

2012 SAN MATEO CREEK WATERSHED WORKPLAN



DECEMBER 1, 2011



A COOPERATIVE PROJECT OF THE CITY OF SAN CLEMENTE, THE COUNTY OF ORANGE, AND THE ORANGE COUNTY FLOOD CONTROL DISTRICT

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1.0 INTRODUCTION

This Watershed Workplan (Workplan) identifies a schedule of management activities addressing priority constituents of concern to be undertaken in 2012 by the City of San Clemente, the County of Orange, and the Orange County Flood Control District (the San Mateo Creek Watershed Permittees or Watershed Permittees). This Workplan describes the approach taken by the San Mateo Creek Watershed Permittees to maintain a responsive program in compliance with Directive G of the San Diego Regional Water Quality Control Board's Order (Regional Board Order No. R9-2009-0002).¹

1.1 Watershed Setting

The San Mateo Creek Watershed within Orange County covers about 20 square miles, and is located approximately 50 miles south of Los Angeles and 65 miles north of San Diego. Most of San Mateo Creek and its outlet to the Pacific Ocean are actually located in San Diego County, but the upstream-most portion of the San Mateo Creek Watershed is located in Orange County. The portion of San Mateo Creek within Orange County flows through unincorporated Orange County before entering the City of San Clemente. It then re-enters San Diego County, ultimately discharging into the Pacific Ocean at San Onofre State Beach. The San Mateo Creek tributaries include Gabino Canyon, Paz Canyon, and Blind Canyon, which combine and flow into Cristianitos Creek. The tributaries are also joined by several small, unnamed drainages as they make their way through the watershed. The Paz Canyon tributary flows into Gabino Canyon before combining with the Blind Canyon tributary. This tributary then flows through the area proposed for the Foothill Transportation Corridor and flows into Cristianitos Creek, which ultimately discharges into San Mateo Creek within San Diego County (see **Figure 1**).

The San Mateo Creek Watershed is within the jurisdiction of the San Diego Regional Water Quality Control Board. The San Diego Regional Board has placed San Mateo Creek under the San Mateo Canyon subunit of the San Juan Hydrologic Basin. The Water Quality Control Plan (Basin Plan)² lists Devil Canyon, Cold Spring Canyon, San Mateo Canyon, Los Alamos Canyon, Wildhorse Canyon, Tenaja Canyon, Bluewater Canyon, Nickel Canyon, Cristianitos Creek, Gabino Canyon, La Paz Canyon, Blind Canyon, and Talega Canyon as tributaries to San Mateo Creek. The Basin Plan also designates beneficial uses (the uses of water necessary for the survival and well being of humanity, plants and wildlife) for inland and coastal waters, sets narrative and numerical water quality objectives that must be attained or maintained to protect the designated beneficial uses, and describes implementation programs to protect beneficial uses. The designated beneficial uses in the San Mateo Creek watershed are shown in **Table 1**.

¹ Order No. R9-2009-0002 is available online at:

http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/stormwater/oc_stormwater.shtml

² The San Diego Region Water Quality Control Plan (Basin Plan) is available online at:

http://www.swrcb.ca.gov/sandiego/water_issues/programs/basin_plan/

1.2 Watershed Management

The majority of the San Mateo Creek Watershed is undeveloped, with no plans for future use at this time. The small portion of developed land within the San Clemente city boundaries will be subject to the Jurisdictional Runoff Management Plan (JRMP) developed by the City of San Clemente. Due to the current undeveloped nature of the San Mateo Creek Watershed within Orange County, County-led efforts focusing on the establishment of a long-term Watershed Management Framework have been limited.

1.3 Governance

The County of Orange serves as the Lead Watershed Permittee. As Lead Watershed Permittee, the County is responsible for coordinating the production of the Workplan and coordinating annual watershed review meetings and public participation/public noticing.

The San Mateo Creek Watershed Permittees are also part of the San Juan Creek Watershed and meet with the San Juan Creek Watershed Permittees on a quarterly basis to review and discuss the status of the Workplan and BMP implementation, monitoring, data management and reporting, and review of priorities and necessary refinements.

1.4 Workplan Updates

The Workplan will be updated annually in November after review and consideration of the Monitoring Program Annual Report findings. Each December a draft Workplan will be posted on the OC Watersheds website (www.ocwatersheds.com) for public review and comment and an annual public stakeholder meeting will also be held to identify issues of concern among residents in the watershed. The Workplan will be finalized following stakeholder feedback and implementation will begin on January 1 of the following year.

2.0 RECEIVING WATER QUALITY AND BMP IMPLEMENTATION

2.1 Water Quality Assessment

There are currently no 303(d) impaired waterbodies in the portion of the San Mateo Creek Watershed within Orange County, nor have any pollutants of concern have been identified.

There are three monitoring stations in the San Mateo Creek Watershed, one urban stream bioassessment monitoring site, one non-stormwater action level monitoring site, and one stormwater action level monitoring site. The objectives of these monitoring program elements are:

Urban stream bioassessment monitoring	Using a “triad” of indicators (bioassessment, chemistry, toxicity), describe impacts on stream communities and the relationship of any impacts to runoff, based on comparisons with reference locations on a year-to-year time frame.
Non-stormwater Action Level (NAL) monitoring	The NALs monitoring program assesses the quality of dry weather discharges from the MS4, relative to criteria from the California Toxics Rule, and water quality objectives from the Water Quality Control Plan for the San Diego Region (Basin Plan objectives). The NALs monitoring program replaced the Dry Weather Reconnaissance monitoring program from the Third Term Permit.
Stormwater Action Level (SAL) monitoring	Using 90 th percentile values from the arid southwest portion of the National Stormwater Quality Database (NSWQD) as a basis for identifying major outfalls in the MS4 for focused source identification work.

The three monitoring locations in the San Mateo Creek Watershed are identified on **Figure 1**.

A complete discussion of the regional bioassessment and stormwater action level monitoring results, including the sites in the San Mateo Creek Watershed for each of these program elements, can be found in **Unified Report Section C-11**.³

The City of San Clemente is a cost-sharing partner in the Countywide non-stormwater action level (NAL) monitoring that began in May 2011. The one NAL site in the San

³ The Unified Report is available online at:
http://www.ocwatersheds.com/DAMP_PEAreports.aspx

Mateo Creek Watershed is sampled once each dry season (May 1 through September 30) and once each wet season during non-storm weather (October 1 through April 30). County staff notifies San Clemente of any NAL exceedances or any other condition that would suggest an illegal discharge or illicit connection impacting a storm drain outfall. San Clemente's investigation of illicit discharges and illegal connections is described in their JRMP.

2.2 Best Management Practice (BMP) Implementation

Due to its largely natural condition, the San Mateo Creek watershed essentially functions as a reference watershed for bioassessment monitoring; therefore many of the BMP implementation plans executed in other watersheds are not applicable to this watershed. However, the San Mateo Creek Watershed Permittees are actively involved in collaborative BMP implementation efforts in adjacent watersheds.

3.0 ACRONYMS AND GLOSSARY

3.1 Acronyms

ASCE	American Society of Civil Engineers
BMP	Best Management Practice
Basin Plan	Water Quality Control Plan for the San Diego Basin
Copermittees	County of Orange, the 11 incorporated cities within the County of Orange in the San Diego Region, and the Orange County Flood Control District
CFR	Code of Federal Regulations
CSDO	Coastal Stormdrain Outfall
CWA	Clean Water Act
CWC	California Water Code
JRMP	Jurisdictional Runoff Management Plan
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
NAL	Non-Stormwater Dry Weather Action Level
NPDES	National Pollutant Discharge Elimination System
NSWQD	National Stormwater Quality Database
POTW	Publicly Owned Treatment Works
Regional Board	California Regional Water Quality Control Board, San Diego Region
SAL	Stormwater Action Level
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
Watershed Permittees	The City of San Clemente, the County of Orange, and the Orange County Flood Control District
WRMP	Watershed Runoff Management Plan

3.2 Glossary⁴

Beneficial Uses - The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote tangible and intangible economic, social, and environmental goals. "Beneficial Uses" of the waters of the State that may be protected include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation;

⁴ Definitions are derived from Attachment C of Order 2009-2009-002.

and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

Best Management Practices (BMPs) - Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits.

Clean Water Act Section 402(p) [33 USC 1342(p)] - The federal statute requiring municipal and industrial dischargers to obtain NPDES permits for their discharges of storm water.

Clean Water Act Section 303(d) Water Body - An impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of runoff to these water bodies by the Copermittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.

Dry Season - May 1 through September 30 of each year.

MS4 - conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made 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, storm water, 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 designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

National Pollutant Discharge Elimination System (NPDES) - The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA.

Non-Storm Water - All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges from a MS4 other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges.

Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant - Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution - As defined in the Porter-Cologne Water Quality Control Act: “the alteration of the quality of the waters of the State by waste, to a degree that unreasonably affects the either of the following: 1) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses.” Pollution may include contamination.

Pollutants of Concern - Pollutants for which water bodies are listed as impaired under CWA section 303(d), pollutants associated with the land use type of a development, and/or pollutants commonly associated with runoff. Pollutants commonly associated with runoff include total suspended solids; sediment; pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc, and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers); oxygen-demanding substances (decaying vegetation, animal waste, and anthropogenic litter).

Pollution Prevention - Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control BMPs, treatment control BMPs, or disposal.

Receiving Waters - Waters of the United States.

Runoff - All flows in a storm water conveyance system that consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water including dry weather flows.

Shared Treatment Control BMP - BMPs used by multiple developments to infiltrate, filter, or treat the required volume or flow prior to discharge to a receiving water. This could include, for example, a treatment BMP at the end of an enclosed storm drain that collects runoff from several commercial developments.

Source Control BMP - Land use or site planning practices, or structural or nonstructural measures that aim to prevent runoff pollution by reducing the potential for

contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and runoff.

Storm Water – Per 40 CFR 122.26(b)(13), means storm water runoff, snowmelt runoff and surface runoff and drainage. Surface runoff and drainage pertains to runoff and drainage resulting from precipitation events.

Total Maximum Daily Load (TMDL) - The maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under CWA section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology based controls.

Water Quality Objective - Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water. [California Water Code Section 13050 (h)]. California's water quality objectives are established by the State and Regional Water Boards in the Water Quality Control Plans. Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne's definition of pollution. A condition of pollution exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired; in other words, when the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the CWA.)

Water Quality Standards - The beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.) of water and the water quality objectives necessary to protect those uses.

Waters of the State - Any water, surface or underground, including saline waters within the boundaries of the State [CWC section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a MS4 is always considered to be a Waters of the State.

Waters of the United States - As defined in the 40 CFR 122.2, the Waters of the U.S. are defined as: "(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including

intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.”

Watershed - That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

Watershed Runoff Management Plan (WRMP) - A written description of the specific watershed runoff management measures and programs that each watershed group of Copermittees will implement to comply with this Order and ensure that storm water pollutant discharges in runoff are reduced to the MEP and do not cause or contribute to violation of water quality standards.

Wet Season - October 1 through April 30 of each year.

Table 1: Designated Beneficial Uses – San Mateo Creek

Inland Surface Water	REC-1	REC-2	WARM	COLD	WILD	RARE	SPWN
San Mateo Creek	○	●	●	●	●	●	●
Devil Canyon	○	●	●	●	●		●
Cold Spring Canyon	○	●	●	●	●		
San Mateo Canyon	○	●	●	●	●	●	●
Los Alamos Canyon	○	●	●	●	●		●
Wildhorse Canyon	○	●	●	●	●		
Tenaja Canyon	○	●	●	●	●		●
Bluewater Canyon	○	●	●	●	●		

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Inland Surface Water	REC-1	REC-2	WARM	COLD	WILD	RARE	SPWN	
Nickel Canyon	○	●	●	●	●			
Christianitos Creek	○	●	●	●	●			
Gabino Canyon	○	●	●	●	●			
La Paz Canyon	○	●	●	●	●			
Blind Canyon	○	●	●	●	●			
Talega Canyon	○	●	●	●	●			
Coastal Water	REC1	REC2	BIOL	WILD	RARE	MAR	MIGR	SPWN
San Mateo Creek Mouth	●	●	●	●	●	●	●	●

Existing - ● Potential - ○

Contact Water Recreation (**REC-1**) - Includes uses of water for recreational activities involving body contact where ingestion of water is reasonably possible.

Non-Contact Water Recreation (**REC-2**) - Includes uses of water for recreational activities involving proximity to water.

Warm Freshwater Habitat (**WARM**) - Includes uses of water that support warm water ecosystems.

Cold Freshwater Habitat (**COLD**) - Includes uses of water that support cold water ecosystems.

Marine Habitat (**MAR**) - Includes uses of water that support marine ecosystems.

Wildlife Habitat (**WILD**) - Includes uses of water that support terrestrial ecosystems.

Rare, Threatened, or Endangered Species (**RARE**) - Includes uses of water that support habitats necessary for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Spawning, Reproduction or Early Development (**SPWN**) - Includes uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

Preservation of Biological Habitats of Special significance (**BIOL**) - Supports uses of water that support designated areas or habitats such as reserves or Areas of Special Biological Significance.

Source: <http://www.waterboards.ca.gov/sandiego/programs/basinplan.html>

Figure 1: San Mateo Creek Watershed - Jurisdictional Boundaries & Monitoring Sites

