446-BLK1)				Analyzed: 01/23/14 01:19						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surr: 2-Fluorobiphenyl	*3.30*		*ug/l*	*5.00*		*66*	*22-107*			
Surr: Nitrobenzene-d5	*3.67*		*ug/l*	*5.00*		*73*	*27-111*			
Surr: Terphenyl-d14	*3.52*		*ug/l*	*5.00*		*70*	*28-113*			
LCS (W3L1446-BS1)				Analyzed: 01/23/14 04:34						
Acenaphthene	8.56	0.10	ug/l	10.0		86	47-145			
Acenaphthylene	7.93	0.10	ug/l	10.0		79	33-145			
Anthracene	8.19	0.10	ug/l	10.0		82	27-133			
Benzo (a) anthracene	8.69	0.10	ug/l	10.0		87	33-143			
Benzo (a) pyrene	6.39	0.10	ug/l	10.0		64	17-163			

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Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W3L1446 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L1446-BS1)				Analyzed: 01/23/14 04:34						
Benzo (b) fluoranthene	7.02	0.10	ug/l	10.0		70	24-159			
Benzo (g,h,i) perylene	4.59	0.10	ug/l	10.0		46	0.1-219			
Benzo (k) fluoranthene	7.19	0.10	ug/l	10.0		72	11-162			
Chrysene	8.35	0.10	ug/l	10.0		84	17-168			
Dibenzo (a,h) anthracene	4.98	0.10	ug/l	10.0		50	0.1-227			
Fluoranthene	8.53	0.10	ug/l	10.0		85	26-137			
Fluorene	8.05	0.10	ug/l	10.0		80	59-121			
Indeno (1,2,3-cd) pyrene	6.24	0.10	ug/l	10.0		62	0.1-171			
Naphthalene	8.10	0.10	ug/l	10.0		81	21-133			
Phenanthrene	8.33	0.10	ug/l	10.0		83	54-120			
Pyrene	8.51	0.10	ug/l	10.0		85	52-115			
Surr: 2-Fluorobiphenyl	*3.75*		*ug/l*	*5.00*		*75*	*22-107*			
Surr: Nitrobenzene-d5	*3.94*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.39*		*ug/l*	*5.00*		*68*	*28-113*			
LCS Dup (W3L1446-BSD1)				Analyzed: 01/23/14 05:06						
Acenaphthene	8.67	0.10	ug/l	10.0		87	47-145	1	30	
Acenaphthylene	8.03	0.10	ug/l	10.0		80	33-145	1	30	
Anthracene	8.62	0.10	ug/l	10.0		86	27-133	5	30	
Benzo (a) anthracene	9.18	0.10	ug/l	10.0		92	33-143	5	30	
Benzo (a) pyrene	6.66	0.10	ug/l	10.0		67	17-163	4	30	
Benzo (b) fluoranthene	7.27	0.10	ug/l	10.0		73	24-159	4	30	
Benzo (g,h,i) perylene	4.87	0.10	ug/l	10.0		49	0.1-219	6	30	
Benzo (k) fluoranthene	7.56	0.10	ug/l	10.0		76	11-162	5	30	
Chrysene	8.75	0.10	ug/l	10.0		88	17-168	5	30	
Dibenzo (a,h) anthracene	5.20	0.10	ug/l	10.0		52	0.1-227	4	30	
Fluoranthene	8.99	0.10	ug/l	10.0		90	26-137	5	30	
Fluorene	8.26	0.10	ug/l	10.0		83	59-121	3	30	
Indeno (1,2,3-cd) pyrene	6.69	0.10	ug/l	10.0		67	0.1-171	7	30	
Naphthalene	8.31	0.10	ug/l	10.0		83	21-133	3	30	
Phenanthrene	8.65	0.10	ug/l	10.0		86	54-120	4	30	
Pyrene	9.08	0.10	ug/l	10.0		91	52-115	7	30	
Surr: 2-Fluorobiphenyl	*3.81*		*ug/l*	*5.00*		*76*	*22-107*			
Surr: Nitrobenzene-d5	*3.96*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.65*		*ug/l*	*5.00*		*73*	*28-113*			

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Burbank CA, 91505

Date Received: 12/26/13 16:10
Date Reported: 01/23/14 16:00

Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

W L

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Analytical Laboratory Services - Since 1964

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Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

CHAIN OF CUSTODY RECORD

Page 1 Of 1

CLIENT NAME: AEI-CASC CONSULTING

PROJECT: EL MONTE WET WEATHER OUTFALLS

ADDRESS: 2740 W. MAGNOLIA BLVD SUITE 102 BURBANK, CA 91505

PHONE: 310-291-1150

FAX:

Email: e_suher@AEI-CASC.COM

PO#:

PROJECT MANAGER: ED SUHER

Sampler: CM/ES

ANALYSES REQUESTED: OIL + GREASE 1664A; TOTAL P 365.3; TOTAL N - BY CALC; TSS SM 2540 D; TDS SM 2540 C; POLYNUCLEAR AROMAT 625; TOTAL COLIFORM 9221 E; FECAL COLIFORM 9221 E; E. COLI 9221 F; Cu, Pb, Zn, Se 200.7

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OIL + GREASE 1664A	TOTAL P 365.3	TOTAL N - BY CALC	TSS SM 2540 D	TDS SM 2540 C	POLYNUCLEAR AROMAT 625	TOTAL COLIFORM 9221 E	FECAL COLIFORM 9221 E	E. COLI 9221 F	Cu, Pb, Zn, Se 200.7	
	2/6/14	1520	RW	RH-WWO-05	8	X	X	X	X	X	X	X	X	X	X	
	2/6/14	1640	RW	SG-WWO-07	8	X	X	X	X	X	X	X	X	X	X	

RB-AR5205

Special Handling
- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 4-5 Day Rush 75%
- ☐ Rush Extraction 50%
- ☒ 10-15 Business Days
- ☐ QA/QC Package

Charges will apply for weekends and holidays

Method of Shipment

COMMENTS

RELINQUISHED BY SIGNATURE	PRINT NAME	DATE / TIME	RECEIVED BY SIGNATURE	PRINT NAME	DATE / TIME
E G Suher	ED SUHER	2/6/14 18:15	Jamalimor		2/6/14 18:15

SAMPLE CONDITION:
- Actual Temperature: 4.1°C
- Received On Ice: Y / N (Y)
- Preserved: Y / N (Y)
- Evidence Seals Present: Y / N (N)
- Container Attacked: Y / N (N)
- Preserved at Lab: Y / N (N)

SAMPLE TYPE CODE:
AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS. CLIENT AGREES TO TERMS AND CONDITIONS (SEE BACK OF THIS FORM).

SPECIAL REQUIREMENTS / BILLING INFORMATION

DISTRIBUTION: WHITE & CANARY - For Laboratory PINK - For Client

CERTIFICATE OF ANALYSIS

Client:	AEI-CASC Consulting 2740 W. Magnolia Blvd., Ste.102 Burbank CA, 91505	**Report Date:**	02/24/14 17:11
		Received Date:	02/06/14 18:15
		Turn Around:	Normal
Attention:	Ed Suher	**Client Project:**	El Monte Wet Weather Outfalls
Phone:	(818) 841-9004		
Fax:	(818) 841-8013		
Work Order(s):	4B06078		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Ed Suher :

Enclosed are the results of analyses for samples received 02/06/14 18:15 with the Chain of Custody document. The samples were received in good condition, at 4.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
RH-WWO-05	CM/ES		4B06078-01	Water	02/06/14 15:20
SG-WWO-07	CM/ES		4B06078-02	Water	02/06/14 16:40

ANALYSES

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Metals by EPA 200 Series Methods

Microbiological Parameters by Standard Methods

Semivolatile Organics - Low Level by GC/MS SIM Mode

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-01 **RH-WWO-05**

Sampled: 02/06/14 15:20 **Sampled By:** CM/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W4B0521 Prepared: 02/12/14 12:10 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	02/14/14 14:38	

Method: EPA 351.2 Batch: W4B0653 Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.91**	0.10	mg/l	1	02/18/14 13:17	

Method: EPA 353.2 Batch: W4B0589 Prepared: 02/13/14 14:03 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**590**	100	ug/l	1	02/13/14 17:19	

Method: EPA 365.3 Batch: W4B0393 Prepared: 02/10/14 12:58 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**0.076**	0.010	mg/l	1	02/14/14 18:26	

Method: SM 2540C Batch: W4B0489 Prepared: 02/11/14 17:53 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**190**	10	mg/l	1	02/12/14 11:15	

Method: SM 2540D Batch: W4B0321 Prepared: 02/07/14 17:21 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	ND	5	mg/l	1	02/07/14 18:45	

Method: Various Batch: [CALC] Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**1.5**	0.20	mg/l	1	02/18/14 13:17	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W4B0375 Prepared: 02/10/14 09:39 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.016**	0.010	mg/l	1	02/10/14 16:03	
Lead, Total	ND	0.0050	mg/l	1	02/10/14 16:03	
Selenium, Total	ND	0.030	mg/l	1	02/10/14 16:03	
Zinc, Total	ND	0.050	mg/l	1	02/10/14 16:03	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**10000**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

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Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-01 **RH-WWO-05**

Sampled: 02/06/14 15:20 **Sampled By:** CM/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**260**		40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221F Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**260**		40	MPN/100ml	20	02/06/14 18:50	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W4B0592 Prepared: 02/13/14 14:17 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
2-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
Acenaphthene	ND		0.10	ug/l	1	02/20/14 05:36	
Acenaphthylene	ND		0.10	ug/l	1	02/20/14 05:36	
Anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (a) anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (a) pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	02/20/14 05:36	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Chrysene	ND		0.10	ug/l	1	02/20/14 05:36	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	02/20/14 05:36	
Fluoranthene	ND		0.10	ug/l	1	02/20/14 05:36	
Fluorene	ND		0.10	ug/l	1	02/20/14 05:36	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Naphthalene	ND		0.10	ug/l	1	02/20/14 05:36	
Phenanthrene	ND		0.10	ug/l	1	02/20/14 05:36	
Pyrene	ND		0.10	ug/l	1	02/20/14 05:36	
Surr: 2-Fluorobiphenyl	*71 %*	Conc:*3.53*	*22-107*	%			
Surr: Nitrobenzene-d5	*78 %*	Conc:*3.90*	*27-111*	%			
Surr: Terphenyl-d14	*69 %*	Conc:*3.45*	*28-113*	%			

RB-AR5209

AEI-CASC Consulting
2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-02 **SG-WWO-07**

Sampled: 02/06/14 16:40 **Sampled By:** CM/ES **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 1664A Batch: W4B0521 Prepared: 02/12/14 12:10 Analyst: par

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Oil & Grease (HEM)	ND	5.0	mg/l	1	02/14/14 14:38	

Method: EPA 351.2 Batch: W4B0653 Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**4.6**	0.40	mg/l	4	02/18/14 13:17	

Method: EPA 353.2 Batch: W4B0589 Prepared: 02/13/14 14:03 Analyst: MBC

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	**2000**	100	ug/l	1	02/13/14 17:21	

Method: EPA 365.3 Batch: W4B0393 Prepared: 02/10/14 12:58 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**1.2**	0.10	mg/l	1	02/14/14 18:26	M-06

Method: SM 2540C Batch: W4B0489 Prepared: 02/11/14 17:53 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	**130**	10	mg/l	1	02/12/14 11:15	

Method: SM 2540D Batch: W4B0321 Prepared: 02/07/14 17:21 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Suspended Solids	**230**	5	mg/l	1	02/07/14 18:45	

Method: Various Batch: [CALC] Prepared: 02/14/14 10:47 Analyst: rjs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**6.6**	0.50	mg/l	4	02/18/14 13:17	

Metals by EPA 200 Series Methods

Method: EPA 200.7 Batch: W4B0375 Prepared: 02/10/14 09:39 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Copper, Total	**0.072**	0.010	mg/l	1	02/10/14 16:06	
Lead, Total	**0.032**	0.0050	mg/l	1	02/10/14 16:06	
Selenium, Total	ND	0.030	mg/l	1	02/10/14 16:06	
Zinc, Total	**0.29**	0.050	mg/l	1	02/10/14 16:06	

Microbiological Parameters by Standard Methods

Method: SM 9221B Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Coliform	**28000**	40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

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2740 W. Magnolia Blvd., Ste.102
Burbank CA, 91505

Date Received: 02/06/14 18:15
Date Reported: 02/24/14 17:11

4B06078-02 **SG-WWO-07**

Sampled: 02/06/14 16:40 **Sampled By:** CM/ES **Matrix:** Water

Microbiological Parameters by Standard Methods

Method: SM 9221E Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Fecal Coliform	**1400**		40	MPN/100ml	20	02/06/14 18:50	

Method: SM 9221F Batch: W4B0809 Prepared: 02/06/14 18:50 Analyst: jug

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
E. coli	**1400**		40	MPN/100ml	20	02/06/14 18:50	

Semivolatile Organics - Low Level by GC/MS SIM Mode

Method: EPA 625 Batch: W4B0592 Prepared: 02/13/14 14:17 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
1-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
2-Methylnaphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
Acenaphthene	ND		0.10	ug/l	1	02/20/14 06:09	
Acenaphthylene	ND		0.10	ug/l	1	02/20/14 06:09	
Anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (a) anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (a) pyrene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (b) fluoranthene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (g,h,i) perylene	ND		0.10	ug/l	1	02/20/14 06:09	
Benzo (k) fluoranthene	ND		0.10	ug/l	1	02/20/14 06:09	
Chrysene	**0.14**		0.10	ug/l	1	02/20/14 06:09	
Dibenzo (a,h) anthracene	ND		0.10	ug/l	1	02/20/14 06:09	
Fluoranthene	**0.19**		0.10	ug/l	1	02/20/14 06:09	
Fluorene	ND		0.10	ug/l	1	02/20/14 06:09	
Indeno (1,2,3-cd) pyrene	ND		0.10	ug/l	1	02/20/14 06:09	
Naphthalene	ND		0.10	ug/l	1	02/20/14 06:09	
Phenanthrene	**0.12**		0.10	ug/l	1	02/20/14 06:09	
Pyrene	**0.15**		0.10	ug/l	1	02/20/14 06:09	
Surr: 2-Fluorobiphenyl	*86 %*	Conc:*4.28*	*22-107*	%			
Surr: Nitrobenzene-d5	*94 %*	Conc:*4.69*	*27-111*	%			
Surr: Terphenyl-d14	*86 %*	Conc:*4.32*	*28-113*	%			

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QUALITY CONTROL SECTION

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4B0321 - SM 2540D

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0321-BLK1)				Analyzed: 02/07/14 18:45						
Total Suspended Solids	ND	5	mg/l							
Duplicate (W4B0321-DUP1)	**Source: 4B06021-01**			Analyzed: 02/07/14 18:45						
Total Suspended Solids	ND	5	mg/l		0.00					
Duplicate (W4B0321-DUP2)	**Source: 4B06078-01**			Analyzed: 02/07/14 18:45						
Total Suspended Solids	4.00	5	mg/l		4.00			NR	20	

Batch W4B0393 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0393-BLK1)				Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	ND	0.010	mg/l							
LCS (W4B0393-BS1)				Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.205	0.010	mg/l	0.200		102	90-110			
Matrix Spike (W4B0393-MS1)	**Source: 4B05080-03**			Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.329	0.010	mg/l	0.200	0.136	97	90-110			
Matrix Spike Dup (W4B0393-MSD1)	**Source: 4B05080-03**			Analyzed: 02/14/14 18:26						
Phosphorus as P, Total	0.328	0.010	mg/l	0.200	0.136	96	90-110	0.3	20	

Batch W4B0489 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0489-BLK1)				Analyzed: 02/12/14 11:15						
Total Dissolved Solids	ND	10	mg/l							
LCS (W4B0489-BS1)				Analyzed: 02/12/14 11:15						
Total Dissolved Solids	817	10	mg/l	824		99	96-102			
Duplicate (W4B0489-DUP1)	**Source: 4B06014-01**			Analyzed: 02/12/14 11:15						
Total Dissolved Solids	537	10	mg/l		535			0.4	10	
Duplicate (W4B0489-DUP2)	**Source: 4B11083-01**			Analyzed: 02/12/14 11:15						
Total Dissolved Solids	296	10	mg/l		289			2	10	

Batch W4B0521 - EPA 1664A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0521-BLK1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	ND	5.0	mg/l							
LCS (W4B0521-BS1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	19.5	5.0	mg/l	20.0		98	78-114			
LCS (W4B0521-BS2)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	4.80	5.0	mg/l	5.00		96	78-114			
LCS Dup (W4B0521-BSD1)				Analyzed: 02/14/14 14:38						
Oil & Grease (HEM)	19.2	5.0	mg/l	20.0		96	78-114	2	18	

Batch W4B0589 - EPA 353.2

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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4B0589 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0589-BLK1)				Analyzed: 02/13/14 17:15						
NO2+NO3 as N	ND	100	ug/l							
LCS (W4B0589-BS1)				Analyzed: 02/13/14 16:34						
NO2+NO3 as N	1030	100	ug/l	1000		103	90-110			
Matrix Spike (W4B0589-MS1)	**Source: 4B12061-03**			Analyzed: 02/13/14 16:42						
NO2+NO3 as N	5360	100	ug/l	2000	3370	99	90-110			
Matrix Spike (W4B0589-MS2)	**Source: 4B12061-04**			Analyzed: 02/13/14 16:49						
NO2+NO3 as N	6480	100	ug/l	2000	4570	96	90-110			
Matrix Spike Dup (W4B0589-MSD1)	**Source: 4B12061-03**			Analyzed: 02/13/14 16:44						
NO2+NO3 as N	5330	100	ug/l	2000	3370	98	90-110	0.6	20	
Matrix Spike Dup (W4B0589-MSD2)	**Source: 4B12061-04**			Analyzed: 02/13/14 16:51						
NO2+NO3 as N	6580	100	ug/l	2000	4570	100	90-110	1	20	

Batch W4B0653 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0653-BLK1)				Analyzed: 02/18/14 13:17						
TKN	ND	0.10	mg/l							
Blank (W4B0653-BLK2)				Analyzed: 02/18/14 13:17						
TKN	ND	0.10	mg/l							
LCS (W4B0653-BS1)				Analyzed: 02/18/14 13:17						
TKN	0.968	0.10	mg/l	1.00		97	90-110			
LCS (W4B0653-BS2)				Analyzed: 02/18/14 13:17						
TKN	0.969	0.10	mg/l	1.00		97	90-110			
Duplicate (W4B0653-DUP1)	**Source: 4B07076-01**			Analyzed: 02/18/14 13:17						
TKN	1.74	0.40	mg/l		1.77			2	10	
Matrix Spike (W4B0653-MS1)	**Source: 4B07070-01**			Analyzed: 02/18/14 13:17						
TKN	6.93	0.40	mg/l	4.00	2.91	100	90-110			
Matrix Spike (W4B0653-MS2)	**Source: 4B07073-01**			Analyzed: 02/18/14 13:17						
TKN	2.52	0.20	mg/l	2.00	0.670	93	90-110			
Matrix Spike Dup (W4B0653-MSD1)	**Source: 4B07070-01**			Analyzed: 02/18/14 13:17						
TKN	6.99	0.40	mg/l	4.00	2.91	102	90-110	0.9	10	
Matrix Spike Dup (W4B0653-MSD2)	**Source: 4B07073-01**			Analyzed: 02/18/14 13:17						
TKN	2.53	0.20	mg/l	2.00	0.670	93	90-110	0.3	10	

Metals by EPA 200 Series Methods - Quality Control

Batch W4B0375 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0375-BLK1)				Analyzed: 02/10/14 15:55						
Copper, Total	ND	0.010	mg/l							
Lead, Total	ND	0.0050	mg/l							

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Metals by EPA 200 Series Methods - Quality Control

Batch W4B0375 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0375-BLK1)				Analyzed: 02/10/14 15:55						
Selenium, Total	ND	0.030	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W4B0375-BS1)				Analyzed: 02/10/14 15:58						
Copper, Total	0.198	0.010	mg/l	0.200		99	85-115			
Lead, Total	0.204	0.0050	mg/l	0.200		102	85-115			
Selenium, Total	0.205	0.030	mg/l	0.200		102	85-115			
Zinc, Total	0.194	0.050	mg/l	0.200		97	85-115			
Matrix Spike (W4B0375-MS1)	**Source: 4B07077-01**			Analyzed: 02/10/14 16:31						
Copper, Total	0.227	0.010	mg/l	0.200	0.0178	105	70-130			
Lead, Total	0.211	0.0050	mg/l	0.200	0.00345	104	70-130			
Selenium, Total	0.215	0.030	mg/l	0.200	ND	107	70-130			
Zinc, Total	0.420	0.050	mg/l	0.200	0.211	104	70-130			
Matrix Spike (W4B0375-MS2)	**Source: 4B07059-01**			Analyzed: 02/10/14 16:36						
Copper, Total	0.277	0.010	mg/l	0.200	0.0632	107	70-130			
Lead, Total	0.204	0.0050	mg/l	0.200	ND	102	70-130			
Selenium, Total	0.221	0.030	mg/l	0.200	0.0101	105	70-130			
Zinc, Total	0.372	0.050	mg/l	0.200	0.155	109	70-130			
Matrix Spike Dup (W4B0375-MSD1)	**Source: 4B07077-01**			Analyzed: 02/10/14 16:33						
Copper, Total	0.232	0.010	mg/l	0.200	0.0178	107	70-130	2	30	
Lead, Total	0.217	0.0050	mg/l	0.200	0.00345	107	70-130	3	30	
Selenium, Total	0.224	0.030	mg/l	0.200	ND	112	70-130	4	30	
Zinc, Total	0.429	0.050	mg/l	0.200	0.211	109	70-130	2	30	
Matrix Spike Dup (W4B0375-MSD2)	**Source: 4B07059-01**			Analyzed: 02/10/14 16:38						
Copper, Total	0.279	0.010	mg/l	0.200	0.0632	108	70-130	0.8	30	
Lead, Total	0.204	0.0050	mg/l	0.200	ND	102	70-130	0.07	30	
Selenium, Total	0.228	0.030	mg/l	0.200	0.0101	109	70-130	3	30	
Zinc, Total	0.371	0.050	mg/l	0.200	0.155	108	70-130	0.3	30	

Microbiological Parameters by Standard Methods - Quality Control

Batch W4B0809 - SM 9221F

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0809-BLK1)				Analyzed: 02/06/14 18:50						
E. coli	ND	2.0	MPN/100 ml							
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							
Blank (W4B0809-BLK2)				Analyzed: 02/06/14 23:00						
E. coli	ND	2.0	MPN/100 ml							

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Microbiological Parameters by Standard Methods - Quality Control

Batch W4B0809 - SM 9221E

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0809-BLK2)				Analyzed: 02/06/14 23:00						
Fecal Coliform	ND	2.0	MPN/100 ml							
Total Coliform	ND	2.0	MPN/100 ml							

Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W4B0592 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0592-BLK1)				Analyzed: 02/20/14 03:55						
1-Methylnaphthalene	ND	0.10	ug/l							
2-Methylnaphthalene	ND	0.10	ug/l							
Acenaphthene	ND	0.10	ug/l							
Acenaphthylene	ND	0.10	ug/l							
Anthracene	ND	0.10	ug/l							
Benzo (a) anthracene	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Benzo (b) fluoranthene	ND	0.10	ug/l							
Benzo (g,h,i) perylene	ND	0.10	ug/l							
Benzo (k) fluoranthene	ND	0.10	ug/l							
Chrysene	ND	0.10	ug/l							
Dibenzo (a,h) anthracene	ND	0.10	ug/l							
Fluoranthene	ND	0.10	ug/l							
Fluorene	ND	0.10	ug/l							
Indeno (1,2,3-cd) pyrene	ND	0.10	ug/l							
Naphthalene	ND	0.10	ug/l							
Phenanthrene	ND	0.10	ug/l							
Pyrene	ND	0.10	ug/l							
Surr: 2-Fluorobiphenyl	*3.87*		*ug/l*	*5.00*		*77*	*22-107*			
Surr: Nitrobenzene-d5	*4.55*		*ug/l*	*5.00*		*91*	*27-111*			
Surr: Terphenyl-d14	*3.64*		*ug/l*	*5.00*		*73*	*28-113*			
LCS (W4B0592-BS1)				Analyzed: 02/20/14 04:29						
Acenaphthene	7.85	0.10	ug/l	10.0		78	47-145			
Acenaphthylene	8.58	0.10	ug/l	10.0		86	33-145			
Anthracene	8.66	0.10	ug/l	10.0		87	27-133			
Benzo (a) anthracene	8.89	0.10	ug/l	10.0		89	33-143			
Benzo (a) pyrene	7.76	0.10	ug/l	10.0		78	17-163			
Benzo (b) fluoranthene	8.39	0.10	ug/l	10.0		84	24-159			
Benzo (g,h,i) perylene	5.33	0.10	ug/l	10.0		53	0.1-219			
Benzo (k) fluoranthene	8.45	0.10	ug/l	10.0		84	11-162			
Chrysene	9.39	0.10	ug/l	10.0		94	17-168			
Dibenzo (a,h) anthracene	5.78	0.10	ug/l	10.0		58	0.1-227			

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Semivolatile Organics - Low Level by GC/MS SIM Mode - Quality Control

Batch W4B0592 - EPA 625

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4B0592-BS1)				Analyzed: 02/20/14 04:29						
Fluoranthene	8.96	0.10	ug/l	10.0		90	26-137			
Fluorene	7.91	0.10	ug/l	10.0		79	59-121			
Indeno (1,2,3-cd) pyrene	5.80	0.10	ug/l	10.0		58	0.1-171			
Naphthalene	7.86	0.10	ug/l	10.0		79	21-133			
Phenanthrene	8.75	0.10	ug/l	10.0		88	54-120			
Pyrene	9.01	0.10	ug/l	10.0		90	52-115			
Surr: 2-Fluorobiphenyl	*3.77*		*ug/l*	*5.00*		*75*	*22-107*			
Surr: Nitrobenzene-d5	*4.17*		*ug/l*	*5.00*		*83*	*27-111*			
Surr: Terphenyl-d14	*3.61*		*ug/l*	*5.00*		*72*	*28-113*			
LCS Dup (W4B0592-BSD1)				Analyzed: 02/20/14 05:02						
Acenaphthene	7.39	0.10	ug/l	10.0		74	47-145	6	30	
Acenaphthylene	8.16	0.10	ug/l	10.0		82	33-145	5	30	
Anthracene	7.78	0.10	ug/l	10.0		78	27-133	11	30	
Benzo (a) anthracene	8.40	0.10	ug/l	10.0		84	33-143	6	30	
Benzo (a) pyrene	6.98	0.10	ug/l	10.0		70	17-163	11	30	
Benzo (b) fluoranthene	7.60	0.10	ug/l	10.0		76	24-159	10	30	
Benzo (g,h,i) perylene	4.85	0.10	ug/l	10.0		49	0.1-219	9	30	
Benzo (k) fluoranthene	7.55	0.10	ug/l	10.0		75	11-162	11	30	
Chrysene	8.36	0.10	ug/l	10.0		84	17-168	12	30	
Dibenzo (a,h) anthracene	5.28	0.10	ug/l	10.0		53	0.1-227	9	30	
Fluoranthene	8.11	0.10	ug/l	10.0		81	26-137	10	30	
Fluorene	7.34	0.10	ug/l	10.0		73	59-121	8	30	
Indeno (1,2,3-cd) pyrene	5.35	0.10	ug/l	10.0		53	0.1-171	8	30	
Naphthalene	7.42	0.10	ug/l	10.0		74	21-133	6	30	
Phenanthrene	7.94	0.10	ug/l	10.0		79	54-120	10	30	
Pyrene	8.12	0.10	ug/l	10.0		81	52-115	10	30	
Surr: 2-Fluorobiphenyl	*3.59*		*ug/l*	*5.00*		*72*	*22-107*			
Surr: Nitrobenzene-d5	*3.93*		*ug/l*	*5.00*		*79*	*27-111*			
Surr: Terphenyl-d14	*3.30*		*ug/l*	*5.00*		*66*	*28-113*			

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Notes and Definitions

M-06	Due to the high concentration of analyte inherent in the sample, sample was diluted prior to preparation. The MDL and MRL were raised due to this dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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APPENDIX C

RAA Supplemental Information

Los Angeles River

A 68% pollutant load reduction is required for Copper and a 70% pollutant load reduction is required for Zinc by January 11, 2028. To achieve these reductions, the City will implement a combination of non-structural BMPs and structural BMPs to reduce flow.

Based on the Los Angeles County WMMS hydrology model and the BMP Selection Tool for the Los Angeles River subwatersheds, Figures 1-13 and 1-14 were developed. Figures 1-13 and 1-14 show the relationship between flow reduction and pollutant load reduction. To achieve 68% and 70% load reduction for Copper and Zinc respectively, Figures 1-13 and 1-14 indicate that a flow reduction of approximately 45-46% is required.

The City intends to meet the target load reduction for Copper and Zinc by first implementing the following non-structural BMPs. Each of the non-structural BMPs is estimated to achieve a percentage of the target load reduction.

Non-Structural BMPs	Estimated target load reduction
Enhanced Street Sweeping	3%
Catch Basin Retrofit Program (Citywide full capture devices)	2%
Low Impact Development Ordinance and Green Streets Policy Implementation	1%
Total	6%

Subtracting the estimated 6% pollutant load reduction as a result of instituting non-structural BMPs, (68%-6%=62% for Copper and 70%-6%=64% for Zinc) the remaining target load reductions would be achieved through flow reduction by implementing structural infiltration BMPs.

Figure 1-14 illustrates that a 64% pollutant load reduction would require a 46% flow reduction. A 46% flow reduction associated with Zinc would also achieve the 62% pollutant reduction needed for Copper. Using the 46% flow reduction as a goal, the US EPA National Stormwater Calculator was utilized to determine the types and percentage of BMPs necessary to achieve the required flow reduction by way of infiltration.

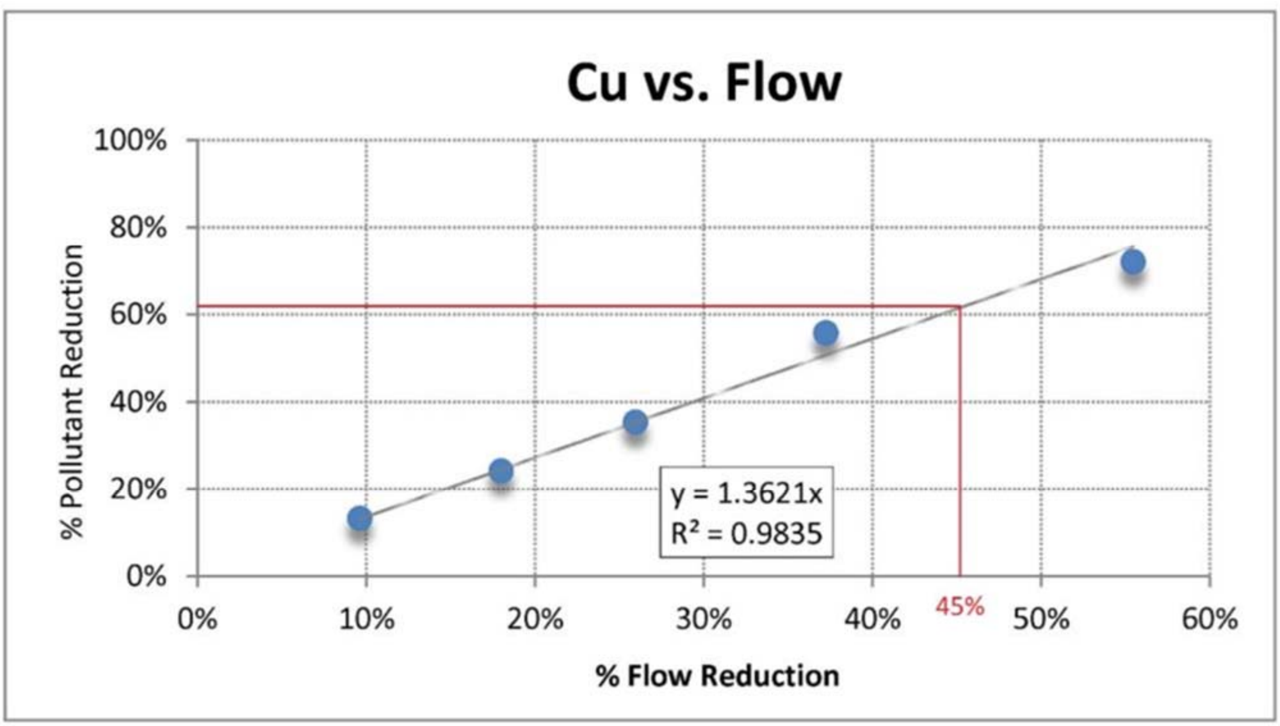
Figure 1-15 illustrates the percentage of infiltration achieved when structural infiltration BMPs are implemented to achieve the required flow (runoff) reductions. The proposed structural infiltration BMPs are listed below:

- Installation of Porous Pavement (Porous Gutter/Porous sidewalk)
- Tree Well Filters, Biofilters, and Street Planter Infiltration areas (Permeable Landscaping)
- Dry Wells (installed upstream of major catch basins)

The City will focus constructing structural BMPs in those subwatersheds with the highest density of Industrial /Commercial areas in order to reduce the largest amount of potential metals pollutant loading. The City will evaluate if additional structural BMPs are needed based on the results of the monitoring conducted during implementation of the Integrated Monitoring Program (IMP).

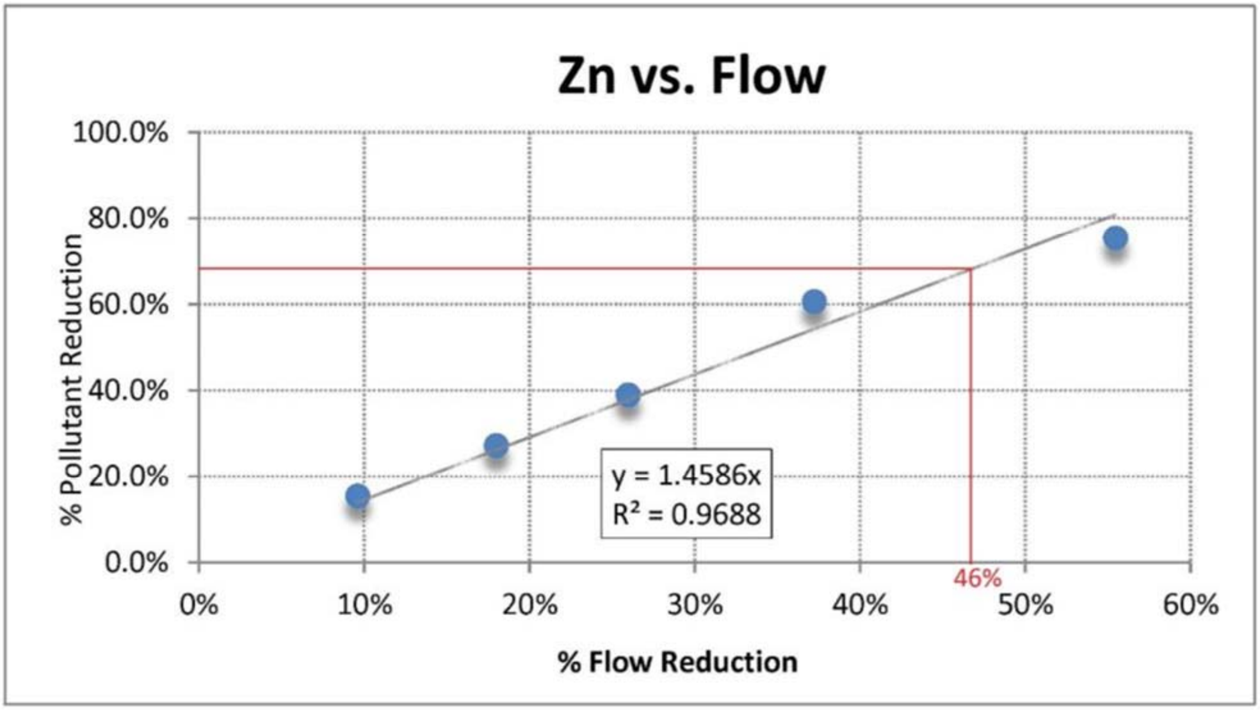
Lead pollutant concentration is currently below the effluent limit therefore no target load reduction measures are needed however ongoing monitoring data from the IMP will be used to validate Lead concentrations going forward.

Figure 1 13: LA River - Copper Reduction versus Flow Reduction



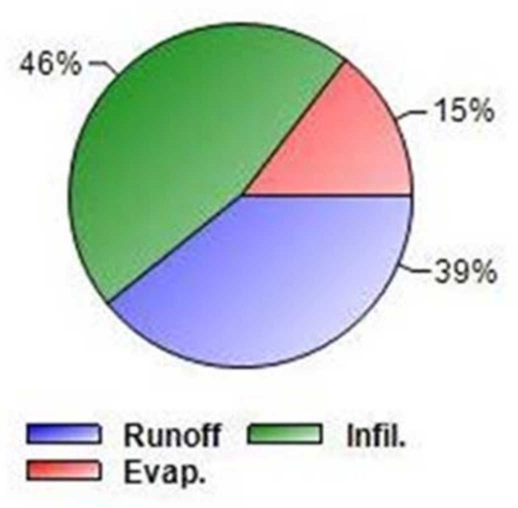
(Source: LACDPW BMP Selection Tool)

Figure 1 14: LA River - Zinc Reduction versus Flow Reduction



(Source: LACDPW BMP Selection Tool)

Figure 1-15: Infiltration achieved by installation of structural infiltration BMPs (for Copper and Zinc – LA River)



(Source: US EPA National Stormwater Calculator)

Legg Lake

A 13% pollutant load reduction is required for Nitrogen and a 62% pollutant load reduction is required for Phosphorous. To achieve these reductions, the City will implement a combination of non-structural BMPs and structural BMPs to reduce flow.

Based on the Los Angeles County WMMS hydrology model and the BMP Selection Tool for the Legg Lake subwatershed, Figures 1-16 and 1-17 were developed. Figures 1-16 and 1-17 show the relationship between flow reduction and pollutant load reduction. To achieve 13% and 62% load reduction for Nitrogen and Phosphorous respectively, Figures 1-16 and 1-17 indicate that a flow reduction of approximately 7-44% is required.

The City intends to meet the target load reduction for Nitrogen and Phosphorous by first implementing the following non-structural BMPs. Each of the non-structural BMPs is estimated to achieve a percentage of the target load reduction.

Non-Structural BMPs	Estimated target load reduction
Enhanced Street Sweeping	3%
Catch Basin Retrofit Program (Citywide full capture devices)	2%
Low Impact Development Ordinance and Green Streets Policy Implementation	1%
Total	6%

Subtracting the estimated 6% pollutant load reduction as a result of instituting non-structural BMPs, (13%-6%=7% for Nitrogen and 62%-6%=56% for Phosphorous) the remaining target load reductions would be achieved through flow reduction by implementing structural infiltration Figure BMPs.

Figure 1-17 illustrates that a 56% pollutant load reduction would require a 44% flow reduction. A 56% flow reduction associated with Phosphorous would also achieve the 7% pollutant reduction needed for Nitrogen. Using the 44% flow reduction as a goal, the US EPA National Stormwater Calculator was utilized to determine the types and percentage of BMPs necessary to achieve the required flow reduction by way of infiltration.

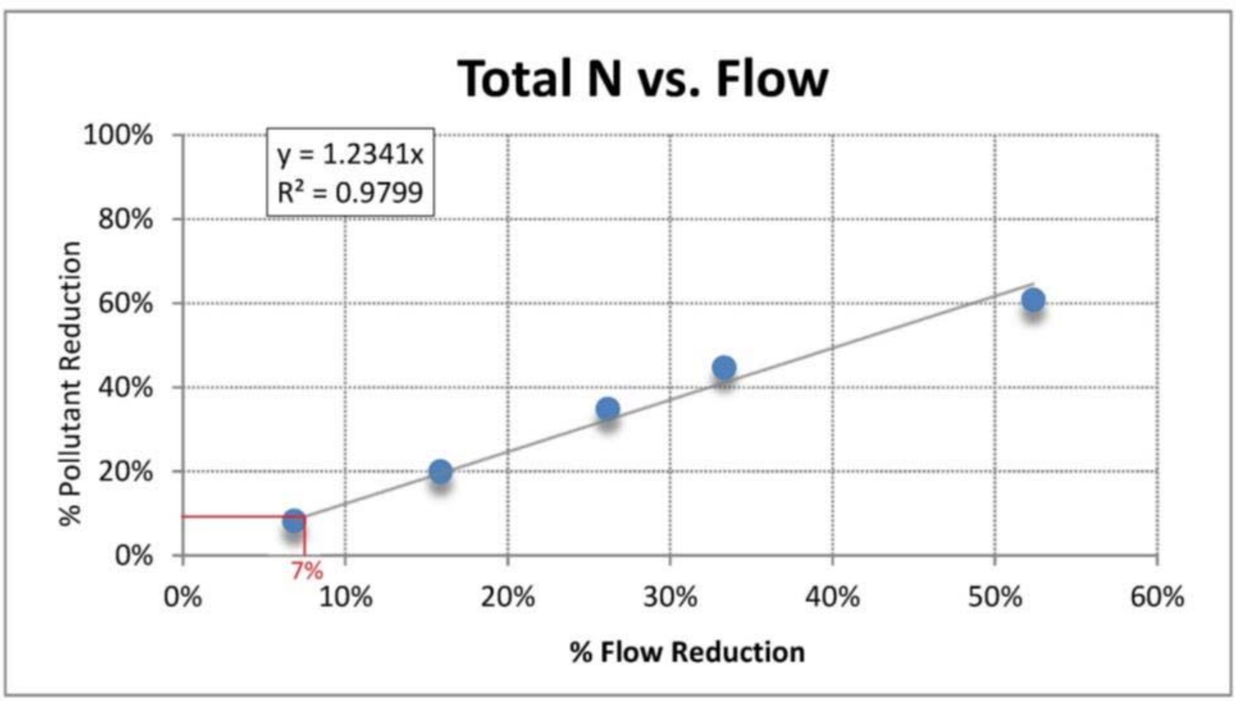
Figure 1-18 illustrates the percentage of infiltration achieved when structural infiltration BMPs are implemented to achieve the required flow (runoff) reductions. The proposed structural infiltration BMPs are listed below:

- Installation of Porous Pavement (Porous Gutter/Porous sidewalk)
- Tree Well Filters, Biofilters, and Street Planter Infiltration areas (Permeable Landscaping)
- Dry Wells (installed upstream of major catch basins)
- Modular Wetland Systems (for removal of Nitrogen and Phosphorus specifically)

The City will focus BMP implementation on the subwatershed draining directly to Legg Lake. To provide additional runoff reduction, the City will also encourage residents and business owners to install rain harvesting and infiltration BMPs (rain gardens, rain barrels, porous pavers, etc.) on their properties.

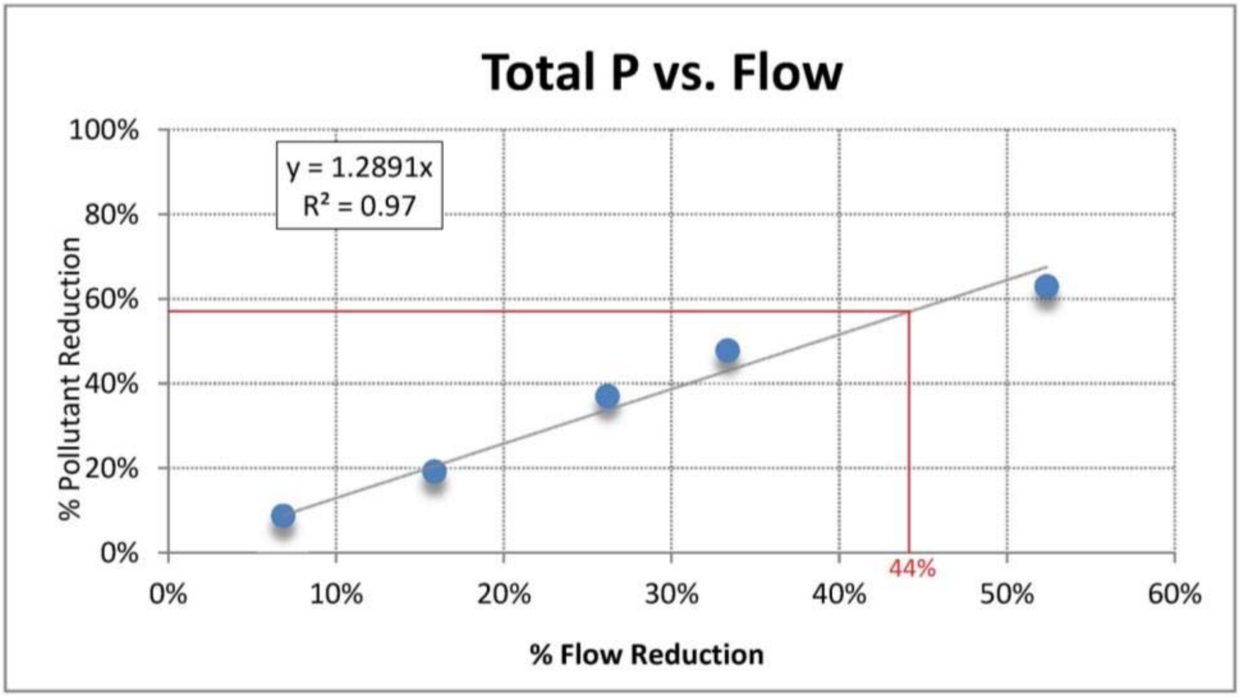
The City will evaluate if additional structural BMPs are needed based on the results of the monitoring conducted during implementation of the Integrated Monitoring Program (IMP). Ongoing monitoring data from the IMP will be used to validate Nitrogen and Phosphorous concentrations going forward.

Figure 1 16: Legg Lake – Total Nitrogen Reduction versus Flow Reduction



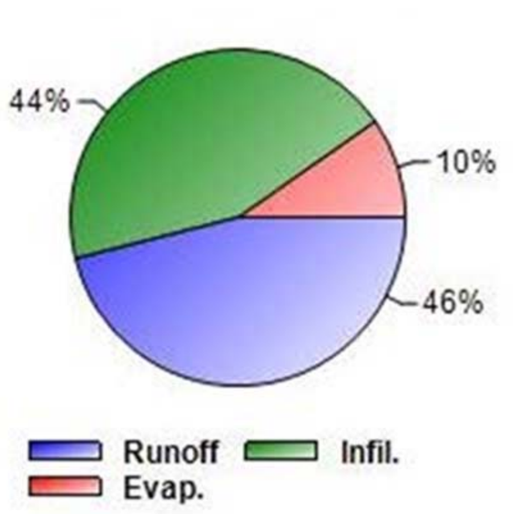
(Source: LACDPW BMP Selection Tool)

Figure 1 17: Legg Lake – Total Phosphorus Reduction versus Flow Reduction



(Source: LACDPW BMP Selection Tool)

Figure 1-18: Infiltration achieved by installation of structural infiltration BMPs (for Nitrogen and Phosphorous – Legg Lake)



(Source: US EPA National Stormwater Calculator)

CITY OF EL MONTE

WATERSHED MANAGEMENT PROGRAM (WMP)
SUPPLEMENTAL INFORMATION

The City of El Monte submitted a Watershed Management Program (WMP) to the Regional Water Quality Control Board (Regional Board) in June 2014. The WMP received a conditional approval in April 2015. The City responded to the Regional Board's review comments in June 2015. Subsequently, the City corresponded with the Regional Board staff on the WMP and additional clarification was needed. The City is providing this document to supplement the WMP and to better demonstrate to the Regional Board staff the City's strategy in making progress towards meeting pollutant load reduction requirements for the Bacteria TMDL in the Los Angeles River and the pending Bacteria TMDL in the San Gabriel River.

LOS ANGELES RIVER WATERSHED BACTERIA TMDL

Dry Weather

For dry weather conditions, per Attachment O of Order R4-2012-0175, the first phase of implementation, the City of El Monte is required to submit a Load Reduction Strategy (LRS) for Segment B tributaries (Rio Hondo and Arroyo Seco) by March 23, 2016. The second phase of implementation action required by the LA River Bacteria TMDL is for the City to complete implementation of LRS by March 23, 2028 and achieve final waste load allocations or demonstrate that non-compliance is due to upstream contributions and submit a report to the Regional Board by March 23, 2030.

As indicated in the WMP, the City is presently participating in the LRS group to fulfill phase I of the City's obligations to meet dry weather waste load allocations (WLA). The LRS group is comprised of one Enhanced Watershed Management Program (EWMP) group, two Watershed Management Program (WMP) groups and two individual agencies (El Monte and Irwindale). Currently the LRS is anticipated to be completed by March 2016.

Wet Weather

To demonstrate wet weather compliance, a Reasonable Assurance Analysis was conducted in which the following steps were taken:

1. Developed pollutant load reduction for 90^{th} percentile year based on Permit requirements and Regional Board guidance (El Monte WMP June 2015, Table 1-13);
2. Assumed a pollutant load reduction for non-structural (or programmatic) BMPs;
3. Estimated pollutant load reductions for retrofits on private property (e.g., downspout disconnects, installation of rain barrels) and redevelopment (e.g., low impact development);

4. Estimated pollutant load reductions for programmed Green Street BMPs identified in the City CIP plan;
5. Assumed pollutant load reductions for new regional or outfall diversion projects;
6. Compared total estimated pollutant load reduction to be achieved from the implementing future non-structural and structural infiltration BMPs and the pollutant load reduction for 90th percentile year.

Target Pollutant Load Reduction

Table 1-13 of the WMP shows modeled bacteria levels in the Los Angeles River using the 2004-2005 rain year to represent the 90th percentile year. Model results showed 69 wet-weather days and out of those wet-weather days, 29 days showed the concentration of fecal coliform to exceed 400/100ml limit resulting in an exceedance rate of 42%. Of the times in which the Los Angeles River showed exceedances, the modeled fecal coliform concentration was exceedingly high. Twenty-one out of 29 exceedances showed concentration levels in the 12,000/100ml range resulting in a target pollutant load reduction percentage as high as 97%. Table 1 lists the range of percentage of pollutant load reduction required for the Bacteria TMDL in the Los Angeles River.

Table 1

	Percent Pollutant Reduction Required
1	96.8 (21*)
2	70.6
3	64.6
4	56.3
5	47.6
6	45.3
7	44.8
8	29.1
9	7.0

*21 out of 29 exceedances resulted in a required target pollutant reduction of approximately 97%.

Anticipated Pollutant Load Reduction from non-structural BMPs

Programmatic BMPs include enhanced pet waste controls (ordinance, signage, education/outreach, etc.), enhanced restaurant inspections, enhanced street sweeping, enhanced storm drain and catch basin cleaning and implementation of the City's Sanitary Sewer Management Plan (to address leaking sewers, source control human waste); these measures all contribute to reducing bacteria loading. The City is committed to instituting and promoting these programmatic BMPs. While the percentage of pollutant load reduction achieved through implementation of programmatic solutions is dependent upon many factors unique to each agency, in Los Angeles County agencies have assumed an average of 5% pollutant load reduction to capture the benefits of the non-structural BMPs. For this analysis, the City of El Monte will also use the 5% pollutant load reduction to capture the anticipated non-structural BMPs.

Anticipated Pollutant Load Reduction on Private Property

The 2012 MS4 Permit established new criteria for redevelopment projects, requiring qualifying projects to capture, retain, or infiltrate the 85th percentile design storm or the 0.75-inch design storm, whichever is greater, via post construction BMPs. The City adopted a Low Impact Development Ordinance in 2014 to put in practice the redevelopment requirements of the Permit.

Since 2012, the City of El Monte has received numerous applications for constructing mixed use developments. This is the first time the City is experiencing growth in 40 years. Coupled with the timing of the LID Ordinance, the City is capitalizing on the current redevelopment trend – totaling approximately $950M to address water quality on private properties. Redevelopment projects such as the Flair Spectrum (14 acres), Walmart (15.41 acres), Gateway (14 acres), Santa Fe Trails (9 acres), and Magellan Gateway (27 acres) all have proposed storm water storage system similar to the CUDO Water Storage System by Kristar eliminating flows to receiving waters. For the projects mentioned, their on-site LID design meets the 0.75-inch design storm, effectively meeting the Permit's definition of a regional project and the Reasonable Assurance Analysis.

Figure 1 (attached) illustrates geographically the large scale size redevelopment projects currently in progress in the City of El Monte.

Table 2 lists the large scale size redevelopment projects currently in progress in the Los Angeles River Watershed portion of the City.

Table 2

	Development Name	Site Footprint	Type
1	Flair Spectrum	14 acres	Mixed-use with 250 room hotel, retail and 600 residential units
2	Media Center	5.1 acres	Office building
3	Gateway Magellan	26.8 acres	Industrial
4	Hilton Garden Hotel Project	3.09 acres	Hotel
5	Walmart Supercenter	15.49 acres	Retail anchor
6	Hickson Industrial	3.1 acres	Industrial
7	Gateway TOD	65 acres	Housing units/retail
8	Santa Fe Trail	9.80 acres	Retail
9	Ramona & Tyler	TBD	40 housing units

10	Valley & Ramona	3 acres	58 townhomes/4 work-live units
11	Downtown Specific Plan	115 acres	TBD
12	Garvey & Tyler	TBD	Mixed-use 67 housing units/retail
13	Garvey & Peck	5 acres	Mixed-use 114 housing units/retail
14	Garvey & Meeker	31,000 s.f.	30 senior housing/retail
15	Garvey & La Madera	2.06 acres	116 senior housing/retail
16	East Valley	3.69 acres	70 housing units/retail
	Total	272 acres	

The City of El Monte provides water services to a portion of its residents. The water division serves approximately 3,400 service connections. Regulated by the State Water Resources Control Board, the water division is required to reduce overall potable urban water use by 8%. This mandate is a result of the Governor Jerry Brown's executive order to safeguard the State's remaining potable water supplies in preparation for a possible fifth year of drought. Combining two goals in one, the City is planning on conducting aggressive outreach to educate El Monte residents on the need to conserve potable water usage and at the same time promote capture and re-use. The conservation effort as outlined in the Governor's executive order is to curtail outdoor potable water usage which in many cases would result in residents not being able maintain the health of their lawns. Capture and re-use would allow residents to replenish their lawns with captured water. The City views the two mandates working in concert in that one mandate takes away the ability to use existing water source and the other mandate provides an alternative water source.

For the redevelopment projects such as residential retrofit that are smaller in scale, the City is promoting permeable pavers at the driveways and or where feasible, rain barrels to capture stormwater at the building downspouts. To account for smaller redevelopment projects and residential retrofits, the performance of these retrofits is estimated to achieve 2% pollutant load reduction. While the percentage of pollutant load reduction achieved through implementation of private property retrofit varies widely, the estimated 2% pollutant load reduction is conservative as the estimated figure includes the design storm retention at large scale development projects.

Anticipated Pollutant Load Reduction from Green Street BMPs

The City's five year Capital Improvement Program (CIP) was approved by the City Council on July 20, 2015. The program is intended to prioritize and allocate resources/funding to meet the City's infrastructure needs. The overall plan includes a variety of projects – transportation, sewer, water, storm drain, public facilities, parks and bridges. Project categories such as street rehabilitation, and sewer and water main replacement present opportunities to incorporate green street elements. With respect to the discussion on Green Street BMPs in this clarification, project types such as street rehabilitation, sewer and water main replacement will be referred to as the City's Green Street projects.

One significant progress to note in the City Council's approval of staff's Fiscal Year 2015-2016 CIP delivery plan is that as a part of the approval, the City is dedicating $2M per year for the next five years on rehabilitating City streets.

Table 3 (attached) lists the City's 5 year CIP Plan.

For fiscal year 2015-2016, 12 projects were originally selected for delivery by June 30, 2015, however due to funding restrictions and approved guidance documents identifying City needs based on horizon years and/ or mandates, are now scheduled to be completed by June 2016. Of those 12 projects, six are Green Streets BMPs and they are located within the Los Angeles River Watershed.

Table 4 lists the Green Street BMP projects for Fiscal Year 2015-2016.

Table 4

	Green Street Project Name	Scope
1	Johnson/Tyler Sewer	Sewer main rehab
2	Downtown Parking Lot Improvements	Resurface parking lot
3	Pavement Management Plan Phase I	Repair a cluster of residential streets
4	Safe Routes to Schools Federal Program	Bulb outs, sidewalk replacement
5	Gateway Development – Offsite improvements	Roadway improvements
6	Catch Basin Retrofit Project*	Install full capture devices

*The catch basin retrofit project is listed but no pollutant load reduction is taken. The project is only listed to demonstrate that the retrofit contributes water quality improvements.

The Ramona Resurfacing project is one of the Green Street projects committed to complete design at the end of the fiscal year 2015-2016. Since the Ramona Resurfacing project is anticipated to complete design at the end of the fiscal year 2015-2016, it is not listed in Table 4. Presently the Ramona Resurfacing project is 65% designed. The project footprint is approximately 11.26 acres. To meet the 0.75 inch design storm, the project would need to retain approximately 23,500 cubic feet of stormwater runoff. As a part of the scope, the project will be putting in 8 dry wells and one bioswale. The dry wells are off-the-shelf products by Jensen Precast and the size selected for the Ramona Resurfacing project is 48" wide and 9 feet deep with an open bottom. The proposed dry wells and bioswale would accept approximately 1,800 cubic feet of runoff. This effectively translates to retaining 7.6% of the 0.75 inch design storm. The water quality feature of the project is estimated to be $205,000. The overall project is estimated to be $1.8M. The water quality feature is approximately 11% of the project cost.

Using Ramona Resurfacing project as a case study in establishing performance measures for the City's future Green Street BMPs, each of the five CIPs scheduled to be delivered in Fiscal Year 2015-2016 will include water quality features to accept 7% of the runoff generated from a 0.75" design storm for each project. Comparing the volume of runoff eliminated by the water quality feature of the Ramona Resurfacing project to the volume of runoff based on the design storm for the entire Los Angeles River watershed within the City of El Monte, the volume of runoff eliminated by the Ramona Resurfacing project is approximately 1%. This calculation conservatively takes into consideration the runoff eliminated by large scale private developments current in progress but does not take into consideration other pervious surfaces such as park space or any other open space in the watershed.

At the time the WMP was being finalized, the City's CIP programming was in its infant stage. As such, the details to the proposed Green Streets BMPs were not available to characterize City's commitment in improving water quality. The performance measures of the proposed Green Streets BMPs could not be modeled. Because all Green Street BMPs going forward are expected to have the same performance measure – accept 7% of the runoff generated from a 0.75" design storm– regardless of its size, in averaging all the distributed projects it is assumed that each Green Street BMPs will have an average target pollutant load reduction of 1%. As projects are implemented, the assumed performance measure for each of the Green Street BMPs relative to the overall watershed will be evaluated and if necessary adjusted every two years.

Anticipated Pollutant Load Reduction from Potential Regional Projects

Outside of the City's CIP programming, the City will investigate opportunities to construct or to contribute to downstream regional projects or investigate outfall diversion projects. One potential project presently under consideration is reconstructing the Merced Drain (aka Merced Channel). The Merced Drain is approximately 1,500 linear feet accepting runoff from a residential pocket located on the southwest corner of the City. The drain is concrete lined and outlets to the Rio Hondo channel. The proposed project would be to reconstruct Merced drain to create a soft bottom to allow for infiltration along the length of the drain. The project would eliminate runoff into the Rio Hondo channel. The tributary area to the Merced Drain is approximately 665 acres. The performance measure of the proposed project is not available presently but the project is anticipated to be programmed in the City's capital improvement plan in 2020. Conservatively, 5% pollutant load reduction is assumed for the Merced Drain reconstruction.

Anticipated Pollutant Load Reduction

Summarizing all the components of the City's strategy and compliance approach in to meet the target pollutant load reduction of 97% by 2037, Table 5 lists the City's anticipated pollutant load reduction for five milestone years: 2016, 2017, 2019, 2021 and 2027. Per Order No. R4-2012-0175, Part VI, C5ci, permittees shall incorporate compliance schedules and develop interim milestones and dates in the watershed management plan to measure progress towards addressing water quality priorities. Progress must be measured once every two years. The proposed milestones in year 2017, 2019, and 2021 are aimed at satisfying the two year frequency as outlined by the MS4 permit. The milestone year 2016 serves as the first year of the pollutant load reduction effort and the milestone year 2027 includes the projected performance of the potential regional/outfall project.

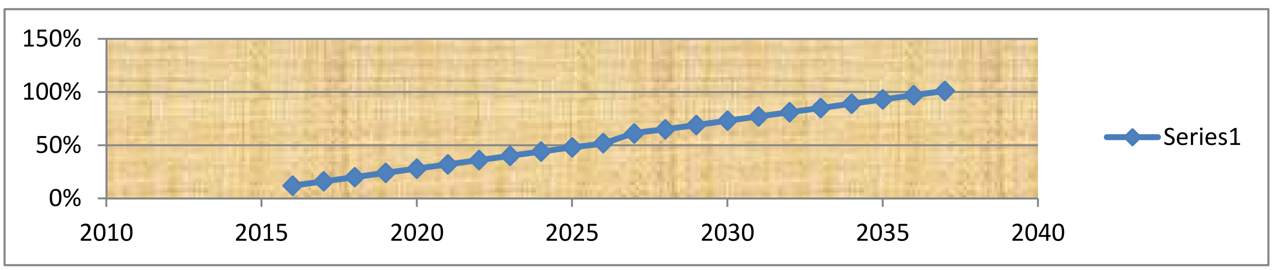
Table 5

Milestone Year	Non-Structural BMPs	Redevelopment + Private Property Retrofit	Distributed (Green Street) BMPs*	Potential Regional/Outfall Projects	Cumulative Sub-Total
2016	5%	2%	5%		12%
2017			4%		16%
2019			4%		24%
2021			4%		32%
2027			4%	5%	61%

*There are five Green Street CIP projects to be delivered in FY 15-16. Using 1% pollutant load reduction to be achieved by each project, a total of 5% pollutant load reduction is assumed. For subsequent milestone years, a delivery of 4 Green Street CIPs is estimated per year for a total of 4% pollutant load reduction per year

Based on the anticipated performance of the City's plan, Figure 2 illustrates the anticipated pollutant load reduction trend projected out to year 2037.

Figure 2



SAN GABRIEL RIVER WATERSHED BACTERIA TMDL

Dry weather

Although there is currently no LRS being developed for the San Gabriel River Bacteria TMDL, the City plans to decrease dry weather bacteria impacts to the San Gabriel River watershed by programmatic BMPs such as non-stormwater prohibitions, the Outfall Screening Program coupled with a robust IC/ID Program, enhanced street sweeping, enhanced storm drain and catch basin cleaning, and increased enforcement of over-irrigation prohibitions for both businesses and residents. Structural infiltration BMPs implemented for wet weather bacteria reduction should also eliminate dry weather flows and greatly decrease the potential for bacteria growth or transport within the MS4.

Wet Weather

To demonstrate wet weather compliance for the San Gabriel River Watershed Bacteria TMDL, the same Reasonable Assurance Analysis approach was conducted as was previously described for the Los Angeles River Watershed.

Target Pollutant Load Reduction

Table 1-19 of the WMP shows modeled bacteria levels in the San Gabriel River Watershed using the 2004-2005 rain year to represent the 90th percentile year. Model results showed 15 wet-weather days and out of those wet-weather days, 14 days showed the concentration of fecal coliform to exceed 400/100ml. The present pollutant load reduction required for bacteria in the San Gabriel River Watershed ranges from 39% to 94%, (652 MPN/100ml to 6,800 MPN/100ml respectively).

Anticipated Pollutant Load Reduction from non-structural BMPs

As in the Los Angeles River Watershed, programmatic BMPs are also planned for the San Gabriel River Watershed and include enhanced pet waste controls (ordinance, signage, education/outreach, etc.), enhanced restaurant inspections, enhanced street sweeping, enhanced storm drain and catch basin cleaning and implementation of the City's Sanitary Sewer Management Plan (to address leaking sewers, source control human waste). All these measures contribute to reducing bacteria loading. The City is committed to instituting and promoting these programmatic BMPs. While the percentage of pollutant load reduction achieved through implementation of programmatic solutions is dependent upon many factors unique to each agency, the City has assumed an average of 5% pollutant load reduction for non-structural BMPs.

Anticipated Pollutant Load Reduction on Private Property

The 2012 MS4 Permit established new criteria for redevelopment projects, requiring qualifying projects to capture, retain, or infiltrate the 85th percentile design storm or the 0.75-inch design storm, whichever is greater, via post construction BMPs. The City adopted a Low Impact Development Ordinance in 2014 to put in practice the redevelopment requirements of the Permit.

Although the San Gabriel River Watershed portion of the City is more residential, the City has received numerous applications for constructing mixed use and general commercial developments. As in the Los Angeles River Watershed, the City is capitalizing on the current redevelopment trend to address water quality on private properties. On-site LID designs meet the 0.75-inch design storm, effectively meeting the Permit's definition for regional projects and the Reasonable Assurance Analysis.

Figure 1 (attached) illustrates geographically the large scale size redevelopment projects currently in progress in the City of El Monte.

Table 6 lists the redevelopment projects currently in progress in the San Gabriel River Watershed portion of the City.

Table 6

	Development Name	Site Footprint	Type
1	El Monte Center	10 acres	General commercial
2	Maxon Site	3.3 acres	General commercial
3	Majestic Property	4.5 acres	General commercial

The City is planning on conducting aggressive outreach to educate El Monte residents on the need to conserve potable water usage and at the same time promote capture and re-use. The conservation effort as outlined in the Governor's executive order is to curtail outdoor potable water usage which in many cases would result in residents not being able maintain the health of their lawns. Capture and re-use would allow residents to replenish their lawns with captured water. The City views the two mandates working in concert in that one mandate takes away the ability to use existing water source and the other mandate provides an alternative water source.

For the redevelopment projects such as residential retrofit that are smaller in scale, the City is promoting permeable pavers at the driveways and or where feasible, rain barrels to capture stormwater at the building downspouts. To account for smaller redevelopment projects and residential retrofits, the performance of these retrofits is estimated to achieve 2% pollutant load reduction. While the percentage of pollutant load reduction achieved through implementation of private property retrofit varies widely, the estimated 2% pollutant load reduction is conservative as the estimated figure includes the design storm retention at large scale development projects.

Anticipated Pollutant Load Reduction from Green Street BMPs

The City's five year Capital Improvement Program (CIP) was approved by the City Council on July 20, 2015. The program is intended to prioritize and allocate resources/funding to meet the City's infrastructure needs. The overall plan includes a variety of projects – transportation, sewer, water, storm drain, public facilities, parks and bridges. Project categories such as street rehabilitation, sewer and water main replacement present opportunities to incorporate green street elements. With respect to the discussion on Green Street BMPs in this clarification, project types such as street rehabilitation, sewer and water main replacement will be referred to as the City's Green Street projects.

One significant progress to note in the City Council's approval of staff's Fiscal Year 2015-2016 CIP delivery plan is that as a part of the approval, the City is dedicating $2M per year for the next five years on rehabilitating City streets.

Table 3 (attached) lists the City's 5 year CIP Plan.

For fiscal year 2015-2016, three projects are scheduled to be completed by June 2016. Of those three projects, two are Green Streets BMPs located within the San Gabriel Watershed.

Table 7 lists the Green Street BMP projects for Fiscal Year 2015-2016.

Table 7

	Green Street Project Name	Scope
1	Pavement Management Plan Phase II	Repair a cluster of residential streets
2	Safe Routes to Schools Federal Program	Bulb outs, sidewalk replacement
3	Catch Basin Retrofit Project*	Install full capture devices

*The catch basin retrofit project is listed but no pollutant load reduction is taken. The project is only listed to demonstrate that the retrofit contributes water quality improvements.

Anticipated Pollutant Load Reduction from Potential Regional Projects

Outside of the City's CIP programming, the City will investigate opportunities to construct or to contribute to downstream regional projects or investigate outfall diversion projects to contribute an estimated 5% pollutant load reduction.

Anticipated Pollutant Load Reduction

Summarizing all the components of the City's strategy and compliance approach in to meet the target pollutant load reduction of 94%. Table 8 lists the City's anticipated pollutant load reduction for three milestone years: 2016, 2017, 2019, 2021 and 2027. Per Order No. R4-2012-0175, Part VI, C5ci, permittees shall incorporate compliance schedules and develop interim milestones and dates in the watershed management plan to measure progress towards addressing water quality priorities. Progress must be measured once every two years. The proposed milestones in year 2017, 2019, and 2021 are aimed at satisfying the two year frequency as outlined by the MS4 permit. The milestone year 2016 serves as the first year of the pollutant load reduction effort and the milestone year 2027 includes the projected performance of the potential regional/outfall project.

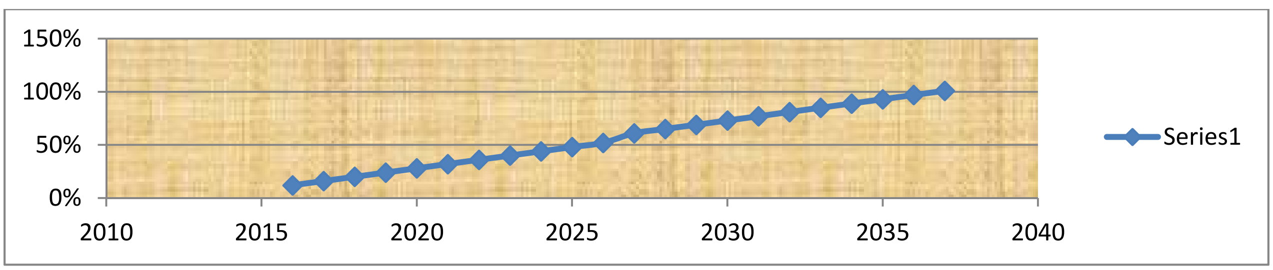
Table 8

Milestone Year	Non-Structural BMPs	Redevelopment + Private Property Retrofit	Distributed (Green Street) BMPs*	Potential Regional/Outfall Projects	Cumulative Sub-Total
2016	5%	2%	2%		10%
2017			4%		14%
2019			4%		22%
2021			4%		30%
2027			4%	5%	59%

*There are two Green Street CIP projects to be delivered in FY 16-17. Using 1% pollutant load reduction to be achieved by each project, a total of 2% pollutant load reduction is assumed. For subsequent milestone years, a delivery of 4 Green Street CIPs is estimated per year for a total of 4% pollutant load reduction.

Based on the anticipated performance of the City's plan, Figure 3 illustrates the anticipated pollutant load reduction trend projected out to year 2037.

Figure 3



LOS ANGELES RIVER AND TRIBUTARIES METALS TMDL

As discussed previously, the controlling pollutant in the Los Angeles River Watershed is bacteria. Implementation of non-structural and structural infiltration BMPs to reduce bacteria loads will also archive the required pollutant load reductions (flow reduction via infiltration) for Copper and Zinc (45% and 46% flow reduction respectively). Using the milestones established for bacteria, the City anticipates meeting the dry weather and wet weather WQBELs by 2024 and 2028 respectively.

Based on the Site Specific Objectives (SSO) study (Los Angeles River Copper and Lead Special Study Report, Larry Walker Associates, 2013), the Los Angeles River Watershed Water Effects Ratio (WER) for Copper will be increased through proposed changes to the Basin Plan through Resolution Number R15-004 (TMDL previously revised by Resolution Numbers R07-014 and R10-003). Using a conservative WER of 3.97 there would be no pollutant load reduction necessary for Copper for the City of El Monte. The WER for Reach 2 of the Rio Hondo adjacent to El Monte could be as high as 9.69.

Also, as a result of Senate Bill 346, legislation enacted in 2010 to address brake pad materials, less Copper should be available to be carried into the MS4 system as this particular source of Copper is reduced (see TDC Environmental memo, February 14, 2013). Other sources of Copper will be addressed through the Industrial/Commercial Facilities Inspections Programs. These inspections and source controls for both Copper and Zinc should further reduce the discharge of metals. Dry weather flow reductions will be achieved through a combination of non-structural practices and structural infiltration BMPs. As wet-weather BMPs are implemented, dry-weather flows are removed and compliance with dry-weather pollutant reductions will be met. Monitoring data together with the adaptive management program will be used to confirm metals concentrations.

Conveniently located 10 miles east of Downtown Los Angeles, the City of El Monte offers abundant opportunities for new businesses. The City has recently attracted many new commercial, industrial, residential and mixed-use developments. There are also numerous potential sites for new projects. Come and see the excitement underway at the City of El Monte!

EL MONTE
THE CITY OF
FOUNDED 1850
END of the SANTA FE TRAIL

DEVELOPMENT PROJECTS & POTENTIAL SITES

Major Development Projects:

Flair Park

1. Flair Spectrum – Mixed-use project with a 250-room hotel, 690,000 square foot retail outlet center and 600 residential units on a 14-acre site.
2. Media Center – 5-story 60,000 sf office building.

Northwest Area

3. Gateway Magellan (Temple Palms)– 500,000 sf industrial project on a 26.8 acre site.
4. Hilton Garden Hotel Project – 133 room 4-story hotel.
5. Walmart Supercenter – 186,000 sf retail anchor.
6. Hickson Industrial – 60,000 sf of industrial project.

Downtown Area

7. Gateway TOD – 485 housing units and 25,000 sf of retail next to a major transit center.
8. Santa Anita & Valley (Santa Fe Trail Project) – 115,000 sf retail project.
9. Ramona & Tyler – 40 housing units within walking distance of shops and transit.
10. Valley & Ramona – 58 townhomes and 4 work-live units.
11. Downtown Specific Plan – City initiated plan to create a blueprint for growth in the City's historic core.

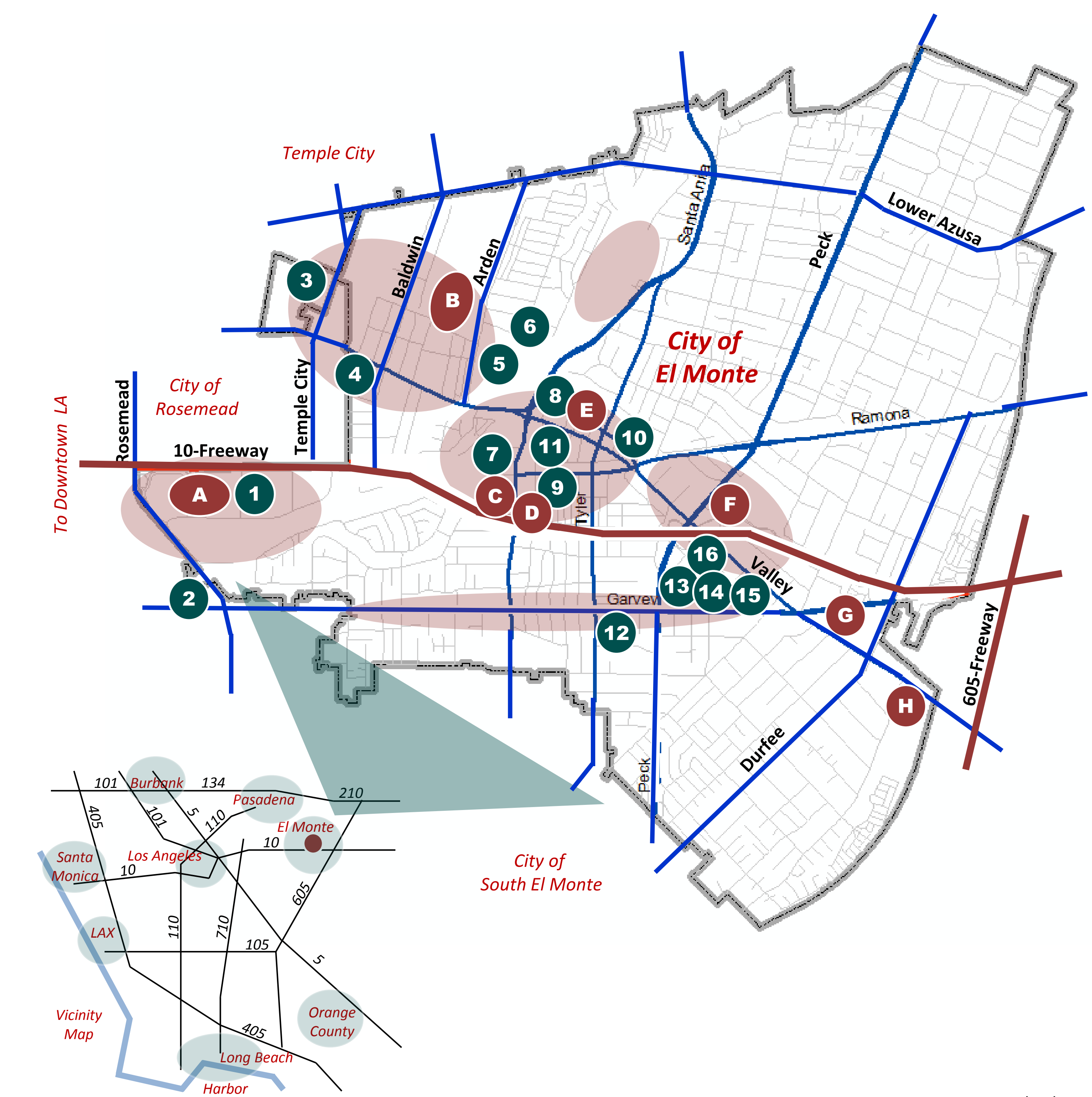
Garvey Mixed-Use Corridor

12. Garvey & Tyler – 67 housing units, 3 work-live units and 3,000 sf of retail.
13. Garvey & Peck – 114 housing units and 5,000 sf of retail.
14. Garvey & Meeker – 30 senior housing units and 25,000 sf of retail.
15. Garvey & La Madera – 116 senior and assisted living housing units and 6,000 sf of retail.
16. East Valley – 70 housing units and 30,000 sf of retail.

Potential Development Sites:

A. Flair Park Area – Major development area with freeway visibility for businesses seeking a high-profile presence. Primarily zoned for mid-rise office buildings.
B. Safeway Property – 99 acre site in an industrial area.
C. Gateway TOD, Phase 2 – Second phase for new development next to a major transit center.
D. Former Hyundai Property – 1.9 acre commercial site adjacent to the freeway.
E. Santa Fe Trail Project, Area Y – Approximately 5 acres site adjacent to a new 115,000 sf retail project and near a rail station.
F. El Monte Center – Major commercial center located in the heart of El Monte's Auto District. Includes opportunities for new businesses.
G. Maxson Site – 3.3 acres site in a general commercial area.
H. Majestic Property – 4.5 acre site in a general commercial area.

For more information, call the Planning Division at (626) 258-8626 or visit us at www.elmonteca.gov.



RB-AR5238

Last updated: 06/23/15

City of El Monte - FY2015-2016 CIP Project List
Program: Cost and Funds by Project - Approved by City Council XX/XX/2015

FY 2015-16 CIP					COSTS							
Project #	Description	Project Status	Final Cost (Completed Project)	Total Estimated Project Cost	Completed thru FY2014-15	Budget Carry-Over to FY 2015-16	Proposed Approval for FY 2015-16	Proposed FY 2016-17	Proposed FY 2017-18	Proposed FY 2018-19	Proposed FY 2019-20	Proposed FY 2019-20 +
807	Safe Routes to School Project 2 (State)	1. Closeout		$ 1,001,577	$ 958,251	$ 43,326	$ 43,326	$ -	$ -			
837	Rosemead/Telstar Intersection	1. Closeout		$ 1,747,884	$ 1,558,613	$ 189,271	$ 189,271	$ -				
TBD1	CNG Buses	2 Procurement		$ 3,874,100	$ 670,540	$ 3,203,560	$ 3,203,560	$ -	$ -	$ -		
802	Five Traffic Signals (Installation)	2. Construction		$ 635,998	$ 499,707	$ 136,291	$ 136,291					
815	Strategic Bicycle Plan	2. Construction		$ 166,000	$ 47,687	$ 118,313	$ 118,313	$ -				
845	GATEWAY (Other Infrastructure)	2. Construction		$ 19,769,866	$ 9,339,977	$ 10,429,889	$ 10,429,889	$ -	$ -	$ -		
849	Well No. 2 and 3A	2. Construction		$ 1,500,000	$ 1,362,302	$ 137,698	$ 137,698	$ -	$ -			
875	Replace (1) Sewer Lift Sta. & (2) Pumps (Fineview)	2. Construction		$ 121,300	$ -	$ 121,300	$ 121,300	$ -				
882	Tree Planting - Downtown Valley Blvd	2. Construction		$ 133,124	$ -	$ 133,124	$ 133,124	$ -				
883	Tree Planting - Parks & Fac.	2. Construction		$ 123,992	$ -	$ 123,992	$ 123,992	$ -				
887	Valley Mall Tot Lot	2. Construction		$ 150,000	$ -	$ 150,000	$ 150,000	$ -				
806	Safe Routes to School Project 1 (Federal)	3. Design/Construction		$ 613,600	$ 56,012	$ 555,088	$ 557,588	$ -	$ -			
818	Downtown Improvements Phase II (Parking Lot)	3. Design/Construction		$ 940,879	$ -	$ 938,379	$ 691,073	$ 249,806	$ -			
855	Operable Unit (Oversight)	3. Design/Construction		$ 250,000	$ -	$ 250,000	$ 250,000	$ -				
857	Ramona Blvd Resurfacing Project	3. Design/Construction		$ 2,323,500	$ 53,966	$ 2,267,034	$ 1,295,388	$ 974,146	$ -	$ -		
876	Johnnson to Tyler Sewer	3. Design/Construction		$ 1,421,100	$ -	$ 1,421,100	$ 1,084,411	$ 336,689				
886	Pavement - Resurface/Reconst/Improve	3. Design/Construction		$ 1,802,500	$ -	$ -	$ 1,402,500	$ 400,000				
877	(2) Backflow Valves at Sewer Lateral (add to 876?)	4. Design		$ 41,100	$ -	$ 41,100	$ 41,100	$ -				
878	Replace (10) Sewer Lift Sta. Pumps	4. Design		$ 144,900	$ -	$ 144,900	$ 144,900	$ -				
805	Ramona Blvd/Valley Blvd Intersection	5. Planning/Design		$ 2,616,509	$ -	$ 2,614,009	$ 207,884	$ 2,027,505	$ 381,120	$ -	$ -	
819	Lambert Park Improvements	5. Planning/Design		$ 1,202,250	$ 210,923	$ 988,827	$ 811,920	$ 179,407				
880	Sewer Master Plan	5. Planning/Design		$ 632,540	$ -	$ -	$ 632,540	$ -	$ -	$ -	$ -	
TBD 0	New Water Meters	6. Bid		$ 1,500,000	$ -	$ 1,500,000	$ 1,500,000	$ -				
808	Valley Drainage (West of Santa Anita)	6. Planning		$ 1,752,500	$ -	$ -	$ 168,000	$ 968,500	$ 616,000			
879	Connect Septic to Sewer	6. Planning		$ 581,600	$ -	$ 581,600	$ 50,000	$ 531,600				
884	Garvey Avenue Storm Drain Reconstruction	6. Planning		$ 5,000,000	$ -	$ -	$ 250,000	$ -	$ -	$ 2,375,000	$ 2,375,000	
888	Open Streets Program	6. Planning		$ 291,000	$ -	$ -	$ 291,000	$ -				
TBD3	Flair CIP - Flair/Baldwin/I-10	6. Planning		$ 1,500,000	$ -	$ -	$ 60,000	$ 1,440,000	$ -	$ -	$ -	
TBD4	Flair CIP - Rosemead/Telstar Widening	6. Planning		$ 625,000	$ -	$ -	$ 25,000	$ 50,000	$ 366,667	$ 183,333	$ -	
TBD5	Flair CIP - Baldwin/Loftus	6. Planning		$ 4,700,000	$ -	$ -	$ 28,000	$ 56,000	$ 4,410,667	$ 205,333	$ -	
691	Catch Basin Retrofit	6. Planning		$ 540,000	$ -	$ -	$ 210,000	$ 330,000	$ -	$ -	$ -	
831	Safe Routes to School Project 3 (Roundabout)	Planning		$ 1,071,652	$ -	$ -	$ -	$ 1,071,652	$ -			
838	Bus Speed Improv. Proj. (BSIP) (Ramona/Badillo)	Planning		$ 3,769,550	$ -	$ 2,898,836	$ -	$ -	$ 786,046	$ 2,983,504		
840	Ramona Bus Tunnel	Planning		$ 15,376,596	$ 27,600	$ 15,346,496	$ 46,300	$ 918,012	$ 2,754,035	$ 6,339,841	$ 5,290,808	$ -
842	Flair Dr Connector	Planning		$ 1,291,699	$ -	$ 1,289,199	$ -	$ -	$ 531,587	$ 760,112	$ -	
885	Tyler Street (btw Bryant Rd & SPRR) 10" Water Main Replacement (WB)	Planning		$ 366,100	$ -	$ -	$ -	$ 366,100	$ -			
TBD10	Peck Road/Peck Park Crosswalk	Planning		$ 416,500	$ -	$ -	$ -	$ 90,000	$ 326,500	$ -	$ -	
TBD11	Tyler Avenue Bike Lane	Planning		$ 238,500	$ -	$ -	$ -	$ 238,500	$ -	$ -	$ -	
TBD12	Granada Ave (3500 Block) Water Main Replacement	Planning		$ 87,500	$ -	$ -	$ -	$ 87,500	$ -	$ -	$ -	
TBD13	Granada Ave (3000-3300 Block) Water Main Replacement (WB)	Planning		$ 1,552,320	$ -	$ -	$ -	$ 459,487	$ 1,092,833	$ -	$ -	
TBD14	Well 4 and 10 Blending Project (WB)	Planning		$ 1,500,000	$ -	$ -	$ -	$ 180,000	$ 1,320,000	$ -	$ -	
TBD15	1,000,000 Gallon Reservoir Seismic Upgrade/Replacement (WB)	Planning		$ 1,000,000	$ -	$ -	$ -	$ 120,000	$ 880,000	$ -	$ -	
TBD16	Valley Blvd (Well 10 to Peck Road) 10" Water Main Replacement (WB)	Planning		$ 238,800	$ -	$ -	$ -	$ 238,800	$ -	$ -	$ -	
TBD17	Valley Blvd (Santa Anita to Johnson) 10" Water Main Replacement (WB)	Planning		$ 693,800	$ -	$ -	$ -	$ 693,800	$ -	$ -	$ -	
TBD18	Valley Blvd (Santa Anita to Johnson) 12" Water Main Replacement	Planning		$ 89,500	$ -	$ -	$ -	$ 89,500	$ -	$ -	$ -	
TBD19	Peck Road (Valley to Bryant Road) 12" Water Main Replacement (WB)	Planning		$ 940,900	$ -	$ -	$ -	$ 940,900	$ -	$ -	$ -	

City of El Monte - FY2015-2016 CIP Project List
Program: Cost and Funds by Project - Approved by City Council XX/XX/2015

FY 2015-16 CIP					COSTS							
Project #	Description	Project Status	Final Cost (Completed Project)	Total Estimated Project Cost	Completed thru FY2014-15	Budget Carry-Over to FY 2015-16	Proposed Approval for FY 2015-16	Proposed FY 2016-17	Proposed FY 2017-18	Proposed FY 2018-19	Proposed FY 2019-20	Proposed FY 2019-20 +
TBD20	Median Landscape Improvement	Planning		$ 1,799,237	$ -	$ -	$ -	$ 249,619	$ 1,549,618	$ -	$ -	
TBD21	Bryant Road (btw Tyler Ave & Peck Rd) 10" Water Main Replacement	Planning		$ 591,500	$ -	$ -	$ -	$ -	$ 591,500	$ -	$ -	
TBD22	Bryant Road (btw Tyler Ave & Peck Rd) 12" Water Main Replacement	Planning		$ 154,700	$ -	$ -	$ -	$ -	$ 154,700	$ -	$ -	
TBD23	Cypress Ave (btw Bryant Rd & SG Interconnect) 10" Water Main Replace	Planning		$ 22,790	$ -	$ -	$ -	$ -	$ 22,790	$ -	$ -	
TBD24	Elrovia Ave (btw Forest Gr & Bryant Rd) 8" Water Main Replacement	Planning		$ 199,220	$ -	$ -	$ -	$ -	$ 199,220	$ -	$ -	
TBD25	Lee Lane (btw Johnson Ave & Peck Rd) 10" Water Main Replacement	Planning		$ 131,570	$ -	$ -	$ -	$ -	$ -	$ 131,570	$ -	
TBD26	Maple Ave (btw Forest Gr & Bryant Rd) 8" Water Main Replacement	Planning		$ 156,520	$ -	$ -	$ -	$ -	$ -	$ 156,520	$ -	
TBD27	Medina Ct (Pine Ave to Easterly) 8" Water Main Replacement	Planning		$ 70,570	$ -	$ -	$ -	$ -	$ -	$ 70,570	$ -	
TBD28	Pine Ave (btw Orchard Ave & Medina Ct) 8" Water Main Replacement	Planning		$ 148,400	$ -	$ -	$ -	$ -	$ -	$ 148,400	$ -	
TBD29	Asher St (btw Tyler Ave & Utah Ave) 10" Water Main Replacement	Planning		$ 160,440	$ -	$ -	$ -	$ -	$ -	$ 160,440	$ -	
TBD30	Valley Mall (east of Granada Ave) 8" Water Main Replacement	Planning		$ 14,140	$ -	$ -	$ -	$ -	$ -	$ 14,140	$ -	
TBD31	Haverly PL (btw Ranger Ave & Whitney Dr) 8" Water Main Replacement	Planning		$ 47,290	$ -	$ -	$ -	$ -	$ -	$ 47,290	$ -	
TBD32	Tyler Ave (btw Brockway St & Ramona Blvd) 10" Water Main Replacement	Planning		$ 280,280	$ -	$ -	$ -	$ -	$ -	$ 280,280	$ -	
TBD33	Traffic Signal at Lower Azussa and La Mera	Planning		$ 400,300	$ -	$ -	$ -	$ 400,300	$ -	$ -	$ -	
TBD34	I-10 Active Commute, Healthy Communities	Planning		$ 462,500	$ -	$ -	$ -	$ 240,500	$ 222,000	$ -	$ -	
TBD8	Pedestrian Master Plan	Planning		$ 152,500	$ -	$ -	$ 152,500	$ -	$ -	$ -	$ -	
TBD9	City Hall Improvements	Planning		$ 502,675	$ -	$ -	$ -	$ 74,100	$ 428,575	$ -	$ -	
Master CIP Total				**$ 91,630,868**	**$ 14,785,577**	**$ 45,623,333**	**$ 24,686,868**	**$ 14,002,423**	**$ 16,633,858**	**$ 13,856,333**	**$ 7,665,808**	**$ -**
FY 2015-16 CIP				$ 91,630,868								

El Monte Conditionally Approved WMP Comments/Response

Comment	Reviewer	Section	Regional Water Board Staff Comment	Response
1	Board	Table 1-4	Remove selenium from Table 1-4 ("WBPCs with TMDLs (Category 1))" of the revised draft WMP. The City's MS4 discharges are not subject to the dry-weather selenium waste load allocations (WLAs) in the San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (Attachment P of the LA County MS4 Permit) assigned to discharges to the San Jose Reach 1 and 2.	Selenium has been removed from Table 1-4.
2	Board	Table 1-5	Remove Trash for Legg Lake from Table 1-5 of the revised draft WMP ("WBPCs on 2010 303(d) list (Category 2))". Trash for Legg Lake is a Category 1 pollutant already addressed in Table 1-4.	Trash has been removed from Table 1-5.
3	Board	Table 1-5	Ammonia, odor, and pH for Legg Lake and pH for Los Angeles River are Category 1 pollutants, since they are being addressed through the Legg Lake Nutrients TMDL and Los Angeles River Nitrogen Compounds and Related Effects TMDL. Move these Category 1 pollutants from Table 1-5 to Table 1-4 of the revised draft WMP.	Ammonia, odor, pH for Legg Lake and pH for LA River have been moved from Table 1-5 to Table 1-4.
4	Board	Section 1.7.3 and Table 1-6	Although Sections 1.2.1, 1.2.2, and 1.2.3 of the revised draft WMP provide a summary of recent data on pollutant exceedances, include further discussion in Section 1.7.3 on each of the Category 3 pollutants listed in Table 1-6 explaining how monitoring data sources show exceedances and possible sources of those exceedances. Additionally, clarify or remove the entry for indicator bacteria in the San Gabriel River in Table 1-6, since indicator bacteria is identified as a Category 2 pollutant for San Gabriel River (Reach 3) in Table 1-5.	Text has been added to the revised draft WMP to describe in greater detail how monitoring data sources show exceedances and the possible sources of those exceedances. Indicator bacteria has been removed from Table 1-6 since in occurs in Table 1-5,
5	Board	Tables 1-5 and 1-6	Add applicable Receiving Water Limitations where left blank in Tables 1-5 and 1-6 of the revised draft WMP.	Applicable Receiving Water Limitations were added to Tables 1-5 and 1-6.
6	Board	Table 1-12	Specify that the effluent limitations applicable to the City in Table 1-12 of the revised draft WMP are those for the Los Angeles Tributaries.	The effluent limitations applicable to the City in Table 1-12 have been indicated by a red box.
7	Board	RAA Section	Use the suggested BMP performance parameters given in the RAA Guidelines in Table 4-2 of the revised draft WMP (p. 18) to provide the estimated pollutant load reduction for the proposed BMPs. Include demonstration that the proposed BMPs will achieve pollutant load reductions needed for those pollutants addressed in the RAA (as shown in Tables 1-9, 1-10, 1-11, 1-14, 1-19, and 1-20 provided as a supplement to the revised draft WMP) consistent with interim milestones within this permit term and the next permit term (i.e., through December 2022).	Graphs, tables, and text was added to demonstrate that the proposed BMPs will achieve pollutant load reductions.

8	Board	Table 1-25	Revise Table 1-25 of the revised draft WMP, TMDL Milestones for Los Angeles River, for Los Angeles River Watershed Bacteria TMDL by separating the deadlines for wet and dry as is done for other pollutants in the table. March 23, 2037 is the final deadline for compliance in wet weather. Dry weather deadlines are per the applicable schedule in Table 0-1 of Attachment 0 in the LA County MS4 Permit, as follows: a. First Phase actions and deadlines: i. "Submit a Load Reduction Strategy (LRS) for Segment B tributaries (or submit an alternative compliance plan) by March 23, 2016; ii. "Complete Implementation of LRS" by September 23, 2020; iii. "Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board" by September 23, 2023; b. Second Phase actions and deadlines: i. "Submit a New LRS" by September 23, 2024; ii. "Complete Implementation of LRS" by March 23, 2028; iii. "Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board" by March 23, 2030.	Table 1-25 revised to include deadlines for wet and dry weather and also revised to include First and Second Phase actions and deadlines.
9	Board	Table 1-26	Revise Table 1-26 of the revised draft WMP, TMDL Milestones for San Gabriel River, to include interim milestones consistent with the San Gabriel River and Impaired Tributaries Metals and Selenium TMDL Implementation Plan adopted by the Los Angeles Water Board through Resolution No. R13-004. These milestones include: a 10% reduction in the difference between the current loadings and the wet-weather WLAs at MS4 outfalls (or a demonstration that 10% of the total drainage area to the San Gabriel River within the City is effectively meeting the wet-weather WLAs) by September 30, 2017; a 35% reduction by September 30, 2020; a 65% reduction by September 30, 2023; and a 100% reduction by September 30, 2026.	Table 1-26 revised to include interim milestones for SGR Metals TMDL from Resolution No. R13-004.
10	Board	WMP	Review and revise the entire revised draft WMP for correct table and figure labeling and referencing.	Completed

August 12, 2015

Mr. Frank Senteno, City Engineer
City of El Monte
Department of Public Works
11333 Valley Blvd.
El Monte, CA 91731

FINAL APPROVED CITY OF EL MONTE'S WATERSHED MANAGEMENT PROGRAM (WMP), PURSUANT TO THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175)

Dear Mr. Senteno:

On November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) adopted Order No. R4-2012-0175, *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 (hereafter, LA County MS4 Permit). The LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or an 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 allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E and Attachments L through R (Total Maximum Daily Load Provisions), by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures), except the Planning and Land Development Program.

On April 28, 2015, on behalf of the Los Angeles Water Board, I approved, with conditions, the City of El Monte's (City) WMP. My approval letter directed the City to submit a final WMP that satisfies all the conditions listed in the letter no later than June 12, 2015. On June 12, 2015 the City submitted its final WMP, as directed. Additionally, the City submitted supplemental document for clarification on August 10, 2015.

After review of the City's final WMP submitted on June 12, 2015 and the supplemental document, I have determined that the City's WMP satisfies all of the conditions identified in my

April 28, 2015 approval letter. The WMP submitted on June 12, 2015 along with the supplemental document hereby constitutes the final approved WMP for the City.

The Los Angeles Water Board appreciates the participation and cooperation of the City in the implementation of the LA County MS4 Permit. If you have any questions, please contact Ms. Erum Razzak of the Storm Water Permitting Unit by electronic mail at Erum.Razzak@waterboards.ca.gov or by phone at (213) 620-2095. Alternatively, you may also contact Mr. Ivar Ridgeway, Storm Water Permitting, at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

cc: Jesus Gomez, Assistant City Manager, City of El Monte
Elaine Jeng, P.E., City Engineer, City of El Monte
Edmond Suher, Senior Project Engineer, CASC Engineering and Consulting