

TOTAL MAXIMUM DAILY LOAD	RESOLUTION NUMBER	ADOPTION DATE	STATE BOARD RESOLUTION NUMBER	STATE BOARD APPROVAL DATE	OAL APPROVAL DATE	EPA APPROVAL DATE	EFFECTIVE DATE
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A
Marina del Rey Subwatershed							
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	2003-012	8/7/2003	2003-0072	11/19/2003	1/30/2004	3/18/2004	3/18/2004
Marina del Rey Harbor Toxic Pollutants TMDL	2005-012	10/6/2005	2006-0006	1/13/2006	3/13/2006	3/16/2006	3/22/2006
Dominguez Channel and Greater Harbors Watershed Management Area							
Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel)	2004-011	7/1/2004	2004-0071	10/21/2004	1/5/2005	3/1/2005	3/10/2005
Machado Lake Trash TMDL	2007-006	6/7/2007	2007-0075	12/4/2007	2/8/2008	2/27/2008	3/6/2008
Machado Lake Nutrient TMDL	2008-006	5/1/2008	2008-0089	12/2/2008	2/19/2009	3/11/2009	3/11/2009
Machado Lake Pesticides and PCBs TMDL	R10-008	9/2/2010	2011-0065	12/6/2011	2/29/2012	3/20/2012	3/20/2012
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	R11-008	5/5/2011	2012-0008	2/7/2012	3/21/2012	3/23/2012	3/23/2012
Los Angeles River Watershed Management Area							
Los Angeles River Watershed Trash TMDL	2007-012	8/9/2007	2008-0024	4/15/2008	7/1/2008	7/24/2008	9/23/2008
Los Angeles River Nitrogen Compounds and Related Effects TMDL	2003-016	12/4/2003	2004-0014	3/24/2004	9/27/2004	N/A	9/27/2004
Los Angeles River and Tributaries Metals TMDL	R10-003	5/6/2010	2011-0021	4/19/2011	7/28/2011	11/3/2011	11/3/2011
Los Angeles River Bacteria TMDL	R10-007	7/9/2010	2011-0056	11/1/2011	3/21/2012	3/23/2012	3/23/2012
Legg Lake Trash TMDL	2007-010	6/7/2007	2007-0074	12/4/2007	2/5/2008	2/27/2008	3/6/2008
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A

MS4 Discharges within the
Coastal Watersheds of Los Angeles County

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Los Angeles Area Lakes TMDLs (USEPA established for Lake Calabasas, Echo Park Lake, Legg Lake and Peck Road Park Lake)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A
San Gabriel River Watershed Management Area							
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/26/2007	N/A
Los Angeles Area Lakes TMDLs (USEPA established for Puddingstone Reservoir)	N/A	N/A	N/A	N/A	N/A	3/26/2012	N/A
Los Cerritos Channel and Alamitos Bay Watershed Management Area							
Los Cerritos Channel Metals TMDL (USEPA established)	N/A	N/A	N/A	N/A	N/A	3/17/2010	N/A
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	R09-005	10/1/2009	2010-0056	11/16/2010	5/6/2011	6/14/2011	7/28/2011
Middle Santa Ana River Watershed Management Area (Santa Ana Region TMDL)							
Middle Santa Ana River Watershed Bacterial Indicator TMDLs	R8-2005-0001	8/26/2005	2006-0030	5/15/2006	9/1/2006	5/16/2007	5/16/2007

Santa Clara River Watershed Management Area. The Santa Clara River and its tributaries drain a watershed area of 1,634 square miles (sq. miles) (Figure B-1). Santa Clara River Reaches 1, 2, 3, 4A, 4B and major tributaries Santa Paula, Sespe and Piru Creeks are in Ventura County. Santa Clara River Reaches 5, 6, 7, 8 and major tributaries Castaic, San Francisquito, and Bouquet Canyon Creeks are in Los Angeles County. About 40% of the watershed, the Upper Santa Clara River, is located in County of Los Angeles. Approximately, 75% of the Upper Santa Clara River watershed is open space used for recreation in the Angeles National Forest. The remainder of the upper portion of the watershed is characterized by a mixture of residential, mixed urban, and industrial land uses with low density residential more common in the uppermost areas of the watershed, while high density residential is more prevalent in the City of Santa Clarita.

Various reaches of the Santa Clara River are on the 2010 CWA Section 303(d) List of impaired water bodies for nitrogen, bacteria, chloride, and trash (in lakes), among other pollutants. The excess nitrogen compounds are causing impairments to the WARM, WILD, and GWR designated beneficial uses of the Santa Clara River in Reaches 3, 7 and 8. The elevated bacterial indicator densities are causing impairment of the REC-1 and REC-2 designated beneficial uses for the Santa Clara River Estuary and Reaches 3, 5, 6, and 7. The excessive levels of chloride are impairing the AGR and GWR designated beneficial uses of the Upper Santa Clara River Reaches 4A, 4B, 5 and 6. The trash in Lake Elizabeth is causing impairments to the WARM, WILD, RARE, REC-1 and REC-2 designated beneficial uses.

TMDLs have been adopted by the Regional Water Board to address the impairments due to nitrogen, bacteria and chloride in the Upper Santa Clara River Watershed and for trash in Lake Elizabeth. Each of these TMDLs identifies MS4 discharges as a source of pollutants and assigns allocations to MS4 discharges. In the nitrogen compounds TMDL, storm water discharges were identified as potentially contributing nitrogen loads. Data from land use monitoring conducted under the LA County MS4 Permit from 1994-1999 indicate some concentrations of ammonia from commercial land uses in excess of the 30-day average concentration based WLA of 1.75 mg/l, and potential concentrations of nitrate-N and nitrite-N from residential land uses in excess of the WLA of 6.8 mg/l. Recent data from the 2010-11 annual monitoring report indicate low levels of ammonia and nitrite at the mass emissions station (S29) in the Santa Clara River, and concentrations of nitrate-N ranging from 1.38-1.66 mg/l in dry weather and 0.015-1.86 mg/l in wet weather. In the chloride TMDL, major point sources are assigned a WLA of 100 mg/l. Data from land use monitoring conducted under the LA County MS4 Permit from 1994-99 indicate chloride concentrations ranging from 3.2-48 mg/l, while more recent data from the mass emissions station (S29) indicate concentrations ranging from 116-126 mg/l in dry weather, and 25.1-96.3 mg/l in wet weather. For the bacteria TMDL, the Regional Water Board found that the significant contributors of bacteria loading to the Santa Clara River are discharges of storm water and non-storm water from the MS4. For the trash TMDL, discharges from the MS4 are sources of trash discharged to Lake Elizabeth.

Santa Monica Bay Watershed Management Area. The Santa Monica Bay Watershed Management Area (WMA) encompasses an area of 414 sq. miles (Figure B-2). Its

borders reach from the crest of the Santa Monica Mountains on the north and from the Ventura-Los Angeles County line to downtown Los Angeles. From there it extends south and west across the Los Angeles plain to include the area east of Ballona Creek and north of the Baldwin Hills. A narrow strip of land between Playa del Rey and Palos Verdes drains to the Bay south of Ballona Creek. The WMA includes several subwatersheds, the two largest being Malibu Creek to the north (west) and Ballona Creek to the south. SCAG land use data from 2005 shows 62% of the area is open space, high density residential is 17% of the area, and low density residential is 2.3% of the area. Commercial and industrial land uses total 6% of the area and are found in all but a handful of the subwatersheds.

Many of the Santa Monica Bay beaches were identified on the 1998 CWA Section 303(d) List of impaired water bodies for high coliform counts and beach closures. Santa Monica Bay offshore and nearshore is on the 2010 CWA Section 303(d) List of impaired water bodies for debris, DDTs, PCBs and sediment toxicity. The elevated bacterial indicator densities during both dry and wet weather are causing impairments of the REC-1 and REC-2 designated beneficial uses of the Santa Monica Bay beaches. The debris and elevated concentrations of DDT and PCBs are causing impairments to the IND, NAV, REC-1, REC-2, COMM, EST, MAR, BIOL, MIGR, WILD, RARE, SPWN, SHELL, and WET designated beneficial uses of the Santa Monica Bay.

TMDLs have been adopted by the Regional Water Board and USEPA for bacteria at Santa Monica Bay Beaches, and for debris, DDTs, PCBs and sediment toxicity in Santa Monica Bay. In the bacteria TMDL, the Regional Water Board determined that discharges of storm water and non-storm water from the MS4 are the primary source of elevated bacterial indicator densities to Santa Monica Bay beaches during dry and wet weather. In the debris TMDL, the Regional Water Board determined that most of the land-based debris is discharged to the marine environment through the MS4. In the DDT and PCBs TMDL, USEPA determined that although DDT is no longer used, it persists in the environment, adhering strongly to soil particles. The manufacture of PCBs is no longer legal, but PCBs also persist in the environment and are inadvertently produced as a result of some manufacturing processes. Both DDT and PCBs are transported in contaminated sediments via urban runoff through the MS4 to Santa Monica Bay.

The Malibu Creek subwatershed drains an area of about 109 square miles (Figure B-2a). Approximately two-thirds of this subwatershed lies in Los Angeles County and the remaining third in Ventura County. Much of the land is part of the Santa Monica Mountains National Recreation Area and is under the purview of the National Parks Service. The watershed borders the eastern portion of Ventura County to the west and north and Los Angeles River watershed to the east. Major tributaries include Cold Creek, Lindero Creek, Las Virgenes Creek, Medea Creek, and Triunfo Creek. Located at the end of and receiving flows from Malibu Creek is the 40-acre Malibu Lagoon. The Malibu Creek subwatershed land uses are 88% open space, 3% commercial/light industry, 9% residential and less than 1% public.

The Malibu Creek Watershed is on the 2010 CWA Section 303(d) List of impaired water bodies for bacteria, nutrients, and trash. Elevated bacterial indicator densities are

causing impairment of the REC-1 and REC-2 designated beneficial uses of Malibu Creek, Malibu Lagoon, and the adjacent beaches. Excess nutrients are causing impairments to the REC-1, REC-2, WARM, COLD, EST, MAR, WILD, RARE, MIGR, and SPWN designated beneficial uses of waterbodies in the Malibu Creek Watershed. Trash is causing impairments to the MUN, GWR, REC-1, REC-2, WARM, COLD, MIGR, WILD, RARE, SPWN, and WET designated beneficial uses of the waterbodies in the Malibu Creek Watershed.

TMDLs have been adopted by the Regional Water Board for bacteria and trash in Malibu Creek. USEPA established a TMDL for nutrients in Malibu Creek. Fecal coliform bacteria may be introduced from a variety of sources including storm water and non-storm water discharges from the MS4. USEPA determined that high nitrogen and phosphorus loadings are associated with storm water discharges from commercial and residential land uses and also from undeveloped areas. During the summer non-storm water discharges add a significant portion of the load. The Regional Water Board determined in the trash TMDL that discharges from the MS4 are a source of trash to waterbodies in the Malibu Creek Watershed.

Ballona Creek and its tributaries drain a subwatershed of about 127 square miles (Figure B-2b). The watershed boundary extends in the east from the crest of the Santa Monica Mountains southward and westward to the vicinity of central Los Angeles and thence to Baldwin Hills. Tributaries of Ballona Creek include Centinela Creek, Sepulveda Canyon Channel, Benedict Canyon Channel, and numerous other storm drains. Ballona Creek is concrete lined upstream of Centinela Boulevard. All of its tributaries are either concrete channels or covered culverts. The channel downstream of Centinela Boulevard is trapezoidal composed of grouted rip-rap side slopes and an earth bottom. The urbanized areas of Ballona Creek, which consists of residential and commercial properties, accounts for 80% of the watershed; the partially developed foothill and mountains make up the other 20%.

Ballona Creek and Ballona Creek Estuary is on the 2010 CWA Section 303(d) List for trash, toxicity, bacteria, and metals. The Ballona Creek Wetlands is on the 2010 CWA Section 303(d) List for trash, exotic vegetation, habitat alterations and hydromodification. Trash is causing impairments to the REC-1, REC-2, WARM, WILD, EST, MAR, RARE, MIGR, SPWN, COMM, WET, and COLD designated beneficial uses of Ballona Creek. A suite of toxic pollutants, including cadmium, copper, lead, silver, zinc, chlordane, DDT, PCBs, and PAHs in sediments and dissolved copper, dissolved lead, total selenium, and dissolved zinc, are causing impairments to the REC-1, REC-2, EST, MAR, WILD, RARE, MIGR, SPWN, COMM, and SHELL designated beneficial uses of Ballona Creek Estuary and Ballona Creek and Sepulveda Channel, respectively. The elevated bacterial indicator densities are causing impairment of the REC-1, LREC-1, and REC-2 designated beneficial uses of Ballona Creek and Ballona Estuary. The excess sediment and invasive exotic vegetation is causing impairments to the EST, MIGR, RARE, REC-1, REC-2, SPWN, WET, and WILD designated beneficial uses of the Ballona Creek Wetlands.

TMDLs have been adopted by the Regional Water Board for trash, metals and toxic pollutants in Ballona Creek and Estuary, and bacteria. USEPA established a TMDL for

Sediment and Invasive Exotic Vegetation in the Ballona Creek Wetlands. Stormwater discharge is the major source of trash in Ballona Creek. Urban storm water has been recognized as a substantial source of metals. Storm drains convey a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in estuarine sediments where they may pose a risk of toxicity. Similar to metals, the majority of organic constituents in storm water are associated with particulates. There is toxicity associated with suspended solids in urban runoff discharged from Ballona Creek, as well as with the receiving water sediments. This toxicity is likely attributed to metals and organics associated with the suspended sediments. The major contributors of flows and associated bacteria loading to Ballona Creek and Ballona Estuary are storm water and non-storm water discharges from the MS4. The potential for sediment loading into the Ballona Creek Wetlands is associated with the flow coming down the watershed. Sediment moves from the watershed through the MS4 as a result of storms, wind and land based runoff. Major storms usually take place in winter and are responsible for major movements of sediment down the watershed into Ballona Creek and Ballona Wetland towards the coastal waterbodies. These activities can lead to discharge of large quantities of sediments in runoff.

The Marina del Rey subwatershed is approximately 2.9 square miles located adjacent to the mouth of Ballona Creek. The Marina del Rey subwatershed is highly developed at 80%, the remaining 20% is split between water and open/recreation land uses.

Marina del Rey is on the 2010 CWA Section 303(d) List for bacteria and sediment concentrations of copper, lead, zinc, DDT, PCBs, chlordane, and sediment toxicity. The elevated bacterial indicator densities are causing impairment of the REC-1 and REC-2 designated beneficial uses at Marina del Rey Harbor Mothers' Beach and back basins. The toxic pollutants are causing impairments to the REC-1, MAR, WILD, COMM, and SHELL designated beneficial uses of the Marina del Rey Harbor.

TMDLs have been adopted by the Regional Water Board for bacteria and toxic pollutants. Non-storm water and storm water discharges from the MS4 are the primary sources of elevated bacterial indicator densities to Marina del Rey Harbor Mothers' Beach and back basins during dry and wet weather. Urban storm water has been recognized as a substantial source of metals. Numerous researchers have documented that the most prevalent metals in urban storm water (i.e., copper, lead, and zinc) are consistently associated with suspended solids. Because metals are typically associated with fine particles in storm water runoff, they have the potential to accumulate in marine sediments where they may pose a risk of toxicity. Similar to metals, the majority of organic constituents in storm water are associated with particulates.

On June 7, 2012, the Regional Water Board adopted revised Basin Plan Amendments (BPAs) for the Santa Monica Bay Beaches Bacteria TMDL; the Malibu Creek and Lagoon Bacteria TMDL; the Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria TMDL; and the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL. In the revised TMDLs the method of calculating the geometric mean was changed from the existing methods in the current Bacteria TMDLs and the

allowable winter dry weather exceedance days was redefined. Although, the revised BPAs are not in effect until approved by the State Board, OAL and USEPA these changes have been included in the Permit and will become effective upon the effective dates of the revised Bacteria TMDLs.

Dominguez Channel and Greater Harbor Waters Watershed Management Area. The Dominguez Channel and Los Angeles/Long Beach Harbors Watershed Management Area (Dominguez WMA) is located in the southern portion of the Los Angeles Basin (Figure B-3). Los Angeles Harbor is 7,500 acres and the Long Beach Harbor is 7,600 acres; together they have an open water area of approximately 8,128 acres. The 15 mile-long Dominguez Channel drains a densely urbanized area to Inner Los Angeles Harbor. Near the end of the 19th century and during the beginning of the next century, channels were dredged, marshes were filled, wharves were constructed, the Los Angeles River was diverted, and breakwaters were constructed in order to allow deep draft ships to be directly offloaded at the docks. The Dominguez Slough was completely channelized and became the drainage endpoint for runoff from a highly industrialized area. Eventually, the greater San Pedro Bay was enclosed by two more breakwaters and deep entrance channels were dredged to allow for entry of ships.

Various reaches of the Dominguez WMA are on the 2010 CWA Section 303(d) List of impaired water bodies for metals, DDT, PCBs, PAHs, historic pesticides, coliform, and sediment toxicity. The elevated bacteria indicator densities is causing impairments to the SHELL, REC-1, and REC-2 designated beneficial uses of Los Angeles Harbor. The elevated levels of metals and organics are causing impairments to beneficial uses designated in these waters to protect aquatic life, including MAR and RARE. In addition, the elevated levels are causing impairments in the estuaries, which are designated with SPWN, MIGR, and WILD beneficial uses. Dominguez Channel also has an existing designated use of WARM and the Los Angeles River Estuary has the designated use of WET. Beneficial uses associated with human use of these waters that are impaired due to the elevated concentrations of metals and organics include REC-1, REC-2, IND, NAV, COMM, and SHELL.

TMDLs have been adopted by the Regional Water Board for toxic pollutants in the Dominguez WMA and for bacteria at Inner Cabrillo Beach and the Main Ship Channel. Discharges from the MS4 are a source of elevated bacterial indicator densities to Inner Cabrillo Beach and the Main Ship Channel during dry and wet weather. The major point sources of organochlorine pesticides, PCBs, and metals into Dominguez Channel are storm water and non-storm water discharges. The contaminated sediments are a reservoir of historically deposited pollutants. Storm water runoff from manufacturing, military facilities, fish processing plants, wastewater treatment plants, oil production facilities, and shipbuilding or repair yards in both Ports have discharged untreated or partially treated wastes into Harbor waters. Current activities also contribute pollutants to Harbor sediments, in particular, storm water runoff.

On June 7, 2012, the Regional Water Board adopted a revised Basin Plan Amendment (BPA) for the Los Angeles Harbor Inner Cabrillo Beach and Main Ship Channel Bacteria TMDL. In the revised TMDL the method of calculating the geometric mean was changed from the existing methods in the current Bacteria TMDL and the allowable

winter dry weather exceedance days was redefined. Although, the revised BPA is not in effect until approved by the State Board, OAL and USEPA these changes have been included in the Permit and will become effective upon the effective date of the revised Bacteria TMDL.

Machado Lake is listed for trash, nutrients, PCBs and historic pesticides. Trash, nutrients and toxic pollutants are causing impairments to the WARM, WET, RARE, WILD, REC-1 and REC-2 designated beneficial uses of Machado Lake. TMDLs have been adopted by the Regional Water Board for trash, nutrients, PCBs and pesticides for Machado Lake. The point sources of trash and nutrients into Machado Lake are storm water and non-storm water discharges from the MS4. Storm water discharges occur through the following sub-drainage systems: Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake.

Los Angeles River Watershed Management Area. The Los Angeles River Watershed Management Area (LAR WMA) drains a watershed of 824 square miles (Figure B-4). The LAR WMA is one of the largest in the Region and is also one of the most diverse in terms of land use patterns. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters, which originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. The remainder of the watershed is highly developed. The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by rail yards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum products storage facilities, major freeways, rail lines, and rail yards serving the Ports of Los Angeles and Long Beach. Due to major flood events at the beginning of the century, by the 1950s most of the LA River was lined with concrete. In the San Fernando Valley, there is a section of the river with a soft bottom at the Sepulveda Flood Control Basin. At the eastern end of the San Fernando Valley, the river bends around the Hollywood Hills and flows through Griffith and Elysian Parks, in an area known as the Glendale Narrows. Since the water table was too high to allow laying of concrete, the river in this area has a rocky, unlined bottom with concrete-lined or rip-rap sides. South of the Glendale Narrows, the river is contained in a concrete-lined channel down to Willow Street in Long Beach. The LA River tidal prism/estuary begins in Long Beach at Willow Street and runs approximately three miles before joining with Queensway Bay. The channel has a soft bottom in this reach with concrete-lined sides. A number of lakes are also part of the LAR WMA, including Legg Lake, Peck Road Park, Belvedere Park, Hollenbeck Park, Lincoln Park, and Echo Park Lakes as well as Lake Calabasas.

Various reaches and lakes within the LAR WMA are on the 2010 CWA Section 303(d) List of impaired water bodies for trash, nitrogen compounds and related effects (ammonia, nitrate, nitrite, algae, pH, odor, and scum), metals (copper, cadmium, lead, zinc, aluminum and selenium), bacteria, and historic pesticides. Beneficial uses impaired by trash in the Los Angeles River are REC-1, REC-2, WARM, WILD, EST, MAR, RARE, MIGR, SPWN, COMM, WET and COLD. The excess nitrogen compounds

are causing impairments to the WARM and WILD designated beneficial uses of Los Angeles River. Excess metals are causing impairments to the WILD, RARE, WARM, WET, and GWR designated beneficial uses of the Los Angeles River and its tributaries. Elevated indicator bacteria densities are causing impairments to the REC-1 and REC-2 designated beneficial uses of Los Angeles River and the Los Angeles River Estuary. Beneficial uses impaired by trash in Legg Lake include REC1, REC2, and WILD.

TMDLs have been adopted by the Regional Water Board for trash, nitrogen, metals, and bacteria in the Los Angeles River. USEPA established TMDLs for bacteria in the Los Angeles River Estuary and for various pollutants in Los Angeles Area Lakes. The Los Angeles River Watershed Trash TMDL identifies discharges from the municipal separate storm sewer system as the principal source of trash to the Los Angeles River and its tributaries. The Regional Water Board determined that urban runoff and storm water may contribute to nitrate loads. Discharges from the MS4 contribute a large percentage of the metals loadings during dry weather because although non-storm water flows from the MS4 are typically low relative to other discharges during dry weather, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow. On an annual basis, storm water discharges from the MS4 contribute about 40% of the cadmium loading, 80% of the copper loading, 95% of the lead loading, and 90% of the zinc loading. Discharges from the MS4 are the principal source of bacteria to the Los Angeles River, its tributaries and the Los Angeles River Estuary in both dry weather and wet weather.

A TMDL has been adopted by the Regional Water Board for trash in Legg Lake. The Legg Lake Trash TMDL identifies MS4 storm drains as the principal point source for trash discharged to Legg Lake.

The Los Angeles Water Board identified 10 lakes in the Los Angeles region as impaired by algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash and placed them on California's 303(d) list of impaired waters. For several lakes, USEPA concluded that ammonia, pH, copper and/or lead are currently meeting water quality standards and TMDLs are not required at this time. In other lakes, recent chlordane and dieldrin data indicate additional impairment. Associated with this WMA are: Lake Calabazas TMDLs for total nitrogen and total phosphorus; Echo Park Lake TMDLs for nutrients (total nitrogen and total phosphorus), total chlordane, dieldrin, total PCBs, and trash; Legg Lake TMDLs for total nitrogen and total phosphorus; and Peck Road Park Lake TMDLs for nutrients (total nitrogen and total phosphorus), total chlordane, total DDT, dieldrin, total PCBs, and trash.

In Lake Calabazas beneficial uses impaired by elevated levels of nutrients include REC1, REC2, and WARM. At high enough concentrations, WILD and MUN uses could also become impaired. MS4 discharges from the surrounding watershed to Lake Calabazas during dry and wet weather contributes 97.7 percent of the total phosphorus load and 74.4 percent of the total nitrogen load.

In Echo Park Lake beneficial uses impaired by elevated levels of nutrients, PCBs, chlordane, and dieldrin are currently impairing the REC1, REC2, and WARM uses. At high enough concentrations WILD and MUN uses could also become impaired. Beneficial uses impaired by trash in Echo Park Lake include REC1, REC2, WARM and WILD. The Echo Park Lake nutrient TMDL found that MS4 discharges from the northern and southern watershed to Echo Lake contribute 29 percent of the total phosphorus load and 28 percent of the total nitrogen load during wet weather with dry weather loading data unavailable due to the majority of runoff being diverted downstream of the lake. PCBs, chlordane, and dieldrin in Echo Park Lake are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Storm water loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake. MS4 discharges via storm drains are the principal point source for trash in Echo Park Lake.

In Legg Lake beneficial uses impaired due to elevated nutrient levels include REC1, REC2, WARM and COLD. At high enough concentrations the WILD, MUN, and GWR uses could also become impaired. The Legg Lake nutrient TMDL found that MS4 discharges from the surrounding watershed to Legg Lake during dry and wet weather contributes 69.1 percent of the total phosphorus load and 36 percent of the total nitrogen load.

In Peck Road Park Lake beneficial uses impaired by elevated levels of nutrients, PCBs, chlordane, DDT, dieldrin, and trash are currently impairing the REC1, REC2, and WARM uses. At high enough concentrations WILD and MUN uses could also become impaired. The Peck Road Park Lake nutrient TMDL found that MS4 discharges from the surrounding watershed including both wet and dry weather contribute 80.2 percent of the total phosphorus load and 55.5 percent of the total nitrogen load. PCBs, chlordane, DDT, and dieldrin in Peck Road Park Lake loads are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake. MS4 discharges via storm drains are the principal point source for trash in Peck Road Park Lake.

San Gabriel River Watershed Management Area. The San Gabriel River Watershed (SGR WMA) receives drainage from a 689-square mile area of eastern Los Angeles County (Figure B-5). The main channel of the San Gabriel River is approximately 58 miles long. Its headwaters originate in the San Gabriel Mountains with the East, West, and North Forks. The river empties to the Pacific Ocean at the Los Angeles and Orange Counties boundary in Long Beach. The main tributaries of the river are Big and Little Dalton Wash, San Dimas Wash, Walnut Creek, San Jose Creek, Fullerton Creek, and Coyote Creek. Part of the Coyote Creek subwatershed is in Orange County and is under the authority of the Santa Ana Water Board. A number of lakes and reservoirs

are also part of the SGR WMA, including Puddingstone Reservoir. Land use in the watershed is diverse and ranges from predominantly open space in the upper watershed to urban land uses in the middle and lower parts of the watershed.

Various reaches of the SGR WMA are on the 2010 CWA Section 303(d) List of impaired water bodies due to trash, nitrogen, phosphorus, and metals (copper, lead, selenium, and zinc). USEPA established TMDLs for metals and selenium in the San Gabriel River and various pollutants in Los Angeles Area Lakes. Segments of the San Gabriel River and its tributaries exceed water quality objectives for copper, lead, selenium, and zinc. Metals loadings to San Gabriel River are causing impairments of the WILD, WARM, COLD, RARE, EST, MAR, MIGR, SPWN, WET, MUN, IND, AGR, GWR, and PROC beneficial uses. The San Gabriel River metals and selenium TMDL found that the MS4 contributes a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow.

The Regional Water Board identified 10 lakes in the Los Angeles Region as impaired by algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash and placed them on California's 303(d) list of impaired waters. For several lakes, USEPA concluded that ammonia, pH, copper and/or lead are currently meeting water quality standards and TMDLs are not required at this time. In other lakes, recent chlordane and dieldrin data indicate additional impairment. Associated with this WMA is: Puddingstone Reservoir TMDLs for total nitrogen, total phosphorus, total chlordane, total DDT, total PCBs, total mercury, and dieldrin.

In Puddingstone Reservoir beneficial uses impaired due to elevated nutrient, mercury, PCBs, chlordane, dieldrin, and DDT levels include REC1, REC2, WARM, and COLD. At high enough concentrations the WILD, MUN, GWR, and RARE uses could also become impaired. The Puddingstone Reservoir nutrients TMDL found that MS4 discharges from the surrounding watershed to Puddingstone Reservoir during dry and wet weather contributes 79.8 percent of the total phosphorus and 74.1 percent of the total nitrogen load. Mercury, PCBs, chlordane, dieldrin, and DDT in Puddingstone Reservoir loads are primarily due to historical loading and storage within the lake sediments, with some ongoing contribution by watershed wet weather loads. Dry weather loading is assumed to be negligible because hydrophobic contaminants primarily move with particulate matter that is mobilized by higher flows. Stormwater loads from the watershed were estimated based on simulated sediment load and observed pollutant concentrations on sediment near inflows to the lake.

Los Cerritos Channel and Alamitos Bay Watershed Management Area. The Los Cerritos Channel is concrete-lined above the tidal prism and drains a small but densely urbanized area of east Long Beach (Figure B-6). The channel's tidal prism starts at Anaheim Road and connects with Alamitos Bay through the Marine Stadium; the wetlands connect to the Channel a short distance from the lower end of the Channel. Alamitos Bay is composed of the Marine Stadium, a recreation facility built in 1932; Long Beach Marina; a variety of public and private berths; and the Bay proper. A small

bathing lagoon, Colorado Lagoon located entirely in Long Beach, has a tidal connection with the Bay. The majority of land use in this WMA is high density residential.

Los Cerritos Channel is on the 2010 CWA Section 303(d) List of impaired water bodies for metals (copper, zinc, and lead). Beneficial uses impaired by metals in the Los Cerritos Channel include WILD, REC2 and WARM. USEPA established a TMDL for various metals in Los Cerritos Channel. The TMDL for metals in Los Cerritos Channel found that the MS4 contributes a large percentage of the metals loadings during dry weather because although their flows are typically low, concentrations of metals in urban runoff may be quite high. During wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow.

Middle Santa Ana River Watershed Management Area. The Middle Santa Ana River Watershed Management Area (MSAR WMA) covers approximately 488 square miles (mi²) and lies mostly in San Bernardino and Riverside Counties; however, a small part of Los Angeles County is also included. The area of Los Angeles County, which lays in the MSAR WMA, includes portions of the Cities of Pomona (12.3 mi²), Claremont (8.4 mi²), and Diamond Bar (0.7 mi²) and unincorporated Los Angeles County (12.3 mi²) (Figure B-7). The MSAR WMA is comprised of three subwatersheds. The subwatershed that includes portions of Pomona and Claremont is the Chino Basin Subwatershed. Surface drainage from Pomona and Claremont is generally southward toward San Antonio Creek, which is tributary to Chino Creek, which feeds into the Prado Flood Control Basin.

Various reaches of the MSAR WMA, including Chino Creek, are listed on 2010 CWA Section 303(d) List for bacteria. Elevated bacterial indicator densities are causing impairments of the REC-1 and REC-2 designated beneficial for the Santa Ana River Reach 3; Chino Creek Reaches 1 and 2; Mill Creek (Prado Area); Cucamonga Creek Reach 1; and Prado Park Lake.

The Santa Ana Water Board adopted TMDLs for bacteria for the Middle Santa Ana River Watershed. The Basin Plan amendment incorporating the Middle Santa Ana River Watershed Bacterial Indicator TMDLs was approved by the Santa Ana Water Board on August 26, 2005 (Resolution No. R8-2005-0001), by the State Water Board on May 15, 2006, by the Office of Administrative Law on September 1, 2006, and by the USEPA on May 16, 2007. The TMDL was effective on May 16, 2007. The Santa Ana Water Board concluded based upon data and information collected in 1993, 1996-1998 and in 2002-2004, that urban runoff from the MS4 is a significant source of bacterial indicators year round to the Middle Santa Ana River and its tributaries (Rice, 2005). The TMDL specifies both dry weather and wet weather WLAs, with distinct implementation schedules. Compliance with the summer dry (April 1st through October 31st) WLAs is to be achieved as soon as possible, but no later than December 31, 2015. In recognition of the difficulties associated with the control of storm water discharges, compliance with the winter wet (November 1st through March 31st) WLAs is to be achieved as soon as possible, but no later than December 31, 2025. The MS4 permit allows for discharges of bacteria from the MS4s of the Cities of Claremont and Pomona to be regulated to ensure compliance with the wasteload allocations set forth in the Middle Santa Ana Bacterial Indicator TMDL and with the corresponding receiving water limitations by the

terms of an NPDES permit issued by the Santa Ana Regional Water Quality Control Board that is applicable to such MS4 discharges. The NPDES permit must be issued pursuant to a designation agreement between the Los Angeles and Santa Ana Regional Boards under Water Code § 13228. In the absence of such an NPDES permit, the MS4 permit includes specific provisions in Attachment R that are consistent with the assumptions and requirements of the wasteload allocations applicable to MS4 discharges as set forth in the Middle Santa Ana Bacterial Indicator TMDL.

Calleguas Creek Watershed Management Area. Calleguas Creek and its tributaries drain a watershed area of 343 square miles (sq. miles) in southern Ventura County and a small portion of western Los Angeles County. Approximately, 4.16 sq. miles of Los Angeles County is part of the Calleguas Creek Watershed. The land use of the 4.15 sq. miles is open space and recreation. The land use of the remaining 0.01 sq. miles is divided between low density residential, industrial, and agriculture (Southern California Association of Governments, 2008). Six TMDLs have been adopted and are in effect for the Calleguas Creek Watershed. None of the TMDLs assign waste load allocations to the Los Angeles County Flood Control District, County of Los Angeles or any incorporated city within Los Angeles County. Therefore, no water quality based effluent limitations were incorporated in this Order for TMDLs in the Calleguas Creek Watershed.

Manner of Incorporation of TMDL WLAs. The description of the permit conditions and the basis for the manner for incorporating requirements to implement the TMDLs' WLAs is discussed below.

WLAs may be expressed in different ways in a TMDL. In general, a WLA is expressed as a discharge condition that must be achieved in order to ensure that water quality standards are attained in the receiving water. The discharge condition may be expressed in terms of mass or concentration of a pollutant. However, in some cases, a WLA may be expressed as a receiving water condition such as an allowable number of exceedance days of the bacteria objectives.

In this Order, in most cases, TMDL WLAs have been translated into numeric WQBELs and, where consistent with the expression of the WLA in the TMDL, also as receiving water limitations. For each TMDL included in this Order, the WLA were translated into numeric WQBELs, which were based on the WLAs in terms of the numeric value and averaging period. For those TMDLs where the averaging period was not specific for the WLA, the averaging period was based on the averaging period for the numeric target.

For the bacteria TMDLs, where the WLA are expressed as an allowable number of exceedance days in the water body, the WLAs were translated into receiving water limitations. In addition to the receiving water limitations, WQBELs were established based on the bacteria water quality objectives. In the bacteria TMDLs, the numeric targets are based on the multi-part bacteriological water quality objectives; therefore, this approach is consistent with the assumptions of the bacteria TMDLs.

In the Ballona Creek Trash TMDL, the default baseline WLA for the MS4 Permittees is equal to 640 gallons (86 cubic feet) of uncompressed trash per square mile per year.

No differentiation is applied for different land uses in the default baseline WLA. The default baseline WLAs for the Permittees has been refined based on results from the baseline monitoring conducted by the City of Los Angeles. The City of Los Angeles provided trash generation flux data for five land uses: commercial, industrial, high density residential, low density residential and open space and recreation. The Baseline WLA for any single city is the sum of the products of each land use area multiplied by the WLA for the land use area, as shown below:

$$\text{WLA} = \sum \text{for each city (area by land uses} \times \text{allocations for this land use)}$$

The baseline was calculated using the City of Los Angeles trash generation flux data provided for the 2003-04 and 2004-05 storm years averaged for pounds of trash per acre and the 2003-04 storm year for gallons of trash per acre. The urban portion of the Ballona Creek watershed was divided into twelve types of land uses for every city and unincorporated area in the watershed. The land use categories are: (1) high density residential, (2) low density residential, (3) commercial and services, (4) industrial, (5) public facilities, (6) educational institutions, (7) military installations, (8) transportation, (9) mixed urban, (10) open space and recreation, (11) agriculture, and (12) water. The land use data used in the calculation is based on the Southern California Association of Governments 2005 data.

1. Compliance Determination

For TMDLs that establish individual mass-based WLAs or a concentration-based WLA such as the Trash TMDLs, Nitrogen TMDLs, and Chloride TMDL, this Order requires Permittees to demonstrate compliance with their assigned WQBELs individually.

A number of the TMDLs for Bacteria, Metals and Toxics establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL. TMDLs address commingled MS4 discharges by assigning a WLA to a group of MS4 Permittees based on co-location within the same subwatershed. Permittees with co-mingled storm water are jointly responsible for meeting the WQBELs and receiving water limitations assigned to MS4 discharges in this Order. "Joint responsibility" means that the Permittees that have commingled MS4 discharges are responsible for implementing programs in their respective jurisdictions, or within the MS4 for which they are an owner or operator, to meet the WQBELs and/or receiving water limitations assigned to such commingled MS4 discharges.

In these cases, federal regulations state that co-permittees need only comply with permit conditions relating to discharges from the MS4 for which they are owners or operators. (40 CFR § 122.26(a)(3)(vi).) Individual co-permittees are only responsible for their contributions to the commingled discharge. This Order does not require a Permittee to individually ensure that a commingled MS4 discharge meets the applicable WQBELs included in this Order, unless such Permittee is shown to be solely responsible for the exceedances.

Additionally, this Order allows a Permittee to clarify and distinguish their individual contributions and demonstrate that its MS4 discharge did not cause or contribute to exceedances of applicable WQBELs and/or receiving water limitations. In this case, though the Permittee's discharge may commingle with that of other Permittees, the Permittee would not be held jointly responsible for the exceedance of the WQBELs or receiving water limitation.

Individual co-permittees who demonstrate compliance with the WQBELs will not be held responsible for violations by non-compliant co-permittees.

Demonstrating Compliance with Interim Limitations. This Order provides Permittees with several means of demonstrating compliance with applicable interim WQBELs and interim receiving water limitations for the pollutant(s) associated with a specific TMDL. These include any of the following:

- a. There are no violations of the interim WQBELs for the pollutant(s) associated with a specific TMDL at the Permittee's applicable MS4 outfall(s) or access points,⁴² including an outfall to the receiving water that collects discharges from multiple Permittees' jurisdictions;
- b. There are no exceedances of the applicable receiving water limitation for the pollutant(s) associated with a specific TMDL in the receiving water(s) at, or downstream of, the Permittee's outfall(s);
- c. There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the WQBEL and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or
- d. The Permittee has submitted and is fully implementing an approved Watershed Management Program or Enhanced Watershed Management Program (EWMP), which includes analyses that provide the Regional Water Board with reasonable assurance that the watershed control measures proposed will achieve the applicable WQBELs and receiving water limitations consistent with relevant compliance schedules.

Demonstrating Compliance with Final Limitations. This Order provides Permittees with three general means of demonstrating compliance with an applicable *final* WQBEL and *final* receiving water limitation for the pollutant(s) associated with a specific TMDL.

These include any of the following:

- a. There are no violations of the final WQBEL for the specific pollutant at the Permittee's applicable MS4 outfall(s)⁴³;

⁴² An access point may include a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary.

⁴³ *Ibid.*

- b. There are no exceedances of applicable receiving water limitation for the specific pollutant in the receiving water(s) at, or downstream of, the Permittee's outfall(s);
- c. There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the WQBEL and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or
- d. In drainage areas where Permittees are implementing an EWMP, (i) all non-storm water and (ii) all storm water runoff up to and including the volume equivalent to the 85th percentile, 24-hour event is retained for the drainage area tributary to the applicable receiving water. This compliance mechanism does not apply to final trash WQBELs.

This Order provides the opportunity for Permittees to demonstrate compliance with *interim* effluent limitations through development and implementation of a Watershed Management Program or EWMP, where Permittees have provided a reasonable demonstration through quantitative analysis (i.e., modeling or other approach) that the control measures/BMPs to be implemented will achieve the interim effluent limitations in accordance with the schedule provided in this Order. It is premature to consider application of this action based compliance demonstration option to the final effluent limitations and final receiving water limitations that have deadlines outside the term of this Order. More data is needed to validate assumptions and model results regarding the linkage among BMP implementation, the quality of MS4 discharges, and receiving water quality.

During the term of this Order, there are very few deadlines for compliance with final effluent limitations applicable to storm water, or final receiving water limitations applicable during wet weather conditions. Most deadlines during the term of this Order are for interim effluent limitations applicable to storm water, or for final effluent limitations applicable to non-storm water discharges and final dry weather receiving water limitations.

There are only five State-adopted TMDLs for which the compliance deadlines for final water quality-based effluent limitations applicable to storm water occur during the term of this Order. These include: Santa Clara River Chloride TMDL, Santa Clara River Nitrogen TMDL, Los Angeles River Nitrogen TMDL, Marina del Rey Harbor Toxics TMDL, and LA Harbor Bacteria TMDL. In most of these five TMDLs, compliance with the final water quality-based effluent limitations assigned to MS4 discharges is expected to be achieved (e.g., Santa Clara River Chloride TMDL⁴⁴), or a mechanism is in place to potentially allow additional time to come into compliance (e.g. reconsideration of the Marina del Rey Harbor Toxics TMDL implementation schedule).

The Regional Water Board will evaluate the effectiveness of this action-based compliance determination approach in ensuring that interim effluent limitations for

⁴⁴ Data from land use monitoring conducted under the LA County MS4 Permit from 1994-99 indicate chloride concentrations ranging from 3.2-48 mg/L, while more recent data from the mass emissions station in the Santa Clara River (S29) indicate concentrations ranging from 116-126 mg/l in dry weather, and 25.1-96.3 mg/l in wet weather, suggesting that storm water has a diluting effect on chloride concentrations in the receiving water.

storm water are achieved during this permit term. If this approach is effective in achieving compliance with interim effluent limitations for storm water during this permit term, the Regional Water Board will consider during the next permit cycle whether it would be appropriate to allow a similar approach for demonstrating compliance with final water quality-based effluent limitations applicable to storm water. The Order includes a specific provision to support reopening the permit to include provisions or modifications to WQBELs in Part VI.E and Attachments L-R in this Order prior to the final compliance deadlines, if practicable, that would allow an action-based, BMP compliance demonstration approach with regard to final WQBELs for storm water discharges based on the Regional Board's review of relevant research, including but not limited to data and information provided by Permittees, on storm water quality and control technologies

2. Compliance Schedules for Achieving TMDL Requirements

A Regional Water Board may include a compliance schedule in an NPDES permit when the state's water quality standards or regulations include a provision that authorizes such schedules in NPDES permits.⁴⁵ In California, TMDL implementation plans⁴⁶ are typically adopted through Basin Plan Amendments. The TMDL implementation plan, which is part of the Basin Plan Amendment, becomes a regulation upon approval by the State of California Office of Administrative Law (OAL).⁴⁷ Pursuant to California Water Code sections 13240 and 13242, TMDL implementation plans adopted by the Regional Water Board "shall include ... a time schedule for the actions to be taken [for achieving water quality objectives]," which allows for compliance schedules in future permits. This Basin Plan Amendment becomes the applicable regulation that authorizes an MS4 permit to include a compliance schedule to achieve effluent limitations derived from wasteload allocations.

Where a TMDL implementation schedule has been established through a Basin Plan Amendment, it is incorporated into this Order as a compliance schedule to achieve interim and final WQBELs and corresponding receiving water limitations, in accordance with 40 CFR section 122.47. WQBELs must be consistent with the assumptions and requirements of any WLA, which includes applicable implementation schedules.⁴⁸ California Water Code sections 13263 and 13377 state that waste discharge requirements must implement the Basin Plan.⁴⁹ Therefore,

⁴⁵ See *In re Star-Kist Caribe, Inc.*, (Apr. 16, 1990) 3 E.A.D. 172, 175, modification denied, 4 E.A.D. 33, 34 (EAB 1992).

⁴⁶ TMDL implementation plans consist of those measures, along with a schedule for their implementation, that the Water Boards determine are necessary to correct an impairment. The NPDES implementation measures are thus required by sections 303(d) and 402(p)(3)(B)(iii) of the CWA. State law also requires the Water Boards to implement basin plan requirements. (See Wat. Code §§ 13263, 13377; *State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 189.)

⁴⁷ See Gov. Code, § 11353, subd. (b). Every amendment to a Basin Plan, such as a TMDL and its implementation plan, requires approval by the State Water Board and OAL. When the TMDL and implementation plan is approved by OAL, it becomes a state regulation.

⁴⁸ See 40 C.F.R. § 122.44(d)(1)(vii)(B).

⁴⁹ Cal. Wat. Code, § 13263, subd. (a) ("requirements shall implement any relevant water quality control plans that have been adopted"); Cal. Wat. Code, § 13377 ("the state board or the regional boards shall . . . issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the [CWA], thereto, together with any more stringent effluent standards or limitations necessary to implement waste quality control plans, or for

compliance schedules for attaining WQBELs derived from WLAs must be based on a state-adopted TMDL implementation plan and cannot exceed the maximum time that the implementation plan allows.

In determining the compliance schedules, the Regional Water Board considered numerous factors to ensure that the schedules are as short as possible. Factors examined include, but are not limited to, the size and complexity of the watershed; the pollutants being addressed; the number of responsible agencies involved; time for Co-Permittees to negotiate memorandum of agreements; development of water quality management plans; identification of funding sources; determination of an implementation strategy based on the recommendations of water quality management plans and/or special studies; and time for the implementation strategies to yield measurable results. Compliance schedules may be altered based on the monitoring and reporting results as set forth in the individual TMDLs.

In many ways, the incorporation of interim and final WQBELs and associated compliance schedules is consistent with the iterative process of implementing BMPs that has been employed in the previous Los Angeles County MS4 Permits in that progress toward compliance with the final effluent limitations may occur over the course of many years. However, because the waterbodies in Los Angeles County are impaired due to MS4 discharges, it is necessary to establish more specific provisions in order to: (i) ensure measurable reductions in pollutant discharges from the MS4, resulting in progressive water quality improvements during the iterative process, and (ii) establish a final date for completing implementation of BMPs and, ultimately, achieving effluent limitations and water quality standards.

The compliance schedules established in this Order are consistent with the implementation plans established in the individual TMDLs. The compliance dates for meeting the final WQBELs and receiving water limitations for each TMDL are listed below in Table F-7.

the protection of beneficial uses, or to prevent nuisance"); *see also, State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 189.

Table F-7. Compliance Schedule for final compliance dates.

	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
TOTAL MAXIMUM DAILY LOADS (TMDL)				
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004			
Upper Santa Clara River Chloride TMDL	April 6, 2010			
Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL (Lake Elizabeth only)		March 6, 2016		
Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL				
Dry Weather				
Wet Weather				March 21, 2023
Santa Monica Bay Beaches Bacteria TMDL				March 21, 2029
Summer Dry Weather	July 15, 2006			
Winter Dry Weather	July 15, 2009			
Wet Weather			July 15, 2021	
Santa Monica Bay Nearshore and Offshore Debris TMDL			March 20, 2020	
Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)		March 26, 2012		
Malibu Creek and Lagoon Bacteria TMDL				
Summer Dry Weather	January 24, 2009			
Winter Dry Weather	January 24, 2012			
Wet Weather			July 15, 2021	
Malibu Creek Watershed Trash TMDL		July 7, 2017		
Malibu Creek Watershed Nutrients TMDL (USEPA established)	March 21, 2003			
Ballona Creek Trash TMDL		September 30, 2015		
Ballona Creek Estuary Toxic Pollutants TMDL				
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL			January 11, 2021	
Dry Weather				
Wet Weather		April 27, 2013		
Ballona Creek Metals TMDL			July 15, 2021	

TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Dry Weather		January 11, 2016	January 11, 2021	
Wet Weather				
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)		March 26, 2012		
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL				
Dry Weather	March 18, 2007			
Wet Weather			July 15, 2021	
Marina del Rey Harbor Toxic Pollutants TMDL		March 22, 2016	March 22, 2021*	
Los Angeles Harbor Bacteria TMDL	March 10, 2010			
Machado Lake Trash TMDL		March 6, 2016		
Machado Lake Nutrient TMDL			September 11, 2018	
Machado Lake Pesticides and PCBs TMDL			September 30, 2019	
Dominguez Channel and Greater LA and LB Harbor Waters Toxic Pollutants TMDL				March 23, 2032
Los Angeles River Watershed Trash TMDL		September 30, 2016		
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004			
Los Angeles River and Tributaries Metals TMDL				
Dry Weather				January 11, 2024
Wet Weather				January 11, 2028
Los Angeles River Watershed Bacteria TMDL				
Dry Weather (Compliance dates range from 10 to 25 years)			March 23, 2022	March 23, 2037
Wet Weather				March 23, 2037
Legg Lake Trash TMDL		March 6, 2016		
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)		March 26, 2012		

TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed	Final Compliance date within 5 years (2012-2017)	Final Compliance date between 5 and 10 years (2018-2022)	Final Compliance date after 10 years (2023)
Los Angeles Area Lakes TMDLs (USEPA established)		March 26, 2012		
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (USEPA established)	March 26, 2007			
Los Cerritos Channel Metals TMDL (USEPA established)	March 17, 2010			
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL			July 28, 2018	
Middle Santa Ana River Watershed Bacterial Indicator TMDLs				
Dry Weather		December 31, 2015		
Wet Weather				December 31, 2025

* If an Integrated Water Resources Approach is approved and implemented then Permittees have an extended compliance deadline.

3. State Adopted TMDLs with Past Final Compliance Deadlines

In accordance with federal regulations, this Order includes WQBELs necessary to achieve applicable wasteload allocations assigned to MS4 discharges. In some cases, the deadline specified in the TMDL implementation plan for achieving the final wasteload allocation has passed. (See Table F-8) This Order requires that Permittees comply immediately with WQBELs and/or receiving water limitations for which final compliance deadlines have passed.

Table F-8. State-Adopted TMDLs with Past Final Implementation Deadlines

TOTAL MAXIMUM DAILY LOADS (TMDL)	Final Compliance date has Passed
Santa Clara River Nitrogen Compounds TMDL	March 23, 2004
Upper Santa Clara River Chloride TMDL	April 6, 2010
Santa Monica Bay Beaches Bacteria TMDL <i>Summer Dry Weather only</i>	July 15, 2006
Santa Monica Bay Beaches Bacteria TMDL <i>Winter Dry Weather only</i>	July 15, 2009
Malibu Creek and Lagoon Bacteria TMDL <i>Summer Dry Weather only</i>	January 24, 2009
Malibu Creek and Lagoon Bacteria TMDL <i>Winter Dry Weather only</i>	January 24, 2012
Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL <i>Dry Weather Year-round only</i>	March 18, 2007
Los Angeles Harbor Bacteria TMDL	March 10, 2010
Los Angeles River Nitrogen Compounds and Related Effects TMDL	March 23, 2004

Where a Permittee determines that its MS4 discharge may not meet the final WQBELs for the TMDLs in Table F-8 upon adoption of this Order, the Permittee may request a time schedule order (TSO) from the Regional Water Board. TSOs are issued pursuant to California Water Code section 13300, whenever a Water Board "finds that a discharge of waste is taking place or threatening to take place that violates or will violate [Regional Water Board] requirements." Permittees may individually request a TSO, or may jointly request a TSO with all Permittees subject to the WQBELs and/or receiving water limitations. Permittees must request a TSO to achieve WQBELs for the TMDLs in Table F-8 no later than 45 days after the date this Order is adopted.

In the request, the Permittee(s) must include, at a minimum, the following:

- a. Location specific data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;
- b. A detailed description and chronology of structural controls and source control efforts, including location(s) of implementation, since the effective date of the TMDL, to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;
- c. A list of discharge locations for which additional time is needed to achieve the water quality based effluent limitations and/or receiving water limitations;
- d. Justification of the need for additional time to achieve the water quality-based effluent limitations and/or receiving water limitations for each location identified in Part VI.E.3.c, above;

- e. A detailed time schedule of specific actions the Permittee will take in order to achieve the water quality-based effluent limitations and/or receiving water limitations at each location identified in Part VI.E.3.c, above;
- f. A demonstration that the time schedule requested is as short as possible, consistent with California Water Code section 13385(j)(3)(C)(i), taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation(s); and
- g. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and the date(s) for their achievement. The interim requirements shall include both of the following:
 - i. Effluent limitation(s) for the pollutant(s) of concern; and
 - ii. Actions and milestones leading to compliance with the effluent limitation(s).

The Regional Water Board does not intend to take enforcement action against a Permittee for violations of specific WQBELs and corresponding receiving water limitations for which the final compliance deadline has passed if a Permittee is fully complying with the requirements of a TSO to resolve exceedances of the WQBELs for the specific pollutant(s) in the MS4 discharge.

4. USEPA Established TMDLs

USEPA has established seven TMDLs that include wasteload allocations for MS4 discharges covered by this Order (See Table F-9). Five TMDLs were established since 2010, one in 2007, and one in 2003.

Table F-9. USEPA Established TMDLs with WLAs Assigned to MS4 Discharges

TOTAL MAXIMUM DAILY LOADS (TMDL)	Effective Date
Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)	March 26, 2012
Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)	March 26, 2012
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)	March 26, 2012
Los Angeles Area Lakes TMDLs (USEPA established)	March 26, 2012
Los Cerritos Channel Metals TMDL (USEPA established)	March 17, 2010
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (USEPA established)	March 26, 2007
Malibu Creek Watershed Nutrients TMDL (USEPA established)	March 21, 2003

In contrast to State-adopted TMDLs, USEPA established TMDLs do not contain an implementation plan or schedule. The Clean Water Act does not allow USEPA to either adopt implementation plans or establish compliance schedules for TMDLs that it establishes. Such decisions are generally left with the States. The Regional Water Board could either (1) adopt a separate implementation plan as a Basin Plan Amendment for each USEPA established TMDL, which would allow inclusion of compliance schedules in the permit where applicable, or (2) issue a Permittee a schedule leading to full compliance in a separate enforcement order (such as a Time Schedule Order or a Cease and Desist Order). To date, the Board has not adopted a

separate implementation plan or enforcement order for any of these TMDLs. As such, the final WLAs in the seven USEPA established TMDLs identified above become effective immediately upon establishment by USEPA and placement in a NPDES permit.

The Regional Water Board's decision as to how to express permit conditions for USEPA established TMDLs is based on an analysis of several specific facts and circumstances surrounding these TMDLs and their incorporation into this Order. First, since these TMDLs do not include implementation plans, none of these TMDLs have undergone a comprehensive evaluation of implementation strategies or an evaluation of the time required to fully implement control measures to achieve the final WLAs. Second, given the lack of an evaluation, the Regional Water Board is not able to adequately assess whether Permittees will be able to immediately comply with the WLAs at this time. Third, the majority of these TMDLs were established by USEPA recently (i.e., since 2010) and permittees have had limited time to plan for and implement control measures to achieve compliance with the WLAs. Lastly, while federal regulations do not allow USEPA to establish implementation plans and schedules for achieving these WLAs, USEPA has nevertheless included implementation recommendations regarding MS4 discharges as part of six of the seven of these TMDLs. The Regional Water Board needs time to adequately evaluate USEPA's recommendations. For the reasons above, the Regional Water Board has determined that numeric water quality based effluent limitations for these USEPA established TMDLs are infeasible at the present time. The Regional Water Board may at its discretion revisit this decision within the term of the Order or in a future permit, as more information is developed to support the inclusion of numeric water quality based effluent limitations.

In lieu of inclusion of numeric water quality based effluent limitations at this time, this Order requires Permittees subject to WLAs in USEPA established TMDLs to propose and implement best management practices (BMPs) that will be effective in achieving the numeric WLAs. Permittees will propose these BMPs to the Regional Water Board in a Watershed Management Program Plan, which is subject to Regional Water Board Executive Officer approval. As part of this Plan, Permittees are also required to propose a schedule for implementing the BMPs that is as short as possible. The Regional Water Board finds that, at this time, it is reasonable to include permit conditions that require Permittees to develop specific Watershed Management Program plans that include interim milestones and schedules for actions to achieve the WLAs. These plans will facilitate a comprehensive planning process, including coordination among co-permittees where necessary, on a watershed basis to identify the most effective watershed control measures and implementation strategies to achieve the WLAs.

At a minimum, the Watershed Management Program Plan must include the following data and information relevant to the USEPA established TMDL:

- i. Available data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;

- ii. A detailed time schedule of specific actions the Permittee will take in order to achieve the WLA(s);
- iii. A demonstration that the time schedule requested is as short as possible, taking into account the time since USEPA establishment of the TMDL, and technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLA(s);
 - a. For the Malibu Creek Nutrient TMDL established by USEPA in 2003, in no case shall the time schedule to achieve the final numeric WLAs exceed five years from the effective date of this Order; and
- iv. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements, including numeric milestones, and the date(s) for their achievement.

Each Permittee subject to a WLA in a TMDL established by USEPA must submit a draft of a Watershed Management Program Plan to the Regional Water Board Executive Officer per the timelines outlined for submittal of a Watershed Management Program or EWMP.

Based on the nature and timing of the proposed watershed control measures, the Regional Water Board will consider appropriate actions on its part, which may include: (1) no action and continued reliance on permit conditions that require implementation of the approved watershed control measures throughout the permit term; (2) adopting an implementation plan and corresponding schedule through the Basin Plan Amendment process and then incorporating water quality based effluent limitations and a compliance schedule into this Order consistent with the State-adopted implementation plan; or (3) issuing a time schedule order to provide the necessary time to fully implement the watershed control measures to achieve the WLAs.

If a Permittee chooses not to submit a Watershed Management Program Plan, or the plan is determined to be inadequate by the Regional Water Board Executive Officer and necessary revisions are not made within 90 days of written notification to the Permittee that that plan is inadequate, the Permittee will be required to demonstrate compliance with the numeric WLAs immediately based on monitoring data collected under the MRP (Attachment E) for this Order.

The Regional Water Board does not intend to take enforcement action against a Permittee for violations of specific WLAs and corresponding receiving water limitations for USEPA established TMDLs if a Permittee has developed and is implementing an approved Watershed Management Program to achieve the WLAs in the USEPA TMDL and the associated receiving water limitations.

E. Other Provisions

1. Legal Authority

Adequate legal authority is required to implement and enforce most parts of the Minimum Control Measures and all equivalent actions if implemented with a Watershed Management Program (See 40 CFR section 122.26(d)(2)(i)(A)-(F) and 40 CFR section 122.26(d)(2)(iv). Without adequate legal authority the MS4 would be unable to perform many vital functions such as performing inspections, requiring remedies, and requiring installation of control measures. In addition, the Permittee would not be able to penalize and/or attain remediation costs from violators.

2. Fiscal Resources

The annual fiscal analysis will show the allocated resources, expenditures, and staff resources necessary to comply with the permit, and implement and enforce the Permittee's Watershed Management Program (See 40 CFR section 122.26(d)(2)(vi). The annual analysis is necessary to show that the Permittee has adequate resources to meet all Permit Requirements. The analysis can also show year-to-year changes in funding for the storm water program. A summary of the annual analysis must be reported in the annual report. This report will help the Permitting Authority understand the resources that are dedicated to compliance with this permit, and to implementation and enforcement of the Watershed Management Program, and track how this changes over time. Furthermore, the inclusion of the requirement to perform a fiscal analysis annually is similar to requirements included in Order No. 01-182 permit as well as the current Ventura County MS4 permit.

3. Responsibilities of the Permittees

Because of the complexity and networking of the storm drain system and drainage facilities within and tributary to the LA MS4, the Regional Water Board adopted an area-wide approach in permitting storm water and urban runoff discharges. Order No. 01-182 was structured as a single permit whereby individual Permittees were assigned uniform requirements and additional requirements were assigned to the Principal Permittee (Los Angeles County Flood Control District). This permit does not designate a principal Permittee and as such requires each Permittee to implement provisions as a separate entity. Furthermore it does not hold a Permittee responsible for implementation of provisions applicable to other Permittees.

Part VI.A.4.a requires inter and intra-agency coordination to facilitate implementation of this Order. This requirement is based on 40 CFR section 122.26(d)(2)(iv) which requires "a comprehensive planning process which public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable [...]."

4. Reopener and Modification Provisions

These provisions are based on 40 CFR sections 122.44, 122.62, 122.63, 122.64, 124.5, 125.62, and 125.64, and are also consistent with Order No. 01-182. The Regional Water Board may reopen the permit to modify permit conditions and requirements, as well as revoke, reissue, or terminate in accordance with federal regulations. Causes for such actions include, but are not limited to, endangerment to human health or the environment; acquisition of newly-obtained information that

would have justified the application of different conditions if known at the time of Order adoption; to incorporate provisions as a result of new federal or state laws, regulations, plans, or policies (including TMDLs and other Basin Plan amendments); modification in toxicity requirements; violation of any term or condition in this Order; and/or minor modifications to correct typographical errors or require more frequent monitoring or reporting by a Permittee. The Order also includes additional causes including: within 18 months of the effective date of a revised TMDL or as soon as practicable thereafter, where the revisions warrant a change to the provisions of this Order, the Regional Water Board may modify this Order consistent with the assumptions and requirements of the revised WLA(s), including the program of implementation; in consideration of any State Water Board action regarding the precedential language of State Water Board Order WQ 99-05; and to include provisions or modifications to WQBELs in Part VI.E and Attachments L-R in this Order prior to the final compliance deadlines, if practicable, that would allow an action-based, BMP compliance demonstration approach with regard to final WQBELs for storm water discharges based on the Regional Board's evaluation of whether Watershed Management Programs in Part VI.C. of the Order have resulted in attainment of interim WQBELs for storm water and review of relevant research, including but not limited to data and information provided by Permittees and other stakeholders, on storm water quality and the efficacy and reliability of control technologies.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 308(a) of the federal Clean Water Act, and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of Title 40 of the Code of Federal Regulations requires that all NPDES permits specify monitoring and reporting requirements. Federal regulations applicable to large and medium MS4s also specify additional monitoring and reporting requirements. (40 C.F.R. §§ 122.26(d)(2)(i)(F) & (d)(2)(iii)(D), 122.42(c).) California Water Code section 13383 further authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP (Attachment E of this Order) establishes monitoring, reporting, and recordkeeping requirements that implement the federal and state laws and/or regulations. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Order.

A. Integrated Monitoring Plans

1. Integrated Monitoring Program and Coordinated Integrated Monitoring Program

As discussed in Part VI.B of this Fact Sheet, the purpose of the Watershed Management Programs is to provide a framework for Permittees to implement the requirements of this Order in an integrated and collaborative fashion and to address water quality priorities on a watershed scale. Additionally, the Watershed Management Programs are to be designed to ensure that discharges from the Los Angeles County MS4: (i) achieve applicable water quality based effluent limitations that implement TMDLs, (ii) do not cause or contribute to exceedances of receiving water limitations, and (iii) for non-storm water discharges from the MS4, are not a

source of pollutants to receiving waters. This Order allows Permittees in coordination with an approved Watershed Management Program per Part VI.C, to implement a customized monitoring program with the primary objective of allowing for the customization of the outfall monitoring programs and 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. If pursuing a customized monitoring program, the Permittees must provide sufficient justification for each element of the program that differs from the monitoring program as set forth in Attachment E of the Order. This Order provides options for each Permittee to individually develop and implement an Integrated Monitoring Program (IMP), or alternatively, Permittees may cooperate with other Permittees to develop a Coordinated Integrated Monitoring Program (CIMP). Both the IMP and CIMP are intended to facilitate the effective and collaborative monitoring of receiving waters, storm water, and non-storm water discharges and to report the results of monitoring to the Regional Water Board.

The key requirements for Watershed Management Programs are included in Part VI.C of this Order. The IMP and CIMP requirements within the MRP largely summarize the requirements and reinforce that, at a minimum, the IMP or CIMP must address all TMDL and Non-TMDL monitoring requirements of this Order, including receiving water monitoring, storm water outfall based monitoring, non-storm water outfall based monitoring, and regional water monitoring studies.

Both the IMP and CIMP approach provides opportunities to increase the cost efficiency and effectiveness of the Permittees monitoring program as monitoring can be designed, prioritized and implemented on a watershed basis. The IMP/CIMP approach allows the Permittees to prioritize monitoring resources between watersheds based on TMDL Implementation and Monitoring Plan schedules, coordinate outfall based monitoring programs and implement regional studies. Cost savings can also occur when Permittees coordinate their monitoring programs with other Permittees.

B. TMDL Monitoring Plans

Monitoring requirements established in TMDL Monitoring Plans, presented in Table E-1. Approved TMDL Monitoring Plans by Watershed Management Area, were approved by the Executive Officer of the Regional Water Board prior to the effective date of this Order are incorporated into this Order by reference.

C. Receiving Water Monitoring

The purposes of receiving water monitoring are to measure the effects of storm water and non-storm water discharges from the MS4 to the receiving water, to identify water quality exceedances, to evaluate compliance with TMDL WLAs and receiving water limitations, and to evaluate whether water quality is improving, staying the same or declining.

1. Receiving Water Monitoring Stations

Receiving water monitoring is linked to outfall based monitoring in order to gauge the effects of MS4 discharges on receiving water. Receiving water monitoring stations must be downstream of outfall monitoring stations.

The IMP, CIMP or stand-alone receiving monitoring plan (in the case of jurisdictional monitoring) must include a map identifying proposed wet weather and dry weather monitoring stations. Receiving water monitoring stations may include historical mass emission stations, TMDL compliance monitoring stations, and other selected stations. The Permittee must describe how monitoring at the proposed locations will accurately characterize the effects of the discharges from the MS4 on the receiving water, and meet other stated objectives. The plan must also state whether historical mass emission stations will continue to be monitored, and if not, provide sufficient justification for discontinuation of monitoring at the historical mass emissions stations, and describe the value of past receiving water monitoring data in performing trends analysis to assess whether water quality is improving, staying the same or declining.

2. Minimum Monitoring Requirements

Receiving water is to be monitored during both dry and wet weather conditions to assess the impact of non-storm water and storm water discharges. Wet weather and dry weather are defined in each watershed, consistent with the definitions in TMDLs approved within the watershed. Monitoring is to commence as soon as possible after linked outfall monitoring in order to be reflective of potential impacts from MS4 discharges. At a minimum, the parameters to be monitored and the monitoring frequency are the same as those required for the linked outfalls.

D. Outfall Based Monitoring

The MRP requires Permittees to conduct outfall monitoring, linked with receiving water monitoring, bioassessment monitoring and TMDL special studies. The MRP allows the Permittees flexibility to integrate the minimum requirements of this Order, applicable TMDL monitoring plans and other regional monitoring obligations into a single IMP or within a CIMP.

Per Part VII.A of the MRP, the Permittee must establish a map or geographic database of storm drains, channels and outfalls to aid in the development of the outfall monitoring plan and to assist the Regional Water Board in reviewing the logic and adequacy of the number and location of outfalls selected for monitoring. The map/database must include the storm drain network, receiving waters, other surface waters that may impact hydrology, including dams and dry weather diversions. In addition, the map must identify the location and identifying code for each major outfall within the Permittee's jurisdiction. The map must include overlays including jurisdictional boundaries, subwatershed boundaries and storm drain outfall catchment boundaries. The map must distinguish between storm drain catchment drainage areas and subwatershed drainage areas, as these may differ. In addition, the map must include overlays displaying land use, impervious area and effective impervious area (if available). To the extent known, outfalls that convey significant non-stormwater discharges (see Part I.F to this Fact Sheet), must also be identified on the map, and the map must be updated annually to

include the total list of known outfalls conveying significant flow of non-storm water discharge.

E. Storm Water Outfall Based Monitoring

The purpose of the outfall monitoring plan is to characterize the storm water discharges from each Permittee's drainages within each subwatershed. Outfall based monitoring is also conducted to assess compliance with WQBELs. Unless Permittees have proposed and received approval for a customized monitoring program as previously discussed, each Permittee must identify at least one outfall within each subwatershed (HUC 12) within its jurisdictional boundary to monitor storm water discharges. The selected outfall(s) should receive drainage from an area representative of the land uses within the portion of its jurisdiction that drains to the subwatershed, and not be unduly influenced by storm water discharges from upstream jurisdictions or other NPDES discharges. It is assumed that storm water runoff quality will be similar for similar land use areas, and therefore runoff from a representative area will provide sufficient characterization of the entire drainage area. Factors that may impact storm water runoff quality include the land use (industrial, residential, commercial) and the control measures that are applied. Factors that may impact storm water runoff volume include percent effective impervious cover (connected to the storm drain system), vegetation type, soil compaction and soil permeability.

Storm water outfall monitoring is linked to receiving water monitoring (see above). Monitoring must be conducted at least three times per year during qualifying rain events, including the first rain event of the year and conducted approximately concurrently (within 6 hours) before the commencement of the downstream receiving water monitoring.

Monitoring is conducted for pollutants of concern including all pollutants with assigned WQBELs. Parameters to be monitored during wet weather include: flow, pollutants subject to a TMDL applicable to the receiving water, pollutants listed on the Clean Water Act Section 303(d) list for the receiving water or a downstream receiving water. Flow is necessary to calculate pollutant loading. Sampling requirements, including methods for collecting flow-weighted composite samples, are consistent with the Ventura County Monitoring program (Order No. C17388).

For water bodies listed on the Clean Water Act section 303(d) list as being impaired due to sedimentation, siltation or turbidity, total suspended solids (TSS) and suspended sediment concentration (SSC) must be analyzed. TSS is the parameter most often required in NPDES permits to measure suspended solids. However, studies conducted by the United States Geological Survey (USGS) have found that the TSS procedure may not capture the full range of sediment particle sizes contributing to sediment impairments. Therefore both TSS and SSC are required in this Order.

For freshwater, the following field measurements are also required: hardness, pH, dissolved oxygen, temperature, and specific conductivity. Hardness, pH and temperature are parameters impacting the effect of pollutants in freshwater (i.e., metals water quality standards are dependent on hardness, ammonia toxicity is dependent on

pH and temperature. Temperature and dissolved oxygen are interdependent and fundamental to supporting aquatic life beneficial uses. Specific conductivity is a parameter important to assessing potential threats to MUN and freshwater aquatic life beneficial uses.

Aquatic toxicity monitoring is required in the receiving water twice per year during wet weather conditions. Aquatic toxicity is a direct measure of toxicity and integrates the effects of multiple synergistic effects of known and unidentified pollutants. When samples are found to be toxic, a Toxicity Identification Evaluation must be performed in an attempt to identify the pollutants causing toxicity. Aquatic toxicity is required to be monitored in the receiving water twice per year during wet-weather rather than three times per year due to the expense of the procedure.

The monitoring data is to be accompanied by rainfall data and hydrographs, and a narrative description of the storm event, consistent with the requirements in the Ventura County MS4 (Monitoring Program No. CI 7388). This information will allow the Permittee and the Regional Water Board staff to evaluate the effects of differing storm events in terms of storm water runoff volume and duration and in-stream effects.

F. Non-Stormwater Outfall-Based Screening and Monitoring Program

The non-storm water outfall screening and monitoring program is intended to build off of Permittees prior efforts under Order No. 01-182 to screen all outfalls within their MS4 to identify illicit connections and discharges. Under this Order, the Permittees will use the following step-wise method to assess non-storm water discharges.

- Develop criteria or other means to ensure that all outfalls with significant non-storm water discharges are identified and assessed during the term of this Order.
- For outfalls determined to have significant non-storm water flow, determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, or from unknown sources.
- Refer information related to identified IC/IDs to the IC/ID Elimination Program (Part VI.D.10 of this Order) for appropriate action.
- Based on existing screening or monitoring data or other institutional knowledge, assess the impact of non-storm water discharges (other than identified IC/IDs) on the receiving water.
- Prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules.
- Conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.
- Conduct monitoring or other investigations to identify the source of pollutants in non-storm water discharges.
- Use results of the screening process to evaluate the conditionally exempt non-storm water discharges identified in Part III.A.2 and III.A.3 in this Order and take appropriate actions pursuant to Part III.A.4.d of this Order for those discharges that

have been found to be a source of pollutants. Any future reclassification shall occur per the conditions in Parts III.A.2 or III.A.6 of this Order.

The screening and monitoring program is intended to maximize the use of Permittee resources by integrating the screening and monitoring process into existing or planned IMP/CIMP efforts. It is also intended to rely on the illicit discharge source investigation and elimination requirements in Part VI.D.10 of this Order and the MS4 Mapping requirements in Part VII.A of the MRP.

The screening and source identification component of the program is used to identify the source(s) and point(s) of origin of the non-storm water discharge. The Permittee is required to develop a source identification schedule based on the prioritized list of outfalls exhibiting significant non-storm water discharges. The schedule shall ensure that source investigations are to be conducted for no less than 25% of the outfalls in the inventory within three years of the effective date of this Order and 100% of the outfalls within 5 years of the effective date of this Order. This will ensure that all outfalls with significant non-storm water discharges will be assessed within the term of this Order.

Additional requirements have been included to require the Permittee to develop a map and database of all outfalls with known non-storm water discharges. The database and map are to be updated throughout the term of this Order. If the source of the non-storm water discharge is determined to be an NPDES permitted discharge, a discharge subject to a Record of Decision approved by USEPA pursuant to section 121 of CERCLA, a conditionally exempt essential non-storm water discharge, or entirely comprised of natural flows as defined at Part III.A.d of this Order, the Permittee need only document the source and report to the Regional Water Board within 30 days of determination and in the next annual report. Likewise, if the discharge is determined to originate in an upstream jurisdiction, the Permittee is to provide notice and all characterization data to the upstream jurisdiction within 30 days of determination.

However, if the source is either unknown or a conditionally exempt non-essential non-storm water discharge, each Permittee shall conduct monitoring required in Part IX.F of the MRP. Special provisions are also provided if the discharge is found to result from multiple sources.

The parameters to be monitored include flow rate, pollutants assigned a WQBEL or receiving water limitation to implement TMDL provisions for the respective receiving water, as identified in Attachments L - R of this Order, non-storm water action levels as identified in Attachment G of this Order, and CWA Section 303(d) listed pollutants for the respective receiving water. Aquatic Toxicity required only when receiving water monitoring indicates aquatic toxicity and the TIE conducted in the receiving water is inconclusive.

In an effort to provide flexibility and allow the Permittee to prioritize its monitoring efforts, the outfall based monitoring can be integrated within an IMP/CIMP. For outfalls subject to a dry weather TMDL, monitoring frequency is established per the approved TMDL Monitoring Program.

Unless specified in an approved IMP/CIMP, outfalls not subject to dry weather TMDLs must be monitored at least four times during the first year of monitoring. The four times per year monitoring is reflective of the potential for high variability in the quality and volume of non-storm water discharges and duration as opposed to storm water discharges.

Collected monitoring data is to be compared against applicable receiving water limitations, water quality based effluent limitations, non-storm water action levels, or exhibited Aquatic Toxicity as defined in the Parts XII.F and G of the MRP and all exceedances are to be reported in the Integrated Monitoring Compliance Report required in Part XIX.A.5 of the MRP.

After the first year, monitoring for specific pollutants may be reduced to once per year, if the values reported in the first year do not exceed applicable non-storm water WQBELs, non-storm water action levels, or a water quality standard applicable to the receiving water.

After one year of monitoring, the Permittee may submit a written request to the Executive Officer of the Regional Water Board requesting to eliminate monitoring for specific pollutants based on an analysis demonstrating that there is no reasonable potential for the pollutant to exist in the discharge at a concentration exceeding applicable water quality standards.

1. Dry Weather Screening Monitoring

a. Background

Clean Water Act section 402(p) regulates discharges from municipal separate storm sewer systems (MS4s). Clean Water Act section 402(p)(3)(B)(ii) requires the Permittees to effectively prohibit non-storm water from entering the MS4.

Non-exempted, non-storm water discharges are to be effectively prohibited from entering the MS4 or become subject to another NPDES permit (55 Fed.Reg. 47990, 47995 (Nov.16, 1990)). Conveyances which continue to accept non-exempt, non-storm water discharges do not meet the definition of MS4 and are not subject to Clean Water Act section 402(p)(3)(B) unless the discharges are issued separate NPDES permits. Instead, conveyances that continue to accept non-exempt, non-storm water discharges that do not have a separate NPDES permit are subject to sections 301 and 402 of the CWA (55 Fed.Reg. 47990, 48037 (Nov. 16, 1990)).

In part, to implement these statutory provisions, Order No. 01-182 included non-storm water discharge prohibitions. Several categories of non-storm water discharges are specifically identified as authorized or conditionally exempt non-storm water discharges, including:

- i. Discharges covered under an NPDES permit**
- ii. Discharges authorized by USEPA under CERCLA**

- iii. Discharges resulting from natural flows
- iv. Discharges from emergency fire fighting activity
- v. Some Categories of Discharges incidental to urban activities

Further, as another mechanism to effectively prohibit non-storm water discharges into the MS4, Order No. 01-182 also requires the Los Angeles County MS4 Co-Permittees to implement an illicit connections and illicit discharges elimination program as part of their storm water management program pursuant to 40 CFR section 122.26(d)(2)(iv)(B).

Finally, Monitoring and Reporting Program CI 6948, a part of Order No. 01-182, required dry weather monitoring at the Mass Emissions Stations (MES) to estimate pollutant contributions and determine if the MS4 is contributing to exceedances of applicable water quality standards during dry weather.

b. Evaluation of Dry Weather Data

40 CFR section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in the Basin Plan and other state plans and policies, or any applicable water quality criteria contained in the California Toxics Rule (CTR) and National Toxics Rule (NTR).

In an effort to evaluate the Discharger's program to effectively prohibit non-storm water discharges into the MS4, as well as to determine whether MS4 discharges are potentially contributing to exceedances of water quality standards, the Reasonable Potential Analysis (RPA) process was used as a screening tool. In doing so, dry weather monitoring data submitted by the Discharger was evaluated to identify where non-storm water discharges may impact beneficial uses and where additional monitoring and/or investigations of non-storm water discharges should be focused.

Order No. 01-182 and Monitoring and Reporting Program No. 6948 required the Discharger to implement core monitoring at seven mass emission stations:

- Ballona Creek
- Malibu Creek
- Los Angeles River
- San Gabriel River (representing the upper portion of the San Gabriel River Watershed Management Area)

- Coyote Creek (representing the lower portion of the San Gabriel River Watershed Management Area)
- Dominguez Channel
- Santa Clara River

In addition to wet weather monitoring requirements at each of the mass emission stations, a minimum of two dry weather samples were required each year. Monitoring was required for conventional pollutants (BOD, TSS, pH, fecal coliform, oil and grease), priority pollutants, and a variety of other nonconventional pollutants (e.g., nutrients, dissolved oxygen, salinity/conductivity).

Dry weather monitoring data were compiled from Annual Stormwater Monitoring Reports submitted by the Los Angeles County Department of Public Works for the period from 2005 to 2011, to reflect the most recent data. The Annual Stormwater Monitoring Reports include the results for dry weather samples that were collected from 2005 to 2011 on 15 different dates.

For each monitored parameter, the most stringent applicable water quality objective/criterion was identified from the Basin Plan and the CTR at 40 CFR section 131.38. The following assumptions were made when conducting the analysis:

- The mass emissions stations represented only freshwater segments. Accordingly, CTR criteria for the protection of freshwater aquatic life were selected for comparison to monitoring results.
- For hardness-dependent metals, criteria were derived by using the lowest reported dry-weather hardness value for each mass emission station for the period of 2005 to 2011.
- For screening purposes the criteria associated with the most protective beneficial use for any segment within the watershed was selected for comparison to monitoring results.
- Basin Plan surface water quality objectives for minerals (i.e., total dissolved solids, sulfate, and chloride) apply to specific stream reaches within each watershed and are provided in Chapter 3 of the Basin Plan. Where no specific objectives are identified, footnote f to Table 3-8 provides guidelines for protection of various beneficial uses. When guidelines were presented as a range, the most protective (low end of range) value was selected and applied according to beneficial uses in the watershed.
- With the exception of bacteria, the water quality objectives used for the analysis are the most current in effect. Since adoption of Order No. 01-182 in 2001, some Basin Plan objectives and CTR criteria have been amended. As a result, the pollutants monitored under the MRP for Order No. 01-182 may not necessarily reflect current objectives.
- *E coli* bacteria was not required as part of the MRP to Order No. 01-182, thus screening for bacteria was based solely on fecal coliform. Monitoring results for fecal coliform were compared to the Basin Plan fecal coliform objective in

effect during the monitoring period. The Basin Plan objective for bacteria was amended in December 2011 to omit fecal coliform as a fresh water objective. The existing numeric bacteria objective for freshwater is limited to *E. coli*. The Basin Plan bacteria objectives are expressed as a single sample maximum and a geometric mean. In this screening, limited data precluded calculation of geometric means, therefore, the geometric mean objective was treated as a "not-to-exceed" criterion for screening purposes. The geometric mean objective for fecal coliform is 200/100 ml (the Basin Plan objective to protect primary contact recreation beneficial use (REC-1) uses in freshwaters).

- Within a given watershed, where the Basin Plan designates a "Potential" beneficial use of MUN, drinking water maximum contaminant levels (MCLs) were not applied as the most stringent objectives. Within a given watershed, where the Basin Plan designates "Potential" or "Intermittent" for beneficial uses other than MUN, the appropriate protective objectives were used for screening. This is consistent with Basin Plan requirements and existing permitting procedures.

The maximum reported pollutant concentration was compared to the most stringent applicable water quality objective to determine if there was potential for receiving water concentrations to exceed water quality objectives.

Table F-10 summarizes the results of the RPA analysis based on evaluation of the 15 sets of data for the period of 2005 to 2011 for each of the mass emission stations. Generally, all priority pollutant organic parameters were reported as below detection levels at practical quantitation levels (PQLs) consistent with the minimum levels (MLs) listed in the SIP. The most prevalent pollutants of concern among the mass emission stations include fecal coliform bacteria, cyanide, mercury, chloride, sulfate, total dissolved solids, copper, and selenium. Reported fecal coliform bacteria, cyanide, copper, and selenium concentrations appear to consistently exceed objectives/criteria in all watersheds at relatively high levels. For watersheds where objectives apply for sulfate and total dissolved solids, the receiving water concentrations consistently exceeded the objectives. The incidences where exceedances are indicated for mercury are largely due to analytical detection levels that were higher than the applicable criterion.

Table F-10. Summary of LA County Watersheds and Frequency of Receiving Water Exceeding Criteria - 2005 to 2011- Dry Season Data Analysis¹

Parameter	Santa Clara River	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	San Gabriel River	
						Upper Portion	Lower Portion
pH	0/15	7/15	5/15	3/15	0/15	1/14	2/15
Total Coliform	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective
Fecal Coliform	4/15	4/15	10/15	13/15	6/15	11/14	13/15
Enterococcus	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective	No FW Objective
Chloride	15/15	15/15	No Objective	0/15	0/15	14/14	15/15
Dissolved Oxygen	1/15	0/15	0/15	0/15	0/15	√1/14	0/15
Nitrate-N	0/15	0/15	No Objective	No Objective	0/15	7/14	No Objective
Nitrite-N	0/15	3/15	No Objective	No Objective	0/15	0/15	No Objective

Parameter	Santa Clara River	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	San Gabriel River	
						Upper Portion	Lower Portion
Methylene Blue Active Substances	4/15	0/15	No Objective	No Objective	0/15	0/14	No Objective
Sulfate	15/15	15/15	No Objective	No Objective	15/15	14/14	15/15
Total Dissolved Solids	15/15	15/15	No Objective	No Objective	13/15	14/14	15/15
Turbidity ²	0/15	2/15	No Objective	No Objective	0/15	0/15	0/15
Cyanide	11/15	14/15	4/15	15/15	3/15	14/14	15/15
Total Aluminum	1/15	2/15	No Objective	No Objective	0/15	1/14	No Objective
Dissolved Copper	0/15	0/15	5/15	0/15	0/15	13/14	0/15
Total Copper	1/15	6/15	11/15	3/15	0/15	13/14	2/15
Dissolved Lead	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Total Lead	0/15	0/15	1/15	1/15	0/15	13/14	0/15
Total Mercury	15/15	14/15	14/15	15/15	15/15	14/14	15/15
Dissolved Mercury	15/15	15/15	15/15	15/15	15/15	14/14	14/14
Total Nickel	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Dissolved Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Total Selenium	2/15	2/15	1/15	2/15	6/15	1/15	10/11
Dissolved Zinc	0/15	0/15	0/15	0/15	0/15	7/10	0/15
Total Zinc	0/15	0/15	0/15	0/15	0/15	10/10	0/15

1. Frequency of exceedance is denoted as number of exceedances/number of dry weather samples evaluated. For example, "2/15" indicates 2 of the 15 samples had analytical results that exceeded the water quality objective for a given parameter.
2. The Basin Plan objective for turbidity for the protection of MUD is the secondary MCL of 5 NTU. The Basin Plan contains additional turbidity objectives expressed as incremental changes over natural conditions. Since inadequate data were available to assess criteria expressed as incremental changes, only the MCL was considered in the analysis.

c. Requirements for Controlling Non-Storm Water Discharges

The USEPA's approach for non-storm water discharges from MS4s is to regulate these discharges under the existing CWA section 402 NPDES framework for discharges to surface waters. The NPDES program (40 CFR section 122.44(d)) utilizes discharge prohibitions and effluent limitations as regulatory mechanisms to regulate non-storm water discharges, including the use of technology- and water quality-based effluent limitations. Non-numerical controls, such as BMPs for non-storm water discharges may only be authorized where numerical effluent limitations are infeasible.

As described in Table F-10 above, there were a number of pollutants for which it was determined that receiving water concentrations at the mass emission stations indicate possible exceedances of water quality standards within the watershed. However, for waterbody-pollutant combinations not subject to a TMDL, there is uncertainty regarding whether exceedances occurred within specific segments where standards apply; the extent to which non-storm water discharges from the MS4 have caused or contributed to any exceedances; and whether the exceedances are attributable to any one or more specific MS4 outfalls within the watershed management area.

Given the need for additional data on non-stormwater discharges from the MS4 where a TMDL has not been developed, USEPA and the State have used action

levels as a means to gauge potential impact to water quality and to identify the potential need for additional controls for non-stormwater discharges in the future. If these action levels are exceeded, then additional requirements (e.g., numeric effluent limitations, increased monitoring, special studies, additional BMPs) are typically used to address the potential impacts. In this case, non-storm water action levels are applicable to non-storm water discharges from that MS4 outfall. Non-storm water discharges from the MS4 are those which occur during dry weather conditions. These action levels are not applied to storm water discharges, as defined within this Order. Storm water discharges regulated by this Order are required to meet the MEP standard and other provisions determined necessary by the State to control pollutants and have separate requirements under this Order.

The use of action levels in this Order does not restrict the Regional Water Boards ability to modify this Order in accordance with 40 CFR section 122.62 to include numeric effluent limitations should monitoring data indicate that controls beyond action levels are necessary to ensure that non-storm water discharges do not cause or contribute to exceedances of water quality standards.

i. Approach for Deriving Action Levels

Where exceedances are indicated in Table F-10 and where a TMDL has not been developed, action levels are applied as a screening tool to indicate where non-storm water discharges, including exempted flows and illicit connections may be causing or contributing to exceedances of water quality objectives. Action levels in this Order are based upon numeric or narrative water quality objectives and criteria as defined in the Basin Plan, the Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and the CTR.

(1) Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries

Priority Pollutants Subject to the CTR

Priority pollutant water quality criteria in the CTR are applicable to all inland surface waters, enclosed bays, and estuaries. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with Section 131.38(c)(3):

- For waters in which the salinity is equal to or less than 1 part per thousand (ppt), the freshwater criteria apply.
- For waters in which the salinity is greater than 10 ppt 95 percent or more of the time, the saltwater criteria apply.
- For waters in which the salinity is between 1 ppt and 10 ppt, the more stringent of the freshwater or saltwater criteria apply.

For continuous discharges, 40 CFR section 122.45(d)(1) specifies daily maximum and average monthly effluent limitations. Because of the uncertainty regarding the frequency of occurrence and duration of non-storm water discharges through the MS4, average monthly action levels (AMALs) and maximum daily action levels (MDALs) were calculated following the procedure based on the steady-state model, available in Section 1.4 of the SIP. The SIP procedures were used to calculate action levels for CTR priority pollutants and other constituents for which the Basin Plan contains numeric objectives.

Since many of the streams in the Region have minimal upstream flows, mixing zones and dilution credits are usually not appropriate. Therefore, in this Order, no dilution credits being allowed.

40 CFR section 122.45(c) requires that effluent limitations for metals be expressed as total recoverable concentration; therefore it is appropriate to include action levels also as a total recoverable concentration. The SIP requires that if it is necessary to express a dissolved metal value as a total recoverable and a site-specific translator has not yet been developed, the Regional Water Board shall use the applicable conversion factor contained in the 40 CFR section 131.38.

Using nickel as an example, and assuming application of saltwater criteria (e.g., a situation where an MS4 outfall discharges to an estuary), the following demonstrates how action levels were established for this Order. The tables in Attachment H provide the action levels for each watershed management area addressed by this Order using the process described below.

The process for developing these limits is in accordance with Section 1.4 of the SIP. Two sets of AMAL and MDAL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health (consumption of organisms only). The AMALs and MDALs for aquatic life and human health are compared, and the most restrictive AMAL and the most restrictive MDAL are selected as the action level.

Step 1: For each constituent requiring an action level, identify the applicable water quality criterion or objective. For each criterion, determine the effluent concentration allowance (ECA) using the following steady state mass balance equation:

$$\begin{aligned} \text{ECA} &= C + D(C-B) \text{ when } C > B, \text{ and} \\ \text{ECA} &= C \text{ when } C \leq B, \end{aligned}$$

Where:

C = The priority pollutant criterion/objective, adjusted if

necessary for hardness, pH and transmitters (criteria for saltwater are independent of hardness and pH).

D = The dilution credit, and

B = The ambient background concentration

As discussed above, for this Order, dilution was not allowed; therefore:

$$ECA = C$$

For nickel the applicable ECAs are:

$$ECA_{acute} = 75 \mu\text{g/L}$$

$$ECA_{chronic} = 8.3 \mu\text{g/L}$$

Step 2: For each ECA based on aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{acute} = ECA_{acute} \times Multiplier_{acute}$$

$$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. For nickel, a CV of 0.6 was assumed.

For nickel, the following data were used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

CV	ECA Multiplier _{acute}	ECA Multiplier _{chronic}
0.6	0.32	0.53

$$LTA_{acute} = 75 \mu\text{g/L} \times 0.32 = 24 \mu\text{g/L}$$

$$LTA_{chronic} = 8.3 \mu\text{g/L} \times 0.53 = 4.4 \mu\text{g/L}$$

Step 3: Select the most limiting (lowest) of the LTA.

$LTA = \text{most limiting of } LTA_{\text{acute}} \text{ or } LTA_{\text{chronic}}$

For nickel, the most limiting LTA was the LTA_{chronic}

$LTA_{\text{nickel}} = LTA_{\text{chronic}} = 4.4 \mu\text{g/L}$

Step 4: Calculate the action levels by multiplying the LTA by a factor (multiplier). Action levels are expressed as AMAL and MDAL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the action levels. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMAL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in Section 1.4, Step 5 of the SIP and will not be repeated here.

$AMAL_{\text{aquatic life}} = LTA \times AMAL_{\text{multiplier } 95}$

$MDAL_{\text{aquatic life}} = LTA \times MDAL_{\text{multiplier } 99}$

AMAL multipliers are based on a 95th percentile occurrence probability, and the MDAL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For nickel, the following data were used to develop the AMAL and MDAL for action levels using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier _{MDAL 99}	Multiplier _{AMAL 95}
4	0.6	3.11	1.55

Therefore:

$AMAL = 4.4 \mu\text{g/L} \times 1.55 = 6.8 \mu\text{g/L}$

$MDAL = 4.4 \mu\text{g/L} \times 3.11 = 14 \mu\text{g/L}$

Step 5: For the ECA based on human health, set the AMAL equal to the $ECA_{\text{human health}}$

$$AMAL_{\text{human health}} = ECA_{\text{human health}}$$

For nickel:

$$AMAL_{\text{human health}} = 4,600 \mu\text{g/L}$$

Step 6: Calculate the MDAL for human health by multiplying the AMAL by the ratio of the Multiplier_{MDAL} to the Multiplier_{AMAL}. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples.

$$MDAL_{\text{human health}} = AMAL_{\text{human health}} \times (\text{Multiplier}_{MDAL} / \text{Multiplier}_{AMAL})$$

For nickel, the following data were used to develop the MDAL_{human health}:

No. of Samples Per Month	CV	Multiplier _{MDAL 99}	Multiplier _{AMAL 95}	Ratio
4	0.6	3.11	1.55	2.0

For nickel:

$$MDAL_{\text{human health}} = 4,600 \mu\text{g/L} \times 2 = 9,200 \mu\text{g/L}$$

Step 7: Select the lower of the AMAL and MDAL based on aquatic life and human health as the non-storm water action level for this Order.

AMAL _{aquatic life}	MDAL _{aquatic life}	AMAL _{human health}	MDAL _{human health}
6.8	14	4,600	9,200

For nickel, the lowest (most restrictive) levels are based on aquatic toxicity and serve as the basis for non-storm water action levels included in this Order.

Table F-11: Calculations of Freshwater Action Levels¹

Parameter	Units	CV	Aquatic Life Criteria ²		Human Health Criteria	HH Calculations			Aquatic Life Calculations								Final Action Levels					
			C acute = CMC tot	C chronic = CCC tot		HH-Organisms only	ECA _{HH} = AMAL _{HH}	AMAL/MDAL Multiplier _{HH}	MDAL _{HH}	ECA Multiplier _{acute}	LTA _{acute}	ECA Multiplier _{chronic}	LTA _{chronic}	Lowest LTA	AMAL Multiplier _{as}	AMAL _{AL}	MDAL Multiplier _{as}	MDAL _{AL}	Lowest AMAL	Lowest MDAL		
Cadmium	µg/L	0.6	4.52	2.46	N		2.01					0.321	1.45	0.527	1.30	1.30	1.55	2.02	3.11	4.0	2.0	4.0
Copper	µg/L	0.6	14.00	9.33			2.01					0.321	4.49	0.527	4.49	4.49	1.55	6.98	3.11	14	7.0	14
Lead	µg/L	0.6	81.65	3.18	N		2.01					0.321	26.21	0.527	1.68	1.68	1.55	2.61	3.11	5.2	2.6	5.2
Mercury	µg/L	0.6	R	R	0.051	0.051	2.01	0.1023													0.051	0.10
Nickel	µg/L	0.6	469.17	52.16	4600	4600	2.01	9228				0.321	150.6	0.527	27.51	27.51	1.55	42.71	3.11	86	43	86
Silver	µg/L	0.6	4.06		N		2.01					0.321	6.43	0.527	2.64	2.64	1.55	1.06	3.11	4.1	2.0	4.1
Zinc	µg/L	0.6	119.23	11.62			2.01					0.321	38.47	0.527	63.20	63.20	1.55	53.72	3.11	120	60	120
Calcium	mg/L	0.6	22,000	5.70	22,000	22,000	2.01	44,136.2				0.321	7.06	0.527	2.74	2.74	1.55	4.26	3.11	8.5	4.3	8.5

R = Reserved

N = Narrative

¹ Calculations include rounded results. Final AMALs/MDALs are rounded to 2 significant digits.
² Where criteria are based on hardness, a value of 100 mg/L CaCO₃ was used for these sample calculations.

Table F-12: Calculations of Saltwater Action Levels

Parameter	Units	CV	Aquatic Life Criteria		Human Health Criteria	HH Calculations			Aquatic Life Calculations								Final Action Levels			
			C acute = CMC tot	C chronic = CCC tot		ECA _{HH} = AMAL _{HH}	AMAL/MDAL Multiplier _{HH}	MDAL _{HH}	ECA Multiplier _{acute}	LTA _{acute}	ECA Multiplier _{chronic}	LTA _{chronic}	Lowest LTA	AMAL Multiplier _g	AMAL	MDAL Multiplier _g	MDAL	Lowest AMAL	Lowest MDAL	
Cadmium	µg/L	0.6	42.25	9.36	N		2.01			0.321	13.57	3.527	4.93	4.93	1.55	7.66	3.11	15.4	7.7	15
Copper	µg/L	0.6	5.78	3.73			2.01			0.321	1.86	0.527	1.97	1.86	1.55	2.89	3.11	5.8	2.9	6.3
Lead	µg/L	0.6	220.82	8.52	N		2.01			0.321	70.90	0.527	4.49	4.49	1.55	6.97	3.11	14	7.0	11
Mercury	µg/L	0.6	R	R	R	0.051	2.01	0.1023											0.951	1.0
Nickel	µg/L	0.6	74.75	8.28	4600	4600	2.01	9228		0.321	24.00	0.527	4.37	4.37	1.55	6.76	3.11	14	6.8	14
Selenium	µg/L	0.6	290.58	71.14	N		2.01			0.321	93.30	0.527	37.52	37.52	1.55	58.25	3.11	117	58	117
Silver	µg/L	0.6	2.24				2.01			0.321	0.72	0.527		0.72	1.55	1.11	3.11	2.2	1.1	2.2
Zinc	µg/L	0.6	95.14	85.62			2.01			0.321	30.55	0.527	45.16	30.55	1.55	47.42	3.11	95	47	95
Cyanide	µg/L	0.6	1.00	1.00	22,0000	22,0000	2.01	44,1362		0.321	0.32	0.527	0.53	0.32	1.55	0.50	3.11	1.0	0.50	1.0

R = Reserved
N = Narrative
Calculations include rounded results. Final AMALs/MDALs are rounded to 2 significant digits.

Basin Plan Requirements for Other Pollutants

A number of pollutants were identified that exceed applicable Basin Plan objectives. These objectives however, are not amenable to the SIP process for developing action levels.

Resolution No. 01-018, Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Water Bodies Designated for Water Contact Recreation, adopted by the Regional Water Board on October 25, 2001, served as the basis for the action levels for bacteria. Subsequently, the Basin Plan was amended through Order No. R10-005 (effective on December 5, 2011) to remove the freshwater fecal coliform numeric objective while retaining the freshwater objective for *E. coli*. The dry-weather evaluation conducted for fecal coliform indicates of a need for a bacteria action level. Since the Basin Plan no longer contains freshwater objectives for fecal coliform, action levels have been developed for *E. coli* in freshwater. The current bacteria objectives (saltwater and freshwater) are applied directly to the MS4 outfalls discharging to freshwaters to serve as action levels.

The Basin Plan, in Tables 3-5 through 3-7, include chemical constituents objectives based on the incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water MUN beneficial use. The Basin Plan in Tables 3-8 and 3-10 also includes mineral quality objectives that apply to specific watersheds and stream reaches and where indicated by the beneficial use of ground water recharge (GWR). These objectives contained in the Basin Plan are listed as not-to-exceed values. Consistent with the approach used by the Regional Water Board in other Orders for dry weather discharges, these not-to-exceed values will be applied as AMALs in this Order.

(2) Discharges to the Surf Zone

From the Table B water quality objectives of the Ocean Plan, action levels are calculated according to Equation 1 of the Ocean Plan for all pollutants:

$$C_e = C_o + D_m(C_o - C_s)$$

Where:

- C_e = the Action Level ($\mu\text{g/L}$)
- C_o = the water quality objective to be met at the completion of initial dilution ($\mu\text{g/L}$)
- C_s = background seawater concentration ($\mu\text{g/L}$)
- D_m = minimum probable initial dilution expressed as parts seawater per part wastewater

The D_{10} is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. It is conservatively assumed that when non-storm water discharges to the surf zone occur, that conditions are such that no rapid mixing would occur. Therefore, an initial dilution is not allowed and the formula above reduces to:

$$C_e = C_o$$

The following demonstrates how the action levels for copper are established.

Copper

$C_e = 3 \mu\text{g/L}$ (6-Month Median)

$C_e = 12 \mu\text{g/L}$ (Daily Maximum)

$C_e = 30 \mu\text{g/L}$ (Instantaneous Maximum)

ii. Applicability of Action Levels

The action levels included in this Order apply to pollutants in non-storm water discharges from the MS4 to receiving waters that are not already subject to WQBELs to implement TMDL wasteload allocations applicable during dry weather.

This Order requires outfall-based monitoring throughout each Watershed Management Area, including monitoring during dry weather. The dry weather monitoring data will be evaluated by the Permittee(s) in comparison to all applicable action levels.

iii. Requirements When Action Levels are Exceeded

When monitoring data indicates an action level is exceeded for one or more pollutants, then the Permittee will be required to implement actions to identify the source of the non-storm water discharge, and depending on the identified source, implement an appropriate response. With respect to action levels, the Permittee will have identified appropriate procedures within the Watershed Management Program (Part VI.C) and the Illicit Connection and Illicit Discharge Elimination Program (Part VI.D.9).

G. New Development/Re-Development Tracking

This Order requires the use of Low Impact Development (LID) designs to reduce storm water runoff (and pollutant discharges) from new development or re-development projects. In areas that drain to water bodies that have been armored or are not natural drainages, the goal of this requirement is to protect water quality by retaining on-site the

storm water runoff from the 85th percentile storm event. This is the design storm used throughout most of California for water quality protection. If it is not technically feasible due to site constraints (e.g., close proximity to a drinking water supply, slope instability) or if instead the project proponent is proposing to supplement a groundwater replenishment project, the project proponent may provide treatment BMPs to reduce pollutant loading in storm water runoff from the project site. Flow through treatment BMPs are less effective in reducing pollutant loadings than on-site retention for the design storm. Therefore the project proponent must mitigate the impacts further by providing for LID designs at retrofit projects or other off-site locations within the same subwatershed. The effectiveness monitoring is designed to assess and track whether post construction operation of the LID designs are effective in retaining the design storm runoff volume.

For projects located in natural drainages, the goal of the LID design is to retain the pre-development hydrology, unless a water body is not susceptible to hydromodification effects (e.g., estuaries or the ocean). Smaller projects that will disturb less than 50 acres of land are presumed to meet the criteria if the project retains the storm water runoff from the 95th percentile storm. The effectiveness monitoring in this situation should be design to confirm that storm water runoff is not occurring for any storm at or less than the 95th percentile storm. Projects may also demonstrate compliance by showing that the erosion potential will be approximately 1 as described in Attachment J of this Order. For larger projects, the project proponent may be required to conduct modeling to demonstrate compliance by comparing the hydrographs of a two-year storm for the pre-development and post-development conditions, or by comparing the flow duration curves for a reference watershed and the post project condition. Flow monitoring will be required to substantiate the simulated hydrographs or flow duration curves.

Monitoring studies conducted by the California Department of Public Health (CDPH) have documented that mosquitoes opportunistically breed in structural storm water Best Management Practices (BMPs), particularly those that hold standing water for over 96 hours. Certain Low Impact Development (LID) site design measures that hold standing water such as rainwater capture systems may similarly produce mosquitoes. BMPs and LID design features should incorporate design, construction, and maintenance principles to promote drainage within 96 hours to minimize standing water available to mosquitoes. This Order requires regulated MS4 Permittees to coordinate with other agencies necessary to successfully implement the provisions of this Order. These agencies may include CDPH and local mosquito and vector control agencies on vector-related issues surrounding implementation of post-construction BMPs.

This Order is not intended to prohibit the inspection for or abatement of vectors by the State Department of Public Health or local vector agencies in accordance with CA Health and Safety Code, § 116110 et seq. and Water Quality Order No. 2012-0003-DWQ.

H. Regional Studies

1. Southern California Stormwater Monitoring Coalition Watershed Monitoring Program

As a condition to this Order, Permittees must participate in the bioassessment studies conducted under the Southern California Stormwater Monitoring Coalition Watershed Monitoring Program. Bioassessment provides a direct measure of whether aquatic life beneficial uses are fully supported and integrates the effects of multiple factors including pollutant discharges, changes in hydrology, geomorphology, and riparian buffers.

I. Aquatic Toxicity Monitoring Methods

Based on the stated goals of the CWA, the USEPA and individual states implement three approaches to monitoring water quality. These approaches include chemical-specific monitoring, toxicity testing, and bioassessments (USEPA 1991a). Each of the three approaches has distinct advantages and all three work together to ensure that the physical, chemical and biological integrity of our waters are protected. Water quality objectives have been developed for only a limited universe of chemicals. For mixtures of chemicals with unknown interactions or for chemicals having no chemical-specific objectives, the sole use of chemical-specific objectives to safeguard aquatic resources would not ensure adequate protection. Aquatic life in southern California coastal watersheds are often exposed to nearly 100% effluent from wastewater treatment plants, urban runoff, or storm water; therefore, toxicity testing and bioassessments are also critical components for monitoring programs as they offer a more direct and thorough confirmation of biological impacts. The primary advantage of using the toxicity testing approach is that this tool can be used to assess toxic effects (acute and chronic) of all the chemicals in aqueous samples of effluent, receiving water, or storm water. This allows the cumulative effect of the aqueous mixture to be evaluated, rather than the toxic responses to individual chemicals (USEPA, EPA Regions 8, 9, and 10 Toxicity Training Tool, January 2010).

Based on available data from the LA County MS4 Permit Annual Monitoring Reports, samples collected at mass emissions stations during both wet weather and dry weather have been found to be toxic in the San Gabriel River, Coyote Creek, the Los Angeles River, Dominguez Channel, Ballona Creek, Malibu Creek, and the Santa Clara River, demonstrating the need for this toxicity monitoring requirement (see Table below).

Summary of Toxicity by Watershed							
Source and Season	San Gabriel River	Coyote Creek	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	Santa Clara River
Integrated Receiving Water Impacts Report (1994-2005)							
Wet Weather	-	CDS, CDR, SUF	CDS, SUF	CDS, CDR, SUF	CDP, SUF	CDR	CDS
Dry Weather	-	SUF	SUF	SUF	SUF	-	-

Annual Monitoring Reports (2005-2010)							
Wet Weather							
2005-06	-	-	SUF	CDS, CDR, SUF	SUF	-	-
2006-07	SUF	SUF	SUF	SUF	SUF	SUF	SUF
2007-08	SUF	-	-	SUF	-	CDS,CDR,SUF	SUF
2008-09	-	SUF	SUF	-	SUF	CDS,CDR,SUF	-
2009-10	-	-	-	-	-	-	-
Dry Weather							
2005-06	-	-	-	-	-	CDS,CDR	-
2006-07	-	-	-	-	SUF	-	-
2007-08	-	-	CDS,CDR	-	SUF	-	-
2008-09	-	-	SUF	-	-	-	-
2009-10	-	-	-	-	-	-	-

Notes:

CDS= Ceriodaphnia survival toxicity
SUF= Sea Urchin fertilization toxicity
CDR= Ceriodaphnia reproduction
toxicity

This Order requires Permittee(s) to conduct chronic toxicity tests on water samples, by methods specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR Part 136) or a more recent edition.

To determine the most sensitive test species, the Permittee(s) shall conduct two wet weather and two dry weather toxicity tests with a vertebrate, an invertebrate, and a plant. After this screening period, subsequent monitoring shall be conducted using the most sensitive test species. Alternatively, if a sensitive test species has already been determined, or if there is prior knowledge of potential toxicant(s) and a test species is sensitive to such toxicant(s), then monitoring shall be conducted using only that test species. Sensitive test species determinations shall also consider the most sensitive test species used for proximal receiving water monitoring. After the screening period, subsequent monitoring shall be conducted using the most sensitive test species. Rescreening shall occur in the fourth year of the permit term.

For brackish water, this Order requires the Permittee(s) to conduct the chronic toxicity test in accordance with USEPA's *Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms*, First Edition, August 1995, (EPA/803/R-95/136), or *Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821-R-02-014), or a more recent edition.

Furthermore, the toxicity component of the Monitoring Program includes toxicity identification procedures so that pollutants that are causing or contributing to acute or

chronic effects in aquatic life exposed to these waters can be identified and others can be discounted. TIEs are needed to identify the culprit constituents to be used to prioritize management actions. Where toxicants are identified in a MS4 discharge, the Order requires a Toxicity Reduction Plan (TRE).

TRE development and implementation is directly tied to the integrated monitoring programs and watershed management program, to ensure that management actions and follow-up monitoring are implemented when problems are identified. Permittees are encouraged to coordinate TIEs with concurrent TMDLs where overlap exists. If a TMDL is being developed or implemented for an identified toxic pollutant, much of the work necessary to meet the objectives of a TRE may already be underway, and information and implementation measures should be shared.

Overall, the toxicity monitoring program will assess the impact of storm water and non-storm water discharges on the overall quality of aquatic fauna and flora and implement measures to ensure that those impacts are eliminated or reduced. As stated previously, chemical monitoring does not necessarily reveal the totality of impacts of storm water on aquatic life and habitat-related beneficial uses of water bodies. Therefore, toxicity requirements are a necessary component of the MS4 monitoring program.

J. Special Studies

Requirements to conduct special studies as described in TMDL Implementation Plans that were approved by the Executive Officer of the Regional Water Board prior to the effective date of this Order are incorporated into this Order by reference.

K. Annual Reporting

The Annual Reporting requirement was also required in Order No. 01-182 and provides summary information to the Regional Water Board on each Permittee's participation in one or more Watershed Management Programs; the impact of each Permittee(s) storm water and non-storm water discharges on the receiving water; each Permittee's compliance with receiving water limitations, numeric water quality based effluent limitations, and non-storm water action levels; and the effectiveness of each Permittee(s) control measures in reducing discharges of pollutants from the MS4 to receiving waters. In addition the Annual Report allows the Regional Water Board to assess 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 Control Measures and whether changes in water quality can be attributed to pollutant controls imposed on new development, re-development, or retrofit projects. The Annual Report provides the Permittee(s) a forum to discuss the effectiveness of its past and ongoing control measure efforts and to convey its plans for future control measures as well as a way to present data and conclusions in a transparent manner so as to allow review and understanding by the general public. Overall the Annual Report allows Permittee's to focus reporting efforts on watershed condition, water quality assessment, and an evaluation of the effectiveness of control measures.

L. Watershed Summary Information, Organization and Content

As a means to establish a baseline and then identify changes or trends, for each watershed, each Permittee shall provide the information on its watershed management area, subwatershed area, and drainage areas within the subwatershed area in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information should be provided for each watershed within the Permittee's jurisdiction. Alternatively, permittees participating in a Watershed Management Program may provide the requested information through the development and submission of a Watershed Management Program report or within a TMDL Implementation Plan Annual Report. However, in either case, the Permittee shall bear responsibility for the completeness and accuracy of the referenced information. This reporting requirement helps to ensure that both the Permittee and the Regional Water Board have up to date information on the status of each of their watersheds and subwatersheds.

M. Jurisdictional Assessment and Reporting

The requested information shall be provided for each watershed within the Permittee's jurisdiction. Annual Reports submitted on behalf of a group of Watershed Permittees shall clearly identify all data collected and strategies, control measures, and assessments implemented by each Permittee within its jurisdiction as well as those implemented by multiple Permittees on a watershed scale. Permittees must provide information on storm water control measures, an effectiveness assessment of storm water control measures, information on non-storm water control measures, an effectiveness assessment of non-storm water control measures, an integrated monitoring compliance report, information on adaptive management strategies, and supporting data and information. The addition of this reporting requirement serves as a mechanism to evaluate and ensure the protection of receiving water quality on a watershed scale. If Permittees do not elect to develop a Watershed Management Program, all required information shall be provided by the Permittee for its jurisdiction.

N. TMDL Reporting

Reporting requirements included in this Order and Attachment E (MRP) were established during the TMDL development process for each individual TMDL. These reporting requirements have been incorporated into this Order to implement TMDL requirements.

VIII. CALIFORNIA WATER CODE SECTION 13241

California Water Code section 13241 requires the Regional Water Board to consider certain factors, including economic considerations, in the adoption of water quality objectives. California Water Code section 13263 requires the Board to take into consideration the provisions of section 13241 in adopting waste discharge requirements. In *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal 4th 613, the California Supreme Court considered whether regional water boards must comply with section 13241 when issuing waste discharge requirements under section 13263(a) by taking into account the costs a permittee will incur in complying with the permit requirements. The Court concluded that whether it is necessary to consider such information depends on whether those

restrictions meet or exceed the requirements of the federal Clean Water Act.” (*Id.* at p. 627.) The Court ruled that regional water boards may not consider the factors in section 13241, including economic factors, to justify imposing pollutant restrictions that are less stringent than the applicable federal law requires. (*Id.* at pp. 618, 626-627. “[Water Code] section 13377 specifies that [a] discharge permit issued by California’s regional boards must meet the federal standards set by federal law. In effect, section 13377 forbids a regional board’s consideration of any factor which prohibits on the part of the permit holder if doing so would result in the dilution of the requirements set by Congress in the Clean Water Act... Because section 13263 cannot authorize what federal law forbids, it cannot authorize a regional board, when issuing a [a] discharge permit, to use compliance costs to justify pollutant restrictions that do not comply with federal clean water standards”.) However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13262 requires that the Water Board’s consider the factors described in section 13241 as they apply to those specific restrictions.

The Regional Water Board finds that the requirements in this Order are not more stringent than the minimum federal requirements. Among other requirements, federal law requires MS4 permits to include requirements to effectively prohibit non-storm water discharges into the storm sewers, in addition to requiring controls to reduce the discharge of pollutants in storm water to the maximum extent practicable and other provisions that the agency determines are necessary for the control of pollutants in MS4 discharges. The requirements in this Order may be more specific or detailed than those enumerated in federal regulations under 40 CFR § 122.26 or in USEPA guidance. However, the requirements have been designed to be consistent with and within the federal statutory mandates described in Clean Water Act section 402(p)(3)(B)(i), and (iii) and the related federal regulations and guidance. Consistent with federal law, all of the conditions in this Order could have been included in a permit adopted by USEPA in the absence of the in lieu authority of California to issue NPDES permits. Moreover, the inclusion of numeric WQBELs in this Order does not cause the permit to be more stringent than current federal law. Federal law authorizes both narrative and numeric effluent limitations to meet state water quality standards. The inclusion of WQBELs as discharge specifications in an NPDES permit in order to achieve compliance with water quality standards is not a more stringent requirement than the inclusion of BMP based permit limitations to achieve water quality standards. (State Water Board Order No. WQ 2006-0012 (*Boeing*)). Therefore, consideration of the factors set forth in section 13241 is not required for permit requirements that implement the effective prohibition on the discharge of non-storm water discharges into the MS4, or for controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, or other provisions that the Regional Water Board has determined appropriate to control such pollutants, as those requirements are mandated by federal law..

Notwithstanding the above, the Regional Water Board has considered the factors set forth in California Water Code section 13241 in issuing this Order. That analysis is provided below. The Regional Water Board has also considered all of the evidence that has been presented to the Board regarding the section 13241 factors in adopting this Order. The Regional Water Board finds that the requirements in this Order are reasonably necessary to protect beneficial uses identified in the Basin Plan, and the economic information related to costs of compliance and other section 13241 factors are not sufficient to justify failing to protect those beneficial uses. Where appropriate, the Regional Water Board has provided

Permittees with additional time to implement control measures to achieve final WQBELs and/or water quality standards.

A. Past, present and probable future beneficial uses of water.

Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region, which are the receiving waters for MS4 discharges. Beneficial uses are also identified in the findings of this Order and further discussed relative to TMDLs in section VI.D of this Fact Sheet.

B. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

Environmental characteristics of each of the Watershed Management Areas covered by this Order, including the quality of water, are discussed in the Region's Watershed Management Initiative Chapter as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters.

- ❖ Santa Clara River Watershed Management Area
www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/santa_clara_river_watershed/santa_clara_river_watershed.doc
- ❖ Santa Monica Bay Watershed Management Area
www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/santa_monica_bayWMA/santa_monica_bayWMA.doc
- ❖ Dominguez Channel Watershed Management Area
www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/dominguez_channelWMA/dominguez_channelWMA.doc
- ❖ Los Angeles River Watershed Management Area
www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/los_angeles_river_watershed/los_angeles_river_watershed.doc
- ❖ San Gabriel River Watershed Management Area
www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/san_gabriel_river_watershed/san_gabriel_river_watershed.doc
- ❖ Los Cerritos Channel and Alamilos Bay Watershed Management Area
www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/wmi/los_cerritos_channelWMA/los_cerritos_channelWMA.doc
- ❖ Middle Santa Ana River Watershed Management Area
http://www.waterboards.ca.gov/santaana/water_issues/programs/wmi/index.shtml
<http://www.sawpa.org/watershed/info.html>

The quality of water in receiving waters for MS4 discharges has been routinely monitored by Permittees through the Monitoring and Reporting Program under Order No. 01-182. Below are summaries of water quality exceedances reported for the 2010-2011 reporting year.

**Summary of Constituents that Do Not Meet Water Quality Objectives at Mass
Emission Stations During 2010-2011 for One or More Events**

Mass Emission/Watershed	Wet	Dry
Ballona Creek (S01) ¹	Fecal coliforms ² pH ³ Dissolved zinc	pH ³
Malibu Creek (S02)	Fecal coliforms Cyanide pH ³ Sulfate	Fecal coliforms Sulfate
Los Angeles River (S07) ¹	Fecal coliforms ² pH ³ Dissolved zinc Cyanide	Fecal coliforms pH ³
Coyote Creek (S13)	Fecal coliforms ² pH ³ Dissolved zinc	Fecal coliforms
San Gabriel River (S14)	Fecal coliforms ² pH ³	
Dominguez Channel (S28) ¹	Fecal coliforms ² Dissolved copper Dissolved zinc	Fecal coliforms pH ³
Santa Clara River (S29)	Fecal coliforms pH ³ Dissolved zinc	

¹ More urbanized watersheds.

² Subject to the fecal coliform water quality objective high-flow suspension (LARWQCB, 2003).

³ pH was evaluated outside of holding time.

The following table summarizes the results of an analysis based on evaluation of the 15 sets of dry weather data for the period of 2005 to 2011 for each of the mass emission stations. The most prevalent pollutants of concern among the mass emission stations include fecal coliform bacteria, cyanide, mercury, chloride, sulfate, total dissolved solids, copper, and selenium. Reported results for fecal coliform bacteria, cyanide, copper, and

selenium concentrations consistently exceeded water quality objectives in all watersheds. For watersheds where objectives apply for sulfate and total dissolved solids, the receiving water concentrations consistently exceeded the objectives. The incidences where exceedances are indicated for nutrients are largely due to analytical detection levels that were higher than the applicable objective.

Summary of LA County Watersheds and Frequency of Receiving Water Exceeding Water Quality Objectives (2005 to 2011 - Dry Season Data Analysis)¹

Parameter	Santa Clara River	Los Angeles River	Dominguez Channel	Ballona Creek	Malibu Creek	San Gabriel River	
						Upper Portion	Lower Portion
pH	0/15	7/15	5/15	3/15	0/15	1/14	2/15
Total Coliform	No FW ³ Objective	No FW Objective	No FW ³ Objective	No FW ³ Objective	No FW ³ Objective	No FW ³ Objective	No FW ³ Objective
Fecal Coliform	4/15	4/15	10/15	13/15	6/15	11/14	13/15
Enterococcus	No FW ³ Objective	No FW Objective	No FW ³ Objective	No FW ³ Objective	No FW ³ Objective	No FW ³ Objective	No FW ³ Objective
Chloride	15/15	15/15	No objective	0/15	0/15	14/14	15/15
Dissolved Oxygen	1/15	0/15	0/15	0/15	0/15	1/14	0/15
Nitrate-N	0/15	0/15	No Objective	No Objective	0/15	7/14	No Objective
Nitrite-N	0/15	3/15	No Objective	No Objective	0/15	0/15	No Objective
Methylene Blue Active Substances	4/15	0/15	No objective	No Objective	0/15	0/14	No Objective
Sulfate	15/15	15/15	No objective	No Objective	15/15	14/14	15/15
Total Dissolved Solids	15/15	15/15	No objective	No Objective	12/15	14/14	15/15
Turbidity ²	0/15	2/15	No objective	No Objective	0/15	0/15	0/15
Cyanide	11/15	14/15	4/15	15/15	3/15	14/14	15/15
Total Aluminum	1/15	2/15	No Objective	No Objective	0/15	1/14	No Objective
Dissolved Copper	0/15	0/15	5/15	0/15	0/15	13/14	0/15
Total Copper	1/15	6/15	11/15	3/15	0/15	13/14	2/15
Dissolved Lead	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Total Lead	0/15	0/15	1/15	1/15	0/15	13/14	0/15
Total Mercury	15/15	14/15	14/15	15/15	15/15	14/14	15/15
Dissolved Mercury	15/15	15/15	15/15	15/15	15/15	14/14	14/14
Total Nickel	0/15	0/15	0/15	0/15	0/15	1/14	0/15
Dissolved Selenium	2/15	2/15	1/15	2/15		1/15	10/11
Total Selenium	2/15	2/15	1/15	2/15	0/15	1/15	10/11
Dissolved Zinc	0/15	0/15	0/15	0/15	0/15	7/10	0/15
Total Zinc	0/15	0/15	0/15	0/15	0/15	10/10	0/15

¹ Frequency of exceedance is denoted as number of exceedances/number of dry weather samples evaluated. For example, "2/15" indicates that 2 of the 15 samples had analytical results that exceeded the water quality objective for a given parameter.

² The Basin Plan water quality objective for turbidity for the protection of salmon is the secondary MCL of 5 NTU. The Basin Plan contains additional turbidity objectives expressed as incremental changes over background natural conditions. Since inadequate data were available to assess turbidity, only the MCL was considered for this analysis.

³ FW means freshwater.

C. *Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.*

Since 2001, municipalities both locally and nationally have gained considerable experience in the management of municipal storm water and non-storm water discharges. The technical capacity to monitor storm water and its impacts on water quality has also increased. In many areas, monitoring of the impacts of storm water on water quality has become more sophisticated and widespread. Better information on the effectiveness of storm water controls to reduce pollutant loadings and address water quality impairments is now available. The International Stormwater BMP Database (<http://www.bmpdatabase.org/>) provides extensive information of the performance capabilities of storm water controls. Additionally, the County of Los Angeles conducted a BMP effectiveness study as a requirement of Order No. 01-182.⁵⁰

Generally, improvements in the quality of receiving waters impacted by MS4 discharges can be achieved by reducing the volume of storm water or non-storm water discharged through the MS4 to receiving waters; reducing pollutant loads to storm water and non-storm water through source control/pollution prevention, including operational source control such as street sweeping, public education, and product or materials elimination or substitution; and removing pollutants that have been loaded into storm water or non-storm water before they enter receiving waters, through treatment or diversion to a sanitary sewer. The following factors are generally accepted to affect pollutant concentrations in MS4 discharges⁵¹:

- Land-use
- Climatic conditions
- Season (i.e. for southern California, dry season and winter wet season)
- Percentage imperviousness (in particular, "effective impervious area" or "EIA")
- Rainfall amount and intensity (including seasonal "first-flush" effects)
- Runoff amount
- Watershed size
- Motor vehicle operation
- Aerial deposition

In their 2010-2011 Annual Report, Permittees identified the following storm water and non-storm water pollutant control measures as particularly effective:

- Street sweeping;
- Catch basin cleaning;
- Catch basin inserts
- Trash bins;
- End-of-pipe controls such as low-flow diversions;
- Infiltration controls;
- Erosion controls; and

⁵⁰ County of Los Angeles Department of Public Works. "Los Angeles County BMP Effectiveness Study," August 2005.

⁵¹ Maestre, Alexander and Robert Pitt. "Identification of Significant Factors Affecting Stormwater Quality Using the NSQD" (draft monograph, 2005).

- Public education and outreach, including multi-lingual strategies.

Permittees summarized the most-used BMPs and most popular BMPs (according to the number of Permittees using a particular BMP) in their 2010-2011 Annual Report. An itemization of all BMPs installed and maintained during the 2010-11 reporting period is provided in Appendices B and C of the Permittees' Annual Report.

Most installed BMPs County-wide During 2010-11

BMP Type	Total Number Installed
Catch Basin Connector Pipe Full Capture (CPS)	6377
Fossil Filter Catch Basin Insert	5968
Automatic Retractable Catch Basin Trash Screen (ARS)	3870
Clean Screen Catch Basin Insert	3767
Extra Trash Can	3681
Covered Trash Bin	3119
Signage and Stenciling	1884
Drain Pac Catch Basin Insert	1625
CulTec Infiltration Systems	1296
Infiltration Trenches	963
Infiltration Pit	958
Abtech Ultra Urban Catch Basin Insert	748
CDS Gross Pollutant Separator	438
United Storm Water Catch Basin Scree Inserts	403
Restaurants Vent Traps	258
Stormceptor Gross Pollutant Separators	211

Most Used Proprietary and Non-Proprietary BMPs During 2010-11

Types of Nonproprietary BMPs Used By Most Permittees		Types Proprietary BMPs Used By Most Permittees	
BMP Type	No. of Cities	BMP Type	No. of Cities
Infiltration Trenches	40	Fossil Filter Catch Basin Inserts	46
Covered Trash Bins	32	CDS Gross Pollutant Separator	36
Extra Trash Cans	31	Drain Pac Catch Basin Insert	21
Enhanced Street Sweeping	26	Clean Screen Catch Basin Insert	21

Dog Parks	23	Stormceptor Gross Pollutant Separator	19
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Some of the many advances in how to effectively control storm water and pollutants in storm water have occurred locally within the Los Angeles Region and include the development of cost effective trash full capture devices, storm water diversion, treatment and beneficial use facilities such as SMURRF and storm water capture, storage, and reuse facilities such as Sun Valley, low impact development/site design practices, and innovative/opportunistic culvert inlet multi-media filters. There are many other case studies of municipalities that have implemented innovative and effective storm water management measures (e.g., Portland, OR).

This Order is designed to reduce pollutant loading to waterbodies within Los Angeles County from discharges to and from the Los Angeles County MS4 through the implementation of multi-faceted storm water management programs at the municipal and watershed levels. Overall improvements in MS4 discharge quality are expected to occur over time with ongoing implementation of the Los Angeles County MS4 Permit. However, currently little information on the quality of storm water in the region and the water quality that can be achieved with the coordinated control of all MS4 discharges through full implementation of all storm water management measures by individual municipalities and collectively by all Permittees within a watershed is available. This Order, however, is designed to effectively focus and broaden monitoring requirements with the addition of outfall monitoring and monitoring associated with the 33 TMDLs being incorporated, so pollutant loading from the MS4 can be better quantified and improvements in water quality resulting from implementation of storm water management measures can be tracked.

D. Economic considerations.

The Regional Water Board recognizes that Permittees will incur costs in implementing this Order above and beyond the costs from the Permittees' prior permit. Such costs will be incurred in complying with the post-construction, hydromodification, Low Impact Development, TMDL, and monitoring and reporting requirements of this Order. The Regional Water Board also recognizes that, due to California's current economic condition, many Permittees currently have limited staff and resources to implement actions to address its MS4 discharges. Based on the economic considerations below, the Board has provided permittees a significant amount of flexibility to choose how to implement the permit. This Order allows Permittees the flexibility to address critical water quality priorities, namely discharges to waters subject to TMDLs, but aims to do so in a focused and cost-effective manner while maintaining the level of water quality protection mandated by the Clean Water Act and other applicable requirements. For example, the inclusion of a watershed management program option allows Permittees to submit a plan, either individually or in collaboration with other Permittees, for Regional Water Board Executive Officer approval that would allow for actions to be prioritized based on specific watershed needs. The Order also allows Permittees to customize monitoring requirements, which they may do individually, or in collaboration with other Permittees. In the end, it is up to the permittees to determine the effective BMPs and measures needed to comply with this Order. Permittees

can choose to implement the least expensive measures that are effective in meeting the requirements of this Order. This Order also does not require permittees to fully implement all requirements within a single permit term. Where appropriate, the Board has provided permittees with additional time outside of the permit term to implement control measures to achieve final WQBELs and/or water quality standards. Lastly, this Order includes several reopener provisions whereby the Board can modify this Order based on new information gleaned during the term of this Order.

Before discussing the economics associated with regulating MS4 discharges, it should be noted that there are instances outside of this Order where the Board previously considered economics. First, when the Board adopted the water quality objectives that serve as the basis for several requirements in this Order, it took economic considerations into account. (See *In re Los Angeles County Municipal Storm Water Permit Litigation* (Sup. Ct. Los Angeles County, March 24, 2005, Case No. BS 080548), Statement of Decision from Phase II Trial on Petitions for Writ of Mandate, p. 21.) Second, the cost of complying with TMDL wasteload allocations has been previously considered during the adoption of each TMDL. The costs of complying with the water quality based effluent limitations and receiving water limitations derived from the 33 TMDLs, which are incorporated into this Order, are not additive. For example, the costs estimated for compliance with a TMDL for one pollutant in a watershed, such as metals, can be applied to the costs to achieve compliance with a TMDL for another pollutant in the same watershed, such as pesticides, because the same implementation strategies can be used for both pollutants. Several MS4 permittees have recognized this opportunity in the multi-pollutant TMDL implementation plans they have submitted (e.g. Ballona Creek Metals/Bacteria TMDLs and Machado Lake Pesticides/Nutrients TMDLs). In other words, the estimated cost of complying with the Ballona Creek Metals TMDL can apply to metals, pesticides, PCBs, and bacteria. The costs for complying with trash TMDLs are based on different implementation strategies (e.g., full capture devices), but those strategies are effective at removing metals and toxic pollutants as well. Thus, the costs estimated for each TMDL should not be added to determine the cost of compliance with all TMDLs. The staff reports for the various TMDLs include this disclaimer, and also discuss the cost efficiencies that can be achieved by treating multiple pollutants. Further, the Board's considerations of economics in developing each TMDL have often resulted in lengthy implementation schedules to achieve water quality standards. Where appropriate, these implementation schedules have been used to justify compliance schedules in this Order.

Economic Considerations of Regulating MS4 Discharges

It is very difficult to determine the true cost of implementing storm water and urban runoff management programs because of highly variable factors and unknown level of implementation among different municipalities and inconsistencies in reporting by Permittees. In addition, it is difficult to isolate program costs attributable to permit compliance. Reported costs of compliance for the same program element can vary widely from Permittee to Permittee, often by a very wide margin that is not easily explained. Despite these problems, efforts have been made to identify storm water and urban runoff

management program costs, which can be helpful in understanding the costs of program implementation.

Economic considerations of implementing this Order were examined by primarily utilizing the data that are self-reported by the Permittees in their annual reports and a State Water Board funded study, which examined the costs of municipal MS4 programs statewide.⁵² The economic impact to public agencies was tabulated based on the reported costs of implementing the six minimum control measures (Public Information and Participation, Industrial/Commercial Facilities Control, Development Planning, Development Construction, Public Agency Activities, and Illicit Connections and Illicit Discharges Elimination) required by 40 CFR section 122.26(d)(2)(iv) as well as costs associated with program management, monitoring programs, and a category described as other. As noted above, Permittees report wide variability in the cost of compliance, which is not easily explained. Based on reported values, the average annual cost to the Permittees in 2010-11 was \$4,090,876 with a median cost of \$687,633.

It is important to note that reported program costs are not all solely attributable to compliance with requirements of the LA County MS4 Permit. Many program components, and their associated costs, existed before the first LA County MS4 Permit was issued in 1990. For example, storm drain maintenance, street sweeping and trash/litter collection costs are not solely or even principally attributable to MS4 permit compliance, since these practices have long been implemented by municipalities. Therefore, the true program cost related to complying with MS4 permit requirements is some fraction of the total reported costs. For example, after adjusting the total reported costs by subtracting out the costs for street sweeping and trash collection, the average annual cost to the Permittees was \$2,397,315 with a median cost of \$290,000.

These results are consistent with the State Water Board funded study ("State Water Board Study") that surveyed the costs to develop, implement, maintain and monitor municipal separate storm sewer system management and control programs in 2004.⁵³ The objectives of the study were to: 1) document stormwater program costs and 2) assess alternative approaches to MS4 quality control. The six cities selected for the study were judged by State Water Board staff as having good MS4 management programs, adequate accounting systems, and represented a variety of geographic locations, hydrologic areas, populations and incomes. The cities selected were Corona, Encinitas, Fremont, Fresno-Clovis Metropolitan Area, Sacramento and Santa Clarita. The results found that the annual total cost per household ranged from \$18 to \$46. The average cost was found to be \$35 and the median, \$36. The true mean, which is derived by dividing the total sample costs by the total sample number of households, is \$29 in 2002 dollars. This study was further examined and applied to the Ventura County MS4 Permit in "*Economic Considerations of the Proposed (February 25, 2008) State of California Regional Water Quality Control Board Los Angeles Region, Order 08-xxx, NPDES Permit No. CAS004002, Waste Discharge*

⁵² Data from NPDES Stormwater Cost Survey, prepared by the Office of Water Programs, California State University, Sacramento (January 2005) and the Los Angeles County Municipal Storm Water Permit (Order No. 01-182), Unified Annual Stormwater Report, 2010 – 2011, <http://ladpw.org/wmd/npdesrsa/annualreport/>

⁵³ Currier, Brian K., Joseph M. Jones, Glenn L. Moeller. "NPDES Stormwater Cost Survey, Final Report", Prepared for California State Water Resources Control Board, California State University Sacramento, Office of Water Programs, January, 2005.

Requirements for Stormwater (Wet Weather) and Non-Stormwater (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura and the Incorporated Cities Therein, and found that when adjusted for inflation, the total annual cost to the MS4 Permittees ranged from \$7.15 to \$10.9 million, depending on the averaging method applied.

The State Water Board Study noted inherent limitations in the cost data quality. The most significant data quality limitation cited is that the costs provided by the municipalities were not sufficiently detailed or referenced to provide opportunity for independent review of the accuracy and completeness of the cost data. Similarly, the costs presented in the Los Angeles County Unified Annual Report ("Unified Annual Report") are not presented with supporting data or references so that they can be independently reviewed. Some of the limitations of the reported cost data are illustrated by a comparison of monitoring costs in different sections of the Unified Annual Report. In the monitoring costs section, the total costs for monitoring, including sample collection, analytical results, and sampling station maintenance was \$713,409 for 2010-2011. In contrast, the same report showed the monitoring costs of \$9,008,460 in the Unified Cost Table. Absent further explanation in the Unified Annual Report, this suggests that the reported costs may not be reliable.

The State Water Board Study also found that certain stormwater implementation costs included activities that provide separate and additional municipal benefits such as street sweeping and storm drain and channel cleaning. The State Water Board Study indicated that the inclusion of these costs as stormwater implementation costs is not uniform across different municipalities. In order to assess the variability of costs reported by different municipalities under the same permit and determine if Los Angeles County MS4 Permittees are reporting costs for activities that provide municipal benefits beyond storm water management and permit compliance, Regional Water Board staff reviewed costs reported by Los Angeles County MS4 Permittees in the Unified Annual Report. The reported storm water costs range from \$11.45 to \$928.10 per household per year. The average reported cost was \$120.04 per household per year and the median cost was \$57.31 per household per year. The wide spread of annual costs and the significant difference between the mean and median costs indicate that the LA County MS4 Permittees are not reporting costs in a uniform manner.

Board staff also reviewed available cost data in the Unified Annual Report for Permittees that provided separate costs regarding street sweeping and trash collection. Staff adjusted the total costs so that the costs for these multi-benefit municipal programs were not included in the storm water cost and found that the adjusted storm water costs were greatly reduced by excluding these activities. These adjusted costs ranged from \$0.00 per household per year to \$903.10 per household per year. The mean adjusted rate is \$42.57 per household per year and the median adjusted rate is \$17.89 per household per year. Clearly, a significant portion (greater than 50%) of the costs attributed to storm water compliance activities also provide additional municipal benefits. (In the case of the Los Angeles County MS4 Permittees, some municipalities reported costs for trash collection; these costs were not reported by municipalities in the State Water Board Study.)

Finally, Board staff reviewed the cost breakdowns reported in the State Water Board Study and the Unified Annual Report for Los Angeles County MS4 Permittees. The following table summarizes the results:

Cost Category	State Water Board Study	Los Angeles County (2010-2011)
Watershed Management	6%	5%
Construction	11%	1%
Illicit Discharge	4%	2%
Industrial and Commercial	8%	1%
Overall Management	37%	5%
Pollution Prevention	2%	2%
Post Construction	3%	
Public Education	13%	2%
Monitoring	16%	3%
BMP Maintenance	Not Reported	2%
Development	Not Reported	1%
Other	Not reported	76%

The reported costs show differences between the MS4 Permittees surveyed in the State Water Board Study and the Los Angeles County MS4 Permittee costs in the following categories: construction, industrial and commercial activities, public education and monitoring. These categories all show greater proportional statewide cost allocations relative to the cost allocations by the Los Angeles County MS4 Permittees. The Los Angeles County MS4 Permittees report a cost category of BMP maintenance, which is not defined in the State Water Board Study. The management costs in the State Water Board Study were greater than the management costs reported by the Los Angeles County MS4 Permittees, but the Los Angeles County MS4 Permittees also reported a category of "Other" that accounted for a large proportion of costs, which is not defined in the Unified Annual Report.

The State Water Board Study found that cost information is crucial in making management decisions regarding storm water requirements. The report also recommends that annual reports required under MS4 permits throughout the State follow a standard format for cost reporting and that costs for all MS4 program activities (per program area) should be identified as existing, enhanced or new according to the extent that the activity was required under the previous permit, is enhanced by the permit, or is exclusively a result of compliance efforts with new provisions of the MS4 permit.

Further, there is an element of cost consideration inherent in the maximum extent practicable (MEP) standard. While the term "maximum extent practicable" is not specifically defined in the Clean Water Act or its implementing regulations, USEPA, courts, and the State Water Board have addressed what constitutes MEP. MEP is not a one-size fits all approach. Rather, MEP is an evolving, flexible, and advancing concept, which considers practicability. This includes technical and economic practicability. Compliance with the MEP standard involves applying BMPs that are effective in reducing or eliminating the discharge

of pollutants in storm water to receiving waters. BMP development is a dynamic process, and the menu of BMPs may require changes over time as experience is gained and/or the state of the science and art progresses. MEP is the cumulative effect of implementing, evaluating, and making corresponding changes to a variety of technically appropriate and economically practicable BMPs, ensuring that the most appropriate controls are implemented in the most effective manner. The State Water Board has held that "MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the costs would be prohibitive." (State Water Board Order WQ 2000-11.)

In addition to considering the costs of storm water management, it is important to consider the benefits of storm water and urban runoff management programs. A recent study conducted by USC/UCLA assessed the costs and benefits of implementing various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost \$2.8 billion but provide \$5.6 billion in benefit. If structural systems were determined to be needed, the study found that total costs would be \$5.7 to \$7.4 billion, while benefits could reach \$18 billion.⁵⁴ Costs are anticipated to be borne over many years. As can be seen, the benefits of the programs are expected to considerably exceed their costs. Such findings are corroborated by USEPA, which found that the benefits of implementation of its Phase II storm water rule would also outweigh the costs.⁵⁵

Economic Considerations of Not Regulating MS4 Discharges

Economic discussions of storm water and urban runoff management programs tend to focus on costs incurred by municipalities in developing and implementing the programs. This is appropriate, and these costs are significant and a major issue for the Permittees. However, in adopting Order WQ 2000-11, the State Water Board further found that in considering the cost of compliance, it is also important to consider the costs of impairment; that is, the negative impact of pollution on the economy and the positive impact of improved water quality. For example, economic benefits may result through program implementation, and alternative costs (as well as environmental impacts) may be incurred by not fully implementing the program. So, while it is appropriate and necessary to consider the cost of compliance, it is also important to consider the alternative costs incurred by not fully implementing the programs, as well as the benefits which result from program implementation.

The benefits of implementation of the Los Angeles County MS4 Permit include improvements in water quality, enhancement of beneficial uses, and increased employment, income and satisfaction from environmental amenities. Most of the benefits of this permit can be identified and, in some cases, quantified in monetary terms. Others cannot be expressed in dollar terms and can only be described. For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by USEPA⁵⁶ to be \$158-210.62. This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife

⁵⁴ LARWQCB, 2004. Alternative Approaches to Stormwater Control.

⁵⁵ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791.

⁵⁶ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68793.

benefits, or flood control benefits. The California State University, Sacramento study corroborates USEPA's estimates, reporting annual household willingness to pay for statewide clean water to be \$180.63.⁵⁷ When viewed in comparison to household costs of existing urban runoff management programs, these household willingness to pay estimates exhibit that per household costs incurred by Permittees to implement their urban runoff management programs remain reasonable.

Not regulating discharges from the Los Angeles County MS4 will result in greater pollution of rivers, streams, lakes, reservoirs, bays, harbors, estuaries, groundwater, coastal shorelines and wetlands. Urban runoff in southern California has been found to cause illness in people bathing near storm drains.⁵⁸ A study of south Huntington Beach and north Newport Beach found that an illness rate of about 0.8% among bathers at those beaches resulted in about \$3 million annually in health-related expenses.⁵⁹ In addition, poor beach water quality negatively affects tourism, which in turn reduces revenues to local businesses.

Funding Sources.

Public agencies (both federal and state) recognize the importance of storm water improvement projects and have provided significant sources of funding through grants, bonds, and fee collections to help offset the costs of storm water management in Los Angeles County. The table below summarizes the funds that have been allocated to storm water management in Los Angeles County, to date.

Source of Money	Dollars	% of total costs funded by State (only for those projects which included State funding)
Only State Board-awarded funding (Propositions 12, 13, 40, 50, and 84; and federal money, 319h, 205j, ARRA)	\$49,143,132	47%
Only State money from any State agency (propositions only, no federal); includes State Board, DWR, Coastal Conservancy, Fish & Game	\$67,461,699	58%
Total costs (approx.) for projects involving State money	\$114,703,731	N/A
Prop A	\$4,981,772	N/A
Prop O	\$508,678,258	N/A
Measure V	\$9,107,959	N/A
Total Public Funds (federal,	\$645,389,932	N/A (information not

⁵⁷ State Water Board, 2005. NPDES Stormwater Cost Survey. P. iv.

⁵⁸ Halle, R.W., et al, 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.

⁵⁹ Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment and Lost Wages for Beachgoers Who Get Sick.

State, local bonds and measures) expended on stormwater control projects		available for projects funded by local bonds and measures)
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In addition to current funding options, future funding options continue to be created. Assembly Bill 2554, known as the Los Angeles County Flood Control District's Water Quality Funding Initiative, is currently under consideration by the LACFCD's Board of Supervisors. If the Board of Supervisors approve the fee proposal and no majority protest is received, then it will be submitted for voter approval and could create an estimated annual revenue of \$300 million to be utilized for various storm water projects including but not limited to:

- New and Existing Water Quality Projects and Programs
- Maintenance of Existing Facilities
- TMDL and MS4 Permit Implementation

Of the annual revenue, forty percent would be returned to the municipalities to create new local projects and programs and maintenance. Below are the estimated revenues that would be allocated to certain municipalities based on the estimated annual revenue of \$300 million.

Municipalities	Estimated Annual Revenue
City of Los Angeles	\$37 million
City of Santa Monica	\$1 million
El Segundo	\$600,000
Manhattan Beach	\$300,000
Redondo Beach	\$750,000
Unincorporated Areas on Los Angeles County	\$15 million

Fifty percent of the annual revenue would be spread across nine watershed authority groups (WAGs) to develop Water Quality Improvement Plans and implement regional projects and programs. Some examples of the possible annual revenues available to the WAGs are provided below:

WAG	Estimated Revenue
Santa Monica Bay	\$12 million
Upper Los Angeles River	\$36 million
Lower Los Angeles River	\$15 million
Upper San Gabriel River	\$17 million

The remaining ten percent of the annual revenues would be allocated to the Los Angeles County Flood Control District for administration of the program and other district water quality projects and programs.

E. Need for developing housing within the region.

For over 100 years, this region has relied on imported water to meet many of our water resource needs. Imported water makes up approximately 70 to 75% of the Southern California region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining 25 to 30%.⁶⁰ The area encompassed by this Order imports approximately 50% of its water supply. The Los Angeles County MS4 permit helps address the need for housing by controlling pollutants in MS4 discharges, which will improve the quality of water available for recycling and re-use. This in turn may reduce the demand for imported water thereby increasing the region's capacity to support continued housing development.

A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary.

In this Order, the Regional Water Board supports integrated water resources approaches. An integrated water resources approach manages water resources by integrating wastewater, stormwater, recycled water, and potable water planning through the capture and beneficial use of stormwater. An integrated approach can preserve local groundwater resources and reduce imported water needs. Thus, complying with this Order can positively affect the need for developing housing in the region. Furthermore, the low impact development (LID) requirements of this MS4 permit emphasize the necessity to balance growth with the protection of water quality. LID emphasizes cost effective, lot-level strategies that replicate the natural hydrology of the site and reduces the negative impacts of development. By avoiding the installation of more costly conventional storm water management strategies and harnessing runoff at the source, LID practices enhance the environment while providing cost savings to both developers and local governments.

F. Need to develop and use recycled water.

Storm water runoff that travels across the urban landscape quickly becomes contaminated with the wastes inherent from urban living. This polluted water is then discharged to the surface waters and eventually the ocean where it wreaks havoc on the natural coastal ecosystem and impacts human health. If the storm water is captured and treated (or captured prior to contamination) a new resource could be added to local water supplies. If this water is more effectively harnessed and recycled, numerous benefits could be achieved. These include:

- Regional reduction on imported water;
- Aid in the restoration of area aquifers;
- Reduction in the need for extensive public works projects; and
- Improvement in the quality of impaired water bodies.

⁶⁰ Southern California Association of Governments. The State of the Region 2007 Measuring Regional Progress (Housing, Environment). December 6, 2007. <http://www.scaq.ca.gov/publications/index.htm>.

The exact volume of storm water available for capture is dependent on the intensity and duration of storm events. Looking at land uses across the region and applying land use-specific runoff coefficients, the annual average runoff in the Los Angeles subarea is 450,000 acre-feet/year (with an average annual rainfall of 15.5 inches). The Los Angeles and San Gabriel Rivers Watershed Council estimates that, on average, about 550,000 acre-feet/year of runoff are discharged from Los Angeles area to the ocean.⁶¹

It is not possible to capture all MS4 discharges; however, a significant portion could be put to beneficial use. Potentially, in Los Angeles, “[i]f we could capture 80% of the rainfall that falls on just a quarter of the urban area-15% of the total watershed-we would be reducing total runoff by approximately 30%. That translates into a diversion of 43 billion gallons of water per year (132,000 acre-feet) or enough to supply 800,000 people for a year.”⁶² That water capture would render a savings of almost sixty million dollars of imported State Water Project water. Capturing storm water from a larger portion of the watershed could increase the volume of this “new” water even further. Unlike traditional recycled water that requires the installation of dual plumbing and intensive infrastructure, much of the storm water capture could be done with minimal infrastructure retrofits in established communities.

Larger projects (and the corresponding savings) are also possible. The County of Los Angeles recharges storm water already. While the scale of these recharge activities is limited compared to the volume of water potentially available to recharge, the value of the process is significant. For example, in 2000 “County conservation efforts captured 220,000 acre-feet of local storm water runoff that was valued at \$80 million dollars.”⁶³

The unknown effects of infiltrating stormwater to recharge ground water have created some concern that such activities could introduce pollutants to the water supply. However, the U.S. Bureau of Reclamation has found⁶⁴:

“Based on the findings of the WAS research, decentralized stormwater management would provide a local and reliable supply of water that would not negatively impact groundwater quality. A decentralized approach could contribute up to 384,000 acre-feet of additional groundwater recharge annually if the first ¾” of each storm is infiltrated on all parcels, enough to provide water annually to approximately 1.5 million people. The value of this new water supply would be approximately \$311 million, using the MWD Tier 2 rate for 2010.”

Recent studies in the Los Angeles area have also shown that in the process of infiltration through the soil, many contaminants are removed with no immediate impacts, and no apparent trends to indicate that storm water infiltration will negatively impact groundwater.⁶⁵ In areas with groundwater contamination issues, utilizing recycled storm water to recharge the aquifers may actually aid in the dilution of the buildup of salts. The value of this is hard to quantify but is an additional benefit. The use of recycled water can be accomplished in direct (such as irrigation projects or dual plumbing fixtures) or indirect

⁶¹ http://www.lasgrwc.org/WAS/WASflyer_web.pdf

⁶² Los Angeles and San Gabriel River Watershed Council. 1999. *Stormwater: asset not liability*.

⁶³ Los Angeles County Department of Regional Planning. 2008. 2008 Draft General Plan-Planning Tomorrow's Great Places.

⁶⁴ Los Angeles and San Gabriel River Watershed Council. 2010. *Water Augmentation Study: Research, Strategy, and Implementation Report*.

⁶⁵ Los Angeles and San Gabriel River Watershed Council. 2005. *Los Angeles Basin Water Augmentation Study Phase II Final Report*.

(such as infiltration) ways. Both direct and indirect methods can be completed on a variety of different scales. To maximize the benefits available from using recycled water, the direct and indirect projects will need to be completed on household, neighborhood, watershed and regional scales. Currently there are a limited (but growing) number of projects in the region that can serve as examples of what may be accomplished through the development and implementation of recycled water projects. The Los Angeles County MS4 permit addresses the need for recycled water by controlling pollutants in storm water, which will result in water of improved quality with a greater potential for recycling or beneficial use. State law and policy advocates greatly expanding the use of recycled water to help meet local demand and reduce the volumes of water that are imported from other regions. Increased utilization of recycled water will require looking beyond the traditional reclaimed wastewater and will require utilizing storm water that is wasted by conveyance in the MS4 and dumping into the ocean. Storm water capture and use has not traditionally been included in the discussion of water recycling, but the process meets the definitional constraints and is bound by the same limitations and boundaries.

In addition, there are a number of Total Maximum Daily Loads (TMDLs) developed by the Regional Water Board that incorporate recycled water programs as potential implementation actions to meet TMDL requirements. These potential actions focus on both traditional water recycling and the newer storm water recycling approaches. Such recycled water programs could also reduce reliance on potable water supplies by expanding water recycling and aiding in the reclamation of poor quality, unconfined groundwater supplies. The capture, treatment and use of stormwater could augment these techniques as well. On-site capture of storm water helps prevent the water from being contaminated by urban by-products to begin with and the use of this high quality resource could reduce the unnecessary use of potable water for non-potable needs.

Some great examples of onsite capture are being demonstrated by TreePeople⁶⁶ who have demonstration projects ranging from small scale rainwater harvesting at the single family home locations, to large scale watershed projects at Tuxedo Green in Sun Valley where the project redesigned the intersection with a flood control system that conveys most stormwater under, instead of into, the busy intersection. The water is stored in a 45,000-gallon cistern to be used for irrigating the landscaping at the new pocket park, which is planted with native and drought-tolerant species.

Another state of the art project was implemented by the City of Santa Monica called the Santa Monica Urban Runoff Recycling Facility (SMURRF).⁶⁷ The project harnesses the urban runoff (primarily during the dry season) and treats it for various pollutants to create a source of high quality water for reuse in landscape irrigation. Because the facility captures the dry weather runoff before it reaches the Santa Monica Bay it decreases a significant amount of pollutants from negatively impacting the Bay and associated beaches. The SMURRF is also open to the public and has several exhibits to raise public awareness of Santa Monica Bay pollution and the role of each individual in the watershed's health.

⁶⁶ www.treepeople.org

⁶⁷ <http://c0133251.cdn.cloudfiles.rackspacecloud.com/Case%20Study%20-%20Santa%20Monica%20Urban%20Runoff%20Recycling%20Facility%20SMURRF.pdf>

The County of Los Angeles Department of Public Works, Watershed Management Division has targeted the Sun Valley Watershed "...to solve the local flooding problem while retaining all storm water runoff from the watershed, increasing water conservation, recreational opportunities, wildlife habitat, and reducing stormwater pollution."⁶⁸ This aggressive plan involves several stakeholders and has implemented a variety of on-site BMPs as well as storm water infiltration retrofits and diversions.

IX. STATE MANDATES

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a subvention of funds for several reasons, including, but not limited to, the following.

First, the requirements of this Order do not constitute a new program or a higher level of service as compared to the requirements contained in the previous permit, Order No. 01-182 (as amended). The overarching requirement to impose controls to reduce the pollutants in discharges from MS4s is dictated by the Clean Water Act and is not new to this permit cycle. (33 U.S.C. §1342(p)(3)(B).) The inclusion of new and advanced measures as the MS4 programs evolve and mature over time is anticipated under the Clean Water Act (55 Fed.Reg. 47990, 48052 (Nov. 16, 1990)), and these new and advanced measures do not constitute a new program or higher level of service.

Second, and more broadly, mandates imposed by federal law, rather than by a state agency, are exempt from the requirement that the local agency's expenditures be reimbursed. (Cal. Const., art. XIII B, §9, subd. (b).) This Order implements federally mandated requirements under the Clean Water Act and its requirements are therefore not subject to subvention of funds. This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. (30 U.S.C. §1342(p)(3)(B).) Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (*Natural Resources Defense Council, Inc. v. U.S. E.P.A.* (9th Cir. 1992) 966 F.2d 1292, 1308, fn. 17.) The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (cf. *Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377, 1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)

⁶⁸ http://www.sunvalleywatershed.org/watershed_management_plan/wmp-0ES.pdf

The maximum extent practicable standard is a flexible standard that balances a number of considerations, including technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness. (*Building Ind. Asso.*, *supra*, 124 Cal. App.4th at pp. 873, 874, 889.) Such considerations change over time with advances in technology and with experience gained in storm water management. (55 Fed.Reg. 47990, 48052 (Nov. 16, 1990).) Accordingly, a determination of whether the conditions contained in this Order exceed the requirements of federal law cannot be based on a point by point comparison of the permit conditions and the six minimum control measures that are required "at a minimum" to reduce pollutants to the maximum extent practicable and to protect water quality (40 CFR § 122.34). Rather, the appropriate focus is whether the permit conditions, as a whole, exceed the maximum extent practicable standard. In recent months, the County of Los Angeles and County of Sacramento Superior Courts have granted writs setting aside decisions of the Commission on State Mandates that held that certain requirements in Phase I permits constituted unfunded mandates. In both cases, the courts found that the correct analysis in determining whether a MS4 permit constituted a state mandate was to evaluate whether the permit as a whole -- and not a specific permit provision -- exceeds the maximum extent practicable standard. (*State of Cal. v. Comm. on State Mandates* (Super. Ct. Sacramento County, 2012, No. 34-2010-80000604), *State of Cal. v. County of Los Angeles* (Super. Ct. Los Angeles County, 2011, No. BS130730).)

The requirements of the Order, taken as a whole rather than individually, are necessary to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The Regional Water Board finds that the requirements of the Order are practicable, do not exceed federal law, and thus do not constitute an unfunded mandate. These findings are the expert conclusions of the principal state agency charged with implementing the NPDES program in California. (Cal. Wat. Code, §§ 13001, 13370.)

It should also be noted that the provisions in this Order to effectively prohibit non-storm water discharges are also mandated by the Clean Water Act. (33 U.S.C. § 1342(p)(3)(B)(ii).) Likewise, the provisions of this Order to implement total maximum daily loads (TMDLs) are federal mandates. The Clean Water Act requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. § 1313(d).) Once the USEPA or a state establishes or adopts a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions and requirements of any applicable waste load allocation in a TMDL. (40 CFR § 122.44(d)(1)(vii)(B).)

Third, the local agency Permittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) regulates the discharge of waste (Cal. Wat. Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the "costs incurred by local agencies" to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and non-governmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The Clean Water Act and the Porter-Cologne Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Generally, the Clean Water Act requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Resources Control Board decisions, certain provisions of this Order do not require strict compliance with water quality standards. (SWRCB Order No. WQ 2001-15, p. 7.) Those provisions of this Order regulate the discharge of waste in municipal storm water under the Clean Water Act MEP standard, not the BAT/BCT standard that applies to other types of discharges. These provisions, therefore, regulate the discharge of waste in municipal storm water more leniently than the discharge of waste from non-governmental sources.

Fourth, the Permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)). To the extent that the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (*Accord County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIII B, Section (6) of the California Constitution.

Finally, even if any of the permit provisions could be considered unfunded mandates, under Government Code section 17556, subdivision (d), a state mandate is not subject to reimbursement if the local agency has the authority to charge a fee. The local agency Permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order subject to certain voting requirements contained in the California Constitution. (See California Constitution XIII D, section 6, subdivision (c); see also *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal. App. 4th 1351, 1358-1359.) Additional fee authority has recently been established through amendments to the Los Angeles County Flood Control Act (Chapter 755 of the Statutes of 1915, as amended by Assembly Bill 2554 (2010)) to provide funding for municipalities, watershed authority groups, and the LACFCD to initiate, plan, design, construct, implement, operate, maintain, and sustain projects and services to improve surface water quality and reduce storm water and non-storm water pollution in the LACFCD, which may directly support Permittees' implementation of the requirements in this Order. The Fact Sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The authority and ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*Clovis Unified School Dist. v. Chiang* (2010) 188

Cal. App.4th 794, 812, quoting *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 401; *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

X. PUBLIC PARTICIPATION

Regional Water Board staff held a kick-off meeting on May 25, 2011 to discuss the preliminary schedule for permit development; identify potential alternative permit structures; and outline some of the major technical and policy aspects of permit development. All LA County MS4 Permittees, as well as other known interested stakeholders, were invited to attend. Ninety-five individuals attended the meeting, representing most of the permittees as well as environmental organizations. After a presentation by Board staff, Permittees and interested persons had an initial opportunity to ask questions of staff, raise concerns, and provide feedback.

At the May 25, 2011 kick-off meeting, Board staff requested input from the attendees on various permit structures. In order to solicit more focused input from permittees on alternative permit structures, and per suggestions at the kick-off meeting, Board staff developed and distributed an on-line survey to permittees using the on-line survey tool, SurveyMonkey®. The survey was distributed to all Los Angeles County MS4 Permittees on June 14, 2011 and responses were requested within two weeks. Fifty-two permittees responded using the on-line survey tool. The on-line survey sought input on several options for permit structure, including an individual permit for each municipality, a single permit for all permittees (i.e., the existing permit structure), and a single or multiple watershed-based permits.

Regional Water Board staff also held three topical workshops on December 15, 2011, January 23, 2012, and March 1, 2012. At the December 2011 workshop, staff discussed and invited feedback on: tentative permit requirements for the "minimum control measures" that comprise Permittees core storm water management program, approaches to addressing non-storm water MS4 discharges, and options for flexibility in permit requirements to address watershed priorities. At the January 2012 workshop, staff discussed and invited feedback on: tentative permit requirements to implement TMDL waste load allocations assigned to MS4 discharges and monitoring and reporting requirements for this Order. At the March 2012 workshop, staff discussed the use of water quality-based effluent limitations in this Order, discussed a revised proposal for monitoring requirements based on comments from the January 2012 workshop, and provided additional detail on proposed minimum control measure requirements.

Three Regional Water Board workshops were held during regularly scheduled Board meetings on November 10, 2011, April 5, 2012, and May 3, 2012. At the November 2011 Board workshop, staff discussed the objectives for the new permit, the status and schedule for permit development, alternatives for permit structure, provisions to implement TMDL WLAs, and provisions for minimum control measures, and identified preliminary considerations related to provisions for non-storm water discharges, receiving water limitations, water quality-based effluent limitations, and requirements for monitoring and reporting.

Prior to the April 5, 2012 Board workshop, staff released complete working proposals of the permit provisions related to two key parts of this Order: the storm water management

program "minimum control measures" and the non-storm water MS4 discharge prohibitions on March 21, 2012 and March 28, 2012, respectively. Staff provided Permittees and interested persons the opportunity to submit written and oral comments over a period of three weeks for early consideration by staff prior to the release of the tentative Order. At the April 2012 Board workshop, staff presented the working proposals and the Board invited public comments. Detailed comments were made on both working proposals, and in particular, comments were made on how to address "essential" non-storm water discharges from drinking water supplier distribution systems and fire fighting activities in this Order.

Prior to the May 3, 2012 Board workshop, staff released complete working proposals of the permit provisions related to three other key parts of this Order: provisions for watershed management programs, TMDL-related requirements, and receiving water limitations language. Staff provided Permittees and interested persons the opportunity to submit written and oral comments over a period of three weeks for early consideration by staff prior to the release of the tentative Order. At the May 2012 Board workshop, staff presented the three working proposals and the Board invited public comments. Staff answered extensive questions from Board members following public comments.

In addition to staff and Board workshops, Regional Water Board staff met regularly with Permittees, including the LA Permit Group (a coalition of 62 of the 86 Permittees covered by this Order), the Los Angeles County Flood Control District and the County of Los Angeles, the City of Los Angeles, and interested environmental organizations including Heal the Bay, Santa Monica Baykeeper, and the Natural Resources Defense Council (NRDC). Staff also met on several occasions with other affected agencies including large public water suppliers (Los Angeles Department of Water and Power and Metropolitan Water District), small community water suppliers, and local fire departments.

Finally, staff hosted several "joint" meetings to bring together key leaders among the Permittees and environmental organizations to discuss significant issues and work towards consensus on these issues where possible. The first two of these were held on May 17, 2012 and May 31, 2012, during which the group discussed permit requirements for USEPA established TMDLs. Staff prepared a working proposal based on the areas of agreement from the May 17th joint meeting, and distributed the proposal for review prior to the second meeting on May 31st. The proposal was discussed and refined at the second meeting. A third meeting was held on June 14, 2012.

Prior to the Board's consideration of this Order, the Regional Water Board notified the Permittees and all interested agencies and persons of its intent to hold a hearing to issue an NPDES permit for discharges from the Los Angeles County MS4 and provided them with an opportunity to submit written comments over a 45-day period. The procedures followed for submission of written comments are described in the Notice of Hearing and Opportunity to Comment published for this Order. Notification was provided through the Regional Water Board's website, the Regional Water Board's e-mail subscription service, and the LA Times. After releasing the tentative permit for public review, the Regional Water Board held a staff level workshop on July 9, 2012 to answer questions regarding the tentative permit. A Board member field tour of portions of the MS4 in the San Gabriel Valley was held on July 31, 2012.

The Regional Water Board held a public hearing on the tentative Order during its regular Board meeting on October 4-5, 2012. The Regional Water Board continued the public hearing at its next regular Board meeting on November 8, 2012. Permittees and interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony and comments pertinent to the discharge and this Order. The hearing procedures followed by the Regional Water Board are described in the Notice of Hearing and Opportunity to Comment published for this Order.

ATTACHMENT G. NON-STORM WATER ACTION LEVELS AND MUNICIPAL ACTION LEVELS

I. SANTA CLARA RIVER WATERSHED AREA

Table G-1. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
<i>E. coli</i> Bacteria	#/100 ml	126 ¹	235 ²
Chloride	mg/L	3	--
Sulfate	mg/L	3	--
Total Dissolved Solids	mg/L	3	--
Methylene Blue Active Substances	mg/L	0.5 ⁴	--
Aluminum, Total Recoverable	mg/L	1.0 ⁴	--
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	5	5
Mercury, Total Recoverable	µg/L	0.051	0.1
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ *E. coli* density shall not exceed a geometric mean of 126/100 ml.
- ² *E. coli* density in a single sample shall not exceed 235/100 ml.
- ³ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
- ⁴ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁵ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-2. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
<i>E. coli</i> Bacteria	#/100 ml	126 ¹	235 ²
Total Coliform Bacteria	#/100 ml	1,000 ³	10,000 ⁴
Fecal Coliform Bacteria	#/100 ml	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ³	104 ⁴
Chloride	mg/L	5	--
Sulfate	mg/L	5	--
Total Dissolved Solids	mg/L	5	--
Methylene Blue Active Substances	mg/L	0.5 ⁶	--
Aluminum, Total Recoverable	mg/L	1.0 ⁶	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	7	7
Mercury, Total Recoverable	µg/L	0.051	0.1
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ *E. coli* density shall not exceed a geometric mean of 126/100 ml.
- ² *E. coli* density in a single sample shall not exceed 235/100 ml.
- ³ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

- ⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁵ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
- ⁶ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁷ The applicable action level is the most stringent between corresponding Table G-1 and Table G-3 action levels.

Table G-3. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ^{1,2}	10,000 ^{2,3}
Fecal Coliform Bacteria	#/100 ml	200 ¹	400 ³
Enterococcus Bacteria	#/100 ml	35 ¹	104 ³
Chloride	mg/L	4	--
Sulfate	mg/L	4	--
Total Dissolved Solids	mg/L	4	--
Methylene Blue Active Substances	mg/L	0.5 ⁵	--
Aluminum, Total Recoverable	mg/L	1.0 ⁵	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	0.1
Selenium, Total Recoverable	µg/L	58	117

- ¹ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ³ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁴ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
- ⁵ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

Table G-4. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Coliform Bacteria	#/100 ml	70 ¹	230 ¹	--
Fecal Coliform Bacteria	#/100 ml	--	200 ²	400 ³
Enterococcus Bacteria	#/100 ml	--	35 ²	104 ³
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

- ² Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
³ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

II. LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

Table G-5. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Chloride	mg/L	⁴	--
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁵	--
Sulfate	mg/L	⁴	--
Total Dissolved Solids	mg/L	⁴	--
Turbidity	NTU	5 ⁵	--
Aluminum, Total Recoverable	mg/L	1.0 ⁵	--
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	⁶	⁶
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ Within the range of 6.5 to 8.5 at all times.
² *E. coli* density shall not exceed a geometric mean of 126/100 ml.
³ *E. coli* density in a single sample shall not exceed 235/100 ml.
⁴ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
⁵ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
⁶ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-6. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Chloride	mg/L	⁶	--
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁷	--
Sulfate	mg/L	⁶	--
Total Dissolved Solids	mg/L	⁶	--
Turbidity	NTU	5 ⁷	--
Aluminum, Total Recoverable	mg/L	1.0 ⁷	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	⁸	⁸

Parameter	Units	Average Monthly	Daily Maximum
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ Within the range of 6.5 to 8.5 at all times.
- ² *E. coli* density shall not exceed a geometric mean of 126/100 ml.
- ³ *E. coli* density in a single sample shall not exceed 235/100 ml.
- ⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁶ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
- ⁷ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
- ⁸ The applicable action level is the most stringent between corresponding Table G-5 and Table G-7 action levels.

Table G-7. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2,3}	10,000 ^{3,4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Chloride	mg/L	5	--
Nitrite Nitrogen, Total (as N)	mg/L	1.0 ⁶	--
Sulfate	mg/L	5	--
Total Dissolved Solids	mg/L	5	--
Turbidity	NTU	5 ⁶	--
Aluminum, Total Recoverable	mg/L	1.0 ⁶	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117

- ¹ Within the range of 6.5 to 8.5 at all times.
- ² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- ⁵ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
- ⁶ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

Table G-8. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
pH	Standard units	6.0-9.0 ¹		
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	--
Fecal Coliform Bacteria	#/100 ml	--	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	--	35 ³	104 ⁴
Turbidity	NTU	75	100	225
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

¹ Within the range of 6.0 to 9.0 at all times.

² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

III. DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA

Table G-9. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	4	4
Lead, Total Recoverable	µg/L	4	4
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

¹ Within the range of 6.5 to 8.5 at all times.

² *E. coli* density shall not exceed a geometric mean of 126/100 ml.

³ *E. coli* density in a single sample shall not exceed 235/100 ml.

⁴ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-10. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	s.u	6.5-8.5 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵

Parameter	Units	Average Monthly	Daily Maximum
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ Within the range of 6.5 to 8.5 at all times.
² *E. coli* density shall not exceed a geometric mean of 126/100 ml.
³ *E. coli* density in a single sample shall not exceed 235/100 ml.
⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
⁶ The applicable action level is the most stringent between corresponding Table G-9 and Table G-11 action levels.

Table G-11. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
pH	s.u	6.5-8.5 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2,3}	10,000 ^{3,4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117

- ¹ Within the range of 6.5 to 8.5 at all times.
² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

Table G-12. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
pH	s.u	6.0-9.0 ¹		
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	--
Fecal Coliform Bacteria	#/100 ml	--	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	--	35 ³	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

- ¹ Within the range of 6.0 to 9.0 at all times.
- ² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- ³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- ⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

IV. BALLONA CREEK WATERSHED MANAGEMENT AREA

Table G-13. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Cyanide, Total Recoverable	µg/L	4.3	8.5
Copper, Total Recoverable	µg/L	4	4
Lead, Total Recoverable	µg/L	4	4
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ Within the range of 6.5 to 8.5 at all times.
- ² *E. coli* density shall not exceed a geometric mean of 126/100 ml.
- ³ *E. coli* density in a single sample shall not exceed 235/100 ml.
- ⁴ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-14. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Cyanide	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.1
Selenium, Total Recoverable	µg/L	4.1	8.2

- ¹ Within the range of 6.5 to 8.5 at all times.
- ² *E. coli* density shall not exceed a geometric mean of 126/100 ml.

- ³ *E. coli* density in a single sample shall not exceed 235/100 ml.
⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
⁶ The applicable action level is the most stringent between corresponding Table G-13 and Table G-15 action levels.

Table G-15. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.5-8.5 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2,3}	10,000 ^{3,4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Cyanide, Total Recoverable	µg/L	0.50	1.0
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	0.1
Selenium, Total Recoverable	µg/L	58	117

- ¹ Within the range of 6.5 to 8.5 at all times.
² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

Table G-16. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
pH	Standard units	6.0-9.0 ¹		
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	--
Fecal Coliform Bacteria	#/100 ml	--	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	--	35 ³	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

- ¹ Within the range of 6.0 to 9.0 at all times.
² In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
³ Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

V. MALIBU CREEK WATERSHED MANAGEMENT AREA NON-STORM WATER ACTION LEVELS

Table G-17. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
<i>E. coli</i> Bacteria	#/100 ml	126 ¹	235 ²
Sulfate	mg/L	³	--
Total Dissolved Solids	mg/L	³	--
Cyanide, Total Recoverable	µg/L	4.3	8.5
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

¹ *E. coli* density shall not exceed a geometric mean of 126/100 ml.

² *E. coli* density in a single sample shall not exceed 235/100 ml.

³ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.

Table G-18. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
<i>E. coli</i> Bacteria	#/100 ml	126 ¹	235 ²
Total Coliform Bacteria	#/100 ml	1,000 ³	10,000 ⁴
Fecal Coliform Bacteria	#/100 ml	200 ³	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ³	104 ⁴
Sulfate	mg/L	⁵	--
Total Dissolved Solids	mg/L	⁵	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	4.1	8.2

¹ *E. coli* density shall not exceed a geometric mean of 126/100 ml.

² *E. coli* density in a single sample shall not exceed 235/100 ml.

³ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.

Table G-19. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
Total Coliform Bacteria	#/100 ml	1,000 ^{1,2}	10,000 ^{2,3}
Fecal Coliform Bacteria	#/100 ml	200 ¹	400 ³
Enterococcus Bacteria	#/100 ml	35 ¹	104 ³
Sulfate	mg/L	⁴	--
Total Dissolved Solids	mg/L	⁴	--

Parameter	Units	Average Monthly	Daily Maximum
Cyanide, Total Recoverable	µg/L	0.50	1.0
Mercury, Total Recoverable	µg/L	0.051	0.10
Selenium, Total Recoverable	µg/L	58	117

- 1 Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- 2 In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- 3 Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
- 4 In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.

Table G-20. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Coliform Bacteria	#/100 ml	70 ¹	230 ¹	--
Fecal Coliform Bacteria	#/100 ml	--	200 ²	400 ³
Enterococcus Bacteria	#/100 ml	--	35 ²	104 ³
Cyanide, Total Recoverable	µg/L	1	4	10
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Selenium, Total Recoverable	µg/L	15	60	150

- 1 In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- 2 Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- 3 Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

VI. SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

Table G-21. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or less than 1 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.0-9.0 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Chloride	mg/L	4	--
Nitrate Nitrogen, Total (as N)	mg/L	4	--
Sulfate	mg/L	4	--
Total Dissolved Solids	mg/L	4	--
Aluminum, Total Recoverable	mg/L	1.0 ⁵	--
Cyanide, Total Recoverable	µg/L	4.3	8.5
Cadmium, Total Recoverable	µg/L	6	6

Parameter	Units	Average Monthly	Daily Maximum
Copper, Total Recoverable	µg/L	6	6
Lead, Total Recoverable	µg/L	6	6
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	6	6
Selenium, Total Recoverable	µg/L	4.1	8.2
Silver, Total Recoverable	µg/L	6	6
Zinc, Total Recoverable	µg/L	6	6

- ¹ Within the range of 6.5 to 8.5 at all times.
² *E. coli* density shall not exceed a geometric mean of 126/100 ml.
³ *E. coli* density in a single sample shall not exceed 235/100 ml.
⁴ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
⁵ Applicable only to discharges to receiving waters or receiving waters with underlying groundwater designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
⁶ Action levels are hardness dependent. See Section VII of this Attachment for a listing of the applicable action levels.

Table G-22. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity between 1 ppt and 10 ppt)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.0-9.0 ¹	
<i>E. coli</i> Bacteria	#/100 ml	126 ²	235 ³
Total Coliform Bacteria	#/100 ml	1,000 ⁴	10,000 ⁵
Fecal Coliform Bacteria	#/100 ml	200 ⁴	400 ⁵
Enterococcus Bacteria	#/100 ml	35 ⁴	104 ⁵
Chloride	mg/L	6	--
Nitrate Nitrogen, Total (as N)	mg/L	6	--
Sulfate	mg/L	6	--
Total Dissolved Solids	mg/L	6	--
Aluminum, Total Recoverable	mg/L	1.0 ⁷	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Cadmium, Total Recoverable	µg/L	8	8
Copper, Total Recoverable	µg/L	8	8
Lead, Total Recoverable	µg/L	8	8
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	8	8
Selenium, Total Recoverable	µg/L	4.1	8.2
Silver, Total Recoverable	µg/L	8	8
Zinc, Total Recoverable	µg/L	8	8

- ¹ Within the range of 6.5 to 8.5 at all times.
² *E. coli* density shall not exceed a geometric mean of 126/100 ml.
³ *E. coli* density in a single sample shall not exceed 235/100 ml.
⁴ Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
⁵ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.
⁶ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.
⁷ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.
⁸ The applicable action level is the most stringent between corresponding Table G-21 and Table G-23 action levels.

Table G-23. Action Levels for Discharges to Inland Surface Waters, Enclosed Bays, and Estuaries (with receiving water salinity equal to or greater than 10 ppt 95% or more of the time)

Parameter	Units	Average Monthly	Daily Maximum
pH	Standard units	6.0-9.0 ¹	
Total Coliform Bacteria	#/100 ml	1,000 ^{2,3}	10,000 ^{2,4}
Fecal Coliform Bacteria	#/100 ml	200 ²	400 ⁴
Enterococcus Bacteria	#/100 ml	35 ²	104 ⁴
Chloride	mg/L	5	--
Nitrate Nitrogen, Total (as N)	mg/L	5	--
Sulfate	mg/L	5	--
Total Dissolved Solids	mg/L	5	--
Aluminum, Total Recoverable	mg/L	1.0 ⁶	--
Cyanide, Total Recoverable	µg/L	0.50	1.0
Cadmium, Total Recoverable	µg/L	7.7	15
Copper, Total Recoverable	µg/L	2.9	5.8
Lead, Total Recoverable	µg/L	7.0	14
Mercury, Total Recoverable	µg/L	0.051	0.10
Nickel, Total Recoverable	µg/L	6.8	14
Silver, Total Recoverable	µg/L	1.1	2.2
Selenium, Total Recoverable	µg/L	58	117
Zinc, Total Recoverable	µg/L	47	95

¹ Within the range of 6.5 to 8.5 at all times.

² Total coliform density shall not exceed a geometric mean of 1,000/100 ml. Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.

³ In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.

⁴ Total coliform density in a single sample shall not exceed 10,000/100 ml. Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

⁵ In accordance with applicable water quality objectives contained in Chapter 3 of the Basin Plan.

⁶ Applicable only to discharges to receiving waters designated for Municipal and Domestic Supply (MUN) use as specified in Tables 2-1 and 2-2 of the Basin Plan.

Table G-24. Action Levels for Discharges to Ocean Waters (Surf Zone)

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
pH	Standard units	6.0-9.0 ¹		
Total Coliform Bacteria	#/100 ml	70 ²	230 ²	--
Fecal Coliform Bacteria	#/100 ml	--	200 ³	400 ⁴
Enterococcus	#/100 ml	--	35 ³	104 ⁴
Cyanide, Total Recoverable	µg/L	1	4	10
Cadmium, Total Recoverable	µg/L	1	4	10
Copper, Total Recoverable	µg/L	3	12	30

Parameter	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Lead, Total Recoverable	µg/L	2	8	20
Mercury, Total Recoverable	µg/L	0.04	0.16	0.4
Nickel, Total Recoverable	µg/L	5	20	50
Silver, Total Recoverable	µg/L	0.7	2.8	7.0
Selenium, Total Recoverable	µg/L	15	60	150
Zinc, Total Recoverable	µg/L	20	80	200

Within the range of 6.0 to 9.0 at all times.

- 2 In areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the median total coliform density shall not exceed 70/100 ml and not more than 10 percent of the samples shall exceed 230/100 ml.
- 3 Fecal coliform density shall not exceed a geometric mean of 200/100 ml. Enterococcus density shall not exceed a geometric mean of 35/100 ml.
- 4 Fecal coliform density in a single sample shall not exceed 400/100 ml. Enterococcus density shall not exceed a geometric mean of 104/100 ml.

VII. HARDNESS-BASED ACTION LEVELS FOR METALS

Cadmium, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	0.1	0.2	125.0	2.4	4.8	245.0	4.1	8.2
10.0	0.2	0.3	130.0	2.5	5.0	250.0	4.1	8.3
15.0	0.3	0.5	135.0	2.5	5.1	255.0	4.2	8.4
20.0	0.4	0.7	140.0	2.6	5.3	260.0	4.3	8.5
25.0	0.5	0.9	145.0	2.7	5.4	265.0	4.3	8.7
30.0	0.6	1.2	150.0	2.8	5.5	270.0	4.4	8.8
35.0	0.7	1.4	155.0	2.8	5.7	275.0	4.5	8.9
40.0	0.8	1.6	160.0	2.9	5.8	280.0	4.5	9.1
45.0	0.9	1.8	165.0	3.0	6.0	285.0	4.6	9.2
50.0	1.0	2.1	170.0	3.1	6.1	290.0	4.6	9.3
55.0	1.1	2.3	175.0	3.1	6.3	295.0	4.7	9.4
60.0	1.3	2.5	180.0	3.2	6.4	300.0	4.8	9.6
65.0	1.4	2.8	185.0	3.3	6.5	310.0	4.9	9.8
70.0	1.5	3.0	190.0	3.3	6.7	320.0	5.0	10.1
75.0	1.6	3.2	195.0	3.4	6.8	330.0	5.1	10.3
80.0	1.7	3.4	200.0	3.5	7.0	340.0	5.3	10.5
85.0	1.8	3.6	205.0	3.5	7.1	350.0	5.4	10.8
90.0	1.9	3.7	210.0	3.6	7.2	360.0	5.5	11.0
95.0	1.9	3.9	215.0	3.7	7.4	370.0	5.6	11.3
100.0	2.0	4.0	220.0	3.7	7.5	380.0	5.7	11.5
105.0	2.1	4.2	225.0	3.8	7.6	390.0	5.9	11.7
110.0	2.2	4.3	230.0	3.9	7.8	400.0	6.0	12.0
115.0	2.2	4.5	235.0	3.9	7.9	>400	6.0	12.0

Cadmium, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
120.0	2.3	4.7	240.0	4.0	8.0			

Copper, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	0.4	0.8	125.0	8.6	17.2	245.0	16.2	32.5
10.0	0.8	1.6	130.0	8.9	17.9	250.0	16.5	33.1
15.0	1.2	2.3	135.0	9.2	18.5	255.0	16.8	33.8
20.0	1.5	3.1	140.0	9.6	19.2	260.0	17.1	34.4
25.0	1.9	3.8	145.0	9.9	19.8	265.0	17.4	35.0
30.0	2.2	4.5	150.0	10.2	20.5	270.0	17.8	35.6
35.0	2.6	5.2	155.0	10.5	21.1	275.0	18.1	36.2
40.0	2.9	5.9	160.0	10.8	21.8	280.0	18.4	36.9
45.0	3.3	6.6	165.0	11.2	22.4	285.0	18.6	37.4
50.0	3.6	7.3	170.0	11.5	23.0	290.0	18.9	38.0
55.0	4.0	8.0	175.0	11.8	23.7	295.0	19.2	38.5
60.0	4.3	8.6	180.0	12.1	24.3	300.0	19.5	39.1
65.0	4.6	9.3	185.0	12.4	25.0	310.0	20.0	40.2
70.0	5.0	10.0	190.0	12.8	25.6	320.0	20.6	41.3
75.0	5.3	10.7	195.0	13.1	26.2	330.0	21.1	42.4
80.0	5.6	11.3	200.0	13.4	26.9	340.0	21.7	43.5
85.0	6.0	12.0	205.0	13.7	27.5	350.0	22.2	44.6
90.0	6.3	12.7	210.0	14.0	28.1	360.0	22.8	45.7
95.0	6.6	13.3	215.0	14.3	28.7	370.0	23.3	46.8
100.0	7.0	14.0	220.0	14.6	29.4	380.0	23.8	47.8
105.0	7.3	14.6	225.0	15.0	30.0	390.0	24.4	48.9
110.0	7.6	15.3	230.0	15.3	30.6	400.0	24.9	50.0
115.0	7.9	15.9	235.0	15.6	31.3	>400	24.9	50.0
120.0	8.3	16.6	240.0	15.9	31.9			

Lead, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	0.1	0.1	125.0	3.5	6.9	245.0	8.1	16.3
10.0	0.1	0.3	130.0	3.6	7.3	250.0	8.3	16.7
15.0	0.2	0.5	135.0	3.8	7.6	255.0	8.6	17.2
20.0	0.3	0.7	140.0	4.0	8.0	260.0	8.8	17.6
25.0	0.4	0.9	145.0	4.2	8.4	265.0	9.0	18.0
30.0	0.6	1.1	150.0	4.4	8.7	270.0	9.2	18.5
35.0	0.7	1.4	155.0	4.5	9.1	275.0	9.4	18.9
40.0	0.8	1.6	160.0	4.7	9.5	280.0	9.6	19.3

Lead, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
45.0	0.9	1.9	165.0	4.9	9.9	285.0	9.9	19.8
50.0	1.1	2.2	170.0	5.1	10.2	290.0	10.1	20.2
55.0	1.2	2.4	175.0	5.3	10.6	295.0	10.3	20.7
60.0	1.4	2.7	180.0	5.5	11.0	300.0	10.5	21.1
65.0	1.5	3.0	185.0	5.7	11.4	310.0	11.0	22.0
70.0	1.7	3.3	190.0	5.9	11.8	320.0	11.4	22.9
75.0	1.8	3.6	195.0	6.1	12.2	330.0	11.9	23.8
80.0	2.0	3.9	200.0	6.3	12.6	340.0	12.3	24.8
85.0	2.1	4.2	205.0	6.5	13.0	350.0	12.8	25.7
90.0	2.3	4.6	210.0	6.7	13.4	360.0	13.3	26.6
95.0	2.4	4.9	215.0	6.9	13.8	370.0	13.7	27.6
100.0	2.6	5.2	220.0	7.1	14.2	380.0	14.2	28.5
105.0	2.8	5.5	225.0	7.3	14.6	390.0	14.7	29.5
110.0	2.9	5.9	230.0	7.5	15.1	400.0	15.2	30.5
115.0	3.1	6.2	235.0	7.7	15.5	>400	15.2	30.5
120.0	3.3	6.6	240.0	7.9	15.9			

Nickel, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	3.4	6.8	125.0	51.5	103.3	245.0	90.9	182.5
10.0	6.1	12.2	130.0	53.2	106.7	250.0	92.5	185.6
15.0	8.6	17.2	135.0	54.9	110.2	255.0	94.1	188.7
20.0	10.9	21.9	140.0	56.6	113.6	260.0	95.6	191.9
25.0	13.2	26.5	145.0	58.3	117.1	265.0	97.2	195.0
30.0	15.4	30.9	150.0	60.0	120.5	270.0	98.7	198.1
35.0	17.5	35.2	155.0	61.7	123.9	275.0	100.3	201.2
40.0	19.6	39.4	160.0	63.4	127.2	280.0	101.8	204.3
45.0	21.7	43.5	165.0	65.1	130.6	285.0	103.3	207.4
50.0	23.7	47.6	170.0	66.8	133.9	290.0	104.9	210.4
55.0	25.7	51.6	175.0	68.4	137.3	295.0	106.4	213.5
60.0	27.7	55.5	180.0	70.1	140.6	300.0	107.9	216.6
65.0	29.6	59.4	185.0	71.7	143.9	310.0	111.0	222.7
70.0	31.5	63.2	190.0	73.3	147.1	320.0	114.0	228.7
75.0	33.4	67.0	195.0	75.0	150.4	330.0	117.0	234.7
80.0	35.3	70.8	200.0	76.6	153.7	340.0	120.0	240.7
85.0	37.1	74.5	205.0	78.2	156.9	350.0	123.0	246.7
90.0	39.0	78.2	210.0	79.8	160.2	360.0	125.9	252.7
95.0	40.8	81.9	215.0	81.4	163.4	370.0	128.9	258.6
100.0	42.6	85.5	220.0	83.0	166.6	380.0	131.8	264.5
105.0	44.4	89.1	225.0	84.6	169.8	390.0	134.8	270.4
110.0	46.2	92.7	230.0	86.2	173.0	400.0	137.7	276.2
115.0	48.0	96.2	235.0	87.8	176.1	>400	137.7	276.2

Nickel, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
120.0	49.7	99.8	240.0	89.4	179.3			

Zinc, Total Recoverable								
Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)	Hardness (mg/L as CaCO ₃)	AMAL (µg/L)	MDAL (µg/L)
5.0	4.7	9.4	125.0	72.0	144.5	245.0	127.4	255.6
10.0	8.5	17.0	130.0	74.5	149.4	250.0	129.6	260.0
15.0	11.9	24.0	135.0	76.9	154.2	255.0	131.8	264.4
20.0	15.2	30.6	140.0	79.3	159.1	260.0	134.0	268.8
25.0	18.4	37.0	145.0	81.7	163.9	265.0	136.1	273.1
30.0	21.5	43.1	150.0	84.1	168.6	270.0	138.3	277.5
35.0	24.5	49.1	155.0	86.4	173.4	275.0	140.5	281.9
40.0	27.4	55.0	160.0	88.8	178.1	280.0	142.6	286.2
45.0	30.3	60.8	165.0	91.1	182.8	285.0	144.8	290.5
50.0	33.1	66.5	170.0	93.5	187.5	290.0	146.9	294.8
55.0	35.9	72.1	175.0	95.8	192.2	295.0	149.1	299.1
60.0	38.7	77.6	180.0	98.1	196.8	300.0	151.2	303.4
65.0	41.4	83.0	185.0	100.4	201.4	310.0	155.5	312.0
70.0	44.1	88.4	190.0	102.7	206.0	320.0	159.7	320.5
75.0	46.7	93.7	195.0	105.0	210.6	330.0	163.9	328.9
80.0	49.3	99.0	200.0	107.3	215.2	340.0	168.1	337.4
85.0	51.9	104.2	205.0	109.5	219.8	350.0	172.3	345.8
90.0	54.5	109.4	210.0	111.8	224.3	360.0	176.5	354.1
95.0	57.1	114.5	215.0	114.0	228.8	370.0	180.6	362.4
100.0	59.6	119.6	220.0	116.3	233.3	380.0	184.8	370.7
105.0	62.1	124.7	225.0	118.5	237.8	390.0	188.9	379.0
110.0	64.6	129.7	230.0	120.7	242.3	400.0	193.0	387.2
115.0	67.1	134.7	235.0	123.0	246.7	>400	193.0	387.2
120.0	69.6	139.6	240.0	125.2	251.2			

VIII. MUNICIPAL ACTION LEVELS

Conventional Pollutants

Pollutants	pH	TSS mg/L	COD mg/L	Kjedahl Nitrogen (TKN) mg/L	Nitrate & Nitrite- total mg/L	P- total mg/L
Municipal Action Level	6.0- 9.0	264.1	247.5	4.59	1.85	0.80

Metals

Pollutants	Cd- total µg/L	Cr-total µg/L	Cu- total µg/L	Pb- total µg/L	Ni- total µg/L	Zn- total µg/L	Hg- total µg/L
Municipal Action Level	2.52	20.20	71.12	102.00	27.43	641.3	0.32

This Order establishes Municipal Action Levels (MALs) to identify subwatersheds requiring additional Best Management Practices (BMPs) to reduce pollutant loads and prioritize implementation of additional BMPs. MALs for selected pollutants are based on nationwide Phase I MS4 monitoring data for pollutants in storm water (<http://unix.eng.ua.edu/~rpitt/Research/Research.shtml>, last visited on May 9, 2012). The MALs were obtained by computing the upper 25th percentile for selected pollutants using the statistical program Minitab. Non-detects were removed from the data set and all data from the database were used.

Under this Order, the Municipal Action Levels (MALs) shall be utilized by Permittees to identify subwatersheds discharging pollutants at levels in excess of the MALs. Within those subwatersheds where pollutant levels in the discharge are in excess of the MALs, Permittees shall implement controls and measures necessary to reduce the discharge of pollutants.

In order to determine if MS4 discharges are in excess of the MALs, Permittees shall conduct outfall monitoring as required in the Monitoring and Reporting Program (MRP) (Attachment E). A MAL Assessment Report shall be submitted to the Regional Water Board Executive Officer as part of the Annual Report. The MAL Assessment Report shall present the monitoring data in comparison to the applicable MALs, and identify those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs listed in this attachment in discharges of storm water from the MS4.

Beginning in Year 3 after the effective date of this Order, each Permittee shall submit a MAL Action Plan with the Annual Report (first MAL Action Plan due with December 15, 2015 Annual Report) to the Regional Water Board Executive Officer, for those subwatersheds with a running average of twenty percent or greater of exceedances of the MALs in any discharge of

storm water from the MS4. The plan shall include an assessment of the sources responsible for the MAL exceedances, the existing storm water programs and BMPs that address those sources, an assessment of potential program enhancements, alternative BMPs and actions the Permittee shall implement to reduce discharges to a level that is equivalent to or below the MALs, and an implementation schedule for such actions for Executive Officer approval. The MAL Action Plan shall provide the technical rationale to demonstrate the proposed measures and controls will attain the MALs. If the MAL Action Plan is not approved within 90 days of the due date, the Executive Officer may establish an appropriate plan with at least 90 day notification and consultation to the Permittees.

Within 90 days of the plan approval by the Regional Water Board Executive Officer, the Permittee shall initiate the BMPs and actions proposed in the MAL Action Plan, together with any other practicable BMPs or actions that the Executive Officer determines to be necessary to meet the MALs. The Permittee shall complete the proposed actions in accordance with the approved implementation schedule.

Upon completion of the actions specified in the approved MAL Action Plan, the Permittee shall re-monitor the subject subwatershed in accordance with the MRP, and submit a Post-Project MAL Assessment Report to the Regional Water Board Executive Officer.

Implementation of an approved Watershed Management Program per Part VI.C of the Order fulfills all requirements related to the development and implementation of the MAL Action Plan.

As additional data become available through the MRP or from the Regional Subset of the National Dataset, MALs may be revised annually by the Regional Water Board Executive Officer in accordance with an equivalent statistical method as that used to establish the MALs in this attachment with at least 90 day notification and consultation to the Permittees.

ATTACHMENT H. BIORETENTION / BIOFILTRATION DESIGN CRITERIA

Note: A significant portion of the information in this appendix has been copied verbatim from the *Ventura County Technical Guidance Manual*, Updated 2011, and modified to reflect recent changes to the bioretention/biofiltration soil media specifications as adopted by the California Regional Water Quality Control Board, San Francisco Region, on November 28, 2011, Order No. R2-2011-083, Attachment L. Permittees can submit alternate Bioretention/Biofiltration Design Criteria subject to Executive Officer approval.

1. Geometry

- a. Bioretention/biofiltration areas shall be sized to capture and treat the design with an 18-inch maximum ponding depth. *The intention is that the ponding depth be limited to a depth that will allow for a healthy vegetation layer.*
- b. Minimum planting soil depth should be 2 feet, although 3 feet is preferred. *The intention is that the minimum planting soil depth should provide a beneficial root zone for the chosen plant palette and adequate water storage for the SWQDv.*
- c. A gravel storage layer below the bioretention/biofiltration soil media is required as necessary to provide adequate temporary storage to retain the SWQDv and to promote infiltration.

2. Drainage

- a. Bioretention and biofiltration BMPs should be designed to drain below the planting soil in less than 48 hours and completely drain in less than 96 hours. *The intention is that soils must be allowed to dry out periodically in order to restore hydraulic capacity needed to receive flows from subsequent storms, maintain infiltration rates, maintain adequate soil oxygen levels for healthy soil biota and vegetation, and to provide proper soil conditions for biodegradation and retention of pollutants.*
- b. *Biofiltration BMPs are designed and constructed with an underdrain. The underdrain is preferably placed near the top of the gravel storage area to promote incidental infiltration and enhanced nitrogen removal. However, if in-situ, underlying soils do not provide sufficient drainage, the underdrain may need to be placed lower in the gravel storage area (within 6 inches of the bottom) to prevent the unit from holding stagnant water for extended periods of time. At many sites, clay soils will drain sufficiently fast, particularly if they are not compacted. Observing soil moisture and surface conditions in the days following a wet period may provide sufficient information for making this decision and may be more directly applicable than in situ or laboratory testing of soil characteristics¹.*

3. Overflow

An overflow device is required at the 18-inch ponding depth. The following, or equivalent, should be provided:

- a. A vertical PVC pipe (SDR 35) to act as an overflow riser.

¹ Dan Cloak, Dan Cloak Environmental Consulting to Tom Dalziel, Contra Costa County, February 22, 2011.

- b. The overflow riser(s) should be 6 inches or greater in diameter, so it can be cleaned without damage to the pipe.

The inlet to the riser should be at the ponding depth (18 inches for fenced bioretention areas and 6 inches for areas that are not fenced), and be capped with a spider cap to exclude floating mulch and debris. Spider caps should be screwed in or glued, i.e., not removable.

4. Integrated Water Quality/ Flow Reduction/Resources Management Criteria

- a. When calculating the capacity of an infiltration system, each Permittee shall account for the 24-hour infiltration assuming that the soil is saturated. Infiltration BMPs shall be limited to project sites where the in-situ soil or the amended on-site soils have a demonstrated infiltration rate under saturated conditions of no less than 0.3 inch per hour.
- b. Bioretention BMPs shall be designed to accommodate the minimum design flow at a surface loading rate of 5 inches per hour and no greater than 12 inches per hour, and shall have a total volume, including pore spaces and pre-filter detention volume of no less than the SWQDv.
- c. If rainwater harvested for use in irrigation is to be credited toward the total volume of storm water runoff retained on-site, each Permittee shall require the project proponent to conduct a conservative (assuming reasonable worst-case scenarios) assessment of water demand during the wet-weather season. This volume will be referred to as the "reliable" estimate of irrigation demand. The portion of water to be credited as retained on-site for use in irrigation shall not exceed the reliable estimate of irrigation demand.
- d. Harvested rainwater must be stored in a manner that precludes the breeding of mosquitoes or other vectors or with a draw down not to exceed 96 hours.
- e. When evaluating the potential for on-site retention, each Permittee shall consider the maximum potential for evapotranspiration from green roofs and rainfall harvest and use.
- f. Project requirements shall address at a minimum the potential use of harvested rainwater for non-potable uses including toilet flushing, laundry, and cooling water makeup water. If the municipal, building or county health code(s) does not allow such use of harvested rainwater, each Permittee shall develop a model ordinance and submit it to the city council or County Supervisors for consideration within 24 months after the Order effective date. The model ordinances shall be based on the International Association of Plumbing and Mechanical Officials' (IAPMO's) Green Plumbing and Mechanical Code Supplement to the 2012 National Standard Plumbing Code, or similar guidance to ensure the safe and effective use of harvested rainwater, separate from the existing provisions, if any, for reclaimed wastewater. California is in the process of adopting its 2012 update to the Uniform Plumbing Code that incorporates the IAPMO Green Plumbing and Mechanical Code Supplement. If the State of California update incorporates the IAPMO Green Plumbing and Mechanical Code Supplement, Permittees are not required to adopt a model ordinance addressing the potential use of harvested rainwater for non-potable uses including toilet flushing, laundry, and cooling water makeup water.

5. Hydraulic Restriction Layers

Infiltration pathways may need to be restricted due to the close proximity of roads, foundations, or other infrastructure. A geomembrane liner, or other equivalent water proofing, may be placed along the vertical walls to reduce lateral flows. This liner should have a minimum thickness of 30 mils. Generally, waterproof barriers should not be placed on the bottom of the biofiltration unit, as this would prevent incidental infiltration which is important to meeting the required pollutant load reduction.

6. Planting/Storage Media Specifications

- a. The planting media placed in the cell should achieve a long-term, in-place infiltration rate of at least 5 inches per hour. Higher infiltration rates of up to 12 inches per hour are permissible. Bioretention/biofiltration soil shall retain sufficient moisture to support vigorous plant growth.
- b. Planting media should consist of 60 to 80% fine sand and 20 to 40% compost.
- c. Sand should be free of wood, waste, coating such as clay, stone dust, carbonate, etc. or any other deleterious material. All aggregate passing the No. 200 sieve size should be non-plastic. Sand for bioretention should be analyzed by an accredited lab using #200, #100, #40, #30, #16, #8, #4, and 3/8 sieves (ASTM D 422 or as approved by the local permitting authority) and meet the following gradation (Note: all sands complying with ASTM C33 for fine aggregate comply with the gradation requirements provided in Table H-1):

Table H-1. Sand Texture Specifications

Sieve Size ASTM D422	Percent Passing by Weight	
	Minimum	Maximum
3 /8 inch	100	100
No. 4	90	100
No. 8	70	100
No. 16	40	95
No. 30	15	70
No. 40	5	55
No. 110	0	15
No. 200	0	5

Note: The gradation of the sand component of the media is believed to be a major factor in the hydraulic conductivity of the media mix. If the desired hydraulic conductivity of the media cannot be achieved within the specified proportions of sand and compost (#2), then it may be necessary to utilize sand at the coarser end of the range specified in above ("minimum" column).

- d. Compost should be a well decomposed, stable, weed free organic matter source derived from waste materials including yard debris, wood wastes, or other organic materials not including manure or biosolids meeting standards developed by the US Composting Council (USCC). The product shall be certified through the USCC Seal of Testing Assurance (STA) Program (a compost testing and information disclosure program). Compost quality should be verified via a lab analysis to be:

- Feedstock materials shall be specified and include one or more of the following: landscape/yard trimmings, grass clippings, food scraps, and agricultural crop residues.
- Organic matter: 35-75% dry weight basis.
- Carbon and Nitrogen Ratio: 15:1 < C:N < 25:1
- Maturity/Stability: shall have dark brown color and a soil-like odor. Compost exhibiting a sour or putrid smell, containing recognizable grass or leaves, or is hot (120 F) upon delivery or rewetting is not acceptable.
- Toxicity: any one of the following measures is sufficient to indicate non-toxicity:
 - NH₄:NH₃ < 3
 - Ammonium < 500 ppm, dry weight basis
 - Seed Germination > 80% of control
 - Plant trials > 80% of control
 - Solvita® > 5 index value
- Nutrient content:
 - Total Nitrogen content 0.9% or above preferred
 - Total Boron should be <80 ppm, soluble boron < 2.5 ppm
- Salinity: < 6.0 mmhos/cm
- pH between 6.5 and 8 (may vary with plant palette)
- Compost for bioretention should be analyzed by an accredited lab using #200, ¼ inch, ½ inch, and 1 inch sieves (ASTM D 422) and meet the gradation described in Table H-2:

Table H-2. Compost Texture Specifications

Sieve Size ASTM D422	Percent Passing by Weight	
	Minimum	Maximum
1 inch	99	100
½ inch	90	100
¼ inch	40	90
#200	2	10

Tests should be sufficiently recent to represent the actual material that is anticipated to be delivered to the site. If processes or sources used by the supplier have changed significantly since the most recent testing, new tests should be requested.

Note: the gradation of compost used in bioretention/biofiltration media is believed to play an important role in the saturated hydraulic conductivity of the media. To achieve a higher saturated hydraulic conductivity, it may be necessary to utilize compost at the coarser end of this range ("minimum" column). The percent passing the #200 sieve (fines) is believed to be the most important factor in hydraulic conductivity.

In addition, a coarser compost mix provides more heterogeneity of the bioretention media, which is believed to be advantageous for more rapid development of soil structure needed to support health biological processes. This may be an advantage for plant establishment with lower nutrient and water input.

- e. Bioretention/Biofiltration soils not meeting the above criteria shall be evaluated on a case by case basis. Alternative bioretention soil shall meet the following specification:

“Soils for bioretention facilities shall be sufficiently permeable to infiltrate runoff at a minimum rate of 5 inches per hour during the life of the facility, and provide sufficient retention of moisture and nutrients to support healthy vegetation.” The following steps shall be followed by the Permittees to verify that alternative soil mixes meet the specification:

- Submittals – The applicant must submit to the Permittee for approval:
 - A sample of mixed bioretention/biofiltration soil.
 - Certification from the soil supplier or an accredited laboratory that the bioretention/biofiltration soil meets the requirements of this specification.
 - Certification from an accredited geotechnical testing laboratory that the bioretention/biofiltration soil has an infiltration rate of between 5 and 12 inches per hour.
 - Organic content test results of mixed bioretention/biofiltration soil. Organic content test shall be performed in accordance with by Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, “Loss-On-Ignition Organic Matter Method”.
 - Organic Grain size analysis results of mixed bioretention/biofiltration soil performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
 - A description of the equipment and methods used to mix the sand and compost to produce the bioretention/biofiltration soil.
- The name of the testing laboratory(s) and the following information:
 - Contact person(s)
 - Address(s)
 - Phone contact(s)
 - email address(s)
 - Qualifications of laboratory(s), and personnel including date of current
 - Certification by STA, ASTM, or approved equal.
- Bioretention/biofiltration soils shall be analyzed by an accredited lab using #200, and 1/2” inch sieves (ASTM D 422 or as approved by municipality), and meet the gradation described in Table H-3).

Table H-3. Alternative Bioretention/Biofiltration Soil Texture Specifications

Sieve Size ASTM D422	Percent Passing by Weight	
	Minimum	Maximum
1/2 inch	97	100
200	2	5

- Bioretention/biofiltration soils shall be analyzed by an accredited geotechnical lab for the following tests:
 - Moisture – density relationships (compaction tests) shall be conducted on bioretention soil. Bioretention/biofiltration soil for the permeability test shall be compacted to 85 to 90 percent of the maximum dry density (ASTM D1557).
 - Constant head permeability testing in accordance with ASTM D2434 shall be conducted on a minimum of two samples with a 6-inch mold and vacuum saturation.

7. Mulch for Bioretention/Biofiltration Facilities

Mulch is recommended for the purpose of retaining moisture, preventing erosion and minimizing weed growth. Projects subject to the State's Model Water Efficiency Landscaping Ordinance (or comparable local ordinance) will be required to provide at least two inches of mulch. Aged mulch, also called compost mulch, reduces the ability of weeds to establish, keeps soil moist, and replenishes soil nutrients. Aged mulch can be obtained through soil suppliers or directly from commercial recycling yards. It is recommended to apply 1" to 2" of composted mulch, once a year, preferably in June following weeding

8. Plants

- a. Plant materials should be tolerant of summer drought, ponding fluctuations, and saturated soil conditions for 48 to 96 hours.
- b. It is recommended that a minimum of three types of tree, shrubs, and/or herbaceous groundcover species be incorporated to protect against facility failure due to disease and insect infestations of a single species.
- c. Native plant species and/or hardy cultivars that are not invasive and do not require chemical inputs should be used to the maximum extent practicable.

References

California Regional Water Quality Control Board, San Francisco Bay Region. 2011. Municipal Regional Stormwater Permit (Order No. R2-2011-0083, Attachment L). Adopted November 28, 2011.

Dan Cloak, Dan Cloak Environmental Consulting to Tom Dalziel, Contra Costa County, February 22, 2011. <<http://www.cccleanwater.org/c3-guidebook.html>>. Accessed on January 31, 2012:

Geosyntec Consultants and Larry Walker Associates. 2011. *Ventura County Technical Guidance Manual for Stormwater Quality Control Measures, Manual Update 2011. Appendix D*. Prepared for the Ventura Countywide Stormwater Quality Management Program. July 13, 2011.

ATTACHMENT I. DEVELOPER TECHNICAL INFORMATION AND GUIDELINES

1. Each Permittee shall make available to the Development Community reference information and recommended guidelines. Such information may include the following:
 - a. Hydromodification Control criteria described in this Order, including numerical criteria
 - b. Links to the State Water Board's Water Balance Calculator
 - c. Expected BMP pollutant removal performance including effluent quality (ASCE/ U.S. EPA International BMP Database, CASQA New Development BMP Handbook, technical reports, local data on BMP performance, and the scientific literature appropriate for southern California geography and climate)
 - d. Selection of appropriate BMPs for stormwater pollutants of concern
 - e. Data on observed local effectiveness and performance of implemented BMPs
 - f. BMP maintenance and cost considerations
 - g. Guiding principles to facilitate integrated water resources planning and management in the selection of BMPs, including water conservation, groundwater recharge, public recreation, multipurpose parks, open space preservation, and existing retrofits
 - h. LID principles and specifications, including the objectives and specifications for integration of LID strategies in the areas of:
 - i. Site Assessment
 - ii. Site Planning and Design
 - iii. Vegetative Protection, Revegetation, and Maintenance
 - iv. Techniques to Minimize Land Disturbance
 - v. Techniques to Implement LID Measures at Various Scales
 - vi. Integrated Water Resources Management Practices
 - vii. LID Design and Flow Modeling Guidance
 - viii. Hydrologic Analysis
 - ix. LID Credits for trees or other features that intercept storm water runoff.
 - i. Recommended Guidelines to include:
 - i. Locate structures on less pervious soils where possible so as to preserve areas with permeable soils (Hydrologic Soil Group Classes A and B, as defined by the National Cooperative Soil Survey), for use in stormwater infiltration and groundwater recharge. Minimize the need to grade the site by concentrating development in areas with minimal non-engineered slopes and existing infrastructure, and mitigate any construction disturbance.
 - ii. The total disturbed area shall be no greater than 110 percent of the final project footprint plus the area of the construction stormwater detention basins, if any, and as required to meet applicable Fire Department regulations for brush clearance.

- iii. Construction vehicles shall be confined at all times to the area specifically permitted to be disturbed by construction as depicted in the approved construction documents. Physical barriers shall be used to designate and protect the boundary between disturbed and undisturbed areas.
 - iv. Materials staging shall be confined to the area permitted to be disturbed by construction or may be temporarily stored off-site at an approved location at the Contractor's option.
 - v. Construction vehicles shall not traverse areas within the drip lines of those trees and other landscaping to be preserved. Approved visible physical barriers, such as continuous fencing, shall be provided to completely surround all trees and other landscaping to be preserved. Barriers shall be placed not less than 5 feet outside the drip lines of trees.
 - vi. Preserve or restore continuous riparian buffers widths along all natural drainages to a minimum width of 100 feet from each bank top, for a total of 200 feet plus the width of the stream, unless the Watershed Plan demonstrates that a smaller riparian buffer width is protective of water quality, hydrology, and aquatic life beneficial uses within a specific drainage.
 - vii. Identify and avoid development of areas containing habitat with threatened or endangered plant and animal species¹.
- j. Each Permittee shall facilitate implementation of LID by providing key industry, regulatory, and other stakeholders with information regarding LID objectives and specifications through a training program. The LID training program will include the following:
- i. LID targeted sessions and materials for builders, design professionals, regulators, resource agencies, and stakeholders
 - ii. A combination of awareness on national efforts and local experience gained through LID pilot projects and demonstration projects
 - iii. Materials and data from LID pilot projects and demonstration projects including case studies
 - iv. Guidance on how to integrate LID requirements at various project scales
 - v. Guidance on the relationship among LID strategies, Source Control BMPs, Treatment Control BMPs, and Hydromodification Control requirements

¹ Federal Endangered Species Act, 16 U.S.C. §§ 1531–1544 (<http://water.epa.gov/lawsregs/guidance/wetlands/eo11990.cfm>); California Endangered Species Act, California Fish and Game Code, §§ 2050 to 2115.5.

ATTACHMENT J. DETERMINATION OF EROSION POTENTIAL

E_p is determined as follows - The *total effective work* done on the channel boundary is derived and used as a metric to predict the likelihood of channel adjustment given watershed and stream hydrologic and geomorphic variables. The index under urbanized conditions is compared to the index under pre-urban conditions expressed as a ratio (E_p). The effective work index (W) can be computed in a number of different ways including simplistic work equations, material specific sediment transport equations, or more complex functions based on site calibrated sediment rating curves. One such work equation, which represents the total work done on the channel boundary, includes the following:

$$W = \sum_{i=1}^n (\tau_i - \tau_c)^{1.5} \cdot V \cdot \Delta t_i \quad (1)$$

Where: W = effective work, τ_c = critical shear stress that initiates bed mobility or erodes the weakest bank layer, τ_i = applied hydraulic shear stress, Δt = duration of flows (in hours), V = mid-channel flow velocity, and n = length of flow record. The effective work index for presumed stable stream channels under pre-urban conditions is compared to stable and unstable channels under current urbanized conditions. The comparison, expressed as a ratio, is defined as the Erosion Potential (E_p)¹ (McRae (1992, 1996)).

$$E_p = \frac{W_{post}}{W_{pre}} \quad (2)$$

where:

= work index estimated for the post-urban condition
= work index estimated for the pre-urban condition

Alternatively, a sediment transport function such as the Brownlie equation or the Meyer-Peter and Muller equation (*US Department of Agriculture, Natural Resources Conservation Service, 2007. Part 654 Stream Restoration Design, National Engineering Handbook, August 2007*) can be used to demonstrate appropriate Hydromodification control.

¹ MacRae, C.R. 1992. The Role of Moderate Flow Events and Bank Structure in the Determination of Channel Response to Urbanization. Resolving conflicts and uncertainty in water management: Proceedings of the 45th Annual Conference of the Canadian Water Resources Association. Shrubsole, D, ed. 1992, pg. 12.1-12.21; MacRae, C.R. 1996. Experience from Morphological Research on Canadian Streams: Is Control of the Two-Year Frequency Runoff Event the Best Basis for Stream Channel Protection. Effects of Watershed Development and Management on Aquatic Ecosystems, ASCE Engineering Foundation Conference, Snowbird, Utah, pg. 144-162.

ATTACHMENT K. PERMITTEES AND TMDLS MATRIX

Note: For all tables in this Attachment, Permittees listed in *italics>* are Multi-Jurisdictional Permittees.

Table K-1: Santa Clara River Watershed Management Area TMDLs

SANTA CLARA RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS				
	Santa Clara River Nitrogen Compounds TMDL	Upper Santa Clara River Chloride TMDL	Lake Elizabeth, Munz Lake, and Lake Hughes Trash TMDL	Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL	
<i>Los Angeles (County of)</i>	X	X	X	X	X
<i>Los Angeles County Flood Control</i>	X	X		X	X
<i>Santa Clarita</i>	X	X			X

Table K-2: Santa Monica Bay Watershed Management Area TMDLs

SANTA MONICA BAY WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS					
	Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry Weather)	Santa Monica Bay Nearshore and Offshore Debris TMDL	Santa Monica Bay TMDL for DDTs and PCBs	Malibu Creek and Lagoon Bacteria TMDL	Malibu Creek Watershed Trash TMDL	Malibu Creek Nutrient TMDL
<i>Agoura Hills</i>	X	X	X	X	X	X
<i>Beverly Hills</i>	X	X	X			
<i>Calabasas</i>	X	X	X	X	X	X
<i>Culver City</i>	X	X	X			
<i>El Segundo</i>	X	X	X			
<i>Hermosa Beach</i>	X	X	X			
<i>Hidden Hills</i>	X	X	X	X	X	X
<i>Inglewood</i>	X	X	X			
<i>Los Angeles (City of)</i>	X	X	X			

Attachment K – Permittees and TMDLs Matrix

SANTA MONICA BAY WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS					
	Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry Weather)	Santa Monica Bay Nearshore and Offshore Debris TMDL	Santa Monica Bay TMDL for DDTs and PCBs	Malibu Creek and Lagoon Bacteria TMDL	Malibu Creek Watershed Trash TMDL	Malibu Creek Nutrient TMDL
Los Angeles (County of)	X	X	X	X	X	X
Los Angeles County Flood Control Malibu	X	X	X	X	X	X
Manhattan Beach	X	X	X			
Palos Verdes Estates	X	X	X			
Rancho Palos Verdes	X	X	X			
Redondo Beach	X	X	X			
Rolling Hills	X	X	X			
Rolling Hills Estates	X	X	X			
Santa Monica	X	X	X			
Torrance	X	X	X			
West Hollywood	X	X	X			
Westlake Village	X	X	X	X	X	X

Table K-3: Santa Monica Bay Watershed Management Area TMDLs

SANTA MONICA BAY WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS							
	Ballona Creek Subwatershed				Marina del Rey Subwatershed			
	Ballona Creek Trash TMDL	Ballona Creek Estuary Toxic Pollutants TMDL	Ballona Creek, Ballona estuary and Sepulveda Channel Bacteria TMDL	Ballona Creek Metals TMDL	Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation	Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	Marina del Rey Harbor Toxic Pollutants TMDL	
Agoura Hills								
Beverly Hills	X	X	X	X	X			
Calabasas								
Culver City	X	X	X	X	X	X		X
<i>El Segundo</i>								
Hermosa Beach								
<i>Hidden Hills</i>								
<i>Inglewood</i>	X	X	X	X	X			
<i>Los Angeles (City of)</i>	X	X	X	X	X	X		X
<i>Los Angeles (County of)</i>	X	X	X	X	X	X		X
<i>Los Angeles County Flood Control</i>		X	X	X	X	X		X
Malibu								
Manhattan Beach								
Palos Verdes Estates								
Rancho Palos Verdes								
Redondo Beach								
Rolling Hills								
Rolling Hills Estates								
Santa Monica	X	X	X	X				X

ACTIVE TMDLS						
SANTA MONICA BAY WATERSHED MANAGEMENT AREA PERMITTEES	Ballona Creek Subwatershed				Marina del Rey Subwatershed	
	Ballona Creek Estuary Toxic Pollutants TMDL	Ballona Creek, Ballona estuary and Sepulveda Channel Bacteria TMDL	Ballona Creek Metals TMDL	Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation	Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL	Marina del Rey Harbor Toxic Pollutants TMDL
Torrance						
West Hollywood	X	X	X	X		
Westlake Village						

Table K-4: Dominguez Channel Watershed Management Area TMDLs

DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS					
	Los Angeles Harbor Bacteria TMDL	Machado Lake Trash TMDL	Machado Lake Nutrient TMDL	Machado Lake Pesticides and PCBs TMDL	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹	
Carson		X	X	X	X	
Compton					X	
El Segundo					X	
Gardena					X	
Hawthorne					X	
Inglewood					X	
Lawndale					X	
Lomita		X	X	X	X	
Los Angeles (City of)	X	X	X	X	X	
Los Angeles (County of)	X	X	X	X	X	
Los Angeles County Flood Control		X	X	X	X	
Manhattan Beach					X	
Palos Verdes Estates		X	X	X	X	

Attachment K – Permittees and TMDLs Matrix

DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS				
	Los Angeles Harbor Bacteria TMDL	Machado Lake Trash TMDL	Machado Lake Nutrient TMDL	Machado Lake Pesticides and PCBs TMDL	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
Rancho Palos Verdes		X	X	X	X
Redondo Beach		X	X	X	X
Rolling Hills		X	X	X	X
Rolling Hills Estates		X	X	X	X
Torrance		X	X	X	X

The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in *United States v. Montrose Chemical Corp.*, Case No. 90-3122 AAH (JRx).

Table K-5: Los Angeles River Watershed Management Area TMDLs

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS							
	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	Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Los Angeles Area Lake TMDLs for Lake Calabasas, Echo Park Lake, Legg Lake and Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
Alhambra	X	X	X	X				
Arcadia	X	X	X	X			X	
Bell	X	X	X	X				
Bell Gardens	X	X	X	X				
Bradbury	X	X	X	X			X	
Burbank	X	X	X	X				
Calabasas	X	X	X	X			X	
Carson	X	X	X	X				X
Commerce	X	X	X	X				
Compton	X	X	X	X				X

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS								Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
	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	Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Los Angeles Area Lake TMDLs for Lake Calabazas, Echo Park Lake, Legg Lake and Peck Road Park Lake		
Cudahy	X	X	X	X					
Downey	X	X	X	X					
Duarte	X	X	X	X			X		
El Monte	X	X	X	X	X		X		
Glendale	X	X	X	X					
Hidden Hills	X	X	X	X					
Huntington Park	X	X	X	X					
Irwindale	X	X	X	X			X		
La Canada Flintridge	X	X	X	X					
Lakewood	X	X							X
Los Angeles (City of)	X	X	X	X			X		X
Los Angeles (County of)	X	X	X	X	X		X		X
Los Angeles County Flood Control		X	X	X	X		X	X	X
Lynwood	X	X	X	X					
Maywood	X	X	X	X					
Monrovia	X	X	X	X			X		
Montebello	X	X	X	X					
Monterey Park	X	X	X	X					
Paramount	X	X	X	X					X
Pasadena	X	X	X	X					
Pico Rivera	X	X	X	X					

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS							
	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	Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Los Angeles Area Lake TMDLs for Lake Calabazas, Echo Park Lake, Legg Lake and Peck Road Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
Rosemead	X	X	X	X				
San Fernando	X	X	X	X				
San Gabriel	X	X	X	X				
San Marino	X	X	X	X				
Santa Clarita	X	X	X	X				
Sierra Madre	X	X	X	X			X	
Signal Hill	X	X	X	X				
South El Monte	X	X	X	X	X		X	X
South Gate	X	X	X	X				
South Pasadena	X	X	X	X				
Temple City	X	X	X	X				
Vernon	X	X	X	X				

¹ The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in *United States v. Montrose Chemical Corp.*, Case No. 90-3122 AAH (JRx).

Table K-6: San Gabriel River Watershed Management Area TMDLs

SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS		
	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	Los Angeles Area Lakes TMDLs for Puddingstone Reservoir, and Santa Fe Dam Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
<i>Arcadia</i>	X		
<i>Artesia</i>	X		
<i>Azusa</i>	X	X	
<i>Baldwin Park</i>	X		
<i>Bellflower</i>	X		X
<i>Bradbury</i>	X		
<i>Cerritos</i>	X		
<i>Claremont</i>	X	X	
<i>Covina</i>	X		
<i>Diamond Bar</i>	X		
<i>Downey</i>	X		
<i>Duarte</i>	X		
<i>El Monte</i>	X		
<i>Glendora</i>	X		
<i>Hawaiian Gardens</i>	X		
<i>Industry</i>	X		
<i>Irwindale</i>	X	X	
<i>La Habra Heights</i>	X		
<i>La Mirada</i>	X		
<i>La Puente</i>	X		
<i>La Verne</i>	X	X	
<i>Lakewood</i>	X		X
<i>Los Angeles (County of)</i>	X	X	X
<i>Los Angeles County Flood Control</i>	X	X	X

SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS		
	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	Los Angeles Area Lakes TMDLs for Puddingstone Reservoir, and Santa Fe Dam Park Lake	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
<i>Monrovia</i>	X		
<i>Norwalk</i>	X		
<i>Pico Rivera</i>	X		
<i>Pomona</i>	X	X	
<i>San Dimas</i>	X	X	
<i>Santa Fe Springs</i>	X		
<i>South El Monte</i>	X		
<i>Walnut</i>	X		
<i>West Covina</i>	X		
<i>Whittier</i>	X		

¹ The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in *United States v. Montrose Chemical Corp.*, Case No. 90-3122 AAH (JRx).

MS4 Discharges within the
 Coastal Watersheds of Los Angeles County

Table K-7: Los Cerritos Channel and Alamitos Bay Watershed Management Area TMDLs

LOS CERRITOS CHANNEL AND ALAMITOS BAY WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDLS		
	Los Cerritos Channel Metals TMDL	Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹
<i>Bellflower</i>	X		X
<i>Cerritos</i>	X		
<i>Downey</i>	X		X
<i>Lakewood</i>	X		X
<i>Los Angeles (County of)</i>	X		X
<i>Los Angeles County Flood Control</i>	X	X	X
<i>Paramount</i>	X		X
<i>Signal Hill</i>	X		X

¹ The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in *United States v. Montrose Chemical Corp.*, Case No. 90-3122 AAH (JR).

Table K-8: Middle Santa Ana River Watershed Management Area TMDLs

MIDDLE SANTA ANA RIVER WATERSHED MANAGEMENT AREA PERMITTEES	ACTIVE TMDL
Claremont	X
Pomona	X

Table K-9: Los Angeles River Watershed Management Area Metals TMDLs by Reach

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River and Tributaries Metals TMDL				
	Reach 1 and Compton Creek	Reach 2, Rio Hondo, Arroyo Seco, and all contributing subwatersheds	Reach 3, Verdugo Wash, and Burbank Western Channel	Reach 4, Reach 5, Tujunga Wash, and all contributing subwatersheds	Reach 6, Bell Creek, and all contributing subwatersheds
Alhambra		X			
Arcadia		X			
Bell		X			
Bell Gardens		X			
Bradbury		X			
Burbank			X	X	
Calabasas					X
Carson	X				
Commerce		X			
Compton	X	X			
Cudahy		X			
Downey		X			
Duarte		X			
El Monte		X			
Glendale		X	X	X	
Hidden Hills					X
Huntington Park	X	X			
Irwindale		X			
La Canada Flintridge		X	X		
Lakewood					
Los Angeles (City of)	X	X	X	X	X
Los Angeles (County of)	X	X	X	X	X
Los Angeles County Flood Control	X	X	X	X	X
Lynwood	X	X			
Maywood		X			

MS4 Discharges within the
 Coastal Watersheds of Los Angeles County

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River and Tributaries Metals TMDL				
	Reach 1 and Compton Creek	Reach 2, Rio Hondo, Arroyo Seco, and all contributing subwatersheds	Reach 3, Verdugo Wash, and Burbank Western Channel	Reach 4, Reach 5, Tujunga Wash, and all contributing subwatersheds	Reach 6, Bell Creek, and all contributing subwatersheds
<i>Monrovia</i>		X			
<i>Montebello</i>		X			
<i>Monterey Park</i>		X			
<i>Paramount</i>		X	X		
<i>Pasadena</i>		X			
<i>Pico Rivera</i>		X			
<i>Rosemead</i>		X		X	
<i>San Fernando</i>		X			
<i>San Gabriel</i>		X			
<i>San Marino</i>		X			
<i>Santa Clarita</i>		X			
<i>Sierra Madre</i>		X			
<i>Signal Hill</i>	X				
<i>South El Monte</i>		X			
<i>South Gate</i>	X				
<i>South Pasadena</i>		X			
<i>Temple City</i>		X			
<i>Vernon</i>		X			

Table K-10: Los Angeles River Watershed Management Area Bacteria TMDL by Reach

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River Watershed Bacteria TMDL															
	Los Angeles River Segment					Los Angeles River Tributary										
	A	B	C	D	E	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
Alhambra	X													X		
Arcadia														X		
Bell	X															
Bell Gardens	X													X		
Bradbury														X		
Burbank					X					X						
Calabasas												X				
Carson											X					
Commerce	X													X		
Compton	X									X						
Cudahy	X															
Downey	X													X		
Duarte														X		
El Monte														X		
Glendale	X		X					X							X	
Hidden Hills								X								
Huntington Park	X									X						
Irwindale																
La Canada Flintridge			X					X								X
Lakewood	X															
Los Angeles (City of)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Los Angeles (County of)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

MS4 Discharges within the
Coastal Watersheds of Los Angeles County

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA PERMITTEES	Los Angeles River Watershed Bacteria TMDL															
	Los Angeles River Segment					Los Angeles River Tributary										
	A	B	C	D	E	Aliso Canyon Wash	Arroyo Seco	Bell Creek	Bull Creek	Burbank Western Channel	Compton Creek	Dry Canyon Creek	McCoy Canyon Creek	Rio Hondo	Tujunga Wash	Verdugo Wash
Los Angeles County Flood Control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lynwood	X										X					
Maywood	X													X		
Monrovia														X		
Montebello				X										X		
Monterey Park				X										X		
Paramount	X													X		
Pasadena				X										X		
Pico Rivera														X		
Rosemead														X		
San Fernando														X		
San Gabriel														X		
San Marino														X		
Santa Clarita									X					X		
Sierra Madre														X		
Signal Hill	X													X		
South El Monte											X			X		
South Gate				X										X		
South Pasadena				X										X		
Temple City														X		
Vernon				X										X		

Table K-11: Santa Monica Bay Watershed Management Area Bacteria TMDL by Reach

SANTA MONICA BAY WATERSHED MANAGEMENT AREA PERMITTEES	Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry Weather)								
	Jurisdiction Group 1	Jurisdiction Group 2	Jurisdiction Group 3	Jurisdiction Group 4	Jurisdiction Group 5	Jurisdiction Group 6	Jurisdiction Group 7	Jurisdiction Group 8	Jurisdiction Group 9
Agoura Hills									X
Beverly Hills								X	
Catambas	X								X
Culver City								X	
El Segundo		X			X				
Hermosa Beach					X	X			
Hidden Hills									X
Inglewood								X	
Los Angeles (City of)	X	X	X				X	X	
Los Angeles (County of)	X	X		X	X		X	X	X
Los Angeles County Flood Control	X	X	X	X	X		X	X	X
Malibu	X			X					X
Manhattan Beach					X				
Palos Verdes Estates							X		
Rancho Palos Verdes							X		
Redondo Beach						X			
Rolling Hills							X		
Rolling Hills Estates							X		
Santa Monica		X	X					X	
Torrance						X			
West Hollywood								X	

SANTA MONICA BAY WATERSHED MANAGEMENT AREA PERMITTEES	Santa Monica Bay Beaches Bacteria TMDL (Wet and Dry Weather)								
	Jurisdiction Group 1	Jurisdiction Group 2	Jurisdiction Group 3	Jurisdiction Group 4	Jurisdiction Group 5	Jurisdiction Group 6	Jurisdiction Group 7	Jurisdiction Group 8	Jurisdiction Group 9
Westlake Village									X

Table K-12: San Gabriel River Watershed Management Area Metals TMDLs by Reach

SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL									
	Walnut Creek	San Jose Creek	Coyote Creek	San Gabriel River Reach 1	San Gabriel River Reach 2	San Gabriel River Reach 3	San Gabriel River Reach 4	San Gabriel River Reach 5		
Arcadia			X	X			X			
Artesia								X		
Azusa	X					X				
Baldwin Park	X			X						
Bellflower										
Bradbury				X						
Cerritos			X							
Claremont	X	X								
Covina	X									
Diamond Bar		X			X					
Downey				X					X	
Duarte										
El Monte						X			X	
Glendora	X									
Hawaiian Gardens			X		X					
Industry	X	X				X				
Irwindale	X					X			X	
La Habra Heights		X	X							

SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA PERMITTEES	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL									
	Walnut Creek	San Jose Creek	Coyote Creek	San Gabriel River Reach 1	San Gabriel River Reach 2	San Gabriel River Reach 3	San Gabriel River Reach 4	San Gabriel River Reach 5		
La Mirada			X							
La Puente	X	X				X				
La Verne	X	X								
Lakewood			X	X						
Los Angeles (County of)	X	X	X	X	X	X	X	X	X	
Los Angeles County Flood Control	X	X	X	X	X	X	X	X	X	
Monrovia										
Norwalk			X	X						
Pico Rivera					X	X				
Pomona	X	X								
San Dimas	X	X								
Santa Fe Springs			X	X	X					
South El Monte						X				
Walnut	X	X								
West Covina	X	X								
Whittier		X	X		X	X				

MS4 Discharges within the
Coastal Watersheds of Los Angeles County

Table K-13: Dominguez Channel Watershed Management Area Toxics TMDL by Reach

DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA PERMITTEES	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL ¹					
	Dominguez Channel	Dominguez Channel Estuary	Greater Los Angeles and Long Beach Harbors	Los Angeles River Estuary	Consolidated Slip	Los Angeles River and San Gabriel River
<i>Bellflower</i>			X			
<i>Carson</i>	X	X				
<i>Compton</i>	X	X				
<i>El Segundo</i>	X					
<i>Gardena</i>	X	X				
<i>Hawthorne</i>	X					
<i>Inglewood</i>	X					
<i>Lakewood</i>			X			
<i>Lawndale</i>	X					
<i>Los Angeles (City of)</i>	X	X	X	X	X	
<i>Los Angeles (County of)</i>	X	X	X	X	X	
<i>Los Angeles County Flood Control District</i>	X	X	X	X	X	
<i>Manhattan Beach</i>	X					
<i>Paramount</i>			X			
<i>Rancho Palos Verdes</i>			X			
<i>Redondo Beach</i>	X					
<i>Rolling Hills</i>			X			
<i>Rolling Hills Estates</i>			X			
<i>Signal Hill</i>			X	X		
<i>Torrance</i>	X	X				
Los Angeles River and San Gabriel River Metals TMDLs Responsible Parties²						see note 2 below

¹ The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in *United States v. Montrose Chemical Corp.*,

Case No. 90-3122 AAH (JRx).

² Permittees subject to the Los Angeles River Metals TMDL and the San Gabriel River Metals TMDL are required to submit a monitoring plan and a report of implementation.

ATTACHMENT L. TMDLs IN THE SANTA CLARA RIVER WATERSHED MANAGEMENT AREA (WMA)

A. Santa Clara River Nitrogen Compounds TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
2. Permittees shall comply with the following water quality-based effluent limitations for discharges to the Santa Clara River Reach 5¹ as of the effective date of this Order:

Constituent	Effluent Limitations (mg/L)	
	1-hour Average	30-day Average
Total Ammonia as Nitrogen	5.2	1.75
Nitrate as Nitrogen plus Nitrite as Nitrogen	--	6.8

B. Upper Santa Clara River Chloride TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
2. Permittees shall comply with the following water quality-based effluent limitation for discharges to the Santa Clara River Reaches 5 and 6 as of the effective date of this Order:

Constituent	Effluent Limitation Instantaneous Maximum (mg/L)
Chloride	100

C. Lake Elizabeth Trash TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Lake Elizabeth no later than March 6, 2016 and every year thereafter.
3. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to Lake Elizabeth, per the schedule below:

Deadline	Effluent Limitation	
	Drainage Area covered by Full Capture Systems (%)	Annual Trash Discharge (gal/yr)
Baseline	0	529
March 6, 2012	20	423
March 6, 2013	40	317
March 6, 2014	60	212
March 6, 2015	80	106
March 6, 2016	100	0

4. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in C.2 and C.3 above per the provisions in Part VI.E.5.

¹ The Basin Plan Chapter 7-9 Santa Clara River Nitrogen Compounds TMDL uses the USEPA Santa Clara River reach designations. The USEPA's Santa Clara River Reach 7 corresponds to Santa Clara River Reach 5 in the Los Angeles Region's Basin Plan Chapter 2.

D. Santa Clara River Indicator Bacteria TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-1.
2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Santa Clara River Reaches 5, 6 and 7 during dry weather no later than March 21, 2023 and during wet weather² no later than March 21, 2029:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
E. coli	235/100 mL	126/100 mL

3. Receiving Water Limitations

- a. Permittees shall comply with the following interim bacteria receiving water limitations³ for the Santa Clara River Reaches 5, 6, and 7:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		Deadline
	Daily Sampling	Weekly Sampling	
Dry Weather	17	3	March 21, 2016
Wet Weather	61	9	March 21, 2016

- b. Permittees shall comply with the following final bacteria receiving water limitations⁴ for the Santa Clara River Reaches 5, 6, and 7:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)		Deadline
	Daily Sampling	Weekly Sampling	
Dry Weather	5	1	March 21, 2023
Wet Weather	16	3	March 21, 2029

² Wet weather is defined as days with 0.1 inch of rain or more and the three days following the rain event.

³ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each reach.

⁴ Ibid.

- c. Permittees shall comply with the following geometric mean receiving water limitation for the Santa Clara River Reaches 5, 6, and 7 during dry weather no later than March 21, 2023 and during wet weather no later than March 21, 2029:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

- d. Permittees may propose wet-weather load-based compliance at MS4 outfalls. The plan shall include an estimate of existing load and the allowable load from MS4 outfalls to attain the allowable number of exceedance days instream. The plan shall include a technically defensible quantitative linkage to the allowable number of exceedance days. The plan shall include quantitative estimates of the water quality benefits provided by the proposed implementation approach.

ATTACHMENT M. TMDLs IN THE SANTA MONICA BAY WATERSHED MANAGEMENT AREA

A. Santa Monica Bay Beaches Bacteria TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-2.
2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Santa Monica Bay during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

3. Section A.2 above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A of Resolution No. R12-007). Upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Santa Monica Bay during dry weather as of the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each individual monitoring location, calculated as defined in the revised Santa Monica Bay Beaches Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

4. Receiving Water Limitations

- a. Permittees in each defined jurisdictional group shall comply with the interim single sample bacteria receiving water limitations for shoreline monitoring stations within their jurisdictional area during wet weather, per the schedule below:

Deadline	Cumulative percentage reduction from the total exceedance day reductions required for each jurisdictional group as identified in Table M-1
July 15, 2013	25%
July 15, 2018	50%

- b. Section A.4.a above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A of Resolution No. R12-007). Upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL, Permittees in each defined jurisdictional group shall comply with the interim single sample bacteria receiving water limitations for shoreline monitoring stations within their jurisdictional area during wet weather, per the schedule below:

Deadline	Cumulative percentage reduction from the total wet weather exceedance day reductions required for each jurisdictional group as identified in Table M-2
July 15, 2013	25%
July 15, 2018	50%

Table M-1: Interim Single Sample Bacteria Receiving Water Limitations by Jurisdictional Group

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days during Wet Weather		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
1	County of Los Angeles	Malibu City of Los Angeles (Topanga only) Calabasas (Topanga only)	Arroyo Sequit Carbon Canyon Corral Canyon Encinal Canyon Escondido Canyon Las Flores Canyon Latigo Canyon Los Alisos Canyon Pena Canyon Piedra Gorda Canyon Ramirez Canyon Solstice Canyon Topanga Canyon Trancas Canyon Tuna Canyon Zuma Canyon	SMB 1-1 SMB 1-13 SMB 1-11, SMB 1-12 SMB 1-3 SMB 1-8 SMB 1-14 SMB 1-9 SMB 1-2 SMB 1-16 SMB 1-15 SMB 1-6, SMB 1-7 SMB 1-10 SMB 1-18 SMB 1-4 SMB 1-17 SMB 1-5	221	212	197

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Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days during Wet Weather		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
2	City of Los Angeles	County of Los Angeles El Segundo (Dockweiler only) Santa Monica	Castlerock	SMB 2-1	342	324	294
			Dockweiler	SMB 2-10, SMB 2-11, SMB 2-12, SMB 2-13, SMB 2-14, SMB 2-15			
			Venice Beach	SMB 2-8, SMB 2-9			
			Pulga Canyon	SMB 2-4, SMB 2-5			
			Santa Monica Canyon	SMB 2-7			
			Santa Ynez Canyon	SMB 2-2, SMB 2-3, SMB 2-6			
			Santa Monica	SMB 3-1, SMB 3-2, SMB 3-3, SMB 3-4, SMB 3-5, SMB 3-6 SMB 3-7, SMB 3-8 [#] SMB 3-9		257	237
3	Santa Monica	City of Los Angeles County of Los Angeles	Santa Monica				
4	Malibu	County of Los Angeles	Nicholas Canyon	SMB 4-1 [#]	14	14	14
5	Manhattan Beach	El Segundo Hermosa Beach Redondo Beach County of Los Angeles	Hermosa	SMB 5-1 [#] , SMB 5-2, SMB 5-3 [#] , SMB 5-4 [#] , SMB 5-5 [#]	29	29	29

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Allowable Exceedance Days during Wet Weather		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
6	Redondo Beach	Hermosa Beach Manhattan Beach Torrance County of Los Angeles	Redondo	SMB 6-1, SMB 6-2#, SMB 6-3, SMB 6-4, SMB 6-5#, SMB 6-6#	58	57	56
7	Rancho Palos Verdes	City of Los Angeles Palos Verdes Estates Rolling Hills Rolling Hills Estates County of Los Angeles	Palos Verdes Peninsula	SMB 7-1# SMB 7-2# SMB 7-3# SMB 7-4# SMB 7-5# SMB 7-6# SMB 7-7, SMB 7-8# SMB 7-9#	36	36	36

For those beach monitoring locations subject to the anti-degradation implementation provision in the TMDL, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in Table M-3.

* The California Department of Transportation (Caltrans) is a responsible agency in each Jurisdiction Group, except for Jurisdiction 7, and is jointly responsible for complying with the allowable number of exceedance days. Caltrans is separately regulated under the Statewide Storm Water Permit for State of California Department of Transportation (NPDES No. CAS0000003).

Table M-2: Interim Wet Weather Single Sample Bacteria Receiving Water Limitations by Jurisdictional Group

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Exceedance Days Beyond those Allowed during Wet Weather		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
1	County of Los Angeles	Malibu City of Los Angeles (Topanga only) Calabasas (Topanga only)	Arroyo Sequit Carbon Canyon Corral Canyon Encinal Canyon Escondido Canyon Las Flores Canyon Latigo Canyon Los Alisos Canyon Pena Canyon Piedra Gorda Canyon Ramirez Canyon Solstice Canyon Topanga Canyon Trancas Canyon Tuna Canyon Zuma Canyon	SMB 1-1 SMB 1-13 SMB 1-11, SMB 1-12, SMB O-2# SMB 1-3# SMB 1-8 SMB 1-14 SMB 1-9 SMB 1-2# SMB 1-16# SMB 1-15 SMB 1-6, SMB 1-7, SMB O-1# SMB 1-10 SMB 1-18 SMB 1-4 SMB 1-17# SMB 1-5	393	327	218

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Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Exceedance Days Beyond those Allowed during Wet Weather								
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone						
2	City of Los Angeles	County of Los Angeles El Segundo (Dockweiler only) Santa Monica	Castlerock	SMB 2-1	382	318	212						
				Dockweiler				SMB 2-10, SMB 2-11, SMB 2-12, SMB 2-13, SMB 2-14, SMB 2-15					
			Venice Beach	SMB 2-8, SMB 2-9									
				Pulga Canyon				SMB 2-4, SMB 2-5					
			Santa Monica Canyon	SMB 2-7									
				Santa Ynez Canyon				SMB 2-2, SMB 2-3, SMB 2-6					
			3	Santa Monica				City of Los Angeles County of Los Angeles	Santa Monica	219	183	122	
									Santa Monica				SMB 3-1, SMB 3-2, SMB 3-3, SMB 3-4, SMB 3-5, SMB 3-6, SMB 3-7, SMB 3-8, SMB 3-9
									Nicholas Canyon				SMB 4-1#
			4	Malibu				County of Los Angeles	Nicholas Canyon	SMB 4-1#	15	12	8

Jurisdiction Group	Primary Jurisdiction	Additional Responsible Jurisdictions & Agencies	Subwatershed(s)	Monitoring Site(s)	Interim Single Sample Bacteria Receiving Water Limitations as Maximum Exceedance Days Beyond those Allowed during Wet Weather		
					10% Reduction Milestone	25% Reduction Milestone	50% Reduction Milestone
5	Manhattan Beach	El Segundo Hermosa Beach Redondo Beach County of Los Angeles	Hermosa	SMB 5-1#, SMB 5-2, SMB 5-3#, SMB 5-4#, SMB 5-5#	63	52	35
6	Redondo Beach	Hermosa Beach Manhattan Beach Torrance County of Los Angeles	Redondo	SMB 6-1, SMB 6-2#, SMB 6-3, SMB 6-4, SMB 6-5#, SMB 6-6#	62	51	34
7	Rancho Palos Verdes	City of Los Angeles Palos Verdes Estates Rolling Hills Rolling Hills Estates County of Los Angeles	Palos Verdes Peninsula	SMB 7-1#, SMB 7-2#, SMB 7-3#, SMB 7-4#, SMB 7-5#, SMB 7-6#, SMB 7-7, SMB 7-8#, SMB 7-9#	88	73	49

For those beach monitoring locations subject to the antidegradation implementation provision in the TMDL, there shall be no increase in exceedance days during the implementation period above that estimated for the beach monitoring location in the critical year as identified in Table M-4.

* The California Department of Transportation (Caltrans) is a responsible agency in each Jurisdiction Group, except for Jurisdiction 7, and is jointly responsible for complying with the allowable number of exceedance days. Caltrans is separately regulated under the Statewide Storm Water Permit for State of California Department of Transportation (NPDES No. CAS0000003).

- c. Permittees shall comply with the following grouped¹ final single sample bacteria receiving water limitations for all shoreline monitoring stations along Santa Monica Bay beaches, except for those monitoring stations subject to the antidegradation implementation provision as established in the TMDL and identified in subpart e. below, during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	3	1
Wet Weather ² (Year-round)	17	3

- d. Section A.4.c above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A of Resolution No. R12-007). Upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL, Permittees shall comply with the following grouped³ final single sample bacteria receiving water limitations for all shoreline monitoring stations along Santa Monica Bay beaches, except for those monitoring stations subject to the antidegradation implementation provision as established in the TMDL and identified in subpart f. below, during dry weather as of the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	9	2
Wet Weather ⁴ (Year-round)	17	3

¹ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each beach monitoring location.

² Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

³ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each beach monitoring location.

⁴ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

- e. Permittees shall comply with the following grouped⁵ final single sample bacteria receiving water limitations for shoreline monitoring stations along Santa Monica Bay beaches subject to the antidegradation implementation provision in the TMDL as of the effective date of this Order:

Table M-3: Allowable Number of Days that may Exceed any Single Sample Bacteria Receiving Water Limitations

Station ID	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)					
		Summer Dry Weather (April 1 – October 31)		Winter Dry Weather (November 1 – March 31)		Wet Weather (Year-round)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 1-4	Trancas Creek at Broad Beach	0	0	0	0	17	3
SMB 1-5	Zuma Creek at Zuma Beach	0	0	0	0	17	3
SMB 2-13	Imperial Highway storm drain	0	0	2	1	17	3
SMB 3-8	Windward Ave. storm drain at Venice Pavilion	0	0	2	1	13	2
SMB 4-1	San Nicholas Canyon Creek at Nicholas Beach	0	0	0	0	14	2
SMB 5-1	Manhattan Beach at 40th Street	0	0	1	1	4	1
SMB 5-3	Manhattan Beach Pier, southern drain	0	0	1	1	5	1
SMB 5-4	Hermosa City Beach at 26th St.	0	0	3	1	12	2
SMB 5-5	Hermosa Beach Pier	0	0	2	1	8	2
SMB 6-2	Redondo Municipal Pier- 100 yards south	0	0	3	1	14	2
SMB 6-5	Avenue I storm drain at Redondo Beach	0	0	3	1	6	1
SMB 6-6	Malaga Cove, Palos Verdes Estates	0	0	1	1	3	1

⁵ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each beach monitoring location.

Station ID	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)								
		Summer Dry Weather (April 1 – October 31)			Winter Dry Weather (November 1 – March 31)			Wet Weather (Year-round)		
		Daily Sampling	Weekly Sampling		Daily Sampling	Weekly Sampling		Daily Sampling	Weekly Sampling	
SMB 7-1	Malaga Cove, Palos Verdes Estates	0	0	1	1	1	14	2		
SMB 7-2	Bluff Cove, Palos Verdes Estates	0	0	1	1	1	0	0		
SMB 7-3	Long Point, Rancho Palos Verdes	0	0	1	1	1	5	1		
SMB 7-4	Abalone Cove, Rancho Palos Verdes	0	0	0	0	0	1	1		
SMB 7-5	Portuguese Bend Cove, Rancho Palos Verdes	0	0	1	1	1	2	1		
SMB 7-6	White's Point, Royal Palms County Beach	0	0	1	1	1	6	1		
SMB 7-8	Point Fermin/Wilder Annex, San Pedro	0	0	1	1	1	2	1		
SMB 7-9	Outer Cabrillo Beach	0	0	1	1	1	3	1		

f. Section A.4.e above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A of Resolution No. R12-007). Upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL, Permittees shall comply with the following grouped⁶ final single sample bacteria receiving water limitations for shoreline monitoring stations along Santa Monica Bay beaches subject to the anti-degradation implementation provision in the TMDL as of the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL:

Table M-4: Allowable Number of Days that may Exceed any Single Sample Bacteria Receiving Water Limitations

Station ID	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)					
		Summer Dry Weather (April 1 – October 31)		Winter Dry Weather (November 1 – March 31)		Wet Weather (Year-round)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 1-2	El Pescador State Beach	0	0	1	1	5	1
SMB 1-3	El Matador State Beach	0	0	1	1	3	1
SMB O-1	Paradise Cove	0	0	9	2	15	3
SMB 1-10	Solstice Creek	0	0	5	1	17	3
SMB O-2	Puerto Canyon Storm Drain	0	0	0	0	6	1
SMB 1-14	Las Flores Creek	0	0	6	1	17	3
SMB 1-16	Pena Creek	0	0	3	1	14	2
SMB 1-17	Tuna Canyon Creek	0	0	7	1	12	2
SMB 2-11	North Westchester Storm Drain	0	0	0	0	17	3
SMB 2-13	Imperial Highway Storm Drain	0	0	4	1	17	3
SMB 3-6	Rose Avenue Storm Drain at Venice Beach	0	0	6	1	17	3
SMB 4-1	San Nicholas Canyon Creek	0	0	4	1	14	2
SMB 5-1	Manhattan State Beach at 40th Street	0	0	1	1	4	1

⁶ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the sub-drainage area to each beach monitoring location.

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Station ID	Beach Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)							
		Summer Dry Weather (April 1 – October 31)		Winter Dry Weather (November 1 – March 31)		Wet Weather (Year-round)			
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
SMB 5-3	Manhattan Beach Pier, southern drain	0	0	3	1	6	1		
SMB 5-4	Hermosa Beach at 26th Street	0	0	3	1	12	2		
SMB 5-5	Hermosa Beach Pier	0	0	2	1	8	2		
SMB 6-2	Redondo Municipal Pier- 100 yards south at Redondo Beach	0	0	3	1	14	2		
SMB 6-3	Sapphire Street Storm Drain at Redondo Beach	0	0	5	1	17	3		
SMB 6-5	Avenue I Storm Drain at Redondo Beach	0	0	4	1	11	2		
SMB 6-6	Malaga Cove, Palos Verdes Estates	0	0	1	1	3	1		
SMB 7-1	Malaga Cove	0	0	1	1	14	2		
SMB 7-2	Bluff Cove	0	0	1	1	0	0		
SMB 7-3	Long Point	0	0	1	1	5	1		
SMB 7-4	Abalone Cove	0	0	0	0	1	1		
SMB 7-5	Portuguese Bend Cove	0	0	1	1	2	1		
SMB 7-6	Royal Palms County Beach	0	0	1	1	6	1		
SMB 7-8	Wilder Annex	0	0	1	1	2	1		
SMB 7-9	Outer Cabrillo Beach	0	0	1	1	3	1		

- g. Permittees shall comply with the following geometric mean receiving water limitations for all shoreline monitoring stations along Santa Monica Bay beaches during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

- h. Section A.4.g above shall not be applicable upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL (Attachment A of Resolution No. R12-007). Upon the effective date of the revised Santa Monica Bay Beaches Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for all shoreline monitoring stations along Santa Monica Bay beaches, calculated as defined in the revised Santa Monica Bay Beaches Bacteria TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

B. Santa Monica Bay Nearshore and Offshore Debris TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-2.
2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged into water bodies within the Santa Monica Bay WMA and then into Santa Monica Bay or on the shoreline of Santa Monica Bay no later than March 20, 2020⁷, and every year thereafter.
3. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged into Santa Monica Bay or on the shoreline of Santa Monica Bay, per the schedule below:

⁷ If a Permittee by November 4, 2013, adopts local ordinances to ban plastic bags, smoking in public places and single use expanded polystyrene food packaging then the final compliance date will be extended until March 20, 2023.

Permittees	Baseline ⁸	Mar 20, 2016	Mar 20, 2017	Mar 20, 2018	Mar 20, 2019	Mar 20, 2020 ⁹
		(80%)	(60%)	(40%)	(20%)	(0%)
Annual Trash Discharge (gals/yr)						
Agoura Hills ¹⁰	1,044	835	626	418	209	0
Calabasas ¹⁰	1,656	1,325	994	663	331	0
Culver City	52	42	31	21	10	0
El Segundo	2,732	2,186	1,639	1,093	546	0
Hermosa Beach	1,117	894	670	447	223	0
Los Angeles, City of	25,112	20,090	15,067	10,045	5,022	0
Los Angeles, County of	5,138	4,110	3,083	2,055	1,028	0
Malibu	5,809	4,648	3,486	2,324	1,162	0
Manhattan Beach	2,501	2,001	1,501	1,001	500	0
Palos Verdes Estates	3,346	2,677	2,007	1,338	669	0
Rancho Palos Verdes	7,254	5,803	4,353	2,902	1,451	0
Redondo Beach	3,197	2,558	1,918	1,279	639	0
Rolling Hills	515	412	309	206	103	0
Rolling Hills Estates	365	292	219	146	73	0
Santa Monica	5,672	4,537	3,403	2,269	1,134	0
Torrance	2,484	1,987	1,490	993	497	0
Westlake Village ¹⁰	3,131	2,505	1,879	1,252	626	0

4. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in B.2 and B.3 above per the provisions in Part VI.E.5.

C. Santa Monica Bay TMDL for DDTs and PCBs (USEPA established)

1. Permittees subject to the provisions below are identified in Attachment K, Table K-2.
2. Permittees shall comply with the following WLAs, expressed as an annual loading of pollutants from the sediment discharged to Santa Monica Bay, per the provisions in Part VI.E.3:

Constituent	Annual Mass-Based WLA (g/yr)
DDT	27.08
PCBs	140.25

⁸ If a Permittee elects not to use the default baseline, then the Permittee shall include a plan to establish a site specific trash baseline in their Trash Monitoring and Reporting Plan.

⁹ Permittees shall achieve their final effluent limitation of zero trash discharge for the 2019-2020 storm year and every year thereafter.

¹⁰ Permittees shall be deemed in compliance with the water quality-based effluent limitation for trash established to implement the Santa Monica Bay Nearshore and Offshore Debris TMDL, if the Permittee is in compliance with the water quality-based effluent limitations established to implement the Malibu Creek Watershed Trash TMDL.

3. Compliance shall be determined based on a three-year averaging period.

D. TMDLs in the Malibu Creek Subwatershed

1. Malibu Creek and Lagoon Bacteria TMDL

a. Permittees subject to the provisions below are identified in Attachment K, Table K-2.

b. Water Quality-Based Effluent Limitations

i. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Malibu Lagoon during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
<i>Enterococcus</i>	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

ii. Section D.1.b.i above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment A of Resolution No. R12-009). Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Malibu Lagoon during dry weather as of the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Malibu Creek and Lagoon Bacteria TMDL, no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
<i>Enterococcus</i>	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

iii. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Malibu Creek and its tributaries during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	235/100 mL	126/100 mL

- iv. Section D.1.b.iii above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment A of Resolution No. R12-009). Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Malibu Creek and its tributaries during dry weather as of the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Malibu Creek and Lagoon Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	235/100 mL	126/100 mL

c. Receiving Water Limitations

- i. Permittees shall comply with the following grouped¹¹ final single sample bacteria receiving water limitations for Malibu Creek, its tributaries, and Malibu Lagoon during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	3	1
Wet Weather ¹² (Year-round)	17	3

- ii. Section D.1.c.i above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment A of Resolution No. R12-009). Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL, Permittees shall comply with the following grouped¹³ final single sample bacteria receiving water limitations for each monitoring location within Malibu Creek and its tributaries during

¹¹ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area to the receiving water.

¹² Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

¹³ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area to the receiving water.

dry weather as of the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Dry-Weather (Year-round)	5	1
Wet Weather ¹⁴ (Year-round)	15	2

- iii. Section D.1.c.i above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment A of Resolution No. R12-009). Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL, Permittees shall comply with the following grouped¹⁵ final single sample bacteria receiving water limitations for each monitoring location within Malibu Lagoon during dry weather as of the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL and during wet weather no later than July 15, 2021:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	9	2
Wet Weather ¹⁶ (Year-round)	17	3

- iv. Permittees shall comply with the following geometric mean receiving water limitations for discharges to Malibu Lagoon during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

- v. Section D.1.c.iv above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment A of

¹⁴ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

¹⁵ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area to the receiving water.

¹⁶ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

Resolution No. R12-009). Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for discharges to Malibu Lagoon, calculated as defined in the revised Malibu Creek and Lagoon Bacteria TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

- vi. Permittees shall comply with the following geometric mean receiving water limitation for discharges to Malibu Creek and its tributaries during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
<i>E. coli</i>	126/100 mL

- vii. Section D.1.c.vi above shall not be applicable upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL (Attachment A of Resolution No. R12-009). Upon the effective date of the revised Malibu Creek and Lagoon Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for discharges to Malibu Creek and its tributaries, calculated as defined in the revised Malibu Creek and Lagoon Bacteria TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
<i>E. coli</i>	126/100 mL

2. Malibu Creek Watershed Trash TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-2.
- b. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Malibu Creek from Malibu Lagoon to Malibu Lake, Malibu Lagoon, Malibu Lake, Medea Creek, Lindero Creek, Lake Lindero, and Las Virgenes Creek in the Malibu Creek Watershed no later than July 7, 2017 and every year thereafter.
- c. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to the Malibu Creek, per the schedule below:

Permittees	Baseline	July 7, 2013 (80%)	July 7, 2014 (60%)	July 7, 2015 (40%)	July 7, 2016 (20%)	July 7, 2017 (0%)
	Annual Trash Discharge (gals/yr)					
Agoura Hills	1810	1448	1086	724	362	0
Calabasas	673	539	404	269	135	0
Hidden Hills	71	57	43	28	14	0
Los Angeles County	1117	894	670	447	223	0
Malibu	226	181	136	91	45	0
Westlake Village	143	114	86	57	29	0

d. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in D.2.b and D.2.c above per the provisions in Part VI.E.5.

3. Malibu Creek Watershed Nutrients TMDL (USEPA established)

a. Permittees subject to the provisions below are identified in Attachment K, Table K-2.

b. Permittees shall comply with the following grouped¹⁷ WLAs per the provisions in Part VI.E.3 for discharges to Westlake Lake, Lake Lindero, Lindero Creek, Las Virgenes Creek, Medea Creek, Malibu Lake, Malibu Creek and Malibu Lagoon and its tributaries. Tributaries to Malibu Creek and Lagoon, include the following upstream water bodies; Triunfo Creek, Palo Comado Creek, Cheesebro Creek, Strokes Creek and Cold Creek.

Time Period	WLA	
	Nitrate as Nitrogen plus Nitrite as Nitrogen	Total Phosphorus
	Daily Maximum	Daily Maximum
Summer (April 15 to November 15) ¹⁸	8 lbs/day	0.8 lbs/day
Winter (November 16 to April 14)	8 mg/L	n/a

E. TMDLs in the Ballona Creek Subwatershed

1. Ballona Creek Trash TMDL

a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.

¹⁷ USEPA was unable to specifically distinguish the amounts of pollutant loads from allocation categories associated with areas regulated by the storm water permits. Therefore, allocations for storm water permits are grouped.

¹⁸ The mass-based summer WLAs are calculated as the sum of the allocations for "runoff from developed areas" and "dry weather urban runoff."

- b. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Ballona Creek no later than September 30, 2015 and every year thereafter.
- c. Permittees shall comply with the interim and final water quality-based effluent limitations for trash discharged to Ballona Creek, per the schedule below:

**Ballona Creek Subwatershed Trash Effluent Limitations per Storm Year¹⁹
(pounds of drip-dry trash)**

Permittees	Baseline	Sept 30, 2012 (20%)	Sept 30, 2013 (10%)	Sept 30, 2014 (3.3%)	Sept 30, 2015 ²⁰ (0%)
		Annual Trash Discharge (pounds of trash)			
Beverly Hills	70,712	14,142	7,071	2,333	0
Culver City	37,271	7,454	3,727	1,230	0
Inglewood	22,324	4,465	2,232	737	0
Los Angeles, City of	942,720	188,544	94,272	31,110	0
Los Angeles, County of	52,693	10,539	5,269	1,739	0
Santa Monica	2,579	516	258	85	0
West Hollywood	13,411	2,682	1,341	443	0

**Ballona Creek Subwatershed Trash Effluent Limitations per Storm Year¹⁹
(gallons of uncompressed trash)**

Permittees	Baseline	Sept 30, 2012 (20%)	Sept 30, 2013 (10%)	Sept 30, 2014 (3.3%)	Sept 30, 2015 ²⁰ (0%)
		Annual Trash Discharge (gallons of uncompressed trash)			
Beverly Hills	45,336	9,067	4,534	1,496	0
Culver City	25,081	5,016	2,508	828	0
Inglewood	14,717	2,943	1,472	486	0
Los Angeles, City of	602,068	120,414	60,207	19,868	0
Los Angeles, County of	32,679	6,536	3,268	1,078	0
Santa Monica	1,749	350	175	58	0
West Hollywood	9,360	1,872	936	309	0

- d. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in E.1.b and E.1.c above per the provisions in Part VI.E.5.

¹⁹ For purposes of the provisions in this subpart, a storm year is defined as October 1 to September 30.

²⁰ Permittees shall achieve their final water quality-based effluent limitation of zero trash discharged for the 2014-2015 storm year and every year thereafter.

2. Ballona Creek Estuary Toxic Pollutants TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
- b. Permittees shall comply with the following final water quality-based effluent limitations no later than January 11, 2021, expressed as an annual loading of sediment-bound pollutants deposited to Ballona Creek Estuary:

Constituent	Effluent Limitations	
	Annual	Units
Cadmium	8.0	kg/yr
Copper	227.3	kg/yr
Lead	312.3	kg/yr
Silver	6.69	kg/yr
Zinc	1003	kg/yr
Chlordane	3.34	g/yr
DDTs	10.56	g/yr
Total PCBs	152	g/yr
Total PAHs	26,900	g/yr

- c. Permittees shall comply with interim and final water quality-based effluent limitations for sediment-bound pollutant loads deposited to Ballona Creek Estuary, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)
January 11, 2013	25
January 11, 2015	50
January 11, 2017	75
January 11, 2021	100

- d. Permittees shall be deemed in compliance with the water quality-based effluent limitations in Part E.2.b by demonstrating any one of the following:
 - i. Final water quality-based effluent limitations for sediment-bound pollutants deposited to Ballona Creek Estuary are met; or
 - ii. The sediment numeric targets as defined in the TMDL are met in bed sediments; or
 - iii. Concentrations of sediments discharged meet the numeric targets for sediment as defined in the TMDL.

3. Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL

a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.

b. Water Quality-Based Effluent Limitations

i. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Ballona Creek Estuary during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
<i>Enterococcus</i>	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

ii. Section E.3.b.i above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Ballona Creek Estuary during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
<i>Enterococcus</i>	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

iii. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Sepulveda Channel during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	235/100 mL	126/100 mL

iv. Section E.3.b.iii above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria

TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Sepulveda Channel during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	235/100 mL	126/100 mL

- v. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Ballona Creek Reach 2 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	576/100 mL	126/100 mL

- vi. Section E.3.b.v above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Ballona Creek Reach 2 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	576/100 mL	126/100 mL

- vii. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Ballona Creek Reach 1 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
Fecal coliform	4000/100 mL	2000/100 mL

viii. Section E.3.b.vii above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Ballona Creek Reach 1 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
Fecal coliform	4000/100 mL	2000/100 mL

c. Receiving Water Limitations

i. Permittees shall comply with the following grouped²¹ single sample bacteria receiving water limitations for Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; Centinela Creek at the confluence with Ballona Creek Estuary; Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Reach 2; Benedict Canyon Channel at the confluence with Ballona Creek Reach 2; and Sepulveda Channel:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective*		Deadline
	Daily Sampling	Weekly Sampling	
Summer Dry-Weather (April 1 to October 31)	0	0	April 27, 2013
Winter Dry-Weather (November 1 to March 31)	3	1	April 27, 2013
Wet Weather ²² (Year-round)	17**	3	July 15, 2021

* Exceedance days for Ballona Creek Estuary and at the confluence with Ballona Creek Estuary based on REC-1 marine water single sample bacteria water quality objectives (WQO).
 . Exceedance days for Ballona Creek Reach 2 and at the confluence with Ballona Creek Reach 2 based on LREC-1 freshwater single sample bacteria WQO. Exceedance days for Sepulveda Channel based on REC-1 freshwater single sample bacteria WQO.
 ** In Ballona Creek Reach 2 and at the confluence with Reach 2, the greater of the allowable exceedance days under the reference system approach or high flow suspension shall apply.

ii. Section E.3.c.i above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria

²¹ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

²² Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

TMDL, Permittees shall comply with the following grouped²³ single sample bacteria receiving water limitations for Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; and Centinela Creek at the confluence with Ballona Creek Estuary:

Time Period	Annual Allowable Exceedance Days of the REC-1 Marine Water Single Sample Bacteria Water Quality Objectives		Deadline
	Daily Sampling	Weekly Sampling	
Summer Dry-Weather (April 1 to October 31)	0	0	April 27, 2013
Winter Dry-Weather (November 1 to March 31)	9	2	April 27, 2013
Wet Weather ²⁴ (Year-round)	17	3	July 15, 2021

iii. Section E.3.c.i above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following grouped²⁵ single sample bacteria receiving water limitations for Sepulveda Channel:

Time Period	Annual Allowable Exceedance Days of the REC-1 Fresh Water Single Sample Bacteria Water Quality Objectives		Deadline
	Daily Sampling	Weekly Sampling	
Dry-Weather	5	1	April 27, 2013
Wet Weather ²⁶	15	2	July 15, 2021

iv. Section E.3.c.i above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following grouped²⁷ single sample bacteria receiving water limitations for Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Reach 2; and Benedict Canyon Channel at the confluence with Ballona Creek Reach 2:

²³ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

²⁴ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

²⁵ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

²⁶ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

²⁷ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

Time Period	Annual Allowable Exceedance Days of the LREC-1 Fresh Water Single Sample Bacteria Water Quality Objectives		Deadline
	Daily Sampling	Weekly Sampling	
Dry-Weather	5	1	April 27, 2013
Wet Weather ²⁸	15*	2	July 15, 2021

* In Ballona Creek Reach 2 and at the confluence with Reach 2, the greater of the allowable exceedance days under the reference system approach or high flow suspension shall apply.

- v. Permittees shall not exceed the single sample bacteria objective of 4000/100 ml in more than 10% of the samples collected from Ballona Creek Reach 1 during any 30-day period. Permittees shall achieve compliance with this receiving water limitation during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021.
- vi. Permittees shall comply with the following geometric mean receiving water limitations for discharges to Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; and Centinela Creek at the confluence with Ballona Creek Estuary during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
<i>Enterococcus</i>	35/100 mL

- vii. Section E.3.c.vi above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for discharges to Ballona Creek Estuary; Ballona Creek Reach 2 at the confluence with Ballona Creek Estuary; and Centinela Creek at the confluence with Ballona Creek Estuary, calculated as defined in the revised TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
<i>Enterococcus</i>	35/100 mL

- viii. Permittees shall comply with the following geometric mean receiving water limitation for discharges to Ballona Creek Reach 2; Ballona Creek Reach 1 at

²⁸ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

the confluence with Ballona Creek Reach 2; Benedict Canyon Channel at the confluence with Ballona Creek Reach 2; and Sepulveda Channel during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
<i>E. coli</i>	126/100 mL

- ix. Section E.3.c.viii above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitation for discharges to Ballona Creek Reach 2; Ballona Creek Reach 1 at the confluence with Ballona Creek Reach 2; Benedict Canyon Channel at the confluence with Ballona Creek Reach 2; and Sepulveda Channel, calculated as defined in the revised TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
<i>E. coli</i>	126/100 mL

- x. Permittees shall comply with the following geometric mean receiving water limitation for discharges to Ballona Creek Reach 1 during dry weather no later than April 27, 2013, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Fecal coliform	2000/100 mL

- xi. Section E.3.c.x above shall not be applicable upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL (Attachment A of Resolution No. R12-008). Upon the effective date of the revised Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitation for discharges to Ballona Creek Reach 1, calculated as defined in the revised TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Fecal coliform	2000/100 mL

4. Ballona Creek Metals TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
- b. Final Water Quality-Based Effluent Limitations

- i. Permittees shall comply with the following dry weather²⁹ water quality-based effluent limitations no later than January 11, 2016, expressed as total recoverable metals discharged to Ballona Creek and Sepulveda Channel:

Constituent	Effluent Limitation Daily Maximum (g/day)	
	Ballona Creek	Sepulveda Channel
Copper	807.7	365.6
Lead	432.6	196.1
Selenium	169	76
Zinc	10,273.1	4,646.4

- ii. In lieu of calculating loads, Permittees may demonstrate compliance with the following concentration-based water quality-based effluent limitations during dry weather³⁰ no later than January 11, 2016, expressed as total recoverable metals discharged to Ballona Creek and Sepulveda Channel:

Constituent	Effluent Limitation Daily Maximum (µg/L)
Copper	24
Lead	13
Selenium	5
Zinc	304

- iii. Permittees shall comply with the following wet weather³¹ water quality-based effluent limitations no later than January 11, 2021, expressed as total recoverable metals discharged to Ballona Creek and its tributaries:

Constituent	Effluent Limitation Daily Maximum (g/day)
Copper	$1.70 \times 10^{-5} \times$ daily storm volume (L)
Lead	$5.58 \times 10^{-5} \times$ daily storm volume (L)
Selenium	$4.73 \times 10^{-6} \times$ daily storm volume (L)
Zinc	$1.13 \times 10^{-4} \times$ daily storm volume (L)

²⁹ Dry weather is defined as any day when the maximum daily flow in Ballona Creek is less than 40 cubic feet per second (cfs) measured at Sawtelle Avenue.

³⁰ Ibid.

³¹ Wet weather is defined as any day when the maximum daily flow in Ballona Creek is equal to or greater than 40 cfs measured at Sawtelle Avenue.

- c. Permittees shall comply with interim and final water quality-based effluent limitations for metals discharged to Ballona Creek and its tributaries, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)	
	Dry weather	Wet weather
January 11, 2012	50	25
January 11, 2014	75	--
January 11, 2016	100	50
January 11, 2021	100	100

5. Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation (USEPA established)

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
- b. Permittees shall comply with the following grouped³² WLA per the provisions in Part VI.E.3 for discharges of sediment into Ballona Creek Wetlands:

Constituent	Annual WLA ³³ (m ³ /yr)
Total Sediment (suspended sediment plus sediment bed load)	44,615

F. TMDLs in Marina del Rey Subwatershed

1. Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
- b. Permittees shall comply with the following final water quality-based effluent limitations for discharges to Marina del Rey Harbor Beach and Back Basins D, E, and F during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

³² The WLA is group-based and shared among all MS4 Permittees located within the drainage area.

³³ The WLA is applied as a 3-year average.

- c. Section F.1.b above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (Attachment B of Resolution No. R12-007). Upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, Permittees shall comply with the following daily maximum final water quality-based effluent limitations for discharges to Marina del Rey Harbor Beach and Back Basins D, E, and F during dry weather as of the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL and during wet weather no later than July 15, 2021. Permittees shall comply with the following geometric mean final water quality-based effluent limitations for each monitoring location, calculated as defined in the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, no later than July 15, 2021.

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

d. Receiving Water Limitations

- i. Permittees shall comply with the following grouped³⁴ final single sample bacteria receiving water limitations for all monitoring stations at Marina Beach and Basins D, E, and F, except for those monitoring stations subject to the antidegradation implementation provision in the TMDL and identified in subpart iii. below, during dry weather as of the effective date of this Order and during wet weather no later than July 15, 2021.

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	3	1
Wet Weather ³⁵ (Year-round)	17	3

- ii. Section F.1.d.i above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (Attachment B of Resolution No. R12-007). Upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria

³⁴ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

³⁵ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

TMDL, Permittees shall comply with the following grouped³⁶ final single sample bacteria receiving water limitations for all monitoring stations at Marina Beach and Basins D, E, and F, except for those monitoring stations subject to the antidegradation implementation provision in the TMDL and identified in subpart iv. below, during dry weather as of the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL and during wet weather no later than July 15, 2021.

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	9	2
Wet Weather ³⁷ (Year-round)	17	3

iii. Permittees shall comply with the following grouped³⁸ final single sample bacteria receiving water limitations for monitoring stations in Marina del Rey subject to the antidegradation implementation provision in the TMDL as of the effective date of this Order:

		Annual Allowable Exceedance Days of the Single Sample Objective (days)					
Station ID	Monitoring Location	Summer Dry-Weather (April 1 to October 31)		Winter Dry Weather (November 1 – March 31)		Wet Weather (Year-round)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
MdRH-9	Basin F, center of basin	0	0	3	1	8	1

iv. Section F.1.d.iii above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (Attachment B of Resolution No. R12-007). Upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, Permittees shall comply with the following grouped³⁹ final single sample bacteria receiving water limitations for monitoring stations in Marina del Rey subject to the antidegradation implementation provision in the TMDL as of the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL:

³⁶ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

³⁷ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

³⁸ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

³⁹ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

		Annual Allowable Exceedance Days of the Single Sample Objective (days)					
Station ID	Monitoring Location	Summer Dry-Weather (April 1 to October 31)		Winter Dry Weather (November 1 – March 31)		Wet Weather (Year-round)	
		Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling	Daily Sampling	Weekly Sampling
MdRH-9	Basin F, center of basin	0	0	9	2	8	1

- v. Permittees shall comply with the following geometric mean receiving water limitations for monitoring stations at Marina Beach and Basins D, E, and F during dry weather as of the effective date of this Order, and during wet weather no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

- vi. Section F.1.d.v above shall not be applicable upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL (Attachment B of Resolution No. R12-007). Upon the effective date of the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, Permittees shall comply with the following geometric mean receiving water limitations for monitoring stations at Marina Beach and Basins D, E, and F, calculated as defined in the revised Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, no later than July 15, 2021:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

2. Marina del Rey Harbor Toxic Pollutants TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-3.
- b. Permittees shall comply with the following final water quality-based effluent limitations no later than March 22, 2016⁴⁰, expressed as an annual loading of pollutants associated with total suspended solids (TSS) discharged to Marina del Rey Harbor Back Basins D, E, and F:

⁴⁰ If an Integrated Water Resources Approach is approved by the Regional Water Board and implemented then the Permittees shall comply with the final water quality-based effluent limitations no later than March 22, 2021.

Constituent	Effluent Limitations	
	Annual	Units
Copper	2.01	kg/yr
Lead	2.75	kg/yr
Zinc	8.85	kg/yr
Chlordane	0.0295	g/yr
Total PCBs	1.34	g/yr

- c. Permittees shall comply with interim and final water quality-based effluent limitations for pollutant loads associated with TSS discharged to Marina del Rey Harbor Back Basins D, E, and F, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the effluent limitations (%)
March 22, 2014	50
March 22, 2016	100

- d. If an approved Integrated Water Resources Approach is implemented, Permittees shall comply with interim and final water quality-based effluent limitations for pollutant loads associated with TSS discharged to Marina del Rey Harbor Back Basins D, E, and F, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the effluent limitations (%)
March 22, 2013	25
March 22, 2015	50
March 22, 2017	75
March 22, 2021	100

- e. Permittees shall be deemed in compliance with the water quality-based effluent limitations in Part F.2.b by demonstrating any one of the following:
- i. Final water quality-based effluent limitations for pollutants associated with TSS discharged to Marina del Rey Harbor Back Basins D, E, and F are met; or
 - ii. The sediment numeric targets as defined in the TMDL are met in bed sediments; or
 - iii. Pollutant concentrations associated with TSS discharged meet the numeric targets for sediment as defined in the TMDL.

**ATTACHMENT N. TMDLs IN DOMINGUEZ CHANNEL AND GREATER HARBOR WATERS
WATERSHED MANAGEMENT AREA**

A. Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel)

1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Los Angeles Harbor Main Ship Channel, Los Angeles and Long Beach Inner Harbor, and Inner Cabrillo Beach as of the effective date of this Order:

Constituent	Effluent Limitations (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
<i>Enterococcus</i>	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

3. Receiving Water Limitations

- a. Permittees shall comply with the following final single sample bacteria receiving water limitations for the Los Angeles Harbor Main Ship Channel and Inner Cabrillo Beach as of the effective date of this Order:

Time Period	Receiving Water	Compliance Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
			Daily sampling	Weekly sampling
Summer Dry-Weather (April 1 to October 31)	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	0	0
Winter Dry-Weather (November 1 to March 31)	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	3	1
Wet Weather ¹ (Year-round)	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	15	3

- b. Section A.3.a above shall not be applicable upon the effective date of the revised Los Angeles Harbor Bacteria TMDL (Attachment C of Resolution No. R12-007). Upon the effective date of the revised Los Angeles Harbor Bacteria TMDL, Permittees shall comply with the following final single sample bacteria receiving water limitations for the Los Angeles Harbor Main Ship Channel and Inner Cabrillo Beach as of the effective date of the revised Los Angeles Harbor Bacteria TMDL:

¹ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

Time Period	Receiving Water	Compliance Monitoring Location	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
			Daily sampling	Weekly sampling
Summer Dry-Weather (April 1 to October 31)	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	0	0
Winter Dry-Weather (November 1 to March 31)	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	8	1
Wet Weather ² (Year-round)	Inner Cabrillo Beach	CB1 & CB2	0	0
	Main Ship Channel	HW07	15	3

- c. Permittees shall comply with the following geometric mean receiving water limitations for the Los Angeles Harbor Main Ship Channel, Los Angeles and Long Beach Inner Harbor, and Inner Cabrillo Beach as of the effective date of this Order:

Constituent	Geometric Mean
Total coliform	1,000 MPN/100 mL
Fecal coliform	200 MPN/100 mL
<i>Enterococcus</i>	35 MPN/100 mL

B. Machado Lake Trash TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Machado Lake no later than March 6, 2016, and every year thereafter.
3. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to Machado Lake, per the schedule below:

**Machado Lake Trash Water Quality-Based Effluent Limitations
(gallons of uncompressed trash per year)**

Permittees	Baseline ³	3/6/2012	3/6/2013	3/6/2014	3/6/2015	3/6/2016 ⁴
		(80%)	(60%)	(40%)	(20%)	(0%)
Annual Trash Discharge (gallons/yr)						
Carson	8141	6513	4885	3257	1628	0
Lomita	9393	7514	5636	3757	1879	0
City of Los Angeles	12331	9865	7399	4932	2466	0
Los Angeles County	8304	6643	4982	3322	1661	0

² Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

³ The Regional Water Board calculated the baseline water quality-based effluent limitations for the Permittees based on the estimated trash generation rate of 5334 gallons of uncompressed trash per square mile per year.

⁴ Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year thereafter.

Los Angeles County Flood Control District	16	13	10	7	3	0
Palos Verdes Estates	1976	1581	1186	791	395	0
Rancho Palos Verdes	5227	4181	3136	2091	1045	0
Redondo Beach	18	15	11	7	4	0
Rolling Hills	7004	5603	4202	2801	1401	0
Rolling Hills Estates	14722	11777	8833	5889	2944	0
Torrance	34809	27847	20885	13924	6962	0

4. If a Permittee opts to derive a site specific trash generation rate through its Trash Monitoring and Reporting Plan (TMRP), the baseline limitation will be calculated by multiplying the point source area(s) by the derived trash generation rate(s).
5. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in B.2 and B.3 above per the provisions in Part VI.E.5.

C. Machado Lake Nutrient TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
2. Permittees shall comply with the following interim and final water quality-based effluent limitations for discharges to Machado Lake:

Deadline	Interim and Final Effluent Limitations	
	Monthly Average Total Phosphorus (mg/L)	Monthly Average Total Nitrogen (TKN+NO ₃ -N+NO ₂ -N) (mg/L)
As of the effective date of this Order	1.25	3.5
March 11, 2014	1.25	2.45
September 11, 2018	0.10	1.0

3. Compliance Determination

- a. Permittees may be deemed in compliance with the water quality-based effluent limitations by actively participating in a Lake Water Quality Management Plan (LWQMP) and attaining the receiving water limitations for Machado Lake. The City of Los Angeles has entered into a Memorandum of Agreement with the Regional Water Board to implement the LWQMP and reduce external nutrient loading to attain the following receiving water limitations:

Deadline	Interim and Final Receiving Water Limitations	
	Monthly Average Total Phosphorus (mg/L)	Monthly Average Total Nitrogen (TKN+NO ₃ -N+NO ₂ -N) (mg/L)
As of the effective date of this Order	1.25	3.5
March 11, 2014	1.25	2.45
September 11, 2018	0.10	1.0

b. Permittees may be deemed in compliance with water quality-based effluent limitations by demonstrating reduction of total nitrogen and total phosphorous on an annual mass basis measured at the storm drain outfall of the Permittee's drainage area where approved by the Regional Water Board Executive Officer based on the results of a special study by the Permittee.⁵

i. The County of Los Angeles submitted a special study work plan, which was approved by the Regional Water Board Executive Officer, and established the following annual mass-based water quality based effluent limitations:

Deadline	Interim and Final Effluent Limitations	
	Annual Load Total Phosphorus (kg)	Annual Load Total Nitrogen (TKN+NO ₃ -N+NO ₂ -N) (kg)
March 11, 2014	887	1739
September 11, 2018	71	710

ii. The City of Torrance submitted a special study work plan, which was approved by the Regional Water Board Executive Officer, and established the following annual mass-based water quality based effluent limitations:

Deadline	Interim and Final Effluent Limitations	
	Annual Load Total Phosphorus (kg)	Annual Load Total Nitrogen (TKN+NO ₃ -N+NO ₂ -N) (kg)
March 11, 2014	3,760	7,370
September 11, 2018	301	3008

D. Machado Lake Pesticides and PCBs TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-4.
2. Permittees shall comply with the following water quality-based effluent limitations for discharges of suspended sediments to Machado Lake, applied as a 3-year average no later than September 30, 2019:

Pollutant	Effluent Limitations for Suspended Sediment-Associated Contaminants (µg/kg dry weight)
Total PCBs	59.8
DDT (all congeners)	4.16
DDE (all congeners)	3.16
DDD (all congeners)	4.88
Total DDT	5.28
Chlordane	3.24
Dieldrin	1.9

⁵ The annual mass-based allocation shall be equivalent to a monthly average concentration of 0.1 mg/L total phosphorus and 1.0 mg/L total nitrogen based on approved flow conditions.

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

1. Permittees subject to the provisions below are identified in Attachment K, Tables K-4 and K-13.
2. Permittees shall comply with the interim water quality-based effluent limitations listed below, as of the effective date of this Order:
 - a. Permittees shall comply with the following interim water quality-based effluent limitations for discharges to Dominguez Channel freshwater during wet weather:
 - i. The freshwater toxicity interim water quality-based effluent limitation is 2 TUc. The freshwater interim effluent limitation shall be implemented as a trigger requiring initiation and implementation of the TRÉ/TIE process as outlined in US EPA's "Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program" (2000).
 - ii. Permittees shall comply with the following interim metals water quality-based effluent limitations for discharges to the Dominguez Channel freshwater and Torrance Lateral during wet weather:

Metals	Interim Effluent Limitation Daily Maximum (µg/L)
Total Copper	207.51
Total Lead	122.88
Total Zinc	898.87

- b. Permittees shall comply with the following interim concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment discharged to the Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters:

Water Body	Interim Effluent Limitations Daily Maximum (mg/kg sediment)					
	Copper	Lead	Zinc	DDT	PAHs	PCBs
Dominguez Channel Estuary (below Vermont Avenue)	220.0	510.0	789.0	1.727	31.60	1.490
Long Beach Inner Harbor	142.3	50.4	240.6	0.070	4.58	0.060
Los Angeles Inner Harbor	154.1	145.5	362.0	0.341	90.30	2.107
Long Beach Outer Harbor (inside breakwater)	67.3	46.7	150	0.075	4.022	0.248
Los Angeles Outer Harbor (inside breakwater)	104.1	46.7	150	0.097	4.022	0.310
Los Angeles River Estuary	53.0	46.7	183.5	0.254	4.36	0.683
San Pedro Bay Near/Off Shore Zones	76.9	66.6	263.1	0.057	4.022	0.193
Los Angeles Harbor - Cabrillo Marina	367.6	72.6	281.8	0.186	36.12	0.199
Los Angeles Harbor - Consolidated Slip	1470.0	1100.0	1705.0	1.724	386.00	1.920
Los Angeles Harbor - Inner Cabrillo Beach Area	129.7	46.7	163.1	0.145	4.022	0.033
Fish Harbor	558.6	116.5	430.5	40.5	2102.7	36.6

3. Permittees shall comply with the final water quality-based effluent limitations as listed below no later than March 23, 2032, and every year thereafter:

a. Dominguez Channel Freshwater – Wet Weather

- i. Freshwater Toxicity Effluent Limitation shall not exceed the monthly median of 1 TUc.
- ii. Permittees shall comply with the following final metals water quality-based effluent limitations for discharges to Dominguez Channel and all upstream reaches and tributaries of Dominguez Channel above Vermont Avenue:

Metals	Water Column Mass-Based Final Effluent Limitation Daily Maximum ⁶ (g/day)
Total Copper	1,300.3
Total Lead	5,733.7
Total Zinc	9,355.5

b. Torrance Lateral Freshwater and Sediment – Wet Weather

- i. Permittees shall comply with the following final metals water quality-based effluent limitations for discharges to the Torrance Lateral:

Metals	Water Column Effluent Limitation Daily Maximum ⁷ (unfiltered, µg/L)
Total Copper	9.7
Total Lead	42.7
Total Zinc	69.7

- ii. Permittees shall comply with the following final concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment discharged to the Torrance Lateral:

Metals	Concentration-Based Effluent Limitation Daily Maximum (mg/kg dry)
Total Copper	31.6
Total Lead	35.8
Total Zinc	121

⁶ Effluent limitations are based on a hardness of 50 mg/L, and 90th percentile of annual flow rates (62.7 cfs) in Dominguez Channel. Recalculated mass-based effluent limitations using ambient hardness and flow rate at the time of sampling are consistent with the assumptions and requirements of the TMDL. In addition to the effluent limitations above, samples collected during flow conditions less than the 90th percentile of annual flow rates must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the California Toxics Rule (CTR) are achieved.

⁷ Effluent limitations are based on a hardness of 50 mg/L. Recalculated concentration-based effluent limitations using ambient hardness at the time of sampling are consistent with the assumptions and requirements of the TMDL. In addition to the effluent limitations above, samples collected during flow conditions less than the 90th percentile of annual flow rates must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the CTR are achieved.

c. Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters

- i. Permittees shall comply with the following final mass-based water quality-based effluent limitations, expressed as an annual loading of pollutants in the sediment deposited to Dominguez Channel Estuary, Los Angeles River Estuary, and the Greater Los Angeles and Long Beach Harbor Waters:

Water Body	Final Effluent Limitations Annual (kg/yr)			
	Total Cu	Total Pb	Total Zn	Total PAHs
Dominguez Channel Estuary	22.4	54.2	271.8	0.134
Consolidated Slip	2.73	3.63	28.7	0.0058
Inner Harbor	1.7	34.0	115.9	0.088
Outer Harbor	0.91	26.1	81.5	0.105
Fish Harbor (POLA)	0.00017	0.54	1.62	0.007
Cabrillo Marina (POLA)	0.0196	0.289	0.74	0.00016
San Pedro Bay	20.3	54.7	213.1	1.76
LA River Estuary	35.3	65.7	242.0	2.31

- ii. Permittees shall comply with the following final concentration-based water quality-based effluent limitations for pollutant concentrations in the sediments discharged to the Dominguez Channel Estuary, Consolidated Slip, and Fish Harbor:

Water Body	Effluent Limitations Daily Maximum (mg/kg dry sediment)		
	Cadmium	Chromium	Mercury
Dominguez Channel Estuary	1.2	--	--
Consolidated Slip	1.2	81	0.15
Fish Harbor	--	--	0.15

- d. Permittees shall comply with the following final mass-based water quality-based effluent limitations, expressed as an annual loading of total DDT and total PCBs in the sediment deposited to Dominguez Channel Estuary, Los Angeles River Estuary, and the Greater Los Angeles and Long Beach Harbor Waters:

Water Body	Final Effluent Limitations Annual (g/yr)	
	Total DDTs	Total PCBs
Dominguez Channel Estuary	0.250	0.207
Consolidated Slip	0.009	0.004
Inner Harbor	0.051	0.059
Outer Harbor	0.005	0.020
Fish Harbor	0.0003	0.0019
Cabrillo Marina	0.000028	0.000025
Inner Cabrillo Beach	0.0001	0.0003
San Pedro Bay	0.049	0.44
LA River Estuary	0.100	0.324

4. Compliance Determination

- a. Permittees shall be deemed in compliance with the interim concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment as listed above in part E.2.b by meeting any one of the following methods:
 - i. Demonstrate that the sediment quality condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Objectives (SQO) Part 1, is met; or
 - ii. Meet the interim water quality-based effluent limitations in bed sediment over a three-year averaging period; or
 - iii. Meet the interim water quality-based effluent limitations in the discharge over a three-year averaging period.
- b. Permittees shall be deemed in compliance with the final fresh water metals water quality-based effluent limitations for discharges to Dominguez Channel and Torrance Lateral as listed above in parts E.3.a.ii and E.3.b.i by meeting any one of the following methods:
 - i. Final metals water quality-based effluent limitations are met; or
 - ii. CTR total metals criteria are met instream; or
 - iii. CTR total metals criteria are met in the discharge.
- c. Permittees shall be deemed in compliance with the final water quality-based effluent limitations for pollutants in the sediment as listed above in parts E.3.c.i and E.3.c.ii by meeting any one of the following methods:
 - i. Final water quality-based effluent limitations for pollutants in the sediment are met; or
 - ii. The qualitative sediment condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the SQO Part 1, is met, with the exception of chromium, which is not included in the SQO Part 1; or
 - iii. Sediment numeric targets are met in bed sediments over a three-year averaging period.
- d. Permittees shall be deemed in compliance with the final water quality-based effluent limitations for total DDT and total PCBs in the sediment as listed above in part E.3.d by meeting any one of the following methods:
 - i. Fish tissue targets are met in species resident to the specified water bodies⁸; or
 - ii. Final water quality-based effluent limitations for pollutants in the sediment are met; or

⁸ A site-specific study to determine resident species shall be submitted to the Regional Water Board Executive Officer for approval.

- iii.** Sediment numeric targets to protect fish tissue are met in bed sediments over a three-year averaging period; or
- iv.** Demonstrate that the sediment quality condition protective of fish tissue is achieved per the State Water Board's Statewide Enclosed Bays and Estuaries Plan.

ATTACHMENT O. TMDLs IN LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

A. Los Angeles River Watershed Trash TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to the Los Angeles River no later than September 30, 2016 and every year thereafter.
3. Permittees shall comply with interim and final water quality-based effluent limitations for trash discharged to the Los Angeles River, per the schedule below:

**Los Angeles River Watershed Trash Effluent Limitations¹ per Storm Year²
(gallons of uncompressed trash)**

Permittees	Baseline	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 ³ (0%)
Alhambra	39903	11971	7981	3990	1317	0
Arcadia	50108	15032	10022	5011	1654	0
Bell	16026	4808	3205	1603	529	0
Bell Gardens	13500	4050	2700	1350	446	0
Bradbury	4277	1283	855	428	141	0
Burbank	92590	27777	18518	9259	3055	0
Calabasas	22505	6752	4501	2251	743	0
Carson	6832	2050	1366	683	225	0
Commerce	58733	17620	11747	5873	1938	0
Compton	53191	15957	10638	5319	1755	0
Cudahy	5935	1781	1187	594	196	0
Downey	39063	11719	7813	3906	1289	0
Duarte	12210	3663	2442	1221	403	0
El Monte	42208	12662	8442	4221	1393	0
Glendale	140314	42094	28063	14031	4630	0
Hidden Hills	3663	1099	733	366	121	0
Huntington Park	19159	5748	3832	1916	632	0
Irwindale	12352	3706	2470	1235	408	0
La Cañada Flintridge	33496	10049	6699	3350	1105	0
Los Angeles	1374845	412454	274969	137485	45370	0
Los Angeles County	310223	93067	62045	31022	10237	0
Lynwood	28201	8460	5640	2820	931	0
Maywood	6129	1839	1226	613	202	0
Monrovia	46687	14006	9337	4669	1541	0
Montebello	50369	15111	10074	5037	1662	0
Monterey Park	38899	11670	7780	3890	1284	0
Paramount	27452	8236	5490	2745	906	0
Pasadena	111998	33599	22400	11200	3696	0
Pico Rivera	13953	4186	2791	1395	460	0
Rosemead	27305	8192	5461	2731	901	0
San Fernando	13947	4184	2789	1395	460	0
San Gabriel	20343	6103	4069	2034	671	0

¹ Effluent limitations are expressed as allowable trash discharge relative to baseline Waste Load Allocations specified in Table 7-2.2 of the Basin Plan.

² Storm year is defined as October 1 to September 30 herein.

³ Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year thereafter.

Permittees	Baseline	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 ^d (0%)
San Marino	14391	4317	2878	1439	475	0
Santa Clarita	901	270	180	90	30	0
Sierra Madre	11611	3483	2322	1161	383	0
Signal Hill	9434	2830	1887	943	311	0
Simi Valley	137	41	27	14	5	0
South El Monte	15999	4800	3200	1600	528	0
South Gate	43904	13171	8781	4390	1449	0
South Pasadena	14907	4472	2981	1491	492	0
Temple City	17572	5272	3514	1757	580	0
Vernon	47203	14161	9441	4720	1558	0

**Los Angeles River Watershed Trash Effluent Limitations⁴ per Storm Year⁵
(pounds of drip-dry trash)**

Permittees	Baseline	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 ^b (0%)
Alhambra	68761	20628	13752	6876	2269	0
Arcadia	93036	27911	18607	9304	3070	0
Bell	25337	7601	5067	2534	836	0
Bell Gardens	23371	7011	4674	2337	771	0
Bradbury	12160	3648	2432	1216	401	0
Burbank	170389	51117	34078	17039	5623	0
Calabasas	52230	15669	10446	5223	1724	0
Carson	10208	3062	2042	1021	337	0
Commerce	85481	25644	17096	8548	2821	0
Compton	86356	25907	17271	8636	2850	0
Cudahy	10061	3018	2012	1006	332	0
Downey	68507	20552	13701	6851	2261	0
Duarte	23687	7106	4737	2369	782	0
El Monte	68267	20480	13653	6827	2253	0
Glendale	293498	88049	58700	29350	9685	0
Hidden Hills	10821	3246	2164	1082	357	0
Huntington Park	30929	9279	6186	3093	1021	0
Irwindale	17911	5373	3582	1791	591	0
La Cañada Flintridge	73747	22124	14749	7375	2434	0
Los Angeles	2572500	771750	514500	257250	84893	0
Los Angeles County	651806	195542	130361	65181	21510	0
Lynwood	46467	13940	9293	4647	1533	0
Maywood	10549	3165	2110	1055	348	0
Monrovia	100988	30296	20198	10099	3333	0
Montebello	83707	25112	16741	8371	2762	0
Monterey Park	70456	21137	14091	7046	2325	0
Paramount	44490	13347	8898	4449	1468	0
Pasadena	207514	62254	41503	20751	6848	0
Pico Rivera	22549	6765	4510	2255	744	0
Rosemead	47378	14213	9476	4738	1563	0
San Fernando	23077	6923	4615	2308	762	0
San Gabriel	36437	10931	7287	3644	1202	0

⁴ Effluent limitations are expressed as allowable trash discharge relative to baseline Waste Load Allocations specified in Table 7-2.2 of the Basin Plan.

⁵ Storm year is defined as October 1 to September 30 herein.

⁶ Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year thereafter.

Permittees	Baseline	2012 (30%)	2013 (20%)	2014 (10%)	2015 (3.3%)	2016 ^b (0%)
San Marino	29147	8744	5829	2915	962	0
Santa Clarita	2326	698	465	233	77	0
Sierra Madre	25192	7558	5038	2519	831	0
Signal Hill	14220	4266	2844	1422	469	0
Simi Valley	344	103	69	34	11	0
South El Monte	24319	7296	4864	2432	803	0
South Gate	72333	21700	14467	7233	2387	0
South Pasadena	28357	8507	5671	2836	936	0
Temple City	31819	9546	6364	3182	1050	0
Vernon	66814	20044	13363	6681	2205	0

- Permittees shall comply with the interim and final water quality-based effluent limitations for trash in A.2 and A.3 above per the provisions in Part VI.E.5.

B. Los Angeles River Nitrogen Compounds and Related Effects TMDL

- Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- Permittees shall comply with the following water quality-based effluent limitations as of the effective date of this Order:

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

C. Los Angeles River and Tributaries Metals TMDL

- Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- Final Water Quality-Based Effluent Limitations
 - The watershed is divided into five jurisdictional groups based on the subwatersheds of the tributaries that drain to each reach of the river. Each jurisdictional group shall achieve compliance in prescribed percentages of its subwatershed(s). Jurisdictional groups can be reorganized or subdivided upon approval by the Regional Water Board Executive Officer.
 - Permittees shall comply with the following grouped⁷ dry weather⁸ water quality-based effluent limitations no later than January 11, 2024, expressed as total recoverable metals.⁹

⁷ The dry weather water quality-based effluent limitations are grouped-based and shared by the MS4 Permittees that are located within the drainage area.

⁸ Dry weather is defined as any day when the maximum daily flow in the Los Angeles River is less than 500 cfs measured at the Wardlow gage station.

⁹ Dry weather effluent limitations are equal to storm drain flows (critical flows minus median POTW flows minus median open space flows) multiplied by reach specific numeric targets, minus the contribution from direct air deposition.

Waterbody	Effluent Limitations Daily Maximum (kg/day)		
	Copper	Lead	Zinc
LA River Reach 6	WER ¹ x 0.53	WER ¹ x 0.33	---
LA River Reach 5	WER ¹ x 0.05	WER ¹ x 0.03	---
LA River Reach 4	WER ¹ x 0.32	WER ¹ x 0.12	---
LA River Reach 3	WER ¹ x 0.06	WER ¹ x 0.03	---
LA River Reach 2	WER ¹ x 0.13	WER ¹ x 0.07	---
LA River Reach 1	WER ¹ x 0.14	WER ¹ x 0.07	---
Bell Creek	WER ¹ x 0.06	WER ¹ x 0.04	---
Tujunga Wash	WER ¹ x 0.001	WER ¹ x 0.0002	---
Burbank Channel	WER ¹ x 0.15	WER ¹ x 0.07	---
Verdugo Wash	WER ¹ x 0.18	WER ¹ x 0.10	---
Arroyo Seco	WER ¹ x 0.01	WER ¹ x 0.01	---
Rio Hondo Reach 1	WER ¹ x 0.01	WER ¹ x 0.006	WER ¹ x 0.16
Compton Creek	WER ¹ x 0.04	WER ¹ x 0.02	---

¹WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

- c. In lieu of calculating loads, Permittees may demonstrate compliance with the following concentration-based water quality-based effluent limitations during dry weather no later than January 11, 2024, expressed as total recoverable metals:

Waterbody	Effluent Limitations Daily Maximum (µg total recoverable metals/L)		
	Copper	Lead	Zinc
LA River Reach 5, 6 and Bell Creek	WER ¹ x 30	WER ¹ x 19	---
LA River Reach 4	WER ¹ x 26	WER ¹ x 10	---
LA River Reach 3 above LA-Glendale WRP and Verdugo Wash	WER ¹ x 23	WER ¹ x 12	---
LA River Reach 3 below LA-Glendale WRP	WER ¹ x 26	WER ¹ x 12	---
Burbank Western Channel (above WRP)	WER ¹ x 26	WER ¹ x 14	---
Burbank Western Channel (below WRP)	WER ¹ x 19	WER ¹ x 9.1	---
LA River Reach 2 and Arroyo Seco	WER ¹ x 22	WER ¹ x 11	---
LA River Reach 1	WER ¹ x 23	WER ¹ x 12	---
Compton Creek	WER ¹ x 19	WER ¹ x 8.9	---
Rio Hondo Reach 1	WER ¹ x 13	WER ¹ x 5.0	WER ¹ x 131

¹ WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

- d. Permittees shall comply with the following grouped¹⁰ wet weather¹¹ water quality-based effluent limitations no later than January 11, 2028, expressed as total recoverable metals discharged to all reaches of the Los Angeles River and its tributaries.

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

¹ WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

3. Permittees shall comply with interim and final water quality-based effluent limitations for metals discharged to the Los Angeles River and its tributaries, per the schedule below:

Deadline	Total Drainage Area Served by the MS4 required to meet the water quality-based effluent limitations (%)	
	Dry weather	Wet weather
January 11, 2012	50	25
January 11, 2020	75	--
January 11, 2024	100	50
January 11, 2028	100	100

D. Los Angeles River Watershed Bacteria TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Constituent	Effluent Limitation (MPN or cfu)	
	Daily Maximum	Geometric Mean
<i>E. coli</i>	235/100 mL	126/100 mL

¹⁰ The wet weather water quality-based effluent limitations are grouped-based and shared among all MS4 Permittees located within the drainage area.

¹¹ Wet weather is defined as any day when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs measured at the Wardlow gage station.

3. Permittees shall comply with the following grouped¹² interim dry weather single sample bacteria water quality-based effluent limitations for specific river segments and tributaries as listed in the table, below, according to the schedule in Table O-1:

River Segment or Tributary	Daily Maximum E. coli Load (10 ⁶ MPN/Day)
Los Angeles River Segment A (Willow to Rosecrans)	301
Los Angeles River Segment B (Rosecrans to Figueroa)	518
Los Angeles River Segment C (Figueroa to Tujunga)	463
Los Angeles River Segment D (Tujunga to Balboa)	454
Los Angeles River Segment E (Balboa to headwaters)	32
Aliso Canyon Wash	23
Arroyo Seco	24
Bell Creek	14
Bull Creek	9
Burbank Western Channel	86
Compton Creek	7
Dry Canyon	7
McCoy Canyon	7
Rio Hondo	2
Tujunga Wash	10
Verdugo Wash	51

- a. Unexpectedly high-loading outfalls may be excluded from interim compliance calculations under the following circumstances: if an outfall which was 1) loading E. coli at a rate less than the 25th percentile of outfalls during the monitoring events used to develop the "MS4 Load Reduction Strategy" (LRS), but, at the time of compliance monitoring, is 2) loading E. coli at a rate greater than the 90th percentile of outfalls, and 3) actions are taken prior to the end of the first phase (i.e. 10 years after the beginning of the segment or tributary specific phase) such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations.
- b. Likewise, if an outfall which was 1) the subject of a dry weather diversion is found, at the time of compliance monitoring, to be 2) contributing greater than the

¹² The interim dry weather water quality-based effluent limitations are group-based and shared among all MS4 Permittees located within the drainage area. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer.

90th percentile loading rate, and 3) actions are taken such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, and a maintenance schedule for the diversion is submitted with the compliance report, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations.

4. Receiving Water Limitations

- a. Permittees shall comply with the following grouped¹³ final single sample bacteria receiving water limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily Sampling	Weekly Sampling
Dry Weather	5	1
Non-HFS ¹⁴ Waterbodies Wet Weather	15	2
HFS Waterbodies Wet Weather	10 (not including HSF days)	2 (not including HSF days)

- b. Permittees shall comply with the following geometric mean receiving water limitation for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table O-1, and during wet weather no later than March 23, 2037:

Constituent	Geometric Mean (MPN or cfu)
E. coli	126/100 mL

Table O-1. Los Angeles River Bacteria Implementation Schedule for Dry Weather

Italics in this Table refer to Permittees using an alternative compliance plan instead of an LRS.

Implementation Action	Responsible Parties	Deadline
SEGMENT B (upper and middle Reach 2 – Figueroa Street to Rosecrans Avenue)		
First phase – Segment B		
Submit a Load Reduction Strategy (LRS) for Segment B (<i>or submit an alternative compliance plan</i>)	MS4 Permittees discharging to Segment B	September 23, 2014
Complete implementation of LRS	MS4 Permittees discharging to Segment B, if using LRS	March 23, 2019

¹³ The final receiving water limitations are group-based and shared among all MS4 Permittees, which includes LA MS4, Long Beach MS4, and Caltrans.

¹⁴ HFS stands for high flow suspension as defined in Chapter 2 of the Basin Plan.

Implementation Action	Responsible Parties	Deadline
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment B, if using LRS	March 23, 2022
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment B, if using alternative compliance plan</i>	<i>March 23, 2022</i>
Second phase, if necessary – Segment B for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment B	March 23, 2023
Complete implementation of LRS	MS4 Permittees discharging to Segment B, if using LRS	September 23, 2026
Achieve final water quality-based effluent limitations in Segment B or demonstrate that non-compliance is only due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment B, if using LRS	September 23, 2028
SEGMENT B TRIBUTARIES (Rio Hondo and Arroyo Seco)		
First phase – Segment B Tributaries (Rio Hondo and Arroyo Seco)		
Submit a Load Reduction Strategy (LRS) for Segment B tributaries (<i>or submit an alternative compliance plan</i>)	MS4 Permittees discharging to Segment B tributaries	March 23, 2016
Complete implementation of LRS	MS4 Permittees discharging to Segment B tributaries, if using LRS	September 23, 2020
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment B tributaries, if using LRS	September 23, 2023
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is only due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment B tributaries, if using alternative compliance plan</i>	<i>September 23, 2023</i>
Second phase, if necessary – Segment B Tributaries (Rio Hondo and Arroyo Seco) for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment B tributaries	September 23, 2024
Complete implementation of LRS	MS4 Permittees discharging to Segment B tributaries, if using LRS	March 23, 2028

Implementation Action	Responsible Parties	Deadline
Achieve final water quality-based effluent limitations Segment B tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment B tributaries, if using LRS	March 23, 2030
SEGMENT A (lower Reach 2 and Reach 1 – Rosecrans Avenue to Willow Street)		
First phase – Segment A		
Submit a Load Reduction Strategy (LRS) for Segment A (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment A	September 23, 2016
Complete implementation of LRS	MS4 Permittees discharging to Segment A, if using LRS	March 23, 2021
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment A, if using LRS	March 23, 2024
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment A, if using alternative compliance plan</i>	<i>March 23, 2024</i>
Second phase, if necessary – Segment A for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment A	March 23, 2025
Complete implementation of LRS	MS4 Permittees discharging to Segment A, if using LRS	September 23, 2029
Achieve final water quality-based effluent limitations in Segment A or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A, if using LRS	September 23, 2031
SEGMENT A TRIBUTARY (Compton Creek)		
First phase – Segment A Tributary		
Submit a Load Reduction Strategy (LRS) for Segment A tributary (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment A tributary	March 23, 2018
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2022

Implementation Action	Responsible Parties	Deadline
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2025
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment A tributary, if using alternative compliance plan</i>	<i>September 23, 2025</i>
Second phase, if necessary – Segment A Tributary for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment A tributary	September 23, 2026
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2030
Achieve final water quality-based effluent limitations in Segment A tributary or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2032
SEGMENT E (Reach 6 – LA River headwaters [confluence with Bell Creek and Calabasas Creek] to Balboa Boulevard)		
First phase – Segment E		
Submit a Load Reduction Strategy (LRS) for Segment E (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment E	September 23, 2017
Complete implementation of LRS	MS4 Permittees discharging to Segment E, if using LRS	March 23, 2022
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment E, if using LRS	March 23, 2025
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment E, if using alternative compliance plan</i>	<i>March 23, 2025</i>
Second phase, if necessary –Segment E for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment E	March 23, 2026
Complete implementation of LRS	MS4 Permittees discharging to Segment E, if using LRS	September 23, 2029

Implementation Action	Responsible Parties	Deadline
Achieve final Water quality-based effluent limitations in Segment E or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment E, if using LRS	September 23, 2031
SEGMENT E TRIBUTARIES (Dry Canyon Creek, McCoy Creek, Bell Creek, and Aliso Canyon Wash)		
First phase – Segment E Tributaries		
Submit a Load Reduction Strategy (LRS) for Segment E tributaries (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment E tributaries	September 23, 2021
Complete implementation of LRS	MS4 Permittees discharging to Segment E tributaries if using LRS	March 23, 2026
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment E tributaries, if using LRS	March 23, 2029
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment E tributaries, if using alternative compliance plan</i>	<i>March 23, 2029</i>
Second phase, if necessary – Segment E Tributaries for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment E tributaries	March 23, 2030
Complete implementation of LRS	MS4 Permittees discharging to Segment E tributaries, if using LRS	September 23, 2033
Achieve final water quality-based effluent limitations in Segment E tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment E tributaries, if using LRS	September 23, 2035
SEGMENT C (lower Reach 4 and Reach 3 – Tujunga Avenue to Figueroa Street) SEGMENT C TRIBUTARIES (Tujunga Wash, Burbank Western Channel, and Verdugo Wash) SEGMENT D (Reach 5 and upper Reach 4 – Balboa Boulevard to Tujunga Avenue) SEGMENT D TRIBUTARIES (Bull Creek)		
First phase – Segment C, Segment C Tributaries, Segment D, Segment D tributaries		
Submit a Load Reduction Strategies (LRS) for Segment C, Segment C tributaries, Segment D, Segment D tributaries (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries	March 23, 2023

Implementation Action	Responsible Parties	Deadline
Complete implementation of LRS	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS	September 23, 2027
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using LRS	September 23, 2030
<i>Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board</i>	<i>MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries, if using alternative compliance plan</i>	<i>September 23, 2030</i>
Second phase, if necessary - Segment C, Segment C Tributaries, Segment D, Segment D Tributaries for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries	September 23, 2031
Complete implementation of LRS	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries if using LRS	March 23, 2035
Achieve final water quality-based effluent limitations in Segment C, Segment C tributaries, Segment D, Segment D tributaries or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Water Board	MS4 Permittees discharging to Segment C, Segment C tributaries, Segment D, Segment D tributaries if using LRS	March 23, 2037

5. Compliance

- a. Permittees may demonstrate compliance with the final dry weather limitations by demonstrating that final receiving water limitations are met in the receiving waters or by demonstrating one of the following conditions at outfalls to the receiving waters:
 - i. Flow-weighted concentration of *E. coli* in MS4 discharges during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; or
 - ii. Zero discharge during dry weather.
- b. In addition, individual Permittees or subgroups of Permittees may differentiate their dry weather discharges from other dischargers or upstream contributions by demonstrating one of the following conditions at outfalls to the receiving waters or at segment, tributary or jurisdictional boundaries:

- i. The flow-weighted concentration of E. coli in a Permittee's individual discharge or in a group of Permittees' collective discharge during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; or
 - ii. Zero discharge from a Permittee's individual outfall(s) or from a group of Permittees' outfall(s) during dry weather; or
 - iii. Demonstration that the MS4 loading of E. coli to the segment or tributary during dry weather is less than or equal to the calculated loading rate that would not cause or contribute to exceedances based on the loading capacity representative of conditions in the River at the time of compliance.
- c. The interim dry weather water quality-based effluent limitations are group-based, shared among all MS4 Permittees that drain to a segment or tributary. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer.

E. Legg Lake Trash TMDL

- 1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- 2. Permittees shall comply with the final water quality-based effluent limitation of zero trash discharged to Legg Lake no later than March 6, 2016, and every year thereafter.
- 3. Permittees that choose to comply via a full capture compliance strategy must demonstrate a phased implementation of full capture devices attaining interim effluent limitations over the following 8-year period until the final effluent limitation of zero is attained:

Deadline	Effluent Limitation
	Drainage Area covered by Full Capture Systems (%)
March 6, 2008	0
March 6, 2012	20
March 6, 2013	40
March 6, 2014	60
March 6, 2015	80
March 6, 2016	100

Legg Lake Trash Effluent Limitations¹⁵ (gallons of uncompressed trash per year)

Permittees	Baseline ¹⁶ (100%)	3/6/2012 (80%)	3/6/2013 (60%)	3/6/2014 (40%)	3/6/2015 (20%)	3/6/2016 ¹⁷ (0%)
Los Angeles County	2400.03	1920.02	1440.02	960.01	480.01	0
Los Angeles County Flood Control District	24.05	19.24	14.43	9.62	4.81	0
City of El Monte	509.48	407.58	305.69	203.79	101.90	0
City of South El Monte	3896.76	3117.41	2338.06	1558.70	779.35	0

4. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in E.2 and E.3 above per the provisions in Part VI.E.5.
5. If a Permittee opts to derive site specific trash generation rates through its Trash Monitoring and Reporting Plan (TMRP), the baseline limitation shall be calculated by multiplying the point source area(s) by the derived trash generation rate(s).
6. Permittees shall comply with the interim and final water quality-based effluent limitations for trash in E.2 and E.3 above per the provisions in Part VI.E.5.

F. Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL (USEPA established)

1. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
2. Permittees shall comply with the following final WLAs for discharges to the Los Angeles River Estuary per the provisions in Part VI.E.3:

Constituent	WLA (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

3. Receiving Water Limitations

- a. Permittees shall comply with the following grouped¹⁸ final single sample bacteria WLAs for the Los Angeles River Estuary per the provisions in Part VI.E.3:

¹⁵ Water quality-based effluent limitations are expressed as allowable trash discharge relative to baseline Waste Load Allocations.

¹⁶ The Regional Water Board calculated the baseline water quality-based effluent limitations for the Permittees based on the estimated trash generation rate of 5334 gallons of uncompressed trash per square mile per year.

¹⁷ Permittees shall achieve their final effluent limitation of zero trash discharged for the year and every year thereafter.

¹⁸ The final receiving water limitations are group-based and shared among all MS4 Permittees located within the drainage area.

Time Period	Annual Allowable Exceedance Days of the Single Sample Objective (days)	
	Daily sampling	Weekly sampling
Summer Dry-Weather (April 1 to October 31)	0	0
Winter Dry-Weather (November 1 to March 31)	9	2
Wet Weather ¹⁹	17	3

- b. Permittees shall comply with the following geometric mean receiving water limitations for all monitoring stations in the Los Angeles River Estuary per the provisions in Part VI.E.3:

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

4. Compliance Determination

- a. Permittees may demonstrate compliance with the final dry or weather WLAs by demonstrating that final WLAs expressed as allowable exceedance days are met in the receiving waters or by demonstrating one of the following conditions at outfalls to the receiving waters:
- i. Flow-weighted concentration of bacterial indicators in MS4 discharges during dry or wet weather is less than or equal to the WLAs in part E.2 above, based on a weighted-average using flow rates from all measured outfalls; or
 - ii. Zero discharge during dry weather.
- b. In addition, individual Permittees or subgroups of Permittees may differentiate their dry or wet weather discharges from other dischargers or upstream contributions by demonstrating one of the following conditions at outfalls to the receiving waters or at segment, tributary or jurisdictional boundaries:
- i. The flow-weighted concentration of bacterial indicators in a Permittee's individual discharge or in a group of Permittees' collective discharge during dry or wet weather is less than or equal to the WLAs in part E.2 above, based on a weighted-average using flow rates from all measured outfalls; or
 - ii. Zero discharge from a Permittee's individual outfall(s) or from a group of Permittees' outfall(s) during dry weather.

G. Los Angeles Area Lakes TMDLs²⁰ (USEPA established)

1. Lake Calabazas Nutrient TMDL

¹⁹ Wet weather is defined as days with 0.1 inch of rain or greater and the three days following the rain event.

²⁰ Los Angeles Area Lakes TMDL includes multiple watershed management areas.

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Permittee	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
City of Calabasas	48.5	220

Measured at the point of discharge. The mass-based allocations are equivalent to existing concentrations of 0.066 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.66 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- d. The following concentration-based WLAs shall apply during both wet and dry weather if:
 - i. The Regional Water Board Executive Officer approves a request by the Permittee that the concentration-based WLAs apply, and the USEPA does not object to the Executive Officer's decision within 60 days of receiving notice.
 - ii. The Permittee shall submit a request to both the Regional Water Board and USEPA and shall include as part of the request a Lake Management Plan, describing actions that will be implemented to ensure that the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved and the chlorophyll *a* target of 20 µg/L measured as a summer average (May-September) and as an annual average is met.
 - iii. If the applicable water quality objectives for ammonia, dissolved oxygen, pH are achieved, and the chlorophyll *a* target is met, then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

Permittee	Total Phosphorus (mg-P/L)	Total Nitrogen (mg-N/L)
City of Calabasas	0.1	1.0

Measured as in-lake concentration and applied as a summer average (May-September) and an annual average.

2. Echo Park Lake Nutrient TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

- c. Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Subwatershed	Permittee	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Northern	City of Los Angeles	24.7	156
Southern	City of Los Angeles	7.129	49.69

Measured at the point of discharge using a three-year average. The mass-based allocations are equivalent to existing concentrations of 0.12 mg/L total phosphorus as a summer average (May-September) and annual average, and 1.2 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- d. In assessing compliance with WLAs, Permittees assigned both northern and southern subwatershed allocations may have their allocations combined.
- e. If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target of 20 µg/L as a summer average (May-September) and as an annual average is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.
3. Echo Park Lake PCBs TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight)	Total PCBs in the Water Column (ng/L)
Northern	City of Los Angeles	1.77	0.17
Southern	City of Los Angeles	1.77	0.17

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 3.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight) ^{***}	Total PCBs in the Water Column (ng/L) ^{***}
Northern	City of Los Angeles	59.8	0.17
Southern	City of Los Angeles	59.8	0.17

*Measured at the point of discharge.
**Applied as a three-year average.
***Applied as an annual average.

4. Echo Park Lake Chlordane TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight)	Total Chlordane in the Water Column (ng/L)
Northern	City of Los Angeles	2.10	0.59
Southern	City of Los Angeles	2.10	0.59

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 5.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight) ^{***}	Total Chlordane in the Water Column (ng/L) ^{***}
Northern	City of Los Angeles	3.24	0.59
Southern	City of Los Angeles	3.24	0.59

*Measured at the point of discharge.
**Applied as a three-year average.
***Applied as an annual average.

5. Echo Park Lake Dieldrin TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.

- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight)	Dieldrin in the Water Column (ng/L)
Northern	City of Los Angeles	0.80	0.14
Southern	City of Los Angeles	0.80	0.14

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 0.46 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight) ^{***}	Dieldrin in the Water Column (ng/L) ^{***}
Northern	City of Los Angeles	1.90	0.14
Southern	City of Los Angeles	1.90	0.14

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

6. Echo Park Lake Trash TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Parts VI.E.3 and VI.E.5.
- c. Permittees shall comply with the following WLA:

Permittee	Trash (Gal/year)
City of Los Angeles	0

7. Legg Lake System Nutrient TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

- c. Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

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

Measured at the point of discharge. The mass-based allocations are equivalent to existing concentrations of 0.065 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.65 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- d. The following concentration-based WLAs shall apply during both wet and dry weather if:
- i. The Regional Water Board Executive Officer approves a request by a Permittee that the concentration-based WLAs apply, and the USEPA does not object to the Executive Officer's decision within 60 days of receiving notice.
 - ii. Permittees shall submit a request to both the Regional Water Board and USEPA and shall include as part of the request a Lake Management Plan, describing actions that will be implemented to ensure that the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll a target of 20 µg/L as a summer average (May-September) and an annual average is met, in the lake.
 - iii. If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll a target is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

Subwatershed	Permittee	Total Phosphorus (mg-P/L)	Total Nitrogen (mg-N/L)
Northwestern	County of Los Angeles	0.1	1.0
Northwestern	South El Monte	0.1	1.0
Northeastern	El Monte	0.1	1.0
Northeastern	County of Los Angeles	0.1	1.0
Northeastern	South El Monte	0.1	1.0

Measured as an in-lake concentration. Applied as a summer average (May-September) and an annual average.

8. Peck Road Park Lake Nutrient TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.

- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

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 Angeles	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

Measured at the point of discharge using a three-year average. The mass-based allocations are equivalent to existing concentrations of 0.076 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.76 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- d. If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll a target of 20 µg/L as a summer average (May-September) and as an annual average is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

9. Peck Road Park Lake PCBs TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight)	Total PCBs in the Water Column (ng/L)
Eastern	Arcadia	1.29	0.17
Eastern	Bradbury	1.29	0.17
Eastern	Duarte	1.29	0.17
Eastern	Irwindale	1.29	0.17
Eastern	County of	1.29	0.17

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight)	Total PCBs in the Water Column (ng/L)
	Los Angeles		
Eastern	Monrovia	1.29	0.17
Near Lake	Arcadia	1.29	0.17
Near Lake	El Monte	1.29	0.17
Near Lake	Irwindale	1.29	0.17
Near Lake	County of Los Angeles	1.29	0.17
Near Lake	Monrovia	1.29	0.17
Western	Arcadia	1.29	0.17
Western	County of Los Angeles	1.29	0.17
Western	Monrovia	1.29	0.17
Western	Sierra Madre	1.29	0.17

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 3.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight)***	Total PCBs in the Water Column (ng/L)***
Eastern	Arcadia	59.8	0.17
Eastern	Bradbury	59.8	0.17
Eastern	Duarte	59.8	0.17
Eastern	Irwindale	59.8	0.17
Eastern	County of Los Angeles	59.8	0.17
Eastern	Monrovia	59.8	0.17
Near Lake	Arcadia	59.8	0.17
Near Lake	El Monte	59.8	0.17
Near Lake	Irwindale	59.8	0.17
Near Lake	County of Los Angeles	59.8	0.17
Near Lake	Monrovia	59.8	0.17
Western	Arcadia	59.8	0.17
Western	County of Los Angeles	59.8	0.17
Western	Monrovia	59.8	0.17
Western	Sierra Madre	59.8	0.17

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

10. Peck Road Park Lake Chlordane TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight)	Total Chlordane in the Water Column (ng/L)
Eastern	Arcadia	1.73	0.59
Eastern	Bradbury	1.73	0.59
Eastern	Duarte	1.73	0.59
Eastern	Irwindale	1.73	0.59
Eastern	County of Los Angeles	1.73	0.59
Eastern	Monrovia	1.73	0.59
Near Lake	Arcadia	1.73	0.59
Near Lake	El Monte	1.73	0.59
Near Lake	Irwindale	1.73	0.59
Near Lake	County of Los Angeles	1.73	0.59
Near Lake	Monrovia	1.73	0.59
Western	Arcadia	1.73	0.59
Western	County of Los Angeles	1.73	0.59
Western	Monrovia	1.73	0.59
Western	Sierra Madre	1.73	0.59

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 5.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice:

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight) ^{***}	Total Chlordane in the Water Column (ng/L) ^{***}
Eastern	Arcadia	3.24	0.59
Eastern	Bradbury	3.24	0.59
Eastern	Duarte	3.24	0.59
Eastern	Irwindale	3.24	0.59
Eastern	County of Los Angeles	3.24	0.59
Eastern	Monrovia	3.24	0.59
Near Lake	Arcadia	3.24	0.59

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight) ^{***}	Total Chlordane in the Water Column (ng/L) ^{****}
Near Lake	El Monte	3.24	0.59
Near Lake	Irwindale	3.24	0.59
Near Lake	County of Los Angeles	3.24	0.59
Near Lake	Monrovia	3.24	0.59
Western	Arcadia	3.24	0.59
Western	County of Los Angeles	3.24	0.59
Western	Monrovia	3.24	0.59
Western	Sierra Madre	3.24	0.59

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

11. Peck Road Park DDT TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total DDT associated with Suspended Sediment (µg/kg dry weight)	4-4' DDT in the Water Column (ng/L)
Eastern	Arcadia	5.28	0.59
Eastern	Bradbury	5.28	0.59
Eastern	Duarte	5.28	0.59
Eastern	Irwindale	5.28	0.59
Eastern	County of Los Angeles	5.28	0.59
Eastern	Monrovia	5.28	0.59
Near Lake	Arcadia	5.28	0.59
Near Lake	El Monte	5.28	0.59
Near Lake	Irwindale	5.28	0.59
Near Lake	County of Los Angeles	5.28	0.59
Near Lake	Monrovia	5.28	0.59
Western	Arcadia	5.28	0.59
Western	County of Los Angeles	5.28	0.59
Western	Monrovia	5.28	0.59
Western	Sierra Madre	5.28	0.59

Measured at the point of discharge. Applied as an annual average.

12. Peck Road Park Lake Dieldrin TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.

- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight)	Dieldrin in the Water Column (ng/L)
Eastern	Arcadia	0.43	0.14
Eastern	Bradbury	0.43	0.14
Eastern	Duarte	0.43	0.14
Eastern	Irwindale	0.43	0.14
Eastern	County of Los Angeles	0.43	0.14
Eastern	Monrovia	0.43	0.14
Near Lake	Arcadia	0.43	0.14
Near Lake	El Monte	0.43	0.14
Near Lake	Irwindale	0.43	0.14
Near Lake	County of Los Angeles	0.43	0.14
Near Lake	Monrovia	0.43	0.14
Western	Arcadia	0.43	0.14
Western	County of Los Angeles	0.43	0.14
Western	Monrovia	0.43	0.14
Western	Sierra Madre	0.43	0.14

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 0.46 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five largemouth bass each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight)***	Dieldrin in the Water Column (ng/L)****
Eastern	Arcadia	1.90	0.14
Eastern	Bradbury	1.90	0.14
Eastern	Duarte	1.90	0.14
Eastern	Irwindale	1.90	0.14
Eastern	County of Los Angeles	1.90	0.14
Eastern	Monrovia	1.90	0.14
Near Lake	Arcadia	1.90	0.14
Near Lake	El Monte	1.90	0.14
Near Lake	Irwindale	1.90	0.14
Near Lake	County of	1.90	0.14

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight)***	Dieldrin in the Water Column (ng/L)****
	Los Angeles		
Near Lake	Monrovia	1.90	0.14
Western	Arcadia	1.90	0.14
Western	County of Los Angeles	1.90	0.14
Western	Monrovia	1.90	0.14
Western	Sierra Madre	1.90	0.14

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

13. Peck Road Park Lake Trash TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-5.
- b. Permittees shall comply with the following WLAs per the provisions in Parts VI.E.3 and VI.E.5.
- c. Permittees shall comply with the following WLA:

Permittee	Trash (gal/year)
Arcadia	0
Bradbury	0
Duarte	0
El Monte	0
Irwindale	0
County of Los Angeles	0
Monrovia	0
Sierra Madre	0

ATTACHMENT P. TMDLs IN SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

A. San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL (USEPA established)

1. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
2. Permittees shall comply with the following grouped¹ wet weather² WLAs, expressed as total recoverable metals discharged to all upstream reaches and tributaries of the San Gabriel River Reach 2 and Coyote Creek per the provisions in Part VI.E.3:

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)

3. Permittees shall comply with the following grouped¹ dry weather WLAs, expressed as total recoverable metals discharged to San Gabriel River Reach 1, Coyote Creek, San Gabriel River Estuary, and San Jose Creek Reach 1 and Reach 2 per the provisions in Part VI.E.3:

Water Body	WLA Daily Maximum	
	Copper	Selenium
San Gabriel Reach 1	18 µg/L	---
Coyote Creek	0.941 kg/day*	---
San Gabriel River Estuary	3.7 µg/L	---
San Jose Creek Reach 1 and 2	---	5 µg/L

*Calculated based upon the median flow at LACDPW Station F354-R of 19 cfs multiplied by the numeric target of 20 µg/L, minus direct air deposition of 0.002 kg/d.

4. Permittees may convert the grouped mass-based WLAs into individual WLAs based on the percentage of the watershed and land uses within the Permittee's jurisdiction, upon approval of the Regional Water Board Executive Officer.

B. Los Angeles Area Lakes TMDLs³ (USEPA established)

1. Puddingstone Reservoir Nutrient TMDL
 - a. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
 - b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

¹ The wet weather and dry weather water WLAs are group-based and shared among all MS4 Permittees, which includes LA MS4 Permittees, the City of Long Beach, and Orange County MS4 Permittees located within the drainage area and Caltrans.

² In San Gabriel River Reach 2, wet weather TMDLs apply when the maximum daily flow of the river is equal to or greater than 260 cfs as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. In Coyote Creek, wet weather TMDLs apply when the maximum daily flow in the creek is equal to or greater than 156 cfs as measured at LACDPW flow gauge station F354-R, located at the bottom of the creek, just above the Long Beach WRP.

³ Los Angeles Area Lakes TMDL includes multiple watershed management areas.

- c. Permittees shall comply with the following annual mass-based allocations based on current flow conditions:

Subwatershed	Permittee	Total Phosphorus (lb-P/yr)	Total Nitrogen (lb-N/yr)
Northern	Claremont	169	829
Northern	County of Los Angeles	741	3,390
Northern	La Verne	2,772	11,766
Northern	Pomona	6.30	28.3
Northern	San Dimas	31.1	137

Measured at the point of discharge. The mass-based allocations are equivalent to existing concentrations of 0.071 mg/L total phosphorus as a summer average (May-September) and annual average, and 0.71 mg/L total nitrogen as a summer average (May-September) and annual average based on approved flow conditions.

- d. The following concentration-based WLAs shall apply during both wet and dry weather if:
- i. The Regional Water Board Executive Officer approves a request by a Permittee that the concentration-based WLAs apply, and the USEPA does not object to the Executive Officer's decision within 60 days of receiving notice.
 - ii. Permittees shall submit a request to both the Regional Water Board and USEPA and shall include as part of the request a Lake Management Plan, describing actions that will be implemented to ensure that the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved and the chlorophyll *a* target of 20 µg/L as a summer average (May-September) and an annual average is met, in the lake.
 - iii. If the applicable water quality objectives for ammonia, dissolved oxygen, and pH are achieved, and the chlorophyll *a* target is met, in the lake then the total phosphorus and total nitrogen concentration-based WLAs shall be considered attained.

Subwatershed	Permittee	Total Phosphorus (mg-P/L)	Total Nitrogen (mg-N/L)
Northern	Claremont	0.1	1.0
Northern	County of Los Angeles	0.1	1.0
Northern	La Verne	0.1	1.0
Northern	Pomona	0.1	1.0
Northern	San Dimas	0.1	1.0

Measured as an in-lake concentration. Applied as a summer average (May-September) and an annual average.

2. Puddingstone Reservoir Mercury TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.

- c. Permittees shall comply with the following WLAs during both wet and dry weather:

Subwatershed	Permittee	Total Mercury (g-Hg/yr)
Northern	Claremont	0.674
Northern	County of Los Angeles	2.79
Northern	La Verne	10.6
Northern	Pomona	0.026
Northern	San Dimas	0.109

Measured at the point of discharge.

3. Puddingstone Reservoir PCBs TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight)	Total PCBs in the Water Column (ng/L)
Northern	Claremont	0.59	0.17
Northern	County of Los Angeles	0.59	0.17
Northern	La Verne	0.59	0.17
Northern	Pomona	0.59	0.17
Northern	San Dimas	0.59	0.17

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 3.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total PCBs associated with Suspended Sediment (µg/kg dry weight)**	Total PCBs in the Water Column (ng/L)**
Northern	Claremont	59.8	0.17
Northern	County of Los Angeles	59.8	0.17
Northern	La Verne	59.8	0.17
Northern	Pomona	59.8	0.17
Northern	San Dimas	59.8	0.17

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

4. Puddingstone Reservoir Chlordane TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight)	Total Chlordane in the Water Column (ng/L)
Northern	Claremont	0.75	0.57
Northern	County of Los Angeles	0.75	0.57
Northern	La Verne	0.75	0.57
Northern	Pomona	0.75	0.57
Northern	San Dimas	0.75	0.57

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 5.6 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total Chlordane associated with Suspended Sediment (µg/kg dry weight) ^{***}	Total Chlordane in the Water Column (ng/L) ^{****}
Northern	Claremont	3.24	0.57
Northern	County of Los Angeles	3.24	0.57
Northern	La Verne	3.24	0.57
Northern	Pomona	3.24	0.57
Northern	San Dimas	3.24	0.57

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

5. Puddingstone Reservoir Dieldrin TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight)	Dieldrin in the Water Column (ng/L)
Northern	Claremont	0.22	0.14
Northern	County of Los Angeles	0.22	0.14
Northern	La Verne	0.22	0.14
Northern	Pomona	0.22	0.14
Northern	San Dimas	0.22	0.14

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 0.46 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Dieldrin associated with Suspended Sediment (µg/kg dry weight)**	Dieldrin in the Water Column (ng/L)**
Northern	Claremont	1.90	0.14
Northern	County of Los Angeles	1.90	0.14
Northern	La Verne	1.90	0.14
Northern	Pomona	1.90	0.14
Northern	San Dimas	1.90	0.14

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

6. Puddingstone Reservoir DDT TMDL

- a. Permittees subject to the provisions below are identified in Attachment K, Table K-6.
- b. Permittees shall comply with the following WLAs per the provisions in Part VI.E.3.
- c. Permittees shall comply with the following WLAs:

Subwatershed	Permittee	Total DDT associated with Suspended Sediment (µg/kg dry weight)	4-4' DDT in the Water Column (ng/L)
Northern	Claremont	3.94	0.59
Northern	County of Los Angeles	3.94	0.59
Northern	La Verne	3.94	0.59
Northern	Pomona	3.94	0.59
Northern	San Dimas	3.94	0.59

Measured at the point of discharge. Applied as an annual average.

- d. Permittees may comply with the following alternative WLAs upon approval by the Regional Water Board Executive Officer based upon documentation that the fish tissue target of 21 ppb wet weight has been met for the preceding three or more years. A demonstration that the fish tissue target has been met in any given year must at a minimum include a composite sample of skin of fillets from at least five common carp each measuring at least 350 mm in length. Documentation shall be submitted to the Regional Water Board and USEPA. Compliance may be demonstrated based on the alternative WLAs upon approval by the Executive Officer, so long as USEPA does not object within 60 days of receiving notice.

Subwatershed	Permittee	Total DDT associated with Suspended Sediment (µg/kg dry weight)**	4-4' DDT in the Water Column (ng/L)***
Northern	Claremont	5.28	0.59
Northern	County of Los Angeles	5.28	0.59
Northern	La Verne	5.28	0.59
Northern	Pomona	5.28	0.59
Northern	San Dimas	5.28	0.59

*Measured at the point of discharge.

**Applied as a three-year average.

***Applied as an annual average.

**ATTACHMENT Q. TMDLs IN LOS CERRITOS CHANNEL AND ALAMITOS BAY
WATERSHED MANAGEMENT AREA**

A. Los Cerritos Channel Metals TMDL (USEPA established)

1. Permittees subject to the provisions below are identified in Attachment K, Table K-7.
2. Permittees shall comply with the following dry weather¹ WLAs, expressed as total recoverable metals discharged to Los Cerritos Channel, per the provisions in Part VI.E.3:

Constituent	WLA Daily Maximum (g/day)
Copper	67.2

3. Permittees shall comply with the following wet weather² WLA, expressed as total recoverable metals discharged to Los Cerritos Channel, per the provisions in Part VI.E.3:

Constituent	WLA Daily Maximum (g/day)
Copper	$4.709 \times 10^{-6} \times$ daily storm volume (L)
Lead	$26.852 \times 10^{-6} \times$ daily storm volume (L)
Zinc	$46.027 \times 10^{-6} \times$ daily storm volume (L)

B. Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL

1. Permittees subject to the provisions below are identified in Attachment K, Table K-7.
2. Permittees shall comply with the following interim water quality-based effluent limitations as of the effective date of this Order, for sediments within Colorado Lagoon:

Constituent	Interim Concentration-based Effluent Limitations Monthly Average (µg/dry kg)
Chlordane	129.65
Dieldrin	26.20
Lead	399,500
Zinc	565,000
PAHs	4,022
PCBs	89.90
DDT	149.80

¹ Dry weather is defined as any day when the maximum daily flow in Los Cerritos Channel is less than 23 cubic feet per second (cfs) measured at Stearns Street Monitoring Station.

² Wet weather is defined as any day when the maximum daily flow in Los Cerritos Channel is equal to or greater than 23 cfs measured at Stearns Street Monitoring Station.

3. Permittees shall comply with the following final water quality-based effluent limitations no later than July 28, 2018, for sediments within Colorado Lagoon:

Constituent	Final Concentration Based Effluent Limitations Monthly Average (µg/dry kg)
Chlordane	0.50
Dieldrin	0.02
Lead	46,700
Zinc	150,000
PAHs	4,022
PCBs	22.70
DDT	1.58

4. The mass-based water quality-based effluent limitations are shared by the MS4 Permittees, which includes the LACFCD, City of Long Beach and Caltrans. Permittees shall comply with the following grouped final water quality-based effluent limitations no later than July 28, 2018, expressed as an annual discharge of sediment to Colorado Lagoon:

Constituent	Annual Mass-based Effluent Limitations (mg/yr)				
	Project 452	Line I	Termino Ave	Line K	Line M
Chlordane	5.10	3.65	12.15	1.94	0.73
Dieldrin	0.20	0.15	0.49	0.08	0.03
Lead	476,646.68	340,455.99	1,134,867.12	181,573.76	68,116.09
Zinc	1,530,985.05	1,093,541.72	3,645,183.47	583,213.37	218,788.29
PAHs	41,050.81	29,321.50	97,739.52	15,637.89	5,866.44
PCBs	231.69	165.49	551.64	88.26	33.11
DDT	16.13	11.52	38.40	6.14	2.30

5. Compliance with the concentration-based water quality-based effluent limitations shall be determined by pollutant concentrations in the sediment in Colorado Lagoon at points in the West Arm, North Arm and Central Arm that represent the cumulative inputs from the MS4 drainage to the lagoon.

ATTACHMENT R. TMDLs IN THE MIDDLE SANTA ANA RIVER WATERSHED MANAGEMENT AREA (SANTA ANA REGION TMDL)

A. Middle Santa Ana River Watershed Bacterial Indicator TMDLs

1. Permittees subject to the provisions below are identified in Attachment K, Table K-8.
2. Permittees shall comply with the following final water quality-based effluent limitations for discharges to San Antonio Creek and Chino Creek during dry weather no later than December 31, 2015, and during wet weather no later than December 31, 2025:
 - a. Fecal coliform¹: geometric mean less than 180 organisms/100 mL based on five or more samples during any 30-day period, and not more than 10% of the samples exceed 360 organisms/100 mL during any 30-day period.
 - b. *E. coli*: geometric mean less than 113 organisms/100 mL based on five or more samples during any 30-day period, and not more than 10% of the samples exceed 212 organisms/100 mL during any 30-day period.
3. Permittees shall comply with the following receiving water limitations for discharges to San Antonio Creek and Chino Creek during dry weather no later than December 31, 2015, and during wet weather no later than December 31, 2025:
 - a. Fecal coliform²: geometric mean less than 200 organisms/100 mL based on 5 samples during any 30-day period, and not more than 10% of the samples exceed 400 organisms/100 mL during any 30-day period.
 - b. *E. coli*: geometric mean less than 126 organisms/100 mL based on 5 samples during any 30-day period, and not more than 10% of the samples exceed 235 organisms/100 mL during any 30-day period.

B. Section A of this Attachment R, and Parts V and VI.C of this Order, shall not be applicable to discharges of bacteria through MS4s of the Permittees identified in Attachment K, Table K-8, to receiving waters within the Middle Santa Ana River Watershed that are addressed by the Middle Santa Ana River Watershed Bacterial Indication TMDLs, Resolution No. R8-2005-0001, established by the Regional Water Quality Control Board, Santa Ana Region (Santa Ana Regional Board), during the effective dates of any NPDES permit that is issued by the Santa Ana Regional Board:

1. Pursuant to a valid and enforceable designation agreement between this Regional Water Board and the Santa Ana Regional Board under Water Code section 13228, that is applicable to MS4 discharges by the Permittees identified in Attachment K, Table K-8; and
2. The designation agreement delegates the Santa Ana Regional Board as the regulator of MS4 discharges by the Permittees identified in Attachment K, Table K-8, to ensure compliance with the Middle Santa Ana River Watershed Bacterial Indicator

¹ The fecal coliform water quality-based effluent limitations become ineffective upon the replacement of the REC-1 fecal coliform water quality objectives with REC-1 *E. coli* water quality objectives in the Santa Ana Region Basin Plan.

² The fecal coliform receiving water limitations become ineffective upon the replacement of the REC-1 fecal coliform water quality objectives with REC-1 *E. coli* water quality objectives in the Santa Ana Region Basin Plan.

TMDLs, Resolution No. R8-2005-0001, in satisfaction of the requirements of 40 CFR section 122.44(d)(1)(vii)(B).

City of Pico Rivera
Comments Regarding Los Angeles MS4 Tentative Order No. R4-2012-XXXX
NPDES PERMIT NO. CAS004001 (issue date unspecified)

1. **Numeric Water Quality Based Effluent Limitations (WQBELs) applied to dry and wet weather Total Maximum Daily Load (TMDLs) waste load allocations (WLAs) and to stormwater and non-stormwater municipal action levels (MALs) are not authorized under federal stormwater regulations and are not in keeping with State Water Resources Control Board (State Board) water quality orders (WQOs).**

The tentative order specifies that: *Each Permittee shall comply with applicable WQBELs as set forth in Part VI.E of this Order, pursuant to applicable compliance schedules.* The tentative order specifies two categories of WQBELs, one for USEPA adopted TMDLs and one for Regional Board/State adopted TMDLs. Regarding USEPA adopted TMDLs, it appears that BMP-WQBELs may be used to meet TMDL WLAs in the receiving water. For Regional Board/State-adopted TMDLs, the tentative order specifies a different compliance method: meeting a “numeric” WQBEL which is derived directly from the TMDL waste load allocation. For example, the wet weather numeric WQBEL for dissolved copper for the Los Angeles River is 17 ug/l.

- a. *Issue: Regional Board staff is premature in requiring any kind of WQBEL because no exceedance of any TMDL WLA at the outfall has occurred. This is because outfall monitoring is not a requirement of the current MS4 permit or previous MS4 permits.*

The Regional Board’s setting of WQBELs – any WQBEL -- to translate the TMDL WLA for compliance at the outfall is premature. Regional Board staff apparently has not performed a reasonable potential analysis as required under § 122.44(d)(1)(i), which states:

Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality.”

No such reasonable potential analysis has been performed – even though USEPA guidance requires it as part of documenting the calculation of WQBELs in the NPDES permit’s fact sheet. According to USEPA’s NPDES Permit Writers’ Manual:

Permit writers should document in the NPDES permit fact sheet the process used to develop WQBELs. The permit writer should clearly identify the data and information used to determine the applicable water quality standards and how

that information, or any applicable TMDL, was used to derive WQBELs and explain how the state's anti-degradation policy was applied as part of the process. The information in the fact sheet should provide the NPDES permit applicant and the public a transparent, reproducible, and defensible description of how the permit writer properly derived WQBELs for the NPDES permit.¹

The fact sheet accompanying the tentative order contains no reference to a reasonable potential analysis -- a consequence of the fact that no outfall monitoring has been required of the Regional Board either in the current or previous MS4 permits for Los Angeles County. Outfall monitoring is a mandatory requirement under federal regulations at CFR 40 §122.22, §122.2 and §122.26. CFR 40 §122.22(C)(3) requires effluent and ambient monitoring:

*The permit requires all **effluent** and **ambient** monitoring necessary to show that during the term of the permit the limit on the indicator parameters continues to attain water quality standards.*

"Effluent monitoring," according to Clean Water Act §502, is defined as outfall monitoring:

*The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from **point sources** into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.*

40 CFR §122.2, defines a point source as:

... the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

Conclusion: Because Regional Board staff has not required outfall monitoring, it could have not have detected an excursion above a water quality standard (includes TMDL WLAs). Therefore, it could not have conducted a reasonable potential analysis and, as further consequence, cannot require compliance with a WQBEL (numeric or BMP-based) or with any TMDL or MAL until those burdens have been met.

¹United States Environmental Protection Agency, *NPDES Permit Writers' Manual*, September, 2010; page 6-30.

Recommended Correction: Eliminate all reference to comply with WQBELs until outfall monitoring and a reasonable potential analysis have been performed.

- b. Issue: Even if Regional Board staff conducted outfall monitoring and detected an excursion above a TMDL WLA and performed the requisite reasonable potential analysis, it cannot require a numeric WQBEL strictly derived from the TMDL WLA.

USEPA's 2010 guidance memorandum mentions that numeric WQBELs are permissible only if feasible.² This conclusion was reinforced by a memorandum from Mr. Kevin Weiss, Water Permits Division, USEPA (Washington D.C.). He explains:

Some stakeholders are concerned that the 2010 memorandum can be read as advising NPDES permit authorities to impose end-of-pipe limitations on each individual outfall in a municipal separate storm sewer system. In general, EPA does not anticipate that end-of-pipe effluent limitations on each municipal separate storm sewer system outfall will be used frequently. Rather, the memorandum expressly describes "numeric" limitations in broad terms, including "numeric parameters acting as surrogates for pollutants such as stormwater flow volume or percentage or amount of impervious cover." In the context of the 2010 memorandum, the term "numeric effluent limitation" should be viewed as a significantly broader term than just end-of-pipe limitations, and could include limitations expressed as pollutant reduction levels for parameters that are applied system-wide rather than to individual discharge locations, expressed as requirements to meet performance standards for surrogate parameters or for specific pollutant parameters, or could be expressed as in-stream targets for specific pollutant parameters. Under this approach, NPDES authorities have significant flexibility to establish numeric effluent limitations in stormwater permits.³

Reading the 2010 USEPA memorandum, together with Mr. Weiss's memorandum, creates the inescapable conclusion that (1) numeric WQBELs are permissible if "feasible" and (2) numeric WQBELs cannot be construed to only mean strict effluent limitations at the end-of-pipe (outfall) but more realistically must include surrogate parameters and other variants as well. Regional Board staff failed to examine alternative numeric WQBELs, along with BMP WQBELs, as a consequence of not conducting the appropriate analysis.

In any case, the feasibility of numeric WQBELs, whether strictly derived from TMDL WLAs or of the surrogate parameter type, the State Water Resources Control Board has determined that numeric effluent

²Memorandum from James A. Hanlon, Director, Office of Waste Management, Revisions to the November 22, 2002 Memorandum *Establishing Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*, November 12, 2010, page

³Memorandum from Kevin Weiss, Water Permits Division, USEPA (Washington D.C.), March 17, 2011.

limitations are not feasible. In Water Quality Orders 2001-15 and 2009-0008 the State Board made it clear that: *we will generally not require "strict compliance" with water quality standards through numeric effluent limitations," and instead "we will continue to follow an iterative approach, which seeks compliance over time" with water quality standards.*

[Please note that the iterative approach to attain water quality standards applies to the outfall and the receiving water.]

More recently, the State Board commented in connection with the draft Caltrans MS4 permit that numeric WQBELs are not feasible as explained in the following provision from its most recent Caltrans draft order:

Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges. In accordance with 40 CFR § 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits. This Order requires implementation of BMPs to control and abate the discharge of pollutants in storm water to the MEP.

The State Board's decision not to require numeric WQBELs in this instance appears to have been influenced by among other considerations, the *Storm Water Panel Recommendations to the California State Water Resources Control Board in re: The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities.*

Conclusion: The Regional Board does not have the legal authority to require numeric WQBELs.

Recommended Correction: Eliminate all references to comply with numeric WQBELs.

- c. Issue: There cannot be a WQBEL to attain a dry weather TMDL WLA nor a WQBEL that addresses a non-stormwater municipal action level (MAL).

The foundation for this argument lies in the federal limitation of non-stormwater discharges to the MS4 – not from or through it as the tentative order concludes. Federal stormwater regulations only prohibit discharges to the MS4 and limits outfall monitoring to stormwater discharges. This is explained in greater detail under 4. *Non-stormwater Discharge Prohibitions.*

Conclusion: Regional Board does not have the legal authority to compel compliance with dry weather WQBELs or non-stormwater MALs.

Recommended Correction: Eliminate all references to comply with numeric WQBELs.

2. **The tentative order has altered Receiving Water Limitation (RWL) language causing it to be overbroad and inconsistent with RWL in the current MS4 permit, the Ventura MS4 permit, State Board WQO 99-05, the draft Caltrans MS4 permit, and RWL language recommended by CASQA.**

- a. Issue: The proposed RWL language changes the “exceedance” determinant from water quality standards and objectives to receiving water limitations, thereby increasing the stringency of the requirement. The tentative order RWL version reads: *Discharges from the MS4 that cause or contribute to the violation of **receiving water limitations** are prohibited.*

Compare this with what is in the current MS4 permits for Los Angeles and Ventura Counties:

Discharges from the MS4 that cause or contribute to a violation of water quality standards are prohibited.

Whereas standard RWL language limits water quality standards to what is in the basin plan, and includes water quality objectives (relates to waters of the State), the tentative order uses revised language that replaces water quality standards with the following receiving water limitation criteria:

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.

It is unclear why Regional Board staff has removed water quality standards, which is a USEPA and State Board requirement, and replaced them with the more global receiving water limitation language that include additional compliance criteria (e.g., “or federal regulations including but not limited to 40 CFR § 131.38”). Other “federal regulations” could include CERCLA (Comprehensive Environmental Remediation and Compensation Liability Act).

Enlarging the scope of the RWL from water quality standards to a universe of other regulatory requirements exceeds RWL limitation language established in State Board WQO 99-05, a precedential decision. The order bases compliance on discharge prohibitions and receiving water limitations on the *timely implementation of control measures and other action in the discharges in accordance with the SWMP (stormwater*

management plan) and other requirements of the permit's limitations. It goes on to say that if exceedances of water quality standards or water quality objectives, collectively referred to as water quality standards continues, the SWMP shall undergo an iterative process to address the exceedances. It should be noted that this language was mandated by USEPA.

It should be noted that the draft Caltrans MS4 permit is scheduled for adoption in September, as well as CASQA, proposes RWL language that is in keeping with WQO 99-05.

Conclusion: Regional Board does not have the legal authority to re-define RWL language to the extent it is proposing.

Recommended Correction: Replace RWL contained in the tentative order with the CASQA model or with language contained in the draft Caltrans MS4 permit.

- b. Issue: By eliminating water quality standards, the tentative order has created a separate compliance standard for TMDLs and for non-TMDLs. Standard RWL language in other MS4 permits designates the SWMP⁴ as the exclusive determinant for achieving water quality standards in the receiving water. Since TMDLs are enhanced water quality standards, the SWMP (or in this case the SQMP) should enable compliance with TMDLs. Instead, the tentative order specifies compliance through implementation plans – including plans that were discussed in several State/Regional Board adopted TMDLs (e.g., the Los Angeles River Metals TMDL). The absence of water quality standards also creates a separate compliance standard for non-TMDLs. According to Regional Board staff, minimum control measures (MCMs) which make up the SQMP, are intended to meet non-TMDLs pollutants. Unclear is what defines non-TMDL pollutant. If there are no water quality standards referenced in the RWL then what are the non-TMDL pollutants that the MCMs are supported to address?

There is no authority under federal stormwater regulations to comply with any criterion other than water quality standards. The RWL language called-out in WQO 99-05, which was in response to a USEPA directive, makes it clear that water quality standards represent the only compliance criteria, not an expanded definition of receiving water limitations that exclude such criteria.

MS4 permits throughout the State include TMDL WLAs. None of them, however, has created a compliance mechanism that excludes water

⁴USEPA and federal stormwater regulations use stormwater management program whereas the Los Angeles County MS4 permit uses stormwater quality management plan (SQMP). In effect they are the same. They consist of 6 core programs that must be implemented through MS4 permit.

quality standards as a means of attaining them. Further, the State Board has, through the draft Caltrans MS4 permit and the draft Phase II MS4 permit, articulated its policy on compliance with water quality standards: they are to be met through the implementation of stormwater management programs. Equally noteworthy is that State Board has not created a dual standard for dealing with TMDLs and non-TMDLs. This is an obvious consequence of its adherence to WQO 99-05.

With regard to implementation plans contained in TMDLs, the Regional Board has no legal authority to include them into the MS4 permit. This issue discussed in greater detail later in these comments.

Conclusion: The tentative order must be revised to restore water quality standards in RWL language and, by extension, enable compliance with TMDLs and other water quality standards through the SQMP/MCMs.

Recommended Correction: Revise the tentative order to eliminate any reference to complying with anything else except water quality standards through the SQMP; and, therewith, eliminate any reference to complying with implementation plans contained in State/Regional Board TMDLs.

3. The tentative order does not include the iterative process, a mechanism that is integral to RWL language which serves to achieve compliance with water quality standards.

- a. Issue: The absence of the iterative process disables a safeguard to protect permittees against unjustifiably strict compliance with water quality standards -- or in this case the expanded definition of receiving water limitations -- that is a requisite feature in all MS4 permits issued in California. The tentative order circumvents the iterative process by creating an alternative referred to as the adaptive/management process which is only available to those permittees that opt for a watershed management program.

Despite the fact RWL language in MS4 permits since the 90's have provided a description of an iterative process (the BMP adjustment mechanism), the term "iterative process" has only recently been specifically mentioned in them. The absence of this term resulted in the 9th Circuit Court Appeal's conclusion in *NRDC v. Los Angeles County Flood Control District* that there is no "textual support" in the current MS4 permit for the existence of an iterative process. This resulted in the court's conclusion that the LACFCD had exceeded water quality standards in the hardened portions of the Los Angeles and San Gabriel Rivers. More recent MS4 permit's issued in the State contain clear references to the iterative process.

Notwithstanding the absence of water quality standards in the tentative order, the iterative process must be included as required by Water Quality Orders 2001-15 and 2009-0008, wherein the State Board made it clear that: we will generally not require “strict compliance” with water quality standards through numeric effluent limitations,” and instead “we will continue to follow an iterative approach, which seeks compliance over time” with water quality standards.

Moreover, both the draft Caltrans MS4 permit and the draft Phase II MS4 permit contain references to the iterative process. The draft Caltrans MS4 permit refers to the iterative process in two places: finding 20, Receiving Water Limitations and in the Monitoring Results Report. Finding 20 states:

The effect of the Department’s storm water discharges on receiving water quality is highly variable. For this reason, this Order requires the Department to implement a storm water program designed to achieve compliance with water quality standards, over time through an iterative approach. If discharges are found to be causing or contributing to an exceedance of an applicable Water Quality Standard, the Department is required to revise its BMPs (including use of additional and more effective BMPs).⁵

Under the Monitoring Results Report section, the draft Caltrans MS4 permit reiterates the iterative process within the context of the following: *The MRR shall include a summary of sites requiring corrective actions needed to achieve compliance with this Order, and a review of any iterative procedures (where applicable) at sites needing corrective actions.*⁶

The draft Phase II MS4 references the iterative process in two places, in finding 35 and under its definition of MEP. Finding 35 states:

This Order modifies the existing General Permit, Order 2003-0005-DWQ by establishing the storm water management program requirements in the permit and defining the minimum acceptable elements of the municipal storm water management program. Permit requirements are known at the time of permit issuance and not left to be determined later through iterative review and approval of Storm Water Management Plans (SWMPs).

The draft Phase II MS4 permit also acknowledges the iterative process through the definition of maximum extent practicable (which is also included in the draft Caltrans MS4 permit), to the following extent:

MEP standard requires Permittees apply Best Management Practices (BMPs) that are effective in reducing or eliminating the discharge of pollutants to the

⁵See draft Caltrans MS4 permit (Tentative Order No. 2012-XX-DWQ NPDES No. CAS000003), page 10.

⁶Ibid., page 35.

waters of the U.S. MEP emphasizes pollutant reduction and source control BMPs to prevent pollutants from entering storm water runoff. MEP may require treatment of the storm water runoff if it contains pollutants. The MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. BMP development is a dynamic process and may require changes over time as the Permittees gain experience and/or the state of the science and art progresses. To do this, the Permittees must conduct and document evaluation and assessment of each relevant element of its program, and their program as a whole, and revise activities, control measures/BMPs, and measurable goals, as necessary to meet MEP. MEP is the cumulative result of implementing, evaluating, and creating corresponding changes to a variety of technically appropriate and economically feasible BMPs, ensuring that the most appropriate BMPs are implemented in the most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the "iterative approach."⁷

It should be clearly understood that the State Board is articulating clear policy on the iterative process through these two draft MS4 permits and that they must be followed by Regional Boards as subordinate jurisdictions.

Conclusion: The Regional Board has no authority to alter the iterative process/procedure by making a revised and diluted version of it available only to those MS4 permittees that wish to opt for watershed management program participation. Quite the contrary, the Regional Board is legally compelled to make the iterative process, as described herein, an undeniable requirement in the tentative order.

Recommended Correction: Regional Board staff should incorporate the iterative process into the tentative order in the findings section and in the RWL section. It should also be referenced again under a revised MEP definition.

4. **The tentative order incorrectly articulates the non-stormwater discharge prohibition to the MS4 to include discharges from and through it.**
 - a. Issue: The tentative order mentions prohibiting non-stormwater discharges not only to the MS4 but from and through it as well. Federal regulations did not authorize the non-stormwater discharge prohibition to go beyond "to" the MS4. This is a serious issue because extending the prohibition from or through the MS4 would subject non-stormwater discharges (including dry weather TMDL WLAs and non-stormwater municipal action levels) to pollutant limitations at the outfall.

⁷See State Water Resources Control Board Water Quality Order No. XXXX-XXXX-DWQ, NPDES General Permit No. CASXXXXXX, page 11

The tentative order attempts to justify interpreting federal stormwater regulations to mean that non-stormwater discharges are prohibited not only to the MS4 but from it and through it as well by: (1) incorrectly stating the Clean Water Act §402(p)(B)(ii) of the Clean Water Act requires permittees effectively prohibit non-storm water discharges into watercourses (means receiving waters) as well as to the MS4; and (2) a misreading of Federal Register Volume 55, No. 222, 47990 (federal register) which contains an error with regard to the non-stormwater discharge prohibition.

§402(p)(B)(ii) does not, as the tentative order's fact sheet asserts, include watercourses, which according to Regional Board staff, means waters of the State and waters of the United States, both of which lie outside of the MS4. The original text of §402(p)(B)(ii) actually reads as follows: *Permits for discharges from municipal storm sewers "shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers."*⁸ There is no mention of watercourses.

The tentative order's fact sheet also relies on the afore-cited federal register which states: *402(p)(B)(3) requires that permits for discharges from municipal storm sewers require the municipality to "effectively prohibit" non-storm water discharges from the municipal storm sewer.* The fact sheet is correct about this. The problem is that the federal register is wrong here. It confuses 402(p)(B)(3), which addresses stormwater (not non-stormwater) discharges from the MS4, with 402(p)(B)(2), which once again prohibits non-stormwater discharges to the MS4. It should be noted that in the same paragraph above the defective federal register language, it says that ... *permits are to effectively prohibit non-storm water discharges to the municipal separate storm sewer system.*

In any case, this issue has been resolved since the federal register was published in November of 1990. All MS4 permits in the United States issued by USEPA prohibit non-stormwater discharges only to the MS4. USEPA guidance, such as the *Illicit Discharge Detection and Elimination: A Guidance Manual* bases investigation and monitoring on non-stormwater discharges being prohibited to the MS4. And, with the exception of Los Angeles Regional Board MS4 permits, MS4 permits issued by other Regional Boards also limit the MS4 discharge prohibition to the MS4. Beyond this, the draft Caltrans MS4 permit and draft Phase II MS4 permits also limit the non-stormwater prohibition to the MS4.

Conclusion: The Regional Board does not have the legal authority to extend the non-stormwater discharge prohibition from or through the MS4.

⁸Municipal storm sewers is a truncated version of municipal separate stormwater system (MS4).

Recommended Correction: Revise the non-stormwater discharge prohibition to be limited to the MS4 only and delete all requirements that are based on the prohibition from or through the MS4. This includes the non-stormwater prohibition that is linked to CERCLA.

5. The tentative order should not include detailed contact information for the Permittee that can and does change frequently such as in Table 2. Facility Information. A consultant's name should not be used.

- a. Issue: Beginning on Page 1 of the order, Table 2. Facility Information includes Permittee (WDID) and Contact Information. In this table personnel names, titles, phone numbers and/or e-mails are indicated and will not likely remain the same for the duration of the permit.
- b. Issue: In many cases, a consultant name is indicated as the contact for a Permittee and this is inappropriate.
- c. The City of Carson contact personnel name is correct; however, the title is not.

Recommended Corrections: Delete all personnel references. Indicate only the Permittee, WDID #, mailing address, phone number and contact title (example: Director of Public Works). Otherwise, provide this information in another document as it does not belong in the tentative order. Please correct the title for Patricia Elkins to read, "Storm Water Quality Programs Manager."

**Comments from the City of Pico Rivera
Regarding Los Angeles MS4 Tentative Order No. R4-2012-XXXX
NPDES PERMIT NO. CAS004001 (issue date unspecified)
Attachment E: Monitoring and Reporting Plan**

1. Receiving Water Monitoring

The purpose of receiving water monitoring is to:

- a. *Determine whether the receiving water limitations are being achieved,*
- b. *Assess trends in pollutant concentrations over time, or during specified conditions,*
- c. *Determine whether the designated beneficial uses are fully supported as determined by water chemistry, as well as aquatic toxicity and bioassessment monitoring.*

Receiving water monitoring is to be performed at various in-stream stations.

At issue is "a" because it serves to determine compliance with receiving water limitations. The Regional Board has no legal authority to compel compliance with receiving water limitations through in-stream monitoring. Monitoring requirements relative to MS4 permits are limited to effluent discharges and the ambient condition of the receiving water, as §122.22(C)(3) clearly indicates:

*The permit requires all **effluent** and **ambient** monitoring necessary to show that during the term of the permit the limit on the indicator parameters continues to attain water quality standards.*

According to Clean Water Act §502, effluent monitoring is defined as outfall monitoring:

*The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from **point sources** into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.*

40 CFR §122.2 defines a point source as:

... the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

In short, effluent monitoring in a receiving water because cannot be required because it lies outside the bounds of the outfall.

Regarding monitoring purposes "b" and "c" no argument is raised here provided that it is understood that assessing trends in pollution concentrations would be: (1) limited to ambient water quality monitoring; and (2) permittees shall be not responsible for funding such monitoring. With respect to the latter, the Regional Board's surface water ambient monitoring program (SWAMP) should be charged with this responsibility. MS4 permittees fund SWAMP activities through an annual surcharge levied on annual MS4 permit fees.

Recommended Corrective Action: Delete 1(a) and make it clear that 1(b) and (c) relate to ambient monitoring that is not the responsibility of MS4 permittees.

2. Stormwater Outfall Based Monitoring

The purpose of stormwater outfall based monitoring – including TMDL monitoring -- is to:

- a. *Determine the quality of a Permittee's discharge relative to municipal action levels, as described in Attachment G of this Order,*
- b. *Determine whether a Permittee's discharge is in compliance with applicable wet weather WQBELs derived from TMDL WLAs,*
- c. *Determine whether a Permittee's discharge causes or contributes to an exceedance of receiving water limitations.*

Insofar as "a" is concerned, outfall monitoring for stormwater for attainment of municipal action levels (MALs) would be acceptable were it not for their purpose. MALs represent an additional monitoring requirement for non-TMDL pollutants. MALs should really be used to replace TMDL WLAs as alternatives to addressing receiving water quality. As noted in the National Research Council Report to USEPA:

*The NSQD (Pitt et al., 2004) allows users to statistically establish action levels based on regional or national event mean concentrations developed for pollutants of concern. The action level would be set to define unacceptable levels of stormwater quality (e.g., two standard deviations from the median statistic, for simplicity). Municipalities would then routinely monitor runoff quality from major outfalls. **Where an MS4 outfall to surface waters consistently exceeds the action level, municipalities would need to demonstrate that they have been implementing the stormwater program measures to reduce the discharge of pollutants to the maximum extent practicable.** The MS4 permittees can demonstrate the rigor of their efforts by documenting the level of implementation through*

measures of program effectiveness, failure of which will lead to an inference of noncompliance and potential enforcement by the permitting authority

Instead of following the above, Regional Board staff has chosen to create another monitoring requirement, without regard for cost or benefit to water quality or to permittees. Non-TMDL pollutants should not be given special monitoring attention until it has been determined that they pose an impairment threat to a beneficial use. Such a determination needs to be done by way of ambient monitoring performed by the Regional Board SWAMP. The resulting data could then be used to develop future TMDLs if necessary.

Furthermore, many of the MAL constituents (both stormwater and non-storm water) listed in Appendix G, are included in several TMDLs such as metals and bacteria. This is, of course, a consequence of the redundancy created by two approaches that are intended to serve the same purpose: protection of water quality.

Recommended Correction: Either require substitution of TMDLs with MALs or eliminate MALs entirely.

As for stormwater outfall monitoring purpose "b", such monitoring cannot be used to determine compliance with **wet weather WQBELs based on TMDL WLAs** for the following reasons:

1. The wet-weather WQBEL is based on a TMDL WLA in the receiving water that is non-ambient. As mentioned, federal regulations only require ambient monitoring in the receiving water, which by definition can never be deemed the same as wet weather monitoring. They are mutually exclusive. Regional Board staff has also incorrectly determined that a WQBEL may be the same as the TMDL WLA, thereby making it a "numeric effluent limitation." Although numerous arguments may be marshaled against the conclusion, the most compelling of all is the State Water Resources Control Board's clear opposition to numeric effluent limitations.

In Water Quality Orders 2001-15 and 2009-0008 the State Board made it clear that: *we will generally not require "strict compliance" with water quality standards through numeric effluent limitations," and instead "we will continue to follow an iterative approach, which seeks compliance over time" with water quality standards.*

[Please note that the iterative approach to attain water quality standards applies to the outfall and the receiving water.]

More recently, the State Board commented in connection with the draft Caltrans MS4 permit that numeric WQBELs are not feasible as explained in the following provision from its most recent Caltrans draft order:

Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges. In accordance with 40 CFR § 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits. This Order requires implementation of BMPs to control and abate the discharge of pollutants in storm water to the MEP.

2. The State Board's decision not to require numeric WQBELs in this instance appears to have been influenced by among other considerations, the *Storm Water Panel Recommendations to the California State Water Resources Control Board in re: The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities.*

Regarding purpose "b" it should also be noted that the Regional Board's setting of WQBELs to translate the TMDL WLA in the receiving water to the outfall is premature. Regional Board staff apparently has not performed a reasonable potential analysis as required under § 122.44(d)(1)(i), which states:

Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality.

No such reasonable potential analysis has been performed – even though USEPA guidance requires it as part of documenting the calculation of WQBELs in the NPDES permit's fact sheet. According to USEPA's NPDES Permit Writers' Manual:

Permit writers should document in the NPDES permit fact sheet the process used to develop WQBELs. The permit writer should clearly identify the data and information used to determine the applicable water quality standards and how that information, or any applicable TMDL, was used to derive WQBELs and explain how the state's anti-degradation policy was applied as part of the process. The information in the fact sheet should provide the NPDES permit applicant and the public a transparent, reproducible, and defensible description of how the permit writer properly derived WQBELs for the NPDES permit.¹

¹United States Environmental Protection Agency, NPDES Permit Writers' Manual, September, 2010, page 6-30.

The fact sheet accompanying the tentative order contains no reference to a reasonable potential analysis.

Complicating the performance of a reasonable potential analysis is the absence of (1) outfall monitoring data; and (2) ambient water quality standards. Though federal regulations require monitoring at the outfall, the Regional Board has not required it up until now. Even if outfall monitoring data were available to determine whether pollutants concentrations in the discharge exceeded the water quality standard is not possible. This is because, as mentioned earlier, TMDL WLAs are not expressed as ambient standards. A TMDL is an enhanced water quality standard. As noted in the National Research Council's *Assessing the TMDL Approach to Water Quality Management*, a report commissioned by the United States Congress in 2001:

... EPA is obligated to implement the Total Maximum Daily Load (TMDL) program, the objective of which is attainment of ambient water quality standards through the control of both point and nonpoint sources of pollution.

Recommended Correction: Eliminate this requirement.

Regarding purpose "c", the determinant for a water quality standard exceedance is in the discharge from the outfall – not in the receiving water. The use of numeric WQBELs -- though incorrectly defined and established in this instance -- represents the compliance standard in discharges from the outfall. Adding a second compliance determinant in the receiving water is unnecessary and is not authorized under federal stormwater regulations because the receiving water lies outside the scope of the MS4.

Recommended Corrective Action: Eliminate this requirement.

3. Non-storm water outfall based monitoring

The purposes of this type of monitoring are as follows:

- a. *Determine whether a Permittee's discharge is in compliance with applicable dry weather WQBELs derived from TMDL WLAs.*
- b. *Determine whether a Permittee's discharge exceeds non-storm water action levels, as described in Attachment G of this Order,*
- c. *Determine whether a Permittee's discharge contributes to or causes an exceedance of receiving water limitations,*
- d. *Assist a Permittee in identifying illicit discharges as described in Part VI.D.9 of this Order.*

Regarding “a,” This requirement is redundant in view of the aforementioned MALs and in any case is not authorized under federal stormwater regulations. 402(p)(B)(ii) of the Clean Water Act only prohibits discharges to the MS4 (streets, catch basins, storm drains and intra MS4 channels), not through or from it. This applies to all water quality standards, including TMDLs. Nevertheless, compliance with dry weather WQBELs can be achieved through BMPs and other requirements called for under the illicit connection and discharge detection and elimination (ICDDE) program, or requiring impermissible non-stormwater discharges to obtain coverage under a permit issued by the Regional Board.

Recommended Correction: Delete this requirement and specify compliance with dry weather WLAs, expressed in ambient terms, through the implementation of the ICDDE program.

Withy regard to “b”, see previous responses regarding MALs and the limitation of non-stormwater discharge prohibit to the MS4.

Recommended Correction: Delete this requirement because it exceeds the non-stormwater discharge prohibition to the MS4; and determine whether MALs or TMDLs are to be used to protect receiving water quality.

Regarding “c”, as mentioned, non-stormwater discharges cannot by applied to receiving water limitations because of they are only prohibited to the MS4, not from or through it.

Recommended Correction: Delete this requirement because it exceeds the non-stormwater discharge prohibition to the MS4.

Regarding “d”, this requirement is reasonable and in keeping with federal regulations with the exception that the identification of illicit discharges must adhere to the field screening requirements in CFR 40 §122.26. No non-stormwater discharge monitoring shall occur unless flow is first discovered at the outfall. This would trigger the implementation of additional requirements that the tentative order does not include.

4. New Development/Re-development effectiveness monitoring

The purpose of this requirement is a dubious and is not authorized under federal stormwater regulations as it relates to monitoring. To begin with, requiring such monitoring is premature given the absence of outfall monitoring in the current and previous MS4 permits that would characterize an MS4’s pollution contribution relative to exceeding ambient water quality standards. Without the determination of statistically significant exceedances of water quality standards, detected at the outfall, the imposition of runoff infiltration requirements is arbitrary. Further, there is nothing in federal stormwater regulations that require monitoring on private or

public property. Monitoring, once again, is limited to effluent discharges at the outfall and to ambient monitoring in the receiving water.

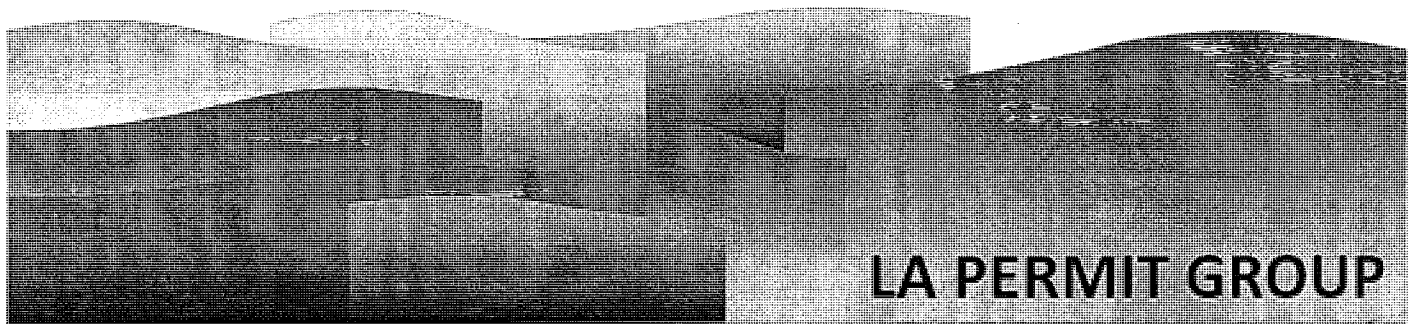
Beyond this, monitoring for BMP effectiveness poses a serious challenge to what determines "effectiveness" -- effective relative to what standard? It is also not clear how such monitoring is to be performed.

Recommended Correction: Delete this requirement.

The MRP of the tentative order proposes regional studies "*to further characterize the impact of the MS4 discharges on the beneficial uses of the receiving waters. Regional studies shall include the Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program (bio-assessment), sediment monitoring for Pyrethroid pesticides, and special studies as specified in approved TMDLs (see Section XIX TMDL Reporting, below).*"

Regional studies also lie outside the scope of the MS4 permit. However, because federal regulations require ambient monitoring in the receiving water, a task performed by the Regional Board's SWAMP, regional watershed monitoring for aforementioned target pollutants can be satisfied through ambient monitoring. This can be accomplished with little expense on the part of permittees by: (1) using ambient data generated by the Regional Board SWAMP; (2) re-setting the County's mass emissions stations to collect samples 2 to 3 days following a storm event (instead of using a flow-based sampling trigger); and (3) using any data generated from existing coordinated monitoring programs (e.g., Los Angeles River metals TMDL CMP), provided that the data is truly ambient.

END COMMENTS



July 23, 2012

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SUBJECT: Comments on the Draft NPDES Permit (Draft Order), Order No. R4-2012-XXXX; NPDES Permit NO. CAS004001, for MS4 Dischargers within the Los Angeles County Flood Control District

The LA Permit Group (LAPG) appreciates the opportunity to provide comments on the subject Draft Order for the Los Angeles region. The Los Angeles Permit Group is a consortium of municipalities that was formed to ensure Los Angeles' stormwater is managed properly, both for flood control and water quality protection (LA Permit Group agencies list provided in Exhibit A).

The LA Permit Group was formed, to accomplish several important objectives, including:

- Promoting constructive collaboration and problem-solving between the regulated community (municipalities) and the Los Angeles Regional Water Quality Control Board (LARWQCB);
- Assisting in development of a new NPDES Permit that is capable of integrating the protection of water quality with other watershed objectives in a cost-effective and science-based manner;
- Focusing limited municipal resources on implementation of water quality protection activities that are efficient, effective and sustainable.

Over 62 Los Angeles County municipalities have actively participated in the effort to develop negotiations points and provide comments throughout the MS4 NPDES Permit development process. Comments and negotiations points are developed by each of the LA Permit Group's four Technical Sub-Committees (Development Programs, Reporting & CORE Programs, Monitoring, and TMDLs), which are then approved by the LA Permit Group. The group's consensus is represented by the Negotiations Committee. This comment letter and accompanying exhibits reflect a collaborative effort to develop a permit that will lead to water quality protection in a cost effective manner. We have a number of major and minor concerns with the Draft Order. Our comments are organized around the following major issues:

It is essential that municipalities be given an additional 180 days to review the Permit and develop alternatives for the substantial issues found in this Draft Order. Based on the issues listed above and as communicated in our July 2nd letter and at the July 12th Regional Board meeting, we request that the our appeal for additional time be reconsidered. This could be accomplished by an additional review of a tentative Order before an adoption hearing is held.

Receiving Water Limitations

As previously outlined in our 05/14/12 comment letter on the working proposal, the Receiving Water Limitations (RWL) language in the Draft Order creates a liability to the municipalities that is unnecessary and counterproductive. We have the following significant concerns with the RWL language included in the Draft Order:

- Recent court decisions have created a new interpretation of the RWL that creates a liability for the Permittees without a commensurate increase in protection of water quality.
- The RWL as written is not a federal requirement so it is not necessary to maintain the current language.
- The RWL as written is contradictory to the Watershed Management Program.
- Alternative approaches are available to address the concerns and maintain the intent of the language in the approach; we request that RWQCB utilize this alternative language.

We feel that the RWL as included in not necessary and does not support the improvement of water quality as discussed in more detail below.

Creation of Unwarranted Liability

The proposed language for the receiving water limitations provision is almost identical to the language that was litigated in the 2001 Permit. On July 13, 2011, the United States Court of Appeals for the Ninth Circuit issued an opinion in *Natural Resources Defense Council, Inc., et al., v. County of Los Angeles, Los Angeles County Flood Control District, et al.*¹ (*NRDC v. County of LA*) that determined that a municipality is liable for Permit violations if its discharges cause or contribute to an exceedance of a water quality standard. This represents a fundamental change in interpretation of policy and contrasts sharply with the Board's own understanding as expressed in a 2002 letter from then-Chair Diamond answering questions about the 2001 MS4 Permit in which she articulated this collective understanding that a violation of the Permit would occur only when a municipality fails to engage in good faith effort to implement the iterative process to correct the harm². In light of the 9th Circuit's decision and based on the significant monitoring efforts being conducted by other municipal stormwater entities, municipal stormwater Permittees would be considered to be in non-compliance with their NPDES Permits. Accordingly, municipal stormwater Permittees will be exposed to considerable vulnerability, even though municipalities have little control over the sources of pollutants that create the vulnerability. Basically, the draft Order language again exposes the municipalities to enforcement action (and third party law suits) even when the municipality is engaged in an adaptive management approach to address the exceedance.

¹ No. 10-56017, 2011 U.S. App. LEXIS 14443, at *1 (9th Cir., July 13, 2011).

² January 30, 2002. Letter from Francine Diamond, Chair, Los Angeles Regional Water Quality Control Board

programs that are based on the highest priority water quality issues within the watershed. Consistent with the Draft Order provision for the Watershed Management Program, we would expect the focus to be on TMDLs and the pollutants associated with those TMDLs. However, under the current RWL working proposal, the municipality will need to direct their resources to any and all pollutants that may cause or contribute to exceedances of water quality standards. Based on a review of other municipal outfall monitoring results in the State, there will be occasional exceedances of other non-TMDL pollutants (e.g. aluminum, iron, etc.). These exceedances may only occur once every 10 storms, but according to the current RWL proposal the municipalities must address these exceedances with the same priority as the TMDL pollutants. The LA Permit Group views this as unreasonable and ineffective use of limited municipal resources.

We have requested that this language be revised on several occasions including written comments, workshop comments, and meetings with staff; however this issue has not yet been resolved in the Tentative Permit. An explanation is requested as to why this language remains as presented in the Draft Order is requested. Alternative Approaches are Available to Address Concerns.

The RWL language is a critical issue for municipalities statewide and has been highlighted to the State Water Resources Control Board for consideration. Currently the State Board is considering a range of alternatives to create a basis for compliance that provides sufficient rigor in the iterative process to ensure diligent progress in complying with water quality standards but at the same time allows the municipality to operate in good faith with the iterative process without fear of unwarranted third party action. It is imperative that the Regional Board works with the State Board on this very important issue.

The California Association of Stormwater Quality (CASQA) has developed draft language that we feel should be used in lieu of the current language. The language provides specificity in compliance and subjects Permittees who are not engaged in good faith in the iterative process to enforcement without unnecessary and counterproductive liability for the majority of Permittees who are diligently implementing stormwater programs. We feel that the CASQA language maintains the intent of the current RWL while addressing the concerns outlined above.

Recommendation: Develop Receiving Water Limitation language consistent with the California Association of Stormwater Quality language that was submitted in a comment letter on Caltrans Permit (Exhibit E) and on the Statewide Phase II Permit which defines action thresholds, an iterative/adaptive management process, and avoids unnecessary liability.

Total Maximum Daily Loads

As outlined in our May 12, 2012 comment letter on the TMDL working proposal, the incorporation of TMDL WLAs into the Tentative Permit is of critical importance to the LASP. **WLAs should be incorporated using a BMP-based approach that includes an iterative approach to attain the WLAs and provides flexibility to the Permittees to address the complexities of addressing multiple TMDLs within a watershed.** The best mechanism to achieve water quality standards is by implementing BMPs, evaluating their effectiveness and implementing additional BMPs as necessary to meet TMDL WLAs. Without this process, and due to the requirement in the Draft Order to meet numeric values, our ability to effectively implement BMPs is hampered by the legal issues associated with Permit compliance.

Angeles and Los Angeles County Flood Control District, at p. 10)⁵ have affirmed that WLAs can be incorporated as non-numeric effluent limitations.

Under 40 CFR Section 122.44 (k), the Regional Board may impose BMPs for control of storm water discharges in lieu of numeric effluent limitations when numeric limits are infeasible. It states that best management practices may be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible. In 2006, the State Board convened Blue Ribbon Panel made recommendations to the State Water Resources Control Board concluding that it was not feasible to incorporate numeric limits into Permits to regulate storm water, and at best, there could be some action level to focus on problematic drainage sheds⁶. Very little has changed in the technology and the feasibility of controlling storm water pollutants since 2006. What has changed is that a legally compelled, long list of TMDLs has been adopted in the LA Region in a very short time period. The draft stormwater Permit for CalTrans also states "Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges. In accordance with 40 Code of Federal Regulations section 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water Permits. This Order requires implementation of BMPs to control and abate the discharge of pollutants in storm water to the MEP. To assist in determining if the BMPs are effectively achieving MEP standards, this Order requires effluent and receiving water monitoring. The monitoring data will be used to determine the effectiveness of the applied BMPs and to make appropriate adjustments or revisions to BMPs that are not effective." The LAPG requests similar consideration as the Draft Order is a much more variable and complicated MS4 than CalTrans.

Additionally, during the May 3, 2012 MS4 Permit workshop, Regional Board staff seemed to indicate that the basis for incorporating the final WLAs as numeric effluent limitations is EPA's 2010 memorandum pertaining to the incorporation of TMDL WLAs in NPDES Permits⁷. This memorandum (which is currently being reconsidered by U.S. EPA) states that "EPA recommends that, *where feasible*, the NPDES permitting authority *exercise its discretion* to include numeric effluent limitations as necessary to meet water quality standards" (emphasis added). This statement highlights the basic principle that the Regional Board has discretion in how WLAs are incorporated into a MS4 Permit. Regional Board staff commented during the workshop that staff have evaluated data and have determined numeric effluent limitations are now feasible. However, no information refuting the Blue Ribbon Panel report recommendations has been provided that demonstrates how the appropriateness of using strict numeric limits was determined and why these limits are considered feasible now even though historically both EPA and the State have made findings that developing numeric limits was likely to be infeasible.

Given the discretion available to Regional Board staff and the variability among the TMDLs with respect to understanding of the pollutant sources, confidence in the technical analysis, and availability of control measures sufficient to address the pollutant targets, **it is critical to use non-numeric water quality based**

⁵ "[i]t is our intent that federally mandated TMDLs be given substantive effect. Doing so can improve the efficacy of California's NPDES storm water permits. This is not to say that a wasteload allocation will result in numeric effluent limitations for municipal storm water dischargers. Whether future municipal storm water permit requirement appropriately implements a storm water wasteload allocation will need to be decided on the regional water quality control board's findings *supporting either the numeric or non-numeric* effluent limitations contained in the permit." (Order WQ 2009-0008, In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District, at p. 10 (emphasis added).)

⁶ Storm Water Panel Recommendations to the California State Water Resources Control Board "The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities. June 19, 2006.

⁷ U.S. EPA, *Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*, Memorandum from U.S. EPA Director, Office of Wastewater Management James A. Hanlon and U.S. EPA Director, Office of Wetlands, Oceans, and Watershed Denise Keehner (Nov. 10, 2010).

through implementation of BMPs defined in the watershed management plans as we have requested for all other TMDLs is a feasible, fair and consistent way to achieve this goal.

Recommendation:

- **Provide a provision which requires that a TMDL be reconsidered in light of information that was not available when the TMDL was developed before the final WLAs become effective.** Whenever the reconsideration has been completed, the Permit should be reopened to make changes to any wasteload allocation, time schedules, and other pertinent information.
- **Translate WLAs into WQBELs, expressed as BMPs.**
- **State that the implementation of the BMPs using an iterative process will place the Permittee into compliance with the MS4 Permit.**
- **Provide for four compliance options for both interim and final WLAs:**
 - **Implement Actions/BMPs consistent with Watershed Management Program**
 - **Compliance at the outfall (end of pipe)**
 - **Compliance in the receiving water (river, creek, ocean)**
 - **No direct discharges**
- **Allow for the adaptive management approach to be utilized for TMDL compliance, consistent with the timelines identified in the Watershed Management Programs.**

Monitoring

The proposed monitoring program requirements have significantly increase compared to our current required efforts. Although we understand the need for monitoring to support the Permit, we believe there are number of issues within the MRP that need to more fully vetted and discussed. These issues include:

- **Receiving water monitoring should be consistent with SWAMP protocols including the requirement that ambient monitoring be conducted two days following a storm event.** Currently the receiving water monitoring is proposed to be conducted during storm events. Such an approach will not support the need to assess the receiving water quality consistent with the SWAMP approach that is used as the basis for 303(d) listing.
- **The focus and scope of non-stormwater monitoring is not commensurate with the environmental issues associated with dry weather flows.** We believe the non-stormwater monitoring should be to help identify illicit discharges and not for assessing the multitude of objectives noted in the MRP, II.E.a – c. Furthermore we would submit that the MS4s should focus its non-stormwater monitoring on discharges “into” our MS4 and not on discharges “through” or from our MS4s that may cause or contribute to exceedances of water quality standards. This is consistent with CWA section 402(p)(B).
- Regarding regional studies (MRP XI.A – B), the LAPG would submit that these studies should be conducted by the Regional or State Board. But if the Permit does require special studies, **the Permit needs to establish the mechanism/option for Permittees to participate in the studies without having to conduct the studies on an individual basis.** Furthermore, the Regional Board should be the agency to lead and coordinate these studies. The MRP appears to read that each and every Permittee must conduct the regional studies.
- **Toxicity monitoring should be limited to the receiving water only and not at the outfalls.** It’s important to establish whether is a toxicity issue in the receiving water before conducting this

Group requests that the Regional Board provide a revised timeline for implementation and phasing-in of the Minimum Control Measure requirements. **We request that the Permit allow a 12 month time schedule to transition from our current efforts to the new and enhanced MCMs requirements.**

Shifting of State Responsibility to the MS4

The Draft Order shifts much of the State responsibilities regarding the State's General s for Construction and Industrial Activities to the municipalities. These new responsibilities have significant financial responsibilities on the permittees (ex. plan reviews, inspections time, reporting, enforcement, etc.). This is especially true for the Statewide General Construction Activities Permit (GCASP) and Provision VI.D.7. A few examples of where the Draft Order either shifts the responsibility or actually exceeds the requirements of the GCASP are listed below:

- Maintaining a database that overlaps with the States' own SMARTS database. Asking Permittees to collect the same data adds unnecessary time and expense with no benefit to water quality;
- Requiring the quantification of soil loss is redundant with the GCASP and adds additional MS4 costs.
- Inspections will be increased by more than 200% and are redundant since the State should be responsible for implementation of its own permit particularly in light of the fact that the State collects a permit fee for implementation.

Those elements that shift State responsibility should be eliminated and the MCMs should be coordinated with other state and federal requirements, with particular attention to GCASP and General Industrial Activities Permit requirements.

MCMs Should Reflect Effective Current Efforts

The LA Permit Group understands that the new Permit must reflect current understanding of stormwater management and water quality issues. Where the current stormwater management effort is assessed to be inadequate, then additional efforts are warranted. However, when current efforts are assessed to be adequate for protecting water quality, then the MCMs should reflect current efforts. One significant area where the LA Permit Group believes that the current effort is protective of water quality is in the new development program. The City and County of Los Angeles as well as the City of Santa Monica have developed and adopted Low Impact Development ordinances and significant work, technical analysis, and public input have gone into the development of these ordinances. Each of these ordinances required tailoring of standards to address the unique characteristics of their city (ex. size, land uses, soils, groundwater, watershed(s), hydrology, etc.). **The Permit should reference the type of program and flexibility needed to accommodate the unique and vastly varying characteristics throughout the County.** Instead of providing detailed information in the text of the Permit, the LID provisions should outline general requirements of the program, and the details should be contained in a technical guidance manual. This point was reiterated by several speakers at the April 5, 2012 workshop, including BIA. Ultimately, it may be more constructive if the Regional Board created a template for the Permittees to use.

New Development MCM

Notwithstanding our comments above, the LA Permit Group has a number of concerns with the New Development provision of the MCMs. While the LA Permit Group has concerns and need for clarification with the other MCMs we find the New Development MCM the most challenging and unsupportable. The provision is difficult to follow and the BMP selection hierarchy is confusing and at times in conflict. We have provided specific comments on this provision but it suffice to say that the LA Permit Group believes this provision should be redrafted. We have significant concerns with the following parts of the New Development MCM:

on the development site's pollutant of concern(s) and the corresponding top performing BMP(s) that can meet the Table 11 benchmarks.

BMP Tracking and Inspection

In the Draft Order provision VI.D.6.d the Permittees are being required to track and inspect post construction BMPs including LID measures. The provision does allow that such effort can be addressed by the project developer but even with this consideration the provision is onerous for city staff as this would still require significant staff time (ex. plan reviews, data entry, letter preparation and enforcement, etc.). This is especially true for LID measures which if planned and designed correctly will include a large number of measures (planter boxes, infiltration trenches, swales, etc.) on every site. Furthermore most of the LID measures will be infiltration type measures which are difficult to inspect and should be only inspected in wet weather when one can ascertain that the LID measures are operating correctly. This inspection concept when taken to the extreme will mean that municipalities will be inspecting LID measures all over the community and only during rain events. This is just flat unreasonable and cost prohibitive for the municipality. Furthermore, the cost for implementation (e.g. inspection, monitoring, enforcement, etc.) are not shown to be commensurate with any corresponding improvement in water quality. **We recommend that the tracking and inspection of post construction BMPs be limited to only the conventional BMPs (e.g. detention basins, wetlands, etc.); alternatively require the MS4 to spot check a limited number of LID measures to ascertain how well they are operating.**

BMP Specificity

The Draft Order in Attachment H provides detail specifications for biofiltration and bioretention BMPs. The LA Permit Group believes that such specificity, although well intended, is counterproductive. Such specificity is equivalent to a wastewater NPDES Permit specifying the grain size in the multimedia filtration unit. It is more appropriate to establish the performance standard for the BMP and to allow the MS4 to develop design specifications to meet the standard. **We recommend that Attachment H be removed and a provision be established that establishes a collaborative approach to promote a technical guidance manual that would include the design specifications for bioretention/biofiltration.**

Hydromodification

The LAPG would submit that it is premature to change the hydromodification criteria, specifically the interim criteria. In our current 2001 order, Permittees were required to develop numerical criteria for peak flow control, based on the results of the Peak Discharge Impact Study. **We believe it more constructive to keep with the previously developed hydromodification criteria and not revised it for the interim until the final criteria can be developed by the State.** A change now and then one later on just adds confusion to the development process and creates additional work for a limited or non-existent water quality improvement. The effort under the 2001 Permit should be sufficient until such time the final criteria are developed.

Public Agency MCM

The Draft Order identifies a number of requirements for public agency MCMs. Our detailed comments are attached, but there are two issues we want to highlight here. First is provision VI.D.8.h.vii (page 102) which specifies additional trash BMPs regardless of whether the area is subject to a trash TMDL. We take exception to this approach, as the MCM requires prioritization, cleaning and inspection of catch basins as well as street sweeping and other management control measures to address trash at public events. And then even if the

watershed and to establish them at a level that would provide better assurance that illicit discharges can actually be found and not have every outfall become a high priority outfall. If NALs are not established through the Watershed Management Programs, or Permittees should be required to use the default NALs and approach identified in Attachment G.

Watershed Management Programs

Overall, the LA Permit Group supports the Regional Board's proposed approach to address high priority water quality issues through the development and implementation of a Watershed Management Program. However, one of our biggest concerns continues not be addressed, is the Draft Order proposed timeline for developing the watershed management program(s). The Draft Order allows the municipalities only one year to develop a comprehensive watershed management program. This is insufficient time to organize the watershed cities and other agencies, develop cooperative agreements, initiate the studies, calibrate and run the models based on relevant data, draft the plans, and obtain necessary approvals from political bodies. As a comparison, the City of Torrance required two years to prepare a comprehensive water quality plan that addressed a suite of TMDLs, similar to what is being considered in the watershed management program. **We believe that it will require at least 24 months to develop a draft plan that is comprehensive, analytically supported, and implementable. Alternatively we would suggest a phased approach where some initial efforts (e.g. MOUs, retrofit inventory) could be completed and submitted within 12 months but allow 24 month timeline for the more complicated or resource intensive efforts.**

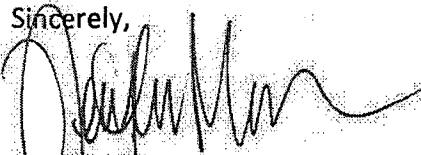
We also offer the following comments regarding the Watershed Management Program (our line item by line item review and comments are attached):

- The Draft Order seems to be silent on the critical issue of sources of pollutants outside the authority of MS4 Permittees (e. g. aerial deposition, upstream contributions, discharges allowed by another NPDES permit, etc.). **We request that Permittees be allowed to demonstrate that some sources are outside the Permittee's control and not responsible for managing or abating those sources.**
- **The Permit needs to clearly state that watershed management programs and the reasonable assurance analysis can be used for TMDL compliance purposes.**
- **The Permit should clarify that the adaptive management process is equivalent to the iterative process described in the Receiving Water Limitation provision and provide the legal justification for the adaptive management process.**
- More careful consideration should be given to the frequency and extent of the reporting and adaptive management assessments. The current Draft Order results in a significant annual effort and the LA Permit Group members question the value of such an effort. Current reporting appears to overwhelm Regional Board staff resources and has provided limited feedback to the municipalities. We believe that the reporting can be streamlined and that the jurisdictional and watershed reporting should be combined. **Furthermore, we recommend that the adaptive management process be applied every two years instead of the every year frequency noted in the Draft Order.**
- It is unclear how the current implementation of our stormwater program and TMDL compliance will be handled during the interim period before development of the watershed management program. For those entities that choose this path, **the LA Permit Group requests that current, significant efforts in our existing programs and implementation plans be allowed to continue while we evaluate new MCMs as part of the watershed management program.**

\$42 billion. Los Angeles River Watershed Bacteria TMDL could cost up to \$5.4 billion for full, inclusive, implementation costs for that watershed alone for only one pollutant. Even if the Water Quality Funding Initiative passes (and it is far from guaranteed to pass), it would take a full 20 years dedicating the entire fund to the Los Angeles River Bacteria TMDL to pay for these requirements. It would require over 60 years paying for the larger estimate. In the fact sheet, Regional Board staff stated that the TMDL costs were considered during the TMDL adoption process. However, given Executive Order 13563, we would submit that the Board should consider all costs associated with the management of stormwater. With these types of economic implications, **it is critical that this Regional Board and their staff more carefully evaluate comments and provide additional, extended comment periods for these requirements.**

In closing, we thank you for the opportunity to comment on the Draft Order and we look forward to meeting with you to discuss our comments and to explore alternative approaches. However, we must reiterate the need for more time to review and analyze this Draft Order. In spite of the Regional Board staff statement¹² that there has been a myriad of opportunities to present our concerns and comments, we believe otherwise. The LAPG would submit that we have not had an opportunity to voice our concerns to the Regional Board members themselves as we have been limited (in some cases prevented) in responding to questions posed by the Board members during different workshops. Consequently, **we respectfully request that that the Board provide another complete second draft Tentative Order with an additional review period to allow Permittees to have at least a total of 180 days to discuss and review the full document.** We believe it important to review the entire draft Permit to better understand the relationship among the various provisions; this is especially true for the monitoring provision and its relationship to the watershed management program. We also believe that the Regional Board staff will be hard pressed to consider and respond to all the comments that will be submitted on the Draft Order. Thus, it is advantageous to all parties that more time is provided to craft a permit that is implementable and protective of water quality. We request the issues presented in our letter are resolved in a revised Permit draft. Please feel free to contact me at (626) 932-5577 if you have any questions regarding our comments.

Sincerely,



Heather M. Maloney, Chair
LA Permit Group

Enc. Exhibits XX-XX

cc: LA Permit Group

¹² S. Unger's 7/13/12 letter to H. Maloney and the LA Permit Group.

Exhibit B:

LA Permit Group Detailed Comments re: Draft Order

6	pages 111 - 123 and Attachments K - R	TMDL	<p>This discussion in this section devoted to the SMBBB TMDL seems to create confusion regarding the meaning of the terms "water quality objectives or standards," "receiving water limitations," and "water quality-based effluent limitations". Water quality objectives or water quality standards are those that apply in the receiving water. Water Quality Effluent Based Limits apply to the MS4. So the "allowable exceedance days" for the various conditions of summer dry weather, winter dry weather, and wet weather should be referred to as "water quality-based effluent limitations" since those are the number of days of allowable exceedances of the water quality objectives that are being allowed for the MS4 discharge under this permit. While the first table that appears under this section at B.1 (b) should have the heading "water quality standards" or "water quality objectives" rather than the term "effluent limitations".</p>	<p>In effect the effluent limitations are stricter than the receiving water standards. This is inconsistent with law and creates a situation in which permittees are out of compliance at the effective date of this permit. Please adjust so that limits are consistent with standards and not exceeding standards.</p>
7	pages 111 - 123 and Attachments K - R	TMDL	<p>While it makes sense for the Jurisdictional Groups previously identified in the TMDLs to work jointly to carry out implementation plans to meet the interim reductions, only the responsible agencies with land use or MS4 tributary to a specific shoreline monitoring location can be held responsible for the final implementation targets to be achieved at each individual compliance location. An additional table is needed showing the responsible agencies for each individual shoreline monitoring location.</p>	<p>A table is still needed and should be developed. Perhaps referred to in this section but placed in the Watershed Management Plan and then approved by Executive Officer with the plan.</p>
8	pages 111 - 123 and Attachments K - R	TMDL	<p>The Santa Monica Bay DDT and PCB TMDL issued by USEPA assigns the waste load allocation as a mass-based waste load allocation to the entire area of the Los Angeles County MS4 based on estimates from limited data on existing stormwater discharges which resulted in a waste load allocation for stormwater that is lower than necessary to meet the TMDL targets, in the case of DDT far lower than necessary. EPA stated that "if additional data indicates that existing stormwater loadings differ from the stormwater waste load allocations defined in the TMDL, the Los Angeles Regional Water Quality Control Board should consider reopening the TMDL to better reflect actual loadings." [USEPA Region IX, SMB TMDL for DDTs and PCBs, 3/26/2012]</p>	<p>Same comment</p>
9	pages 111 - 123 and Attachments K - R	TMDL	<p>In order to avoid a situation where the MS4 permittees would be out of compliance with the MS4 Permit if monitoring data indicate that the actual loading is higher than estimated and to allow time to re-open the TMDL if necessary, recommend as an interim compliance objective WQBELs based on the TMDL numeric targets for the sediment fraction in stormwater of 2.3 ug DDT/g of sediment on an organic carbon basis, and 0.7 ug PCB/g sediment on an organic carbon basis.</p>	<p>Same comment</p>
10	pages 111 - 123 and Attachments K - R	TMDL	<p>Although the Santa Monica Bay DDT and PCB TMDL issued by USEPA assigns the waste load allocation as a mass-based waste load allocation to the entire area of the Los Angeles County MS4, they should be translated as WQBELs in a manner such that watershed management areas, subwatersheds and individual permittees have a means to demonstrate attainment of the WQBEL. Recommend that the final WLAs be expressed as an annual mass loading per unit area, e.g., per square mile. This in combination with the preceding recommendation for an interim WQBEL will still serve to protect the Santa Monica Bay beneficial uses for fishing while giving the MS4 Permittees time to collect robust monitoring data and utilize it to evaluate and identify controllable sources of DDT and PCBs.</p>	<p>Please clarify that this situation would be covered under the new provisions for USEPA established TMDLs opens the door for allowing Permittees to address this through their plans.</p>
11	pages 111 - 123 and Attachments K - R	TMDL	<p>The Machado Lake Trash WQBELs listed in the table at B.3 of Attachment N in the Tentative Order appear to have been calculated from preliminary baseline waste load allocations discussed in the July 11, 2007 staff report for the Machado Lake Trash TMDL, rather than from the basin plan amendment. In some cases the point source land area for responsible jurisdictions used in the calculation are incorrect because they were preliminary estimates and subsequent GIS work on the part of responsible agencies has corrected those tributary areas. In other cases some of the jurisdictions may have conducted studies to develop a jurisdiction-specific baseline generation rate. The WQBELs should be expressed as they were in the adopted TMDL WLAs, that is as a percent reduction from baseline and not assign individual baselines to each city but leave that to the individual city's trash reporting and monitoring plan to clarify.</p>	<p>Same comment</p>

20	pages 111 - 123 and Attachments K - R	TMDL	N/A	<p>Regional Board staff has incorrectly determined that a WQBEL may be the same as the TMDL WLA, thereby making it a "numeric effluent limitation." Although numerous arguments may be marshaled against the conclusion, the most compelling of all is the State Water Resources Control Board's clear opposition reluctance to use numeric effluent limitations.</p> <p>In Water Quality Orders 2001-15 and 2009-0008 the State Board made it clear that: we will generally not require "strict compliance" with water quality standards through numeric effluent limitations," and instead "we will continue to follow an iterative approach, which seeks compliance over time" with water quality standards.</p> <p>[Please note that the iterative approach to attain water quality standards applies to the outfall and the receiving water.]</p> <p>More recently, the State Board commented in connection with the draft Caltrans MS4 permit that numeric WQBELs are not feasible as explained in the following provision from its most recent Caltrans draft order:</p> <p>Storm water discharges from MS4s are highly variable in frequency, intensity, and duration, and it is difficult to characterize the amount of pollutants in the discharges. In accordance with 40 CFR § 122.44(k)(2), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits. This Order requires implementation of BMPs to control and abate the discharges of pollutants in storm water to the MEP.</p> <p>The State Board's decision not to require numeric WQBELs in this instance appears to have been influenced by among other considerations, the Storm Water Panel Recommendations to the California State Water Resources Control Board in re: The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities.</p> <p>Same comment</p>
21	pages 111 - 123 and Attachments K - R	Table K-3	Please remove, in its entirety, the Santa Ana River TMDLs	Same comment
22	pages 111 - 123 and Attachments K - R	E.1.c	Permittees under the new MS4 permit (those in LA County) need to be able to separate themselves from Orange County cities. Since the 0.941 kg/day is a total mass limit, it needs to be apportioned between the two counties. Also, the MS4 permit needs to contain language allowing permittees to convert group-based limitations to individual permittee based limitations.	Same comment
23	111	E.2	Please include a paragraph that Permittees are not responsible for pollutant sources outside the Permittees authority or control, such as aerial deposition, natural sources, sources permitted to discharge to the MS4, and upstream contributions.	Same comment
24	111	E.2.a.i	N/A	<p>This provision creates confusion and inconsistency with the language in the rest of the permit. By stating that the permittee shall demonstrate compliance through compliance monitoring points, it appears to preclude determining compliance through other methods as outlined in other portions of the permit. This provision does not reference any of the other compliance provisions in the TMDL section, and could therefore be interpreted on its own as a separate compliance requirement. Additionally, the requirement to use the TMDL established compliance monitoring locations regardless of whether an approved TMDL monitoring plan or integrated plan has been developed is not consistent with the goal of integrated monitoring outlined in the permit. This provision would be more appropriate as a monitoring and reporting requirement for the TMDL section with modified language such as "Monitoring locations to be used for demonstrating compliance in accordance with Parts VI.E.2.d or VI.E.2.e shall be established at compliance monitoring locations established in each TMDL or at locations identified in an approved TMDL monitoring plan or in accordance with an approved integrated monitoring program per Attachment E Part VI.C.5 (Integrated Watershed Monitoring and Assessment)."</p>

37	Attachment N	TMDLs in the Dominguez Channel and Greater Harbor Waters WMA	For the Freshwater portion of the Dominguez Channel. There are no provisions for BMP implementation to comply with the interim goals. The wording appears to contradict Section E.2.d.i.4 which allows permittees to submit a Watershed Management Plan or otherwise demonstrate that BMPs being implemented will have a reasonable expectation of achieving the interim goals.	Same comment
38	Attachment N	TMDLs in the Dominguez Channel and Greater Harbor Waters WMA	For Greater LA Harbor. Similar to the previous comment regarding this section. The Table establishing Interim Effluent Limitations, Daily Maximum (mg/kg sediment), does not provide for natural variations that will occur from time to time in samples collected from the field. Given the current wording in the proposed Receiving Waters Limitations, even one exceedance could potentially place permittees in violation regardless of the permittees level of effort. Reference should be made in this section to Section E.2.d.i.4 which will provide the opportunity for the Permittee to develop BMP-base compliance efforts to meet interim goals.	Same comment
39	Attachment N	TMDLs in the Dominguez Channel and Greater Harbor Waters WMA	For the freshwater portion of the Dominguez Channel: the wording should be clarified. Section 5.a states that "Permittees subject to this TMDL are listed in Attachment K, Table K-4." Then the Table in Section E.2.b Table "Interim Effluent Limitations— Sediment", lists all permittees except the Fresh water portion of the Dominguez Channel. For clarification purposes, we request adding the phase to the first row: "Dominguez Channel Estuary (below Vermont)"	Same comment
40	Attachment O, Page 3	C	For the LA River metals. Some permittees have opted out of the grouped effort. This section needs to detail how these mass-based daily limitations will be reapportioned.	Same comment
41	Attachment O, Page 7	D.4	Why are "Receiving Water Limitations" being inserted here? None of the other TMDLs seem to follow that format.	Same comment
42	Attachment P	TMDLs in the San Gabriel River WMA	It is the permittees understanding that the lead impairment of Reach 2 of the San Gabriel River has been removed. It should be removed from the MS4 permit.	Same comment

Document Name: Receiving Water Limitation Section Draft Tentative Order - July 2012

Agency/Reviewer: LA Permit Group

Comment No.	Doc. Reference		Comments
	Page	Section	
1	37-38	All	<p>Apr-12</p> <p>Currently the State Board is considering a range of alternatives to create a basis for compliance that provides sufficient rigor in the iterative process to ensure diligent progress in complying with water quality standards but at the same time allows the municipality to operate in good faith with the iterative process without fear of unwarranted third party action. It is imperative that the Regional Board works with the State Board on this very important issue</p> <p>Jul-12</p> <p>There are several NPDES Permits, including the Caltrans Permit and others, that adjust the Receiving Water Limitation language in response to new interpretations. Currently, the State Board is considering a range of alternatives to create a basis for compliance that provides sufficient rigor in the iterative process to ensure diligent progress in complying with water quality standards but at the same time allows the municipality to operate in good faith with the iterative process without fear of unwarranted third party action. LASP has provided the Regional Board staff with sample language. It is imperative that the Regional Board works with the State Board on this very important issue. It is critical that the LA draft tentative order Receiving Water Limitation language be adjusted to ensure cities working in good faith are not subject to enforcement and third party litigation.</p>

2	24 and Attachment F, Pages 146-149	Unfunded Mandates Section of Fact Sheet and Permit	several related	<p>It is incorrect to assert an outcome on the unfunded mandates issue in a permit; this has nothing to do with protecting water quality. The unfunded mandates process has not completed a process and these assertions are opinion. Since the Fact Sheet is part of the permit, remove this section. There are many errors and incorrect assumptions, especially around the level of effort required for this permit when compared to the current permit, and the economic issues that are incorrect.</p>
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6	39	A.2.a.i	<p>Staff proposal states: "Control the contribution of pollutants to its MS4 from stormwater discharges associated with industrial and construction activity and control the quality of stormwater discharged from industrial and construction sites."</p> <p>It appears the intent of this language is to transfer the State's inspection and enforcement responsibilities to municipalities through the MS4 permit. When a separate general NPDES permit is issued by the Regional or State Board it should be the responsibility of that agency collecting such permit fees to control the contribution of pollutants, not MS4 permittees.</p>
7	39	A.2.a.vii	<p>Staff proposal states: "Control the contribution of pollutants from one portion of the MS4 through interagency agreements among Co-permittees."</p> <p>The intention of this statement is unclear and should be explained, and a definition of "shared MS4" should be provided. How would an inter-agency agreement work with an upstream and downstream agency? This is not practical - this agreement should have been done before the interconnection of MS4 systems occurred. An example of this agreement should be provided within the Permit. The permittee will not agree to the responsibility of an exceedance without first having evidence of the source and its known origin (in other words, an IC/ID is a private "culprit" and not the cause of the City).</p>
8	39	A.2.a.xi	<p>Staff proposal states: "Require that structural BMP's are properly operated and maintained."</p> <p>MS4 agencies can control discharges through an illicit discharge program, and conditioning new/development to ensure mitigation of pollutants. Unless the existing development, private property owners/tenants are willing or in the process of retrofitting its property, the installation and O&M of BMP's is not practical and cannot be legally enforceable against an entity that does not own or control the property, such as a municipal entity.</p>
9	39	A.2.a.xii	<p>Staff proposal states: "Require documentation on the operation and maintenance of structural BMP's and their effectiveness in reducing the discharge of pollutants to the MS4."</p> <p>It is difficult, if not impossible, to accurately quantify the exact effectiveness of a particular set of BMP's in reducing the discharge of pollutants. Some discharges may be reduced over time given reductions in industrial activity, population in a particular portion of the community feeding into the MS4, or for other reasons not directly related to implementation of structural BMPs. Given that the County of LA is generally urbanized and thus impervious, a tethargic economic climate (meaning development and redevelopment is not occurring in an expeditious manner), and that several pollutants do not have known BMP's effective at removing/reducing the content (i.e., metals, toxics, pesticides), the effectiveness of BMP's should not be required and instead should only be used for research, development, and progress of BMP testing.</p>
10	40	A.2.b	<p>Staff proposal states: "Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement.... Each permittee shall submit this certification annually..."</p> <p>To sign this statement, chief counsel will have to analyze this 500 page Permit, analyze the municipal code, and prepare a statement as to whether actions can be commenced and completed in the judicial system. An annual certification is redundant and unnecessary in addition to being extraordinarily costly. At most, legal analysis should be done once during the Permit term. Otherwise, please delete this requirement.</p>
11	40	A.3	<p>The staff proposal includes a section on Fiscal Resources. Most MS4's do not have a storm water quality funding source, and even those that do have a funding source are not structured to meet the requirements of the proposed MS4 requirements (for instance, development funds may be collected to construct an extended detention basin, but not for street sweeping, catch basin cleaning, public right-of-way structural BMPs, etc).</p>
12	40	A.3.a	<p>Staff proposal states: "Each Permittee shall exercise its full authority to secure the fiscal resources necessary to meet all requirements of this Order"</p> <p>This sentence has no legally enforceable standard. What exactly does the exercise of "full authority" mean when the exercise of a city's right to tax comes with consequences and no guarantee of success? Municipal entities must adjust for a variety of urgent needs, some federally mandated in a manner that cannot be ignored. So, if we seek the fiscal resources to fund the programs required in the permit and the citizens say "No", then a municipality will have a limited ability to comply with "all requirements of this Order". Can the language be changed to state: "Each permittee shall make its best efforts given existing financial and budget constraints to secure fiscal resources necessary to meet all requirements of this Order"?</p>
13	40	A.3.c	<p>Staff proposal states: "Each permittee shall conduct a fiscal analysis... to implement the requirements of this Order."</p> <p>Most MS4's do not have adequate funding to meet all requirements of the Tentative MS4 Permit. A Permit requirement to secure funding is overreach. Please delete this section.</p>
14	58	D.4.a.i.(2)	<p>Staff proposal states: "To measurably change the waste disposal and storm water pollution generation behavior of target audiences..."</p>
15	60	D.4.d.i.(2)(b)	<p>Define the method to be used to measure behavior change. As written, this requirement is vague and open to interpretation.</p> <p>Staff proposal states: "... including personal care products and pharmaceuticals"</p>
16	60	D.4.d.i.(3)	<p>The stormwater permit should pertain only to stormwater issues. Pharmaceuticals getting into waters of the US are typically a result of waste treatment processes. All references to pharmaceuticals should be removed from this MS4 permit.</p> <p>The Regional Board assumes that all of the listed businesses will willingly allow the City to install displays containing the various BMP educational materials in their businesses. If the businesses do allow the installations then the City must monitor the availability of the handouts because the business will not monitor or keep the display full or notify the City when the materials are running out. If the business will not allow the City to display the educational material must we document that denial? Will that denial indicate that the City is not in compliance?</p>
17	63-66	D.5.d-f	<p>These sections pertain to inspecting critical source facilities where it appears the intent is to transfer the State's Industrial General Permit inspection and enforcement responsibilities to municipalities through the MS4 permit. We request eliminating these sections OR revise to exclude all MS4 permittee responsibility for NPDES permitted industrial facilities.</p>

43	95	D.8.d.v	Any retrofit activities should be the result of either an illicit discharge investigation or TMDL monitoring follow-up and will need to be addressed on a site-by-site basis. A blanket effort as proposed in a highly urbanized area is simply not feasible at this time.
44	96	D.8.e.ii	Staff proposal states: "Each Permittee shall implement the following measures for... flood management projects"
45	102	D.8.h.vii.(1)	Flood management projects need to be clearly defined. This requirement appears to be an "end-run" around the lack of catch basin structural BMPs in areas not covered by Trash TMDLs. The requirement has the potential to be extraordinarily economically burdensome. If an area is NOT subjected to a Trash TMDL, then the need for any mitigation devices is baseless. The MS4 permit requirements should not circumvent nor minimize the CWA 303(d) process.
46	103	D.8.h.ix	Staff proposal requires: "Infiltration from Sanitary Sewer to MS4 / Preventive Maintenance..."
47	106-110	D.9	The State Water Board has implemented a separate permit for sewer maintenance activities. Additional sewer maintenance requirements are redundant and unnecessary. Please delete this requirement.
48	107	D.9.b.i	A definition of "outfall" is required for clarity. An "outfall" for purposes of "non-stormwater outfall-based monitoring program" should be defined as "major outfall" pursuant to Clean Water Act 40 CFR 122.26. Please revise each mention of "outfall" to read "major outfall" when discussing "non-stormwater outfall-based monitoring program".
49	107	D.9.b.iii.(1)	Please revise the proposed language to "Permittee/Permittees shall develop written procedures for conducting investigations to identify the source of suspected illicit discharges, including procedures to eliminate the discharge once source is located." It is not known if a discharge is illicit until the investigation is completed. "Illicit discharges suspected of being sanitary sewage... shall be investigated first." ICID inspectors should be allowed to make the determination of which event should be investigated first. For example, a toxic waste spill or a truck full of gasoline spill should take precedence over a sewage spill. This requirement should be amended to the "most toxic or severe threat to the watershed" shall be investigated first.
50	Attachment A	Definitions	The Definition of: "Development", "New Development" and "Re-development" should be added. The definitions in the existing permit should be used: "Development" means any 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. "New Development" means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision. "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 a routine maintenance activity; and land disturbing activities 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. The last of the three "routine maintenance" activities listed above should exclude projects related to existing streets since typically you are not changing the "purpose" of the street to carry vehicles and should not be altered. The biofiltration definition limits the systems that allow incidental infiltration. Many municipal ordinances and established engineering practices will not allow even incidental infiltration if the planter boxes are located adjacent to a building structure. Thus, this definition will exclude the most common types of planter boxes which logically have to be placed next to the building to collect roof runoff. For this reason, consider allowing biofiltration to include planter boxes without incidental infiltration since they may be the only applicable BMPs. Some small cities do not have digital maps. In the "General" category of Section 11, please provide a 1 year time schedule for cities to create digital maps OR provide the municipality the ability to develop comprehensive maps of the storm sewer system in any format. Omit the comment, "Each mapped MS4 outfall shall be located using geographical positioning system (GPS) and photographs of the outfall shall be taken to provide baseline information to track operation and maintenance needs over time." This requirement is cost prohibitive and of little value because many City outfalls are underground and could not be accurately located or photographed. Photographs of outfalls in channels in channels have little value since data required is already included on "As-Built" drawings. Geographic coordinates can easily be obtained using Google Earth or existing GIS coordinate systems. "The contributing drainage area for each outfall should be clearly discernible..." The scope of this requirement would involve thousands of records of drainage studies. The Regional Board should be aware that this requirement would be very labor intensive, time consuming, and very costly. Storm drain maps should show watershed boundaries which by definition provide the location and name of the receiving water body. Please revise (3) to read "The name of all receiving water bodies from those MS4 major outfalls identified in (1)." The LA Permit Group proposes "non-stormwater outfall-based monitoring program" to be flow based monitoring. Please revise item (4) of 11.c.i. to read "(4) monitoring flow of unidentified or authorized non-stormwater discharges, and..." "Monitoring of unknown or authorized discharges" "Authorized" discharges are exempted or conditionally exempted for various reasons. Monitoring authorized discharges is monitoring for the sake of monitoring and offers no clear goal or water quality benefit. Please delete this requirement. If the source of a discharge is unknown, then monitoring may be used as an optional tool to identify the culprit.
51	Attachment A, Page 1	Definitions	
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[1] 55 FR 47990-01 VI.G.2. Effective Prohibition on Non-Stormwater Discharges

[2] 55 FR 47990-01 VI.G.2. Effective Prohibition on Non-Stormwater Discharges

10	Attachment E, Page 4	III.E.4	<p>Omit Item 4. Monitoring of Development/Re-development BMPs is the responsibility of the Developers. Requirements for monitoring Developer BMPs should be part of Section VI.D.6. <i>Planning and Land Development Program</i> and the responsibility of the Developer.</p> <p>The purpose of this requirement is not authorized under federal stormwater regulations as it relates to monitoring. Requiring such monitoring is premature given the absence of outfall monitoring in the current and previous MS4 permits that would characterize an MS4's pollution contribution relative to exceeding ambient water quality standards. There is nothing in federal stormwater regulations that require monitoring on private or public property. Monitoring, once again, is limited to effluent discharges at the outfall and to ambient monitoring in the receiving water.</p> <p>Beyond this, monitoring for BMP effectiveness poses a serious challenge to what determines "effectiveness" -- effective relative to what standard? It is also not clear how such monitoring is to be performed.</p> <p><i>Recommended Correction:</i> Delete this requirement.</p> <p>Omit Item 5. The MS4 Permit is to regulate discharges to receiving water. It is the role of the State EPA and Water Quality Control Board, not municipal governments, to conduct Regional Studies for Southern California Monitoring Coalition, bio-assessment and Pyrethroid pesticides. This imposing of State responsibilities beyond Federal requirements on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.</p> <p>Requiring 85 jurisdictions to conduct regional monitoring is duplicative and inefficient and should be conducted by a Regional authority.</p> <p>Regional studies also lie outside the scope of the MS4 permit. However, because federal regulations require ambient monitoring in the receiving water, a task performed by the Regional Board's SWAMP, regional watershed monitoring for aforementioned target pollutants can be satisfied through ambient monitoring. This can be accomplished with little expense on the part of permittees by: (1) using ambient data generated by the Regional Board SWAMP; (2) re-setting the County's mass emissions stations to collect samples 2 to 3 days following a storm event (instead of using a flow-based sampling trigger); and (3) using any data generated from existing coordinated monitoring programs (e.g., Los Angeles River metals TMDL CMP), provided that the data is truly ambient.</p> <p>Omit Items F. & G. Specifying Sampling Methods and Analytical Procedures in the permit adds unnecessary liability for Cities for work that is already described in USEPA Protocols and per approved TMDLs. These items should be combined and state to follow USEPA Protocols or per approved TMDLs.</p> <p>There is a typo for Item 3. Item 3. should read "...requirements identified in Part XVIII.A.5. and Part XVIII.A.7 of this MRP."</p> <p>More time is needed to prepare Coordinated Integrated Monitoring Plans due to the number of agencies involved. Since existing monitoring programs will proceed as Coordinated Integrated Monitoring Plans are being prepared, then there is no need for accelerated schedules. Revise Item 1. to provide twelve (12) months for each Watershed Group to submit a Memorandum of Understanding to work with other agencies for a Coordinated Integrated Monitoring Plan. A letter of intent allows a Permittee to drop out of the process at any time and 12 months are required to process a Memorandum of Understanding with County and State agencies.</p> <p>Revise Item 2. to require "Each Permittee not participating in a Coordinated Integrated Monitoring Plan to submit an Integrated Monitoring Plan..."</p>
11	Attachment E, Page 5	III.E.5	<p>Revise to allow participating Permittees 24 months to submit a Coordinated Integrated Monitoring Plan. It will take a minimum of 12 months to process a Memorandum of Understanding with County and State agencies and that agreement is required before any Permittee will award a contract to a consultant to prepare a Coordinated Integrated Monitoring Plan. It takes 3 months to issue Request for Proposals and award a contract and then 9 months for a consultant to prepare a Coordinated Integrated Monitoring Plan. Since existing monitoring programs will proceed as Coordinated Integrated Monitoring Plans are being prepared, then there is no need for accelerated schedules.</p>
12	Attachment E, Pages 5-6	III.F & G	
13	Attachment E, Page 6	III.H.3	
14	Attachment E, Pages 7-8	IV.C.1	
15	Attachment E, Page 8	IV.C.2	
16	Attachment E, Page 8	IV.C.3	

18	Attachment E, Page 8	IV.C.7	<p>Both the current permit shoreline monitoring program (CI-6948) and the SMBBB TMDL Coordinated Shoreline Monitoring Plan (CSMP) are being incorporated into the new permit. The CI-6948 shoreline monitoring requirements, Section II.D – page T-11, is redundant to the CSMP. All stations monitored in the CI-6948 are also monitored in the CSMP. Furthermore, the SMBBB TMDL specifies that the agencies are to select sampling frequency and the CSMP states that the agencies have selected weekly sampling frequency. However, CI-6948 requires several stations to be monitored up to 5 days per week and with the addition of the CSMP additional stations will be monitored two days per week.</p> <p>Paragraph II.D.b) of the CI-6948 shoreline monitoring section specifies that the sampling frequency at 28th Street (DHS 113), also SMB-5-2, and Herondo storm drain (DHS 115), also SMB-6-1, be increased to 5 times per week. Paragraph II.D.e) states that monitoring sites are to be monitored 5 days per week if the historical water quality is worse than the reference beach. However, no evidence was presented to the responsible agencies that this was the case for the SMB-5-2 or 6-1.</p> <p>An evaluation of historical data was presented by the Regional Board Staff Report for the reconsideration of the SMBBB TMDL dated May 2012. Further evaluation of this data shows that SMB-5-2 and SMB-6-1 should not be subject to the increase frequency for the following reasons:</p> <ol style="list-style-type: none"> 1. Of the 67 stations being monitored as part of the CSMP, SMB-5-2 and 6-1 are ranked 57 and 43 respectively in the percent of exceedances during the summer dry weather period. 2. 37 stations being monitored only weekly or two days per week had a higher summer-dry weather exceedance percentage than SMB-6-1. 3. The Reference Beach monitoring station (SMB-1-1) had a summer dry weather period exceedance percentage of 10.2% versus 6.9% and 3.2% for SMB-5-2 and 6-1, respectively. 4. The Reference Beach monitoring station (SMB-1-1) had an average year-round exceedance percentage of 12.1% versus 14.6% and 11.4% for SMB-5-2 and 6-1, respectively. Although exceedance rate for SMB 5-2 is higher than the Reference Beach monitoring station based on year round results, it is lower during the critical summer-dry weather period. 5. Of the 8 stations being monitored five days per week SMB-6-1 and 5-2 have the lowest summer dry weather period exceedance percentage (top 6 ranged from 40.9% to 8.5% compared to 6.9% and 3.2% for SMB-5-2 and 6-1). <p>In addition, the inclusion of both the CI-6948 shoreline monitoring program and CSMP into the permit will result in 5 (SMB-5-1, 5-3, 5-5, 6-5, and 6-6) of the other 9 monitoring stations in SMBBB TMDL Jurisdictional Groups 5 and 6 being monitored 2 days per week which is not the case for any of the other CSMP stations.</p> <p>For all of the above reasons, the shoreline monitoring provisions of CI-6948 should be removed from the new permit monitoring program. However, at a minimum, paragraph D.1.b) should be removed and paragraph D.1.e).(1) should be modified to remove stations S13 (SMB-5-1), S14 (SMB-5-3) S15 (SMB-5-5), S17 (SMB-6-5) and S18 (SMB-6-6).</p> <p>The following is proposed wording modification to Attachment E, Section IV.C.7:</p> <p>"7. Monitoring requirements pursuant to Order No. 01-182, except Section D.1.b) is removed and Section D.1.e).(1) is modified to removed sites S13, S14, S15, S17 and S18 of the Monitoring and Reporting Program – CI-6948, shall remain in effect until the Executive Officer of the Regional Water Board approves a Permittee(s) IMP and/or CIMP plan(s)."</p>
19	Attachment E, Page 14	VI.C.1.b	Monitoring should be performed per approved IMP or CIMP or approved TMDL. The IMP and CIMP should identify rain gauges to use in the appropriate watershed.
20	Attachment E, Page 15	VI.C.1.d	Omit iv. The TMDLs will specify if TSS or SSC monitoring is required, otherwise sediments are needed for beach replenishment and the naturally occurring transport of sediments should not be regulated.
21	Attachment E, Page 15	VI.C.1.d	Omit vi. This imposing of State and Federal responsibilities on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.
22	Attachment E, Page 15	VI.D.1.a	Omit the requirement for "One of the monitoring events shall be during the month with the historically lowest instream flows." This data does not exist and it would be simpler to specify the historically driest month.
23	Attachment E, Page 15	VI.D.1.b	Revise item i. and ii. to simply be on days with no measurable rain. There are sufficient days of no measurable rain in Southern California and any rain event could result in isolated stormwater run off.
24	Attachment E, Page 16	VIII.A	Revise the description to include database. "The IMP and/or CIMP plan(s) shall include a map and/or database of the MS4 to include the following information." GIS maps all come with database(s) that include much of the required information.
25	Attachment E, Page 17	VIII.A.2.e	Include the option to monitor "upstream of the actual outfall or downstream of a political boundary". Sometimes the best location to do monitoring is at the next manhole downstream from a city boundary.
26	Attachment E, Page 17	VIII.B.1.a	Omit "except aquatic toxicity, which shall be monitored once per year...". This imposing of State and responsibilities beyond Federal requirements on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.
27	Attachment E, Page 18	VIII.B.1.b	Omit item ii. and iii. Monitoring should be performed per approved IMP or CIMP or approved TMDL.
28	Attachment E, Page 18	VIII.B.1.c	Omit item iv. The TMDLs will specify if TSS or SSC monitoring is required, otherwise sediments are needed for beach replenishment and the naturally occurring transport of sediments should not be regulated.
29	Attachment E, Page 18	VIII.B.1.c	Omit vi. This imposing of State responsibilities beyond Federal requirements on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.
30	Attachment E, Page 19	IX.A.2	Include "natural flows" or "natural sources" as a potential source of non-storm water flow.
31	Attachment E, Page 22	IX.E.2	Revise last sentence to read, "100% of the outfalls in the inventory within 5 years..."

Exhibit C:

LA Permit Group Comment Letters re: Working Proposals

**LA Permit Group
Comments on Monitoring Provisions Proposed at RWQCB Workshop on 1/23/12**

The LA Permit group appreciates the opportunity to provide comments regarding the Regional Board's 1/23/12 workshop on the proposed monitoring program for the upcoming NPDES permit. The comments are organized to provide our overall general comments regarding the monitoring program and then our specific comments on the details presented in the workshop.

General Comments

In our 11/10/11 presentation to the Regional Board, The LA Permit Group identified an Integrated Watershed Monitoring Program (IWMP) approach supporting a comprehensive and focused monitoring program. Although the Board staff indicated interest in the approach, we were disappointed to see the approach was not well captured in the 01/23/12 workshop. We still would submit that the overarching monitoring program should be based on the concepts found in an IWMP (see attached proposal for an IWMP, p.5 & 6).

Regional Monitoring Programs

1. Duplicative efforts. The proposed regional monitoring programs appears to duplicate ongoing studies/activities by other permittees in southern California, thus, we question what new and useful information will be provided that is not already being developed.

Recommendation: Modify the requirement for regional monitoring programs to account for existing and on-going regional monitoring efforts (also see our Special Comments on this issue).

Stormwater and Non-stormwater Monitoring Programs

1. Need to Promote a Watershed Approach. The proposed monitoring strategy appears to minimize instead of promote a watershed approach to monitoring and provides little insights into the water quality issues within a watershed. Instead it focuses exclusively on individual permittees.

Recommendation: It is recommended that the monitoring program be based on a watershed and TMDL and that it:

- a. evaluates the current conditions in impaired water bodies (identified by effective TMDLs),*
- b. facilitates the attainment of WLAs and assessment of effectiveness and improvement of BMPs to effectively address each impairment to the extent it is potentially contributed by the MS4, and*
- c. identifies the extent to which the impairment may be caused by factors or sources other than discharges from the MS4*
- d. promotes the IWMP and provides time schedule incentives.*

The LA Permit Group has developed a position paper that captures this fundamental strategy (see attachment). The strategy, we believe, would better serve as the framework for the monitoring program than the one currently being considered by the Regional Board.

2. Lack of Clear Goals and Objectives. The proposed strategy for stormwater and non-stormwater lacks well defined goals and management questions. Instead the strategy appears to be a resource-intensive, far reaching attempt to collect monitoring data for collection sake without any explanation as to how the data will be used to guide management decisions. The monitoring program must be designed to answer specific management questions and/or objectives. The program must provide a comprehensive but focused attempt to address a number of management

LA Permit Group
Comments on 1/23/12 LARWQCB Monitoring Program Presentation
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Stormwater and Non-stormwater Monitoring Programs

1. Clear Logic Needed for Deciding Monitoring Efforts. The logic for both stormwater and non-stormwater monitoring efforts is confusing and in some cases appears to be in conflict. Furthermore, there appears to be little nexus between TMDLs and the proposed monitoring effort.

Recommendation: It is absolutely necessary that a logical decision tree be developed to guide the Permittees. The development of a decision tree could be part of the integrated watershed monitoring plan.

2. Confusing objectives for non-stormwater monitoring. The proposed non-stormwater monitoring (slides 21-23²) does not address the stated requirement in slide 24 to determine the relative flow contribution of other permitted discharges. Also it is unclear what will be gained by the extensive monitoring effort. Furthermore the time line proposed to complete this work is woefully inadequate (9 months). If the purpose of the non-stormwater monitoring is to assess the categorical exemptions, then the current framework is inadequate.

Recommendation: We recommend that a well defined regional study be incorporated into the IWMP that already includes flow monitoring in numerous locations to assess categorical exemptions instead of the each permittee based approach currently proposed.

3. Aquatic Toxicity Monitoring. Slide 18 indicates that stormwater monitoring includes aquatic toxicity monitoring. We would submit that it is premature to conduct outfall toxicity monitoring until it has been established that toxicity is present in the receiving water. Furthermore we would submit that should toxicity monitoring be required, acute toxicity is the appropriate toxicity test given the short duration of stormwater discharges.

Recommendation: Toxicity monitoring should be acute and be limited to the receiving water and not be a part of an outfall monitoring program unless dictated by a TMDL. Aquatic Toxicity monitoring is required by a number of TMDLs and could be extracted from IWMP.

4. Technical concerns include the following:
 - a. Unclear how baseline non-stormwater flows are established.
 - b. Possible conflicting criteria regarding the use of land uses to identify outfalls and the minimum number of outfalls (slides 15-16).
 - c. Need better definition for "significant" non-stormwater flows. The requirement noted in slide 21 regarding 10% above the lowest rolling average needs to be evaluated more closely as it appears that all outfalls will qualify under this criteria.

² Slide numbers are based on Regional Board 1/23/12 presentation by PG Environmental.

LA Permit Group, proposal for

INTEGRATED WATERSHED MONITORING PLANS

It is the MS4 Co-Permittees' intent to utilize Total Maximum Daily Load (TMDL) monitoring as the primary monitoring program requirement in the next MS4 Permit. The Co-Permittees support a TMDL-driven monitoring program that:

- evaluates the current conditions of recognized impaired water bodies (identified by the 303d List),
- facilitates the attainment of WLAs and assessment of effectiveness and improvement of BMPs to effectively address each impairment to the extent it is potentially contributed by the MS4, and
- identifies the extent to which the impairment may be caused by factors or sources other than discharges from the MS4

The Co-Permittees wish to work cooperatively with the assistance of outside experts, e.g., Council for Watershed Health³ or consulting firm, to prepare Integrated Watershed Monitoring Plans to meet TMDL monitoring requirements. Currently the adopted TMDLs require each agency or subwatershed group to submit separate TMDL Monitoring and Reporting Plans and to prepare individual annual monitoring reports for each TMDL. The end result will be numerous monitoring plans that are not coordinated, with redundancies between monitoring programs, without standard sampling or analysis methods to ensure data comparability, and with the potential for data gaps, which will create a multitude of annual reports which must be reviewed by Regional Board staff that do not provide a comprehensive picture of watershed health.

The goal of Integrated Watershed Monitoring Plans would be to provide:

- TMDL objective-driven monitoring plan designs,
- comprehensive data management and reporting,
- SWAMP-compatible QA/QC and data validation,
- data synthesis and interpretation on a watershed scale, and
- single, comprehensive annual monitoring reports for each watershed addressing all the adopted TMDLs in that watershed.

Integrated Watershed Monitoring Plans will be developed and implemented for each major watershed in the County. The Co-Permittees recognize the efficiencies that can be obtained by preparing Integrated Watershed Monitoring Plans that address all TMDLs for that watershed. During the process of developing the Integrated Watershed Monitoring Plans the Co-Permittees would bring together watershed stakeholders, compile an inventory of existing or pending monitoring efforts, develop a comprehensive list of monitoring questions to address the identified watershed impairments and design coordinated monitoring programs. The provisions of the 3rd term permit Monitoring and Reporting Program and the relevant TMDL monitoring requirements will be incorporated into each Integrated

³ The Council for Watershed Health (Council) has worked with the Wastewater Treatment Plants to prepare coordinated monitoring plans for the Los Angeles and San Gabriel River watersheds.

**LA Permit Group
Draft Comments on TMDL Provisions Proposed at RWQCB Workshop on 1/23/12**

The Los Angeles Permit Group appreciates the opportunity to provide input to RWQCB staff on the elements of TMDL WLA incorporation into the MS4 permit as provided in the presentation and handouts during the workshop on 1/23/12.

The group supports many of the concepts outlined in the presentation, particularly the multiple methods of demonstrating compliance, which includes the implementation of rigorous implementation plans using an adaptive management strategy as a method of compliance. However, the group has a few key concerns with the proposal that we would like to share.

Reasonable Assurance Plan

We request that the Reasonable Assurance Plan (RAP) not be used as the mechanism for identifying the BMPs that will be used to comply with the TMDL WLAs. Rather, we request that the requirements to meet TMDL WLAs be incorporated into the Stormwater Quality Management Plan, as described below.

1. Stormwater Quality Management Plans, based on the TMDL implementation plans and other elements, can be developed with a watershed/sub watershed based or individual permittee approach rather than a "one size fits all" approach.
 - a. Permittees shall develop a process to evaluate BMPs that will fall under one or more of the following categories:
 - i. Operational source control BMPs that prevent contact of pollutants with rainwater or stormwater runoff;
 - ii. Runoff reduction BMPs;
 - iii. Treatment control BMPs where effectiveness information is available;
 - iv. True source control BMPs that eliminate or greatly reduce a potential pollutant at the original source pursuant to a legislative or regulatory time schedule; or
 - v. Research and development for pollutant types where effective BMPs have not been identified.
 - b. These categories will be incorporated as part of the Stormwater Quality Management Plans.
 - c. Stormwater Quality Management Plans will identify effective BMPs to be implemented in an iterative manner to attain the WLAs based on the design storm.
2. Stormwater Quality Management Plans designed to attain the TMDL WLAs will include:
 - a. specific, targeted steps scheduled to attain the WLAs through the use of BMPs;
 - b. specific procedures for evaluating BMP effectiveness; and
 - c. provisions for special studies if needed.

The Stormwater Quality Management Plans can incorporate BMPs identified in implementation plans to address the TMDL requirements.

LA Permit Group

Comments on 1/23/12 LARWQCB TMDLs Program Presentation

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- "point sources"" , which are "consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA."
2. Define BMP-based WQBELs as "Implementation of BMPs included in a Regional Board Executive Officer approved Stormwater Quality Management Plan. The Stormwater Quality Management Plan (SQMP) shall describe the proposed BMPs and the documentation demonstrating that when implemented, the BMPs are expected to attain the WLAs, and a process for evaluating BMP effectiveness and implementing additional actions if necessary to meet the TMDL WLAs." This is consistent with other recently adopted permits in California and with the requirements as described in the 1/23/12 RWQCB presentation.
 3. Consistent with the four methods for demonstrating compliance with TMDLs as presented in the 1/23/12 RWQCB presentation, a co-permittee which is achieving WLAs at the outfall (or equivalent point of compliance within the drainage system) or in receiving waters may cease implementing additional BMPs if appropriate.
 4. Violations of the BMP based WQBEL provisions would consist of the following provisions, in keeping with the 1/23/12 RWQCB presentation:
 - a. Not submitting the SQMP.
 - b. Not implementing all elements of the SQMP in accordance with the approved schedule.
 - c. Not implementing additional BMPs or revising the SQMP per the process outlined in the SQMP or on schedule.

We can provide example permit language to help expand upon the approach outlined above. We appreciate your consideration of this approach and would like to meet to discuss these important issues related to TMDLs.

Additional Comments on the Proposed Text

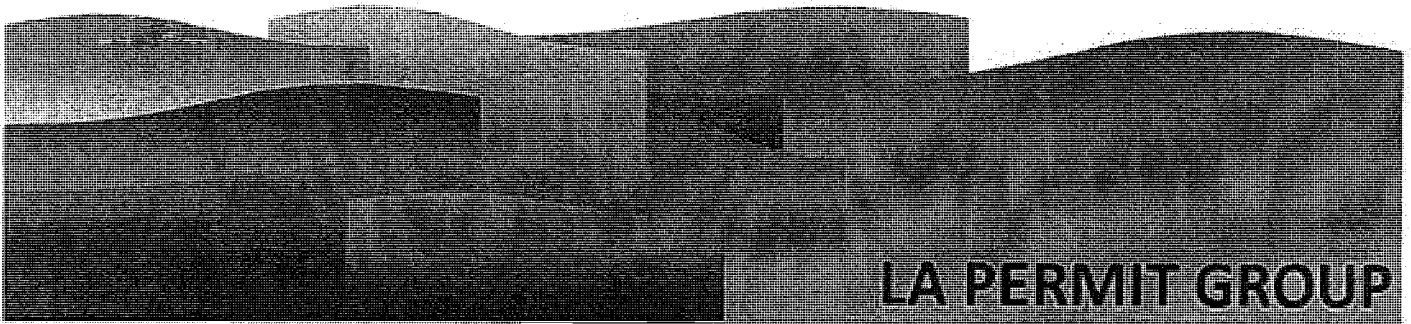
In addition to the general topics outlined above, we have some concerns about the draft language that was provided for the TMDLs. First, we request that a non-trash example be provided to allow a better understanding of how compliance will be determined for constituents that do not have a clear method of determining compliance outlined in the TMDL. Additionally, we feel that some of the language proposed is not consistent with the approach outlined in the presentation. We have highlighted the language of potential concern below.

Part 7. Total Maximum Daily Loads (TMDLs) Provisions

The second bullet states "The Permittees shall comply with the following effluent limitations and/or receiving water limitations..." This is followed by tables with the numeric WLAs.

We have three concerns with this language:

1. The language implies that the effluent limitations are strictly numeric.
2. The language does not include any reference to how compliance will be determined, with the exception of the trash TMDL.
3. The language refers to both effluent limitations and receiving water limitations for the Santa Clara River Bacteria TMDL. We feel this does not accurately reflect the language in the TMDL and creates confusion related to the receiving water limitations outlined in a separate portion of the document.



May 14, 2012

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SUBJECT: Technical Comments on Los Angeles Regional Water Quality Control Board Staff Working Proposals for the Greater Los Angeles County MS4 Permit (Permit) – Watershed Management Programs, TMDLs and Receiving Water Limitations

Dear Ms. Purdy and Mr. Ridgeway:

The Los Angeles Permit Group would like to take this opportunity to provide comments on the working proposals for Watershed Management Programs, Total Maximum Daily Loads, and Receiving Water Limitations. These documents were posted on the Regional Board website on April 23, 2012. The LA Permit Group appreciates the Regional Board staff's effort to develop the next NPDES stormwater permit and their commitment to meet with various stakeholders including our group. We look forward to continuing the dialogue with the Board staff on this very important permit. Our highest priorities on the Watershed Management Program, TMDLs and Receiving Water Limitations are:

- Provide additional time to develop the Watershed Management Program to integrate the 32 TMDLs and prioritize efforts.
- Prior to adopting the Los Angeles MS4 NPDES Permit, reopen TMDLs for reconsideration where final compliance periods have passed and initiate the Basin Plan Amendment process to extend compliance deadlines to coordinate with the Watershed Management Program and consider substantial amounts of new information available. While the TMDL reopeners are pending, an affected Permittee would be in compliance through the implementation of core programs and implementation plans.
- Initiate TMDL reopeners/reconsideration where compliance with a waste load allocation (WLA) is exclusively set in the receiving water to also include compliance at the outfall, or other end-of-pipe; while the TMDL reopener is pending, an affected Permittee would be in compliance with the receiving water WLA through the implementation of core programs and implementation plans.
- Develop Receiving Water Limitation language that supports implementing the Watershed Management Programs without unnecessary vulnerability.

- It is unclear how program implementation and TMDL compliance will be handled during the interim period before development of the watershed management program. For those entities that choose to develop a watershed management program, the LA Permit Group requests that current, significant efforts in our existing programs and implementation plans be allowed to continue while we evaluate new MCMs as part of the watershed management program.
- Consideration of the technical and financial feasibility of complying with water quality standards should be included in the watershed management program.

Total Maximum Daily Loads

Of critical importance to this permit and to water quality is the incorporation of TMDLs into the NPDES permit. This NPDES permit proposes to incorporate more TMDLs than any other permit in California issued to date. As a result, the manner in which the TMDLs are incorporated into the permit is a critical issue for the LA Permit Group and will likely set a significant precedent for all future MS4 permits.

The rate of development of TMDLs in the Los Angeles Region was unparalleled in California, and likely the nation. A settlement agreement necessitated the much accelerated time schedule for these TMDLs. The TMDLs were developed based on the information available at the time, not the best information to identify or solve the problem. As a result, the sophistication of the TMDLs vary widely, meaning that not all TMDLs are created equal regarding knowledge of the pollutant sources, confidence in the technical analysis, availability of control measures sufficient to address the pollutant targets, etc. Additionally, the majority of the TMDLs were developed with the understanding that monitoring, special studies, and other information would be gathered during the early years of the TMDL implementation to refine the TMDLs. As such, many MS4 dischargers were told during TMDL adoption that any concerns they may have over inaccuracies in the TMDL analysis would be addressed through a TMDL reopener. The proposed method of incorporating TMDL WLAs, as outlined in the working proposal, does not effectively allow for addressing this phased method of implementing TMDLs, nor does it recognize the time, effort and complexities involved in addressing MS4 discharges, and it places municipalities into immediate compliance risk for permit requirements that have never been incorporated into the MS4 permit previously.

We recognize and appreciate that TMDLs must be incorporated in such a way as to require action to improve water quality. However, the permit should recognize the articulated goal of many of the TMDLs to be adaptive management documents and consider the challenges of trying to address the non-point nature of stormwater. As such, it is imperative to have flexibility in selecting an approach to address the TMDLs and the time frame by which to implement the approach.

Regional Board staff is making three significant policy decisions with regards to incorporating TMDLs into this permit that the LA Permit Group would like staff to reconsider:

1. The inclusion of numeric effluent limitations for final TMDL WLAs.
2. The use of time schedule orders to address Regional Board adopted TMDLs for which the compliance points have passed.
3. The use of time schedule orders for EPA adopted TMDLs with no implementation plans.

The first policy decision of concern is the incorporation of final WLAs solely as numeric effluent limitations in the proposed permit language. Although staff has discretion to include numeric limits, it is not required and the use of numeric limits results in contradictions and compliance inconsistencies with the rest of the permit requirements. Court decisions (See *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166-1167 (9th Cir. 1999)¹), State Board orders (Order

¹ See also California Regional Water Quality Control Board San Diego Region - Fact Sheet / Technical Report For Order No. R9-2010-0016 / NPDES NO. CAS0108766.

taken previously. This approach is inconsistent with the goals of good public policy, fair enforcement and fiscal responsibility.

To address this issue, the LA Permit Group recommends that:

- WLAs be translated into WQBELs, expressed as BMPs and that implementation of the BMPs will place the permittee into compliance with the MS4 Permit
- The WLAs be included as specific actions (BMPs) that will be designed to achieve the WLAs
- Include language that states that compliance with the TMDLs can be achieved through implementing BMPs defined in the watershed management plan

The second major policy decision of concern is the use of Time Schedule Orders for Regional Board adopted TMDLs for which the compliance date has already occurred prior to the approval of the NPDES permit. The ideal phased TMDL implementation process whereby dischargers can collect information, submit it to the Regional Board, and obtain revisions to the TMDL requirements to address data gaps and uncertainties has not occurred. As evidenced by the number of overdue permits, the workload commitments of Regional Board staff are significant and TMDL reopeners seldom occur. Because the majority of the TMDLs have not been incorporated into permit requirements until now, MS4 permittees have been put in the position of trying to comply with TMDL requirements without knowing how compliance with those TMDLs would be determined and without knowing when or if promised considerations of modifications to the TMDL would occur. And now, they are expected to be in immediate compliance with new permit provisions which differ from most precedent and guidance regarding incorporation of TMDLs into MS4 permits, regardless of what actions they have taken to try and meet the TMDL requirements. This is neither fair nor consistent.

The LA Permit Group strongly believes that the adaptive management approach envisioned during TMDL development, whereby TMDL reopeners are used to consider new monitoring data and other technical information to modify the TMDLs, including TMDL schedules as appropriate, is the most straightforward way to address past due TMDLs. Some of the past due TMDLs are currently being considered for modifications and Regional Board staff should use this opportunity to adjust the implementation timelines to reflect the practical and financial reality faced by municipalities. There is no reason why the reopeners cannot reflect information gathered during the implementation period, including information that may be considered in developing the Time Schedule Orders in the future, to selectively modify time schedules in the TMDLs. Additionally, the permit should reflect any modifications to the TMDL schedules made through the reopener process, either through a delay in the issuance of the permit until the modified TMDLs become effective, or by using your discretion to establish a specific compliance process for these TMDLs in the permit. Providing for compliance with these TMDLs through implementation of BMPs defined in the watershed management plans as we have requested for all other TMDLs is a feasible, fair and consistent way to achieve this goal.

The third policy decision of concern is the manner in which EPA adopted TMDLs are being incorporated into the permit. The draft proposal requires immediate compliance with EPA TMDL targets. The effect of this approach is to put MS4 dischargers immediately out of compliance for TMDLs that may have only been adopted in March 2012. However, the Regional Board has the discretion to include a compliance schedule in the permit for EPA adopted TMDLs should they so choose. Federal law does not prohibit the use of an implementation schedule when incorporating EPA adopted TMDLs into MS4 permits. Additionally, State law may be interpreted to require the development of an implementation plan prior to incorporation of EPA adopted TMDLs into permits. Accordingly, the LA Permit Group recommends that the working proposal be modified to include compliance schedules for EPA adopted TMDLs in the permit.

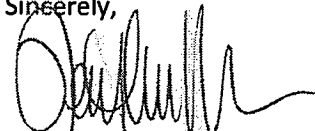
Beyond the legal/liability aspect of the receiving water limitations we would submit that in a practical sense the RWL works against the Watershed Management Program proposal. On the one hand the municipalities will develop watershed management programs that are based on the high priority water quality issues within the watershed. Consistent with the working proposal for the watershed management programs we would expect the focus to be on TMDLs and the pollutants associated with those TMDLs. However, under the current RWL working proposal the municipality will need to direct their resources to any and all pollutants that may cause or contribute to exceedances of water quality standards. Based on a review of other municipal outfall monitoring results in the State there may be occasional exceedances of other non-TMDL pollutants (e.g. aluminum, iron, etc.). These exceedances may only occur once every 10 storms but according to the current RWL proposal, the municipalities must also address these exceedances with the same priority as the TMDL pollutants. The LA Permit Group views this as unreasonable and ineffective use of limited municipal resources.

The RWL language is a critical issue for municipalities statewide and has been highlighted to the State Water Resources Control Board for consideration. Currently the State Board is considering a range of alternatives to create a basis for compliance that provides sufficient rigor in the iterative process to ensure diligent progress in complying with water quality standards but at the same time allows the municipality to operate in good faith with the iterative process without fear of unwarranted third party action. It is imperative that the Regional Board works with the State Board on this very important issue.

As previously discussed at the May 3rd workshop, and requested by many Board Members, the economic implications of the many proposed permit requirements are of critical importance. The LA Permit Group will be providing the requested information in a subsequent submittal shortly. However, the short timeframe for commenting on these working proposals has precluded us from assembling the information before the comment deadline on May 14, 2012.

In closing, we thank you for the opportunity to comment on the working proposals and we look forward to meeting with you to discuss our comments and to explore alternative approaches. Furthermore we respectfully request that that the Board provide a complete administrative draft of the Permit to stakeholders prior to the public issuance of the Tentative Order. Overall, the comment deadline was too short to address all the potential issues and concerns with the Watershed Management Program, TMDLs, and Receiving Water Limitation sections and that there are significant, additional concerns that could not be fully explored or analyzed given the comment deadline. Thus it important to review the entire draft permit to better understand the relationship among the various provisions; this is especially true for the monitoring provision and its relationship to the watershed management program. We strongly encourage you to use your discretion on these matters to make the adjustments requested. Please feel free to contact me at (626) 932-5577 if you have any questions regarding our comments.

Sincerely,



Heather M. Maloney, Chair
LA Permit Group

Attachment A: Detailed Comments on the Regional Board Staff Working Proposal for the Greater Los Angeles County
MS4 Permit RWL, Watershed Management Program and TMDLs

cc: Sam Unger, LARWQCB
Deb Smith, LARWQCB
Board Member Maria Mehranian (Chair), LARWQCB

Document Name: TMDL Working Proposal - April 23 2012

Agency/Reviewer: LA Stormwater Permit Group

Comment No.	Doc. Reference Page	Section	Comments	Rvwr (optional)	Author Response
1	5	B.1.c.(2)	<p>Santa Monica Bay Beaches Bacteria TMDL (SMBBB TMDL) is currently being reconsidered. As part of that reconsideration the summer dry weather targets must be revised to be consistent with the reference beach/anti-degradation approach established for the SMBBB TMDL and with the extensive data collected over that past seven years since original adoption of the SMBBB TMDL. This data clearly shows that natural and non-point sources result in 10% exceedances during dry weather. Data collected at the reference beach since adoption of the TMDL, as tabulated in Table 3 of the staff report of the proposed revisions to the Basin Plan Amendment, demonstrate that natural conditions associated with freshwater outlets from undeveloped watersheds result in exceedances of the single sample bacteria objectives during both summer and winter dry weather on approximately 10% of the days sampled.</p> <p>Thus the previous Source Analysis in the Basin Plan Amendment adopted by Resolution No. 02-004 which stated that "historical monitoring data from the reference beach indicate no exceedances of the single sample targets during summer dry weather and on average only three percent exceedance during winter dry weather" was incorrect and based on a data set not located at the point zero compliance location. Continued allocation of zero summer dry weather exceedances in the proposed Basin Plan Amendment is in direct conflict with the stated intent to utilize the reference beach/anti-degradation approach and ignores the scientifically demonstrated reality of natural causes and non-point sources of indicator bacteria exceedances.</p> <p>Continued use of the zero summer dry weather exceedance level will make compliance the SMBBB TMDL impossible for the Jurisdictional agencies. This is also in conflict with the intent of the Regional board as expressed in finding 21 of Resolution 2002-022 "that it is not the intent of the Regional Board to require treatment or diversion of bacteria from undeveloped areas".</p>		
1	5	B.1.c.(2)			
1	5	B.1.c.(2)			

6	5	B.1.c(3)	<p>While it makes sense for the Jurisdictional Groups previously identified in the TMDLs to work jointly to carry out implementation plans to meet the interim reductions, only the responsible agencies with land use or MS4 tributary to a specific shoreline monitoring location can be held responsible for the final implementation targets to be achieved at each individual compliance location. An additional table is needed showing the responsible agencies for each individual shoreline monitoring location.</p> <p>Santa Monica Bay Nearshore and Offshore Debris TMDL: An alternate compliance schedule is needed for responsible agencies that adopt local ordinances banning plastic bags, smoking in public places, and single-use expanded polystyrene by three years from the adoption date, or by November 4, 2013. Those agencies are to have a three year extension of the final compliance date, until March 20, 2023 to meet the final waste load allocations.</p>		
7	6-7	B.2.	<p>The Santa Monica Bay DDT and PCB TMDL issued by USEPA assigns the waste load allocation as a mass-based waste load allocation to the entire area of the Los Angeles County MS4 based on estimates from limited data on existing stormwater discharges which resulted in a waste load allocation for stormwater that is lower than necessary to meet the TMDL targets, in the case of DDT far lower than necessary. EPA stated that "If additional data indicates that existing stormwater loadings differ from the stormwater waste load allocations defined in the TMDL, the Los Angeles Regional Water Quality Control Board should consider reopening the TMDL to better reflect actual loadings." [USEPA Region IX, SMB TMDL for DDTs and PCBs, 3/26/2012]</p>		
8	7	B.3.	<p>In order to avoid a situation where the MS4 permittees would be out of compliance with the MS4 Permit if monitoring data indicate that the actual loading is higher than estimated and to allow time to re-open the TMDL if necessary, recommend as an interim compliance objective WQBELs based on the TMDL numeric targets for the sediment fraction in stormwater of 2.3 ug DDT/g of sediment on an organic carbon basis, and 0.7 ug PCB/g sediment on an organic carbon basis.</p>		

11	3	C.2.c)	<p>The WLAs in the adopted Machado Lake Trash TMDL were expressed in terms of percent reduction of trash from Baseline WLA with the note that percent reductions from the Baseline WLA will be assumed whenever full capture systems are installed in corresponding percentages of the conveyance discharging to Machado Lake. As discussed in subsequent city-specific comments, there are errors in the tributary areas originally used in the staff report, but in general, tributary areas are available only to about three significant figures when expressed in square miles. Thus the working draft should not be carrying seven significant figures in expressing the WQBELs as annual discharge rates in uncompressed gallons per year. The convention when multiplying two measured values is that the number of significant figures expressed in the product can be no greater than the minimum number of significant figures in the two underlying values. Thus if the tributary area is known to only three or four significant figures, and the estimated trash generation rate is known to four significant figures, the product can only be expressed to three or four significant figures. Thus there should be no values to the right of the decimal place and the whole numbers should be rounded to the correct number of significant figures.</p> <p>The Regional Board's preliminary baseline trash generation rate for the City of Rolling Hills Estates was based on an assumed area of 1.22 square miles multiplied by the estimated trash generation rate of 5334 gallons of uncompressed trash per square mile per year. However as explained in the City's Trash Monitoring and Reporting Plan, subsequent GIS work performed by City and County of Los Angeles and confirmed by the City of Rolling Hills Estates' consultant identified a 2.76 square mile drainage area tributary to Machado Lake from the City of Rolling Hills Estates. Using this corrected area and the default trash generation rate of 5334 gallons of uncompressed trash per square mile per year would result in a corrected baseline of 14,700 gallons per year.</p>		
12	3	C.2.c)	<p>The Regional Board's preliminary baseline trash generation rate for the City of Rolling Hills was based on an assumed area of 0.56 square miles multiplied by the estimated trash generation rate of 5334 gallons of uncompressed trash per square mile per year. However as explained in the City's Trash Monitoring and Reporting Plan, subsequent GIS work performed by City and County of Los Angeles and confirmed by the City of Rolling Hills' consultant identified a 1.313 square miles drainage area tributary to Machado Lake from the City of Rolling Hills. Using this corrected area and the default trash generation rate of 5334 gallons of uncompressed trash per square mile per year would result in a corrected baseline of 7004 gallons per year.</p>		
13	3	C.2.c)			

19	3	E.2.d.i.1.	Recommend clarifying this item by incorporating the footnote into the text and modifying this item to read as follows: "There are no violations of the interim water quality-based effluent limitation for the pollutant(s) associated with a specific TMDL at the Permittee's applicable MS4 outfall(s) which may include: a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary, a manhole or other point of access to the MS4 at a subwatershed boundary that collects runoff from more than one Permittee's jurisdiction, or may be an outfall at the point of discharge to the receiving water that collects runoff from one or more Permittee's jurisdictions."		
20	4	E.2.d.i.4.b.	Is this in effect setting a design storm for the design of structural BMPs to address attainment of TMDLs, or is it simply referring to SUSMP/LID type structural BMPs? If it is in effect setting a design storm, there needs to be some sort of exception for TMDLs in which a separate design storm is defined, e.g., for trash TMDLs where the 1-year, 1-hour storm is used.		
21	8	E.5.b.(c)	Recommend not listing specific water bodies in E.5.b.(c) because then it risks becoming obsolete if new TMDLs are established for trash, or if they are reconsidered. Furthermore, it is not clear why Santa Monica Bay was left out of this list since the Marine Debris TMDL allows for compliance via the installation of full capture devices.		
22	7	E.5.a.i-x	Recommend not listing specific waterbody/trash TMDLs here, but simply leave the reference to Attachments X through X to identify the Trash TMDLs. Otherwise this may have to be revised in the future. Again, Santa Monica Bay Marine Debris TMDL was not included in this list, not sure whether it was an oversight or intentional?		
23	2	E.2.b.ii	Not clear on what "discharges from the MS4 for which they are owners and/or operators" means.		
24	2	E.2.b.iii	For the "group of Permittees" having compliance determined as a whole, this should only be the case if the group of Permittees have moved forward with shared responsibilities (MOAs, cost sharing, a Watershed Management Program). It would not be fair to have one entity not be a part of the "group" and be the main cause of exceedances/violations.		

32	4	E.3	<p>Instead of TSO, please include mechanisms that allow for time to complete Basin Plan Amendments for EPA Established TMDLs. This will protect cities from unnecessary vulnerability and allow for these TMDLs to be incorporated into the Watershed Management Programs. Incorporate permit language that will reopen the LA MS4 upon completion of the Basin Plan Amendments necessary for coordination with these programs.</p> <p>Please change the Receiving Water Limitations for interim and final limits to the TMDL approved table. There should be no interpretation of the number of exceedance days based on daily for weekly sampling with, especially with no explanation of the ratio or calculations, and no discussion of averaging. Please revert to the original TMDL document.</p>		
33	Santa Clara River	A. 4 c)			
34	1	E.2	<p>Please include a paragraph that Permittees are not responsible for pollutant sources outside the Permittees authority or control, such as aerial deposition, natural sources, sources permitted to discharge to the MS4, and upstream contributions</p>		
35			<p>Santa Ana River TMDLs should be removed; this TMDL is eliminated</p>		
36	9	5.b.ii.2	<p>Define "partial capture devices", define "institutional controls". Permittees need to have clear direction of how to attain the "zero" discharges which will have varying degrees of calculations regardless of which compliance method is followed. Explain the Regional Board's approval process for determining how institutional controls will supplement full and partial capture to attain a determination of "zero" discharge.</p>		
37	10	5.b.ii.(4)	<p>MFAC and TMRP should be an option available to the Los Angeles River. Substantial comments have been submitted for the Reopener of the SMBBB. Rather than restate these comments, please address these comments in the MS4.</p>		
38	1 of 19	B	<p>For the LA River metals. Some permittees have opted out of the grouped effort. This section needs to detail how these mass-based daily limitations will be reapportioned.</p>		
39	3 of 24	3.a)1	<p>Why are "receiving Water Limitations" being inserted here? None of the other TMDLs seem to follow that format.</p>		
40	6 of 24	4.d	<p>It is the permittees understanding that the lead impairment of Reach 2 of the San Gabriel River has been removed. It should be removed from the MS4 permit.</p>		
41	1 of 9	1.b	<p>Permittees under the new MS4 permit (those in LA County) need to be able to separate themselves from Orange County cities. Since the 0.941 kg/day is a total mass limit, it needs to be apportioned between the two counties. Also, The MS4 permit needs to contain language allowing permittees to convert grouped-base limitations to individual permittee based limitations.</p>		
42	1 of 9	1.c			

Document Name: Watershed Management Program Working Proposal - April 23 2012

Agency/Reviewer: LA Stormwater Permit Group

Comment		Doc. Reference		Comments	Rvwr (optional)	Author Response
No.	Page	Section				
1	4	(4)		Pollutants in category 4 should not be included in this permit term, request elimination of any evaluation of category 4. Request elimination of category 3, as work should focus on the first two categories at this point The Table (TBD) on page 2 states implementation of the Watershed Program will begin upon submittal of final plan. Page 11, section 4 Watershed Management Program Implementation states each Permittee shall implement the Watershed Management Program upon approval by the Executive Officer. Page 13 section iii says the Permittee shall implement modifications to the storm water management program upon acceptance by the Executive Officer. All three of these elements should be consistent and state upon approval by the Executive Officer. The item on page 13 should be changed to reflect the Watershed Management Program, or clarify that the Watershed Management Program is the storm water management program.		
2	2, 11, 13	various		Please allow 24 months for development of the Watershed Management Program to provide sufficient time for calibration and the political process to adopt these programs		
3	2, 3	Table and C.2.a - d		Please include a paragraph that Permittees are not responsible for pollutant sources outside the Permittees authority or control, such as aerial deposition, natural sources, sources permitted to discharge to the MS4, and upstream contributions		
4	4	C.3.a.iii		Reasonable assurance analysis and the prioritization elements should also include factors for technical and economic feasibility		
5	9	(5)		Please clarify that Permittees will only be responsible for continuing existing programs and TMDL implementation plans during the interim 18 month period while developing the Watershed Management Program and securing approval of those programs		
6	2	C.2				

Document Name: RWL Working Proposal - April 23 2012

Agency/Reviewer: LA Stormwater Permit Group

Comment No.	Doc. Reference		Comments	Rvwr (optional)	Author Response
	Page	Section			
1	1 - 2	all	Currently the State Board is considering a range of alternatives to create a basis for compliance that provides sufficient rigor in the iterative process to ensure diligent progress in complying with water quality standards but at the same time allows the municipality to operate in good faith with the iterative process without fear of unwarranted third party action. It is imperative that the Regional Board works with the State Board on this very important issue		

develop and implement stormwater programs that will result in achievement of water quality standards and environmental improvement. We, however, feel the MCMs are overly prescriptive and suggest that the permit ultimately establish a criterion that will be used to support any customization of MCMs. The criteria should be comprehensive but flexible. We suggest flexibility in the criteria because the management of pollutants in stormwater is a challenging task and the science and technology to help guide customizing MCMs are still developing. Furthermore, the municipal stormwater performance standard to reduce pollutants to the maximum extent practicable is not well defined and will depend on a number of factors¹. This constraint, as well as USEPA position² that the iterative/adaptive process is the basis for good stormwater management, supports the need to provide flexibility in defining the criteria for customizing actions.

We anticipate having further comments related to the MCMs once further information has been released regarding the permit structure and how the various aspects of the permit will work together. For example, it is difficult to fully comment on the MCMs until we are able to see them in the context of the compliance structure and the Watershed Plan section of the Permit.

Timeline and Fiscal Resources

The Staff Working Proposal does not provide timelines for the start-up and implementation of the MCM requirements. It is fair to say that there will be a transition period between the time the Permit becomes effective and the time that the municipalities will have to modify their current stormwater management programs to be in compliance with the new Permit provisions. At the same time, consideration should be given to the time required to develop watershed based "customized" programs. The LA Permit Group requests that the Regional Board provide a draft timeline for implementation and phasing-in of the MCM requirements.

Regarding fiscal resources, the LA Permit Group would like to recognize the parameters in which municipalities operate. The Staff Working Proposal requires municipalities to exercise its authority to secure fiscal resources necessary to meet all of the requirements of the Permit (page 5). However, we have a limited amount of funds that are under local control. Any additional funds needed for stormwater programs would need to come from increased/new stormwater fees and grants. New fees for stormwater are regulated under the State's Prop 218 regulations, and require a public vote so this is an item that is not under direct control of the municipalities – the Regional Board must take this into consideration and this provision should be removed from the permit. Furthermore in addition to clean water, local resources are also directed to a number of health, safety and quality of life factors. Thus, all these factors need to be developed in balance with each other. This requires a strategic process and that will take time to get right. We urge you to develop the permit conditions based on a reasonable timeframe in balance with the existing economy and other health, safety, regulatory and quality of life factors that local agencies are responsible for.

Shifting of State Responsibility to the MS4 Permittees

The Staff Working Proposal shifts much of the State responsibilities to the Municipalities regarding the State's General Permits for Construction Activities (CGP), Industrial Activities (IGP) and NPDES permits issued for non-stormwater discharges. Such examples are noted in our attached detailed comments.

In addition, there are requirements outlined in the Staff Working Proposal that exceed those required in the CGP and IGP. For example, the CGP compared to Provision 9.f which requires a ESCP for construction sites of all sizes. A few examples of where the Staff Working Proposal either shifts the responsibility or actually exceeds the requirements of the CGP are listed below:

¹ See E. Jennings 2/11/93 memorandum to Archie Mathews, State Water Resources Control Board.

² See Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits, 61 FR 43761 (Aug. 26, 1996).

“MCMs for ID/IC”

The Staff Working Proposal identifies a significant non-stormwater outfall based monitoring program. The LA Permit Group submits that TMDLs monitoring programs have already identified, to a large extent, a comprehensive non-stormwater monitoring program. As such we suggest that the TMDL monitoring program be the basis for the “non-stormwater outfall based monitoring program” and both should be identified in an Integrated Watershed Monitoring Program.

The other critical issue in the ID/IC program is clarifying the responsibilities of the municipalities and the Regional Board. This is particularly important when dealing with ongoing illicit discharges (see page 71). When this type of discharge occurs, the ultimate responsibility in correcting the illicit discharge lies with the discharger. The municipalities and the Regional Board may need to work in tandem to address a recalcitrant discharger, but the fiscal responsibility should lie with the discharger and not the municipality or Regional Board.

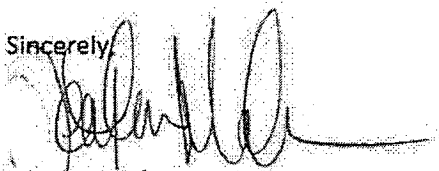
Non-Stormwater Prohibitions

The two overriding concerns associated with the proposed non-stormwater prohibition requirements is 1) the assumption that certain non-stormwater discharges should be conditioned to be allowed and 2) the need for further discussion and collaboration regarding potable water and fire operations and training activities discharges to MS4s. In the first case the LA Permit Group would submit that the monitoring data to support these conditions is lacking and should be the focus of the next Permit term. The LA Permit Group supports the need to place certain conditions on non-stormwater discharges when it has been shown that the discharge is an issue in the receiving water. Anything less than such a demonstration calls into question the water quality benefit for the additional cost to implement the conditions. Regarding our second observation, the LA Permit Group has worked closely with a group of community water systems and Fire Chiefs to discuss how potable water discharges should be addressed. While we have reached consensus on certain aspects, additional discussion and time is needed to work towards consensus.

In particular, the permit should differentiate between natural flows such as stream diversions, natural springs, uncontaminated groundwater and flows from riparian habitats and wetlands and urban discharges. Natural flows should not be held to a standard equal to urban discharges. The requirements to conduct appropriate monitoring and explore alternatives for the discharge are not commensurate with water quality concerns. Natural sources should not be conditioned in order to be allowed. The LA Permit Group recommends that the Regional Board continue the current permit format of categorizing natural sources separately from urban activity discharges.

Thank you for the opportunity to comment on the working proposals and we look forward to meeting with you to discuss our comments and to explore alternative approaches. Please feel free to contact me at (626) 932-5577 if you have any questions regarding our comments.

Sincerely,



Heather Maloney
Chair, LA Permit Group

Attachment A: Specific Comments on the Regional Board Staff Working Proposal for the Greater Los Angeles County MS4 Permit

cc: Sam Unger, LARWQCB
Deb Smith, LARWQCB

**LOS ANGELES PERMIT GROUP COMMENTS
STAFF WORKING PROPOSAL - MINIMUM CONTROL MEASURES
LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT**

3	4	2.a.vii	<p>Staff proposal states: "Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees."</p> <p>The intention of this statement is unclear and should be explained, and a definition of "shared MS4" should be provided. How would an inter-agency agreement work with an upstream and downstream agency? This is not practical - this agreement should have been done before the interconnection of MS4 systems occurred. An example of this agreement should be provided within the Permit. The permittee will not agree to the responsibility of an exceedance without first having evidence of the source and its known origin (in other words, an IC/ID is a private "culprit" and not the cause of the City).</p> <p>Staff proposal states: "Require that structural BMPs are properly operated and maintained."</p>
4	4	2.a.xi	<p>MS4 agencies can control discharges through an illicit discharge program, and conditioning new/redevelopment to ensure mitigation of pollutants. Unless the existing development private property owners/tenants are willing or in the process of retrofitting its property, the installation and O&M of BMPs is not practical and cannot be legally enforceable against an entity that does not own or control the property, such as a municipal entity.</p> <p>Staff proposal states: "Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4."</p>
5	5	2.a.xii	<p>It is difficult, if not impossible, to accurately quantify the exact effectiveness of a particular set of BMP's in reducing the discharge of pollutants. Some discharges may be reduced over time given reductions in industrial activity, population in a particular portion of the community feeding into the MS4, or for other reasons not directly related to implementation of structural BMPs. Given that the County of LA is generally urbanized and thus impervious, a lethargic economic climate (meaning development and redevelopment is not occurring in an expeditious manner), and that several pollutants do not have known BMPs effective at removing/reducing the content (i.e., metals, toxics, pesticides), the effectiveness of BMPs should not be required and instead should only be used for research, development, and progress of BMP testing.</p>
Fiscal Resources			
6	5	3	<p>The staff proposal includes a section on Fiscal Resources. Most MS4's do not have a storm water quality funding source, and even those that do have a funding source are not structured to meet the requirements of the proposed MS4 requirements (for instance, development funds may be collected to construct an extended detention basin, but not for street sweeping, catch basin cleaning, public right-of-way structural BMPs, etc).</p>

**LOS ANGELES PERMIT GROUP COMMENTS
STAFF WORKING PROPOSAL - MINIMUM CONTROL MEASURES
LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT**

12	10	7.b.ii.6	Staff proposal states: "A narrative description that describes the economic activities performed and principal products used at each facility"
13	11	7.d-f	Since "economic activities" is an invasive question to ask of a facility, we suggest the following: "A narrative description of activities performed and/or principal products of each facility." These sections pertain to inspecting critical source facilities where it appears the intent is to transfer the State's Industrial General Permit inspection and enforcement responsibilities to municipalities through the MS4 permit. We request eliminating these sections OR revise to exclude all MS4 permittee responsibility for NPDES permitted industrial facilities.
14	17	7.e.i	Staff proposal states: "...in the event a Permittee determines that a BMP is infeasible, Permittee shall require implementation of similar BMPs..." Judging a BMP to be "infeasible or ineffective" is subjective. Please delete this requirement.
15	17	7.e.i	Staff report states: "Facilities must implement the source control BMPs identified in the California Stormwater BMP Handbook, Industrial and Commercial, unless the pollutant generating activity does not occur. In the event that a Permittee determines that a BMP is infeasible at any site, the Permittee shall require implementation of similar BMPs that will achieve the equivalent reduction of pollutants in the stormwater discharges. Likewise, for those BMPs that are not adequately protective of water quality standards, a Permittee may require additional site-specific controls." It is not clear when source control BMPs would need to be implemented. Further, if the City implements low-flow diversions and an enhanced street sweeping program, it would not make sense to still require BMP retrofits to those catchment areas.
Development Planning			
16	21	8.b.1	This permit update would be a good opportunity to examine the type of developments that are subject to the permit. There should be a link between the selected categories and the water quality objectives. Perhaps a reworking of this section could provide that clear nexus.
17	21	8.b.i.1.g	Roadway construction projects that are part of a large development (i.e. track-home development) can be subjected to the associated residential or commercial/industrial development, making this requirement difficult to implement.
18	21	8.b.i.1.g	The proposed limit is too low for street construction projects by using the typical 10,000 square foot number that is used in several development projects. A street project that proposes to build 10,000 sq. ft. is an extremely small street project, as the requirement calls out overall area. It might consist of a one block extension of a street 60 feet wide by 166 feet long. When cities propose street extensions it is usually in terms of half mile or mile-long segments which involve more than 150,000 square feet (sq. ft.). For public works projects, the area of 50,000 sq. ft. is a more correct and appropriate threshold. Please delete this requirement.
19	21	8.b.i.1.g	Public Works roadway maintenance projects including the ones that expand the roadway capacity should not be subject to these provisions because of the limited opportunities for BMP incorporation. Existing roads incorporate a large number of utilities within them that limits the opportunities for BMP incorporation.

**LOS ANGELES PERMIT GROUP COMMENTS
STAFF WORKING PROPOSAL - MINIMUM CONTROL MEASURES
LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT**

30	29	8.c.iii.3.c	The federal stormwater regulation place importance on water quality. Groundwater recharge is outside the purview of this permit. The requirement to prove equal benefit should be removed.
31	29	8.c.iii.3.g	This section introduces an arbitrary delay if a project opponent petitions the Executive Officer to review a projects off-site mitigation. The project proponent deserves to receive a response in a reasonable time when an appeal is filed with the Executive Officer. We respectfully request that lines of communications be opened between the Executive Officer and the project proponent within 15-days when a third party files an appeal of the local jurisdictions decision on a project.
32	30	8.c.iii.4	Requiring biofiltration systems to treat 1.5 times the SWQDv will not improve water quality during a 85th percentile storm event. The concentration leaving the system will not improve if the system is 50% larger. Biofilters are typically size by increasing the surface area as the flow increases. If the flow is lower than the design flow a small area of the system is utilized. The removal efficiency is the same for all flow rates below the design flow and therefore the concentration is the same for the design flow or below.
33	30	8.c.iii.5.b	Biofilters are not designed with detention volume. They are designed on a flow rate basis. The last portion of the paragraph regarding pore spaces and re-filter should be removed.
34	30	8.c.iv.1	New development/redevelopment project that are upstream of an offsite water quality mitigation project should be exempt from the requirements of this subsection. Requiring a project to mitigate their pollutant load twice is unnecessary. This subsection should only apply if the project would discharge to the receiving water without first draining to an offsite project.
35	31	8.c.iv - Table	The presence of benchmark tables, even for the projects that implement offsite mitigation is inappropriate. These standards for the great part are not attainable by existing technologies. Development projects instead should only be subject to design standards not performance standards. The idea of upgrading the treatment system to achieve compliance introduces unnecessary uncertainties to future development activities in our region.
36	33	8.c.v.1	Alternatives to the Ventura County Permit Hydromodification criteria should be considered such as those identified in the Los Angeles County Low Impact Development Standards Manual or maintain the "peak flow control" requirements as appear in the existing permit. Los Angeles County watersheds are significantly different than those of Ventura County. Los Angeles County has limited areas draining into natural drainage systems.
37	33	8.c.v.1.a	The use of Erosion Potential (E_p) as a sole method for determining hydromodification impacts is inappropriate because of its limited use and difficulty to use. The existing Los Angeles County requirement to conduct hydrology and hydraulic analysis for SUSMP, 2-, 5-, 10-, 25-, and 50-year storm events and fully mitigate drainage impacts from these flow regimes is better understood.
38	37	8.c.vi	The Regional Board proposes an Annual Report item for each project that is approved with off-site mitigation. The calculations for the off-site mitigation should be easy to document, but the project performance without alternative compliance is not so clear. Please provide the information necessary to complete the annual report.
39	38	8.d.i	The proposed language as written would not accept existing LID Ordinances to be compliant with the applicable provisions of this Order. Please provide language that allows flexibility for existing LID ordinances and also provide criteria determining equivalency.
40	39	8.d.iv	It should be clarified that previously approved projects will not be subject to these requirements.

**LOS ANGELES PERMIT GROUP COMMENTS
STAFF WORKING PROPOSAL - MINIMUM CONTROL MEASURES
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50	44	9.g.iv	The Regional Board is referring to an outdated set of BMP tables by referring to the 2003 version of the CASQA Manuals. CASQA has updated the manuals in 2010 and these are the manuals that should be referenced.
51	44-47	Tables	It appears that the Regional Board is taking the BMP tables from the CGP, without the language contained in the CGP that states that to avoid duplication each subsequent table needs to include or be added to the BMPs shown in the earlier list. Please include this language so that unfamiliar engineering, plan-checking, or inspection staff does not overlook the intent of the CGP.
52	48	Table	The proposed language would require municipalities to inspect GCP sites at least monthly. This constitutes a large increase in the inspection responsibilities for the municipalities for State responsibilities. Please delete or revise this requirement..
53	48	9.h.ii.2	The requirement to perform five inspections during the construction phase of a project, no matter how small, is excessive and serves no benefit. The only reasonable inspection would be during the grading phase and upon project completion as part of existing inspections.
54	50	9.h.ii.5.b	The language is all inclusive for the inspection portion of the permit. By asking the field inspector to "determine whether all BMPs have been selected, installed, implemented and maintained according to the approved plans." the Board is placing responsibility on the inspector which rightly should be the responsibility of the plan reviewer. If an inspector is having a dispute with the Contractor or builder of a project, the inspector can improperly raise the issue of BMP selection and cause great expense to the project. The Plan Reviewer should determine what BMPs are appropriate for the site and verify that they are properly designed. The inspector should verify that BMPs are installed properly, and are being implemented and maintained as required by the field conditions; however, to allow the inspector to evaluate selection is overstepping his training and authority.
55	51	9.j	A more effective approach would be through a State mandate for a Statewide training program perhaps through the use of the contractor's license board. Because of their nomadic nature of construction activity, contractors move from City to City at will. For a City to be responsible for training the contractors that work within their city is not possible. This should either be a State responsibility, much like the QSD/QSP programs currently run by the State.
56	54	10.d	If there is a specific pollutant to address, retrofitting or any other BMP would best be accomplished through a TMDL, which is for the Permittees to determine rather than a prescribed blanket approach. As written, this is too broad of a requirement with unknown costs that is attempting to solve a problem before there is a problem. Please delete this VI.C.10.d.

**LOS ANGELES PERMIT GROUP COMMENTS
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LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT**

Illicit Connection and Illicit Discharge Elimination Program	
64	<p>- 11</p> <p>In general the LA Permit Group would like the flexibility to determine where (i.e. outfall vs. receiving water) monitoring is conducted and how the program is developed. This flexibility is necessary due to the variability in the physical makeup from one watershed to the next, and perspectives/philosophy of one permittee to the next. The Group proposes to do "non-stormwater outfall-based monitoring program" as part of an Integrated Watershed Monitoring Program. There is ample dry weather monitoring in the TMDLs to address a "non-stormwater outfall-based monitoring program". Please revise each mention of "Each Permittee" to "Permittee/Permittees" to allow the flexibility of doing a Watershed or by individual city program, and sufficient program flexibility for receiving waterbody monitoring in-lieu of outfall monitoring. A definition of "outfall" is required for clarity. An "outfall" for purposes of "non-stormwater outfall-based monitoring program" should be defined as "major outfall" pursuant to Clean Water Act 40CFR 122.26. Please revise each mention of "outfall" to read "major outfall" when discussing "non-stormwater outfall-based monitoring program".</p>
65	<p>- 11</p> <p>Some small cities do not have digital maps. In the "General" category of Section 11, please provide a 1 year time schedule for cities to create digital maps OR provide the municipality the ability to develop comprehensive maps of the storm sewer system in any format.</p>
66	<p>68 11.a</p> <p>Omit the comment, "Each mapped MS4 outfall shall be located using geographical positioning system (GPS) and photographs of the outfall shall be taken to provide baseline information to track operation and maintenance needs over time." This requirement is cost prohibitive and of little value because many City outfalls are underground and could not be accurately located or photographed. Photographs of outfalls in channels have little value since data required is already included on "As-Built" drawings. Geographic coordinates can easily be obtained using Google Earth or existing GIS coordinate systems.</p>
67	<p>68 11.b.i.1</p> <p>"The contributing drainage area for each outfall should be clearly discernable..." The scope of this requirement would involve thousands of records of drainage studies. The Regional Board should be aware that this requirement would be very labor intensive, time consuming, and very costly.</p>
68	<p>69 11.b.i.3</p> <p>Storm drain maps should show watershed boundaries which by definition provide the location and name of the receiving water body. Please revise (3) to read "The name of all receiving water bodies from those MS4 major outfalls identified in (1).</p>
69	<p>69 11.c.i</p> <p>The LA Permit Group proposes "non-stormwater outfall-based monitoring program" to be flow based monitoring. Please revise item (4) of 11, c. i. to read "(4) monitoring flow of unidentified or authorized non-stormwater discharges, and..."</p>
70	<p>69 11.c.i.4</p> <p>"Monitoring of unknown or authorized discharges" "Authorized" discharges are exempted or conditionally exempted for various reasons. Monitoring authorized discharges is monitoring for the sake of monitoring and offers no clear goal or water quality benefit. Please delete this requirement. If the source of a discharge is unknown, then monitoring may be used as an optional tool to identify the culprit.</p>
71	<p>70 11.d.i</p> <p>Please revise the proposed language to "Permittee/Permittees shall develop written procedures for conducting investigations to identify the source of suspected illicit discharges, including procedures to eliminate the discharge once source is located." It is not know if a discharge is illicit until the investigation is completed.</p>

**LOS ANGELES PERMIT GROUP COMMENTS
STAFF WORKING PROPOSAL - MINIMUM CONTROL MEASURES
LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT**

80	71	11.f.i	Revise the proposed first sentence to "Permittee/Permittees shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into the MS4s through a central contact point..." It is not possible to distinguish authorized discharges from illicit discharges at the outfalls.
81	71 & 72	11.f.ii.1&2	Revise "PPP" to "Hotline". The subject of this item is "reporting hotline requirements".
82	72	11.f.iii	Omit this section. "No Dumping" signs have already been posted at open channels.
83	72	11.f.iv	Omit the second sentence, "The procedures shall be evaluated annually to determine whether changes or updates are needed to ensure that the procedures accurately document the methods employed by the Permittee." This is an unnecessary and burdensome requirement. Procedures should be updated and documented as needed.
84	73	11.h.i	Please revise this section to "Permittee/Permittees must continue to implement a training program regarding or require contractors to implement training for the identification of IC/IDs for all municipal field staff who as part of their normal job responsibilities (e.g. street sweeping, storm drain maintenance, collection system maintenance, road maintenance), may come into contact with or otherwise observe an illicit discharge or illicit connection to the storm drain system. Training program documents must be available for review by the permitting authority." Cities can require contractors to train their staff, but should not be directing contractor staff. The requirement to put notification procedures in fleet vehicles is unnecessary and is covered by the required training.
85	74	"Attachment	On page 74, reference is made to Bioretention/Biofiltration Design Criteria and the Ventura County Technical Guidance Manual. This criterion is likely not fit for LA County given that soils, impervious surface amounts, engineered channels, and agricultural practices are completely different in one county versus the other.

**LOS ANGELES PERMIT GROUP COMMENTS
NON-STORM WATER DISCHARGE PROHIBITION – 3/28/2012 STAFF WORKING PROPOSAL
LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT**

No.	Page	Citation	Comment
			<p><i>discharges into the storm sewers. Based on the legislative history of section 405 of the WQA, EPA does not interpret the effective prohibition on non-storm water discharges to municipal separate storm sewers to apply to discharges that are not composed entirely of storm water, as long as such discharge has been issued a separate NPDES permit. Rather, an 'effective prohibition' would require separate NPDES permits for non-storm water discharges to municipal storm sewers"</i></p> <p>The rulemaking goes on to say that the permit application:</p> <p><i>"requires municipal applicants to develop a recommended site-specific management plan to detect and remove illicit discharges (or ensure they are covered by an NPDES permit) and to control improper disposal to municipal separate storm sewer systems."</i></p> <p>Nowhere in the rulemaking is the subject of prohibiting discharges from the MS4 discussed.</p> <p>Furthermore, USEPA provides model ordinance language on the subject of discharge prohibitions: http://www.epa.gov/owow/NPS/ordinance/fmol5.htm. Section VII Discharge Prohibitions of this model ordinance provides discharge prohibition language as follows:</p> <p><i>No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.</i></p> <p>Thus we recommend that staff eliminate the "from" language at both Part III.A.1.a. and Part III.A.2.</p>
2	3	III.A.3.b	<p>This provisions outlined in this section are not clear. The provisions may be interpreted as the discharge being "exempt" as long as Table "X" does not contain an issue that is highlighted. Requiring the Permittees to look to Part V or Part VI.D or contact the Executive Officer to verify that there is no new information that will change the original permit determination is confusing.</p>

LOS ANGELES PERMIT GROUP COMMENTS
NON-STORM WATER DISCHARGE PROHIBITION – 3/28/2012 STAFF WORKING PROPOSAL
LOS ANGELES COUNTY MUNICIPAL STORMWATER PERMIT

No.	Page	Citation	Comment
10	6	III.A.6	requires Permittees to levy monetary fines against residents is overreach. Please delete this requirement. The provision to require dischargers to notify the Permittee of the discharge, obtain local permits and implement BMPs may not be feasible for many dischargers such as car washing and sidewalk washing. Alternatively municipalities can be required to implement ordinances that require anyone within their jurisdiction to comply with a series of conditions when performing those tasks.
11	6	III.A.7	The requirement to determine whether any of the conditionally exempted non-stormwater discharges is a source of pollutants is a requirement to monitor every non-stormwater discharge. This requirement is overly burdensome on Permittee staff, very costly, and a responsibility that will come into question. Please delete this requirement.
12	7	III.A.8	The requirement of the Permittee to demonstrate that a specific non-stormwater discharge from a potable water supply caused an exceedance is a requirement to monitor every potable water supply discharge. This requirement places all the responsibility on the MS4 Permittees to monitor and test the samples. The burden of proof is placed on the Permittee for any exceedance until proven innocent by way of the monitoring results. Like emergency fire fighting discharges, potable water discharges should be exempt.
13	4	III.A.8	We support an exemption for a Permittee from a violation of RWL and or WQBELs caused by a non-stormwater discharge from a potable water supply or distribution system not regulated by an NPDES permit but required by state or federal statute. This should clearly apply to all NPDES permits issued to others within, or flow through, the MS4 Permittees jurisdiction. We would request that emergency releases caused by potable water line breaks, which are unexpected, and have to be dealt with as an emergency. MS4 permittees should be exempt from RWL or WQBEL violations associated with any permitted NPDES discharges that are effectively authorized by LARWQCB under the Clean Water Act.
14	8	III.A.9	The requirement of the Permittee to demonstrate that a specific non-stormwater discharge from a fire fighting activity caused an exceedance is a requirement to monitor every fire fighting activity, including location, date, time, duration, discharge pathway, and flow volume. This requirement places all the responsibility on the MS4 Permittees to monitor and test the samples, which is both labor intensive with limited personnel and extraordinarily costly. The burden of proof is placed on the Permittee for any exceedance until proven innocent by way of the monitoring results. It should be acknowledged by the Regional Board that fire fighting activity causes pollutants to be discharged. Discharges from all fire fighting activities should be unconditionally exempt, as protection of life and property is paramount.

LA Permit Group Comments on the Draft Order No. R4-2012-XXXX; NPDES Permit NO. CAS004001

Exhibit D:

LA Permit Group Request for Extended Comment Period

- Present information to and gather feedback from municipal governing body (the process of scheduling an item for a City Council Agenda requires at least 30-60 days in most cities). This does not allow staff time to conduct the following items listed above prior to presenting to their governing bodies, and then
- prepare written comments

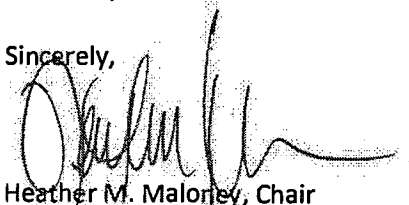
Additionally, emphasis on coordination of comments has been called out in the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit. The 45-day comment period does not allow time for permittees to fully discuss the permit amongst each other in order to adequately coordinate comments and responses. This process is not only desired by permittees, but also necessary as many of the permit provisions are intended for permittees to work together on a watershed (or sub-watershed) scale. In order to fully understand how these provisions will work on a watershed scale, it is necessary that permittees (staff and elected officials) be allowed adequate time to fully understand the permit, coordinate and prepare comments.

Furthermore, for this process to be clearly open and transparent, permittee (City) staff should be given sufficient time to vet this permit within our agency staff and with our elected officials and then be given time to discuss and negotiate issues with Regional Board staff prior to the Tentative Draft comments due date.

The LA Permit Group respectfully requests for the comment period to be extended by **180 working days** for permittees to first try to work with Regional Board staff to draft a permit that has a reasonable chance for compliance and then prepare written comments on un-resolved issues. Additionally, we request that a Revised Tentative Permit be released with a 45-day comment period so that permittees have the opportunity to see any changes made to the Permit and have the chance to provide comments prior to the Adoption Hearing.

If you have any questions or request additional information, I may be reached at (626) 932-5577 or hmaloney@ci.monrovia.ca.us.

Sincerely,



Heather M. Maloney, Chair
LA Permit Group

cc: Charles Stringer, Vice Chairperson
Francine Diamond, Boardmember
Mary Ann Lutz, Boardmember
Madelyn Glickfield, Boardmember
Maria Camacho, Board member
Irma Camacho, Boardmember
Lawrence Yee, Boardmember
Samuel Unger, Executive Officer
Senator Ed Hernandez
Senator Bob Huff



California Stormwater Quality Association

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

June 26, 2012

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board

Subject: State of California Department of Transportation Municipal Separate Storm Sewer System Permit Second Revised Draft Tentative Order

Dear Ms. Townsend:

The California Stormwater Quality Association appreciates this opportunity to comment on the subject Caltrans Municipal Separate Storm Sewer System (MS4) Permit Second Draft Tentative Order (draft Tentative Order). CASQA typically comments on individual MS4 permits only when there is an issue of potential statewide significance. Accordingly, we are compelled to comment on the Receiving Water Limitations provisions incorporated into the draft Tentative Order.

The Draft Tentative Order in Provisions A and C will expose the Department to unwarranted and immediate liability.

CASQA believes the current revision of the receiving water limitations section is contrary to established Board policy and appears to create an inability for Caltrans to comply. Multiple constituents in stormwater runoff on occasion may be higher than receiving water quality standards before it is discharged into the receiving waters, and may create the potential for the runoff to cause or contribute to exceedances in the receiving water itself. Previously, MS4s have presumed that permit language like that expressed in Receiving Water Limitation D.4 in conjunction with Board Policy (WQ 99-05) established an iterative management approach and process as the fundamental, and technically appropriate, basis of compliance. The "iterative process language" now at issue in the draft Tentative Order, however, combined with General Discharge Prohibition A.4, renders the iterative process obsolete as a compliance strategy. Moreover, in the wake of the July 2011 Ninth Circuit Court of Appeal's decision, if this language is not revised, the precedent may be set for municipal permits that create unlimited liability for government entities across the State.

As you know, on July 13, 2011, the United States Court of Appeals for the Ninth Circuit issued an opinion in *Natural Resources Defense Council, Inc., et al., v. County of Los Angeles, Los Angeles County Flood Control District, et al.* (NRDC v. County of LA). The court's opinion addressed two key issues for California's MS4s, one of which is directly applicable here, that being whether a permittee who is in compliance with the iterative process is nevertheless still in violation of a MS4 permit that contains language like that proposed for Caltrans.

CASQA comments on Caltrans MS4 Permit Second Revised Draft Tentative Order

Caltrans permit. If you have any questions, please contact CASQA Executive Director Geoff Brosseau at (650) 365-8620.

Sincerely,

A handwritten signature in black ink that reads "Richard Boon". The signature is written in a cursive style with a large initial "R".

Richard Boon, Chair

cc: CASQA Board of Directors and Executive Program Committee

Attachment – CASQA Proposed Language for Receiving Water Limitation Provision

CASQA Proposal for Receiving Water Limitation Provision

D. RECEIVING WATER LIMITATIONS

1. Except as provided in Parts D.3, D.4, and D.5 below, discharges from the MS4 for which a Permittee is responsible shall not cause or contribute to an exceedance of any applicable water quality standard.
2. Except as provided in Parts D.3, D.4 and D.5, discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible, shall not cause a condition of nuisance.
3. In instances where discharges from the MS4 for which the permittee is responsible (1) causes or contributes to an exceedance of any applicable water quality standard or causes a condition of nuisance in the receiving water; (2) the receiving water is not subject to an approved TMDL that is in effect for the constituent(s) involved; and (3) the constituent(s) associated with the discharge is otherwise not specifically addressed by a provision of this Order, the Permittee shall comply with the following iterative procedure:
 - a. Submit a report to the State or Regional Water Board (as applicable) that:
 - i. Summarizes and evaluates water quality data associated with the pollutant of concern in the context of applicable water quality objectives including the magnitude and frequency of the exceedances.
 - ii. Includes a work plan to identify the sources of the constituents of concern (including those not associated with the MS4 to help inform Regional or State Water Board efforts to address such sources).
 - iii. Describes the strategy and schedule for implementing best management practices (BMPs) and other controls (including those that are currently being implemented) that will address the Permittee's sources of constituents that are causing or contributing to the exceedances of an applicable water quality standard or causing a condition of nuisance, and are reflective of the severity of the exceedances. The strategy shall demonstrate that the selection of BMPs will address the Permittee's sources of constituents and include a mechanism for tracking BMP implementation. The strategy shall provide for future refinement pending the results of the source identification work plan noted in D.3. ii above.
 - iv. Outlines, if necessary, additional monitoring to evaluate improvement in water quality and, if appropriate, special studies that will be undertaken to support future management decisions.
 - v. Includes a methodology (ies) that will assess the effectiveness of the BMPs to address the exceedances.
 - vi. This report may be submitted in conjunction with the Annual Report unless the State or Regional Water Board directs an earlier submittal.

- Receiving Water Limitations
- TMDLs
- Monitoring
- MCMs
- Watershed Management Program
- Cost Implications

Our recommendations for each issue are noted in **bold** in this letter and our detailed comments on the Draft Order are provided in the Exhibits to this letter (Exhibit B).

We also want to note that the Draft Order contains a number of errors and inconsistencies. This is not surprising given the sheer magnitude of the draft document, which is the basis for our multiple requests for more time to review the more than 500 pages of Permit. As stated in our letter dated July 2, 2012 (incorporated in this letter as attached – Exhibit C) and in Public Comments at the July 12, 2012 Regional Board Meeting, the comment deadline of July 23, 2012 is far too short to address all the potential issues and concerns. On several occasions, the Regional Board staff has used the Staff Working Proposal process and workshops as a justification for the expeditious manner in which the Draft Order was developed and the curtailed 45-day public comment period. This justification is misplaced for several reasons:

- Each Staff Working Proposal was issued with only a few weeks for stakeholders to provide comments on what may be considered the most significant increase in public effort to address water quality issues in the past 20 years;
- Although we provided comments on the working proposal, it is unclear to us how the Regional Board staff addressed our comments. In some cases changes were made and other cases no changes were made. In both cases no explanation was provided. As a result we have attached our previous comment letters for the record (Exhibit D);
- By rolling out different working proposals at different times it was difficult to understand how the key provisions interacted with each other. It was only after the full draft Order was issued did we see the interaction (or lack of interaction) of the provisions;
- It is the LA Permit Group's goal to cooperatively develop the MS4 Permit to support the Regional Board's policy goal of a permit that would reduce the need for litigation. This goal is important to us as we believe that good policy and regulations are those that are developed reasonably, that Permittees are capable of complying with. Even though we have worked hard and in good faith with Regional Board staff to try to develop a Permit that is protective of water quality in a cost-effective and science-based manner, the draft Order places the Permittees in a very vulnerable position for not immediately complying with water quality standards (see our discussion below regarding Receiving Water Limitations);
- It is also important to note that stormwater managers have an obligation to adequately inform other municipal departments, legal counsel, city management and elected officials on the fiscal impact of this draft Order. The time to properly evaluate the Permit, assess its financial, legal, and personnel impacts, and inform our cities cannot be accomplished in the 45 day review period; and
- We have also heard from many cities that their executives and elected officials had registered for the League of California Cities Conference on September 5-7, 2012, months prior to the Permit adoption hearing notice. We request that the adoption hearing be rescheduled after September 6-7, 2012 to allow for elected officials and executive of the Permitted agencies to attend the hearing; it is imperative that the adoption hearing be scheduled at a time that municipal decision makers have the opportunity to attend and provide comments at the hearing.

The LA Permit Group would like to more fully address Board Member Glickfeld's question raised at the May 3rd workshop about how the RWL language as currently written puts cities in immediate non compliance, either individually or collectively. As noted above, significant monitoring by other MS4s in the state had demonstrated that MS4 discharges pose water quality issues and with the proposed outfall monitoring detailed in the Draft Order we would expect the runoff characteristics to be similar to other MS4 discharges in the State. As the RWL language is currently written, municipalities cannot cause or exceed water quality standards in the basin plan as soon as this Permit is adopted. While the Regional Board staff has noted that enforcement action is unlikely if the Permittees are implementing the iterative process, the reality is that municipalities are immediately vulnerable to third party lawsuits in addition to enforcement action by the Regional Board. This is in fact what happened to the City of Stockton. The City of Stockton was sued by a third party for violations of the cause/contribute prohibition even though the City was implementing a comprehensive iterative process with specific pollutant load reduction plans. This was a series of pollutants not covered by a TMDL, but that dealt with water quality exceedances. Cities will have no warning or time to react to any water quality exceedances, but still be vulnerable to third party lawsuits even when cities are diligently working to address the pollutants of concern. This will be disastrous public policy, creating a chilling effect on productive storm water programs. Also in the Santa Monica Bay, cities were sent Notices of Violation that, in essence, stated that all cities in the watershed were guilty until they proved their innocence when receiving water violations were found, in some cases miles away. The "cause and contribute" language was quoted prominently in those NOV's as justification for why the Regional Board could take such action.

It is inherently unfair and poor public policy to put cities in non-compliance on day one of the Permit without the opportunity for the cities to develop a plan of action, develop source identification, and implement a plan to address the concern. With the very recent legal interpretation that fundamentally changes how these Permits have been traditionally implemented, please understand that adjusting the Receiving Water Limitations language is a critical issue. Again, the receiving water limitation language must be modified to allow for the integrated approach (iterative/adaptive management) to address numerous TMDLs and non-TMDL water quality problems within the watershed based program in a systematic way. This is a fair and constructive approach to meet water quality standards.

Receiving Water Limitation Language as Written is Not Required under Federal Law

We believe Federal Law does not require that the RWL language be written as presented in the Tentative Permit. Based on the language presented in other Permits throughout the United States, the proposed language is not the only option. The RWL provision as crafted in the contested 2001 Los Angeles permit is unique to California. Recent USEPA developed Permits (e.g. Washington D.C.³) do not contain similar limitations. Thus, we would submit that the decision to include such a provision and the structure of the provision is a State policy and therefore an opportunity exists for the Regional and State Boards to reaffirm the iterative process as the preferred approach for long-term water quality improvement.

Receiving Water Limitation Language as Written is Contradictory to the Watershed Management Program

Beyond the legal/liability aspect of the RWLs we would submit that in a practical sense the RWL, as currently written, does not support the Permit's goal of protecting water quality and works against the Watershed Management Program proposal. On the one hand, the municipalities will develop watershed management

³ NPDES Permit No. DC0000221, October 7, 2011, issued by USEPA Region 3.

The Draft OrderDraft Order proposes to incorporate more TMDLs than any other Permit in California issued to date. As a result, the manner in which the TMDLs are incorporated into the Permit is a critical issue to the LA Permit Group and will likely set a significant precedent for future MS4 Permits.

The rate of development of TMDLs in the Los Angeles Region was unparalleled in California, and likely the nation. A settlement agreement necessitated the much accelerated time schedule for these TMDLs. The TMDLs were developed based on the information available at the time, not the best information to identify or solve the problem. As a result, the sophistication of the TMDLs vary widely, meaning that not all TMDLs are created equal regarding knowledge of the pollutant sources, confidence in the technical analysis, availability of control measures sufficient to address the pollutant targets, etc. Additionally, the majority of the TMDLs were developed with the understanding that monitoring, special studies, and other information would be gathered during the early years of the TMDL implementation to refine the TMDLs. As such, many MS4 dischargers were told during TMDL adoption that any concerns they may have over inaccuracies in the TMDL analysis would be addressed through a TMDL reopener. The recent experience with the Santa Monica Bay Beaches Bacterial TMDL reopener demonstrates just how difficult, if not impossible, obtaining serious reconsideration of established TMDLs, irrespective of the weight of evidence presented. The proposed method of incorporating TMDL waste load allocations (WLAs) as outlined in the Draft OrderDraft Order does not effectively allow for addressing this phased method of implementing TMDLs; nor does it recognize the time, effort and complexities involved in addressing MS4 discharges; and places municipalities into non-compliance risk.

We recognize and appreciate that TMDLs must be incorporated in such a way as to require action to improve water quality. However, the Permit should recognize the articulated goal of many of the TMDLs to be adaptive management documents, using the iterative approach to achieve the goals, and consider the challenges of trying to address the non-point nature of stormwater. As such, it is imperative to have flexibility in selecting an approach to address the TMDLs and the time frame by which to implement the approach. We would like to thank Board staff for providing the opportunity to submit an implementation schedule and BMPs in context of a Watershed Management Plan to attain EPA TMDL WLAs. The same flexibility is also necessary to address Regional Board adopted TMDLs.

The LA Permit Group would submit that the Regional Board staff is making two policy decisions that have massive financial impacts to the region (studies show in the range of billions of dollars) with regards to incorporating TMDLs into a stormwater NPDES Permit:

- The inclusion of numeric effluent limitations for final TMDL WLAs.
- The use of time schedule orders to address Regional Board adopted TMDLs for which the compliance points have passed.

Numeric Effluent Limitations for Final TMDL WLAs

The LA Permit Group opposes the incorporation of final WLAs solely as numeric effluent limitations in the proposed Permit language. Although staff has discretion to include numeric limits where feasible, it is not required and the use of numeric limits results in contradictions and compliance inconsistencies with the rest of the Permit requirements. Court decisions (See *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166-1167 (9th Cir. 1999)⁴), State Board orders (Order WQ 2009-0008, In the Matter of the Petition of County of Los

⁴ See also California Regional Water Quality Control Board San Diego Region - Fact Sheet / Technical Report For Order No. R9-2010-0016 / NPDES NO. CAS0108766.

effluent limitations for final WLAs in this Permit. The proposed Watershed Management Program will require quantitative analysis to select actions that will be taken to achieve TMDL WLAs. For the entire length of the TMDL compliance schedule, Permittees will be required to demonstrate compliance with interim WLAs by implementing actions that they have estimated to the best of their knowledge will result in achieving the WLAs and water quality standards. However, unless final WLAs are also expressed in this Permit as action-based water quality based effluent limitations, and if instead strict numeric limits are required for final WLAs, then, at the specified final compliance date, no matter how much the Permittee has done, no matter how much money has been spent, no matter how close to complying with the numeric values, no matter what other sources outside the Permittees' control have been identified and quantified, and no matter what other information has been developed and submitted to the Regional Board, the Permittee will be considered out of compliance with the Permit requirements. Furthermore, because of the structure established in this Permit, the Regional Board staff will have to consider all Permittees in this situation as being out of compliance with the Permit provisions if the strict numeric limits have not been met, regardless of the actions taken previously. This approach is inconsistent with the goals of good public policy, fair enforcement, fiscal responsibility and holding Permittees responsible only for discharges over which they have individual control.

TMDLs Where Compliance Date Has Already Occurred

The LA Permit Group is also concerned with the major policy decision related to the use of Time Schedule Orders for Regional Board adopted TMDLs for which the compliance date has already occurred prior to the approval of the NPDES Permit. There is a fundamental problem with the TMDL process whereby new information is not being incorporated into TMDLs. The ideal phased TMDL implementation process whereby dischargers can collect information, submit it to the Regional Board, and obtain revisions to the TMDL requirements to address data gaps and uncertainties has not occurred. As evidenced by the number of overdue Permits, the workload commitments of Regional Board staff are significant and TMDL reopeners seldom occur. Because the majority of the TMDLs have not been incorporated into Permit requirements until now, MS4 Permittees have been put in the position of trying to comply with TMDL requirements without knowing how compliance with those TMDLs would be determined and without knowing when or if promised considerations of modifications to the TMDL would occur. So Permittees would be expected to be in immediate compliance with new Permit provisions irrespective of most precedent, guidance regarding incorporation of TMDLs into MS4 Permits, and irrespective of what actions Permittees have taken to try and meet the TMDL requirements. This is neither fair nor consistent as requesting a TSO would place a Permittee in immediate non-compliance with the Permit and expose the Permittee to risk of third party lawsuits.

The LA Permit Group strongly believes that the adaptive management approach envisioned during TMDL development, whereby TMDL reopeners are used to consider new monitoring data and other technical information to modify the TMDLs, including TMDL schedules as appropriate, is the most straightforward way to address past due TMDLs. The Regional Board should use the reopener as an opportunity to adjust the implementation timelines to reflect the practical and financial reality faced by municipalities. Final WLAs should be delayed until serious reconsideration of the data that established the TMDLs so that the TMDLs can reflect information gathered during the implementation period. This will allow critically important data to be utilized to selectively modify time schedules in the TMDLs. Final compliance with TMDL Permit conditions should not occur prior to these additional TMDL reconsiderations. Additionally, the Permit should reflect any modifications to the TMDL schedules made through the reopener process, either through a delay in the issuance of the Permit until the modified TMDLs become effective, or by using its discretion to establish a specific compliance process for these TMDLs in the Permit. Providing for compliance with these TMDLs

expensive monitoring at the outfalls. Furthermore, recent Department of Pesticide Regulations⁸ has severely limited the use of pyrethroid based pesticides, thus calling into question the need for expensive toxicity monitoring, especially at outfalls. And finally, should a study be deemed necessary, the Regional Board should lead this study.

- Insufficient time is allotted to prepare Coordinated Integrated Monitoring Plans (CIMP). Since the monitoring for TMDLs should continue per the TMDL schedules, the Permittees should be allowed sufficient time to prepare the CIMPs. To prepare a CIMP the Permittees will need more than a Letter of Intent to proceed. **We recommend that the Draft Order be modified to allow 12 months to submit a Memorandum of Agreement to participate in a CIMP and 24 months to submit the complete CIMP.** The time required to award the monitoring contract is 3 months, at least 6 months are needed to obtain Los Angeles County Flood Control Encroachment Permits, thus at least 9 months is needed before commencing monitoring.

Minimum Control Measures

In order to further water quality improvements, the Permit needs to set clear goals, while allowing flexibility with the programs and BMPs implemented. This is accomplished through integrated watershed planning and monitoring. This strategy has been requested by the LA Permit Group as it will allow Permittees to look at the larger picture and develop programs and BMPs based on addressing multiple pollutants. In doing so, limited local resources can be concentrated on the highest priorities. The LA Permit Group has on numerous occasions expressed our support of a watershed based approach to stormwater management. It would appear from a read of Provision VI.C.1.a (page 45) that the Board also supports this approach. We believe the opportunity for a municipality to customize the MCMs to reflect the jurisdiction's water quality conditions is absolutely critical if municipalities are to develop and implement stormwater programs that will result in environmental improvement. **We, however, suggest that the Permit ultimately establish criteria that will be used to support any customization of MCMs.** The criteria should be comprehensive but flexible. We suggest some flexibility in the criteria because the management of pollutants in stormwater is a challenging task and that the science and technology to help guide customizing MCMs are still developing. Furthermore, the municipal stormwater performance standard to reduce pollutants to the maximum extent practicable is not well defined and will depend on a number of factors⁹. This constraint, as well as USEPA position¹⁰ that the iterative process is the basis for good stormwater management, supports the need to provide flexibility in defining the criteria for customizing MCMs. **Also, for clarification, the terms of adaptive management approach and the iterative approach need to be defined as equivalent and that they can be used interchangeably.**

Timeline for Implementation

The Draft Order does not provide adequate and reasonable timelines for the start-up and implementation of the Minimum Control Measure requirements. For example, the Draft Order in provision VI.D.1.b.i requires the majority of MCMs to begin within 30 days, unless otherwise noted in the order. There are a number of new/enhanced provisions and it is fair to say that there will be a transition period between the time the Permit becomes effective and the time that the municipalities will have to modify their current stormwater management programs to be in compliance with the new Permit provisions. At the same time, consideration should be given to the time required to develop watershed based "customized" programs. The LA Permit

⁸ http://www.cdpr.ca.gov/docs/legbills/rulepkgs/11-004/text_final.pdf.

⁹ See E. Jennings 2/11/93 memorandum to Archie Mathews, State Water Resources Control Board.

¹⁰ See Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits, 61 FR 43761 (Aug. 26, 1996).

- Storm design criteria
- Alternative compliance option offsite mitigation
- Treatment control performance benchmarks
- BMP tracking and inspection
- BMP specificity and guidance
- Hydromodification

Storm Design Criteria

The Draft Order in Provision D.6.c.i (page 70) requires the developer to retain the stormwater quality design volume as calculated by either the 0.75 inch storm or the 85th percentile 24 hour storm whichever is greater. We take exception to the requirement to select the largest calculated volume. In all Permits to date in California these two design criteria were judged to be equivalent. **We recommend that the Draft Order be modified to specify that the two criteria are equivalent.** In fact, the current stormwater 2001 Permit for Los Angeles County includes four design criteria to choose from for the stormwater volume. The additional effort to assess every project to choose between two equivalent design criteria makes little sense and adds cost to any project. We recommend that the developer be allowed to choose between the two criteria without the need to calculate the largest.

Alternative Compliance Option - Offsite Mitigation

The Draft Order goes into great detail discussing an alternative compliance option to full on- site retention of the design storm volume. The alternative option takes the form of an offsite mitigation project. As currently structured it is highly unlikely that anyone will opt for this alternative compliance option. Probably the biggest hurdle for developers to overcome if they are to pursue offsite mitigation is the requirements that they must treat the project site runoff to the levels identified in Table 11. This combined with the requirement that the offsite mitigation project must be equivalent in pollutant load reduction as the original project site equates to the developer removing essentially twice as much pollutant loads as he would had accomplished on the project site had the site been able to retain the load onsite originally. This is inherently unfair. **We would recommend that the developer be required to remove only the pollutant loads that would have been removed at the project site at the mitigation site and if the mitigation site cannot meet that load reduction then the developer can implement treatment controls at the project site for the remaining differential.** Such an approach is fair and will be more readily accepted by the development community than the current proposal.

Treatment Control Performance Benchmarks

The concept of establishing benchmarks for post construction BMPs was initially developed in the 2009 Ventura MS4 Permit. However, there is a significant different between the Permits. The Ventura County's NPDES MS4 Permit requires the project developer to determine the pollutant of concern(s) for the development project and use this pollutant as the basis for selecting a top performing BMP. In the case of the Draft Order, there is no determination of the pollutant of concern for the development project. Instead post construction BMPs must meet all the benchmarks established in Table 11. Unfortunately, no one traditional post construction BMP (non-infiltration BMPs) is capable of meeting all the benchmarks and thus the developer will not be able to select a BMP. **We recommend that provision VI.D.6.c.iv.(1)(a) (page 74) be modified so that the selection of post construction BMPs is consistent with the Ventura Permit and is based**

Municipality is controlling trash through these control measures, the Municipality must still install trash excluders (see page 102 regarding “additional trash management practices”). This makes little sense and **the LA Permit Group would submit that if the initial control measures are successful, then the “additional trash management practices” are unnecessary (as evident by the lack of a TMDL).**

The second issue pertains to provision VI.D.8.d (page 94) regarding retrofitting opportunities. Provision VI.D.8.d.i requires that the MS4 develop an inventory of retrofit opportunities within the public right of way but then in provision VI.D.8.d.ii, the Draft Order requires the Permittees screen existing area of development. Furthermore in provision VI.D.8.d.iii the MS4 must prioritize all existing areas of development. Reading these provisions in whole would seem to indicate that the MS4 must identify all potential retrofit sites (private or publically owned) and to prioritize the sites. This is a contentious issue and should be addressed carefully. Stormwater regulations (40 CFR 122.26.(d)(2)(iv)(4) requires consideration of retrofitting opportunities, but the consideration is limited to flood management projects (i.e. public right of way) and does not require consideration of private areas. **We recommend that for this Permit term that the retrofit provision (i.e. inventory, screening, and prioritization) be limited to public right of ways lands only.**

ID/IC MCM

The Draft Order identifies a number of provisions that are fundamental to an Illicit Connection/Illegal Discharge program. These provisions include

- III. Discharge Prohibition,
- VI.A.2 Standard Provisions – Legal Authority,
- VI.D. 9 IC/ID Elimination Program,
- Attachments E, Monitoring and Reporting and
- Attachment G Non-stormwater Action Levels.

When combined, the ID/IC program will require a significant effort and not always effective. We have provided specific comments on these provisions in the Exhibit to this letter but we would like to highlight two of the more significant issues. First, is the magnitude of the dry weather monitoring being required. The TMDLs monitoring programs have already identified, to a large extent, a comprehensive non-stormwater monitoring program. **As such, the TMDL monitoring program should be the basis for the “non-stormwater outfall based monitoring program” and both should be identified in an Integrated Watershed Monitoring Program.**

The second issue pertains to the non-stormwater action levels established in Attachment G. One of the goals of establishing non-stormwater action levels is to assist Permittees in identifying illicit connections and/or discharges at outfalls. Exceedances of action levels can help Permittees prioritize and focus resources on areas that are having a real impact on water quality. Unfortunately, as currently drafted, the non-stormwater action levels do not accomplish this goal. The action levels established in the Draft Order are derived from Basin Plan, CTR, or COP water quality objectives. The non-stormwater action levels do not facilitate the consideration of actual impacts (e.g., excess algal growth), have no nexus to receiving water conditions, and do not address NAL issues unrelated to illicit discharges (e.g., groundwater). The action levels and the associated monitoring specified in the Monitoring and Reporting Program would require Permittees to investigate and address issues on an outfall-by-outfall basis, even if the receiving water is in compliance with all water quality standards. This will not assist Permittees in prioritizing resources on outfalls that are clearly having an impact on water quality. **We recommend that the Permit allow the Watershed Management Programs to guide the customization of the NALs based on the highest water quality priorities in each**

- **Consideration of the technical and financial feasibility of complying with water quality standards should be included in the watershed management program.**
- **The timing of revising the Watershed Management Programs is in conflict and confusing. There should only be one revision to the Watershed Management Program, and only when adaptive management/iterative process demonstrates that the modification is warranted.**
- **The adaptive management/iterative approach and timing should be consistent between individual Permittees (“jurisdictional watershed management program”) and the watershed management program.**

Cost/Economic Implications

Regarding fiscal resources, the LA Permit Group would like to reemphasize the limited parameters in which municipalities operate. The Draft Order (page 40) requires municipalities to exercise its authority to secure fiscal resources necessary to meet all of the requirements of the Permit. We have reservations as to whether this provision is legal given that it appears to violate the State Constitution, Article XVI, Section 18. That being said, Permittees have a limited amount of funds that are under local control. Any additional funds needed to raise money for stormwater programs would need to come from increased/new stormwater fees and grants. **New fees for stormwater are regulated under the State’s Prop 218 regulations, and require a public vote. Therefore, raising new fees is an item that is not under direct control of the municipalities – the Permit language should reflect this.** Furthermore, in addition to clean water, local resources are also directed to a number of health, safety and quality of life factors. Thus, all these factors need to be developed in balance with each other. This requires a strategic process and that will take time to get right. We request that the Regional Board develop the Permit conditions based on a reasonable timeframe in balance with the existing economy and other health, safety, regulatory and quality of life factors that local agencies are responsible for.

The LA Permit Group also wants to address the issue of whether or not these Permit requirements constitute an unfunded mandate. The Fact Sheet makes a unilateral statement that the Regional Board has determined that the Permit requirements do not exceed Federal requirements and therefore are not unfunded mandates. No back up information is provided to substantiate this claim. Our request is for the Regional Board to substantiate this statement for each section of the Permit. We also want to point out that the court decisions on unfunded mandates claims are still on appeal, and it is premature to conclude on the merits of the appeal.

As previously discussed at workshops, and in comment letters, and requested by many Board Members, the economic implications of the many proposed Permit requirements are of critical importance. It is also worth noting that the cost for complying with both the stormwater regulations and TMDL requirements should be carefully considered. This point is highlighted in the March 20, 2012 memo¹¹ from OMB to heads of executive departments and agencies (including USEPA) which clarified Presidential Executive Order 13563. This Order requires the agencies to take into account among other things, and to the extent practicable, the costs of cumulative regulations. This is particularly relevant for this Draft Order where we have the convergence of TMDLs and stormwater regulations. Although we have not had sufficient time to assess the cost for the new stormwater requirements, the County of Los Angeles has completed an analysis (using the Los Angeles County BMP Decision Support System model) to assess the effort required to implement low impact development retrofits throughout Los Angeles County to address all TMDLs and 303(d) listings. This model roughly estimated that, to meet these water quality standards, the area would have to spend between \$17 billion and

¹¹ Cass R. Sunstein, Executive Office of the President, OMB memorandum for the Heads of Executive Departments and Agencies regarding Cumulative Effects of Regulations, March 20, 2012.

Exhibit A

LA Permit Group

City of Agoura Hills	City of Gardena	City of Pico Rivera
City of Alhambra	City of Glendale	City of Pomona
City of Arcadia	City of Glendora	City of Redondo Beach
City of Artesia	City of Hawthorne	City of Rolling Hills
City of Azusa	City of Hermosa Beach	City of Rolling Hills Estates
City of Baldwin Park	City of Hidden Hills	City of Rosemead
City of Bell	City of Huntington Park	City of San Dimas
City of Bell Gardens	City of Industry	City of San Gabriel
City of Bellflower	City of Inglewood	City of San Marino
City of Beverly Hills	City of La Verne	City of Santa Clarita
City of Bradbury	City of Lakewood	City of Santa Fe Springs
City of Burbank	City of Lawndale	City of Santa Monica
City of Calabasas	City of Los Angeles	City of Sierra Madre
City of Carson	City of Lynwood	City of South El Monte
City of Claremont	City of Malibu	City of South Gate
City of Commerce	City of Manhattan Beach	City of Torrance
City of Covina	City of Monrovia	City of Vernon
City of Culver City	City of Montebello	City of West Covina
City of Diamond Bar	City of Monterey Park	City of West Hollywood
City of Duarte	City of Paramount	City of Westlake Village
City of El Monte	City of Pasadena	

Document Name: TMDL Section Draft Tentative Order - July 2012

Agency/Reviewer: LA Permit Group

Comment No.	Doc. Reference		Comments
	Page	Section	
1	General	General	<p>Apr-12</p> <p>Any TMDL for which compliance with a waste load allocation (WLA) is exclusively set in the receiving water, shall be amended by a re-opener to also allow compliance at the outfall to allow that flexibility, or other end-of-pipe, that shall be determined by translating the WLA into non-numeric WQBELs, expressed as best management practices (BMPs). While the TMDL re-opener is pending, an affected Permittee shall be in compliance with the receiving water WLA through the implementation of permit requirements.</p> <p>Not clear on what "discharges from the MS4 for which they are owners and/or operators" means.</p>
2	17	Findings	<p>The Tentative Order, states "... each Permittee shall maintain the necessary legal authority to control the contribution of pollutants to its MS4 and shall include in its storm water management program a comprehensive planning process that includes intergovernmental coordination, where necessary." If the MS4/catch basin is owned by the LACFCD, does this mean that the LACFCD needs to control the contribution of pollutants?</p> <p>This is a critical issue that was not addressed in the recent reopening. The reference reach approach and the overriding policy that permittees are not responsible for pollutants outside their control, including natural sources, needs to be included</p>
3	pages 111 - 123 and Attachments K - R	TMDL	<p>Santa Monica Bay Beaches Bacteria TMDL (SMBBB TMDL) is currently being reconsidered. As part of that reconsideration, the summer dry weather targets must be revised to be consistent with the reference beach/anti-degradation approach established for the SMBBB TMDL and with the extensive data collected over that past seven years since original adoption of the SMBBB TMDL. This data clearly shows that natural and non-point sources result in 10% exceedances during dry weather. Data collected at the reference beach since adoption of the TMDL, as tabulated in Table 3 of the staff report of the proposed revisions to the Basin Plan Amendment, demonstrate that natural conditions associated with freshwater outlets from undeveloped watersheds result in exceedances of the single sample bacteria objectives during both summer and winter dry weather on approximately 10% of the days sampled.</p> <p>Thus the previous Source Analysis in the Basin Plan Amendment adopted by Resolution No. 02-004 which stated that "historical monitoring data from the reference beach indicate no exceedances of the single sample targets during summer dry weather and on average only three percent exceedance during winter dry weather" was incorrect and based on a data set not located at the point zero compliance location. Continued allocation of zero summer dry weather exceedances in the proposed Basin Plan Amendment is in direct conflict with the stated intent to utilize the reference beach/anti-degradation approach and ignores the scientifically demonstrated reality of natural causes and non-point sources of indicator bacteria exceedances.</p>
4	pages 111 - 123 and Attachments K - R	TMDL	<p>Continued use of the zero summer dry weather exceedance level will make compliance with the SMBBB TMDL impossible for the Jurisdictional agencies. This is also in conflict with the intent of the Regional Board as expressed in finding 21 of Resolution 2002-022 "that it is not the intent of the Regional Board to require treatment or diversion of natural coastal creeks or to require treatment of natural sources of bacteria from undeveloped areas".</p>
5	pages 111 - 123 and Attachments K - R	TMDL	<p>The SMBBB TMDL Coordinated Shoreline Monitoring Plan (CSMP) was approved by the Regional Board staff and that CSMP should be incorporated into the TMDL monitoring requirements of the next MS4 Permit. The CSMP established that compliance monitoring would be conducted on a weekly basis, and although some monitoring sites are being monitored on additional days of the week, none of the sites are monitored seven days per week, thus it is highly confusing and misleading to refer to "daily monitoring". The CSMP established that compliance monitoring would be conducted on a weekly basis, and although some monitoring sites are being monitored on additional days of the week, none of the sites are monitored seven days per week.</p>

12	pages 111 - 123 and Attachments K - R	TMDL	<p>The WLAs in the adopted Machado Lake Trash TMDL were expressed in terms of percent reduction of trash from Baseline WLA with the note that percent reductions from the Baseline WLA will be assumed whenever full capture systems are installed in corresponding percentages of the conveyance discharging to Machado Lake. As discussed in subsequent city-specific comments, there are errors in the tributary areas originally used in the staff report, but in general, tributary areas are available only to about three significant figures when expressed in square miles. Thus the working draft should not be carrying seven significant figures in expressing the WQBELs as annual discharge rates in uncompressed gallons per year. The convention when multiplying two measured values is that the number of significant figures expressed in the product can be no greater than the minimum number of significant figures in the two underlying values. Thus if the tributary area is known to only three or four significant figures, and the estimated trash generation rate is known to four significant figures, the product can only be expressed to three or four significant figures.</p> <p>Thus there should be no values to the right of the decimal place and the whole numbers should be rounded to the correct number of significant figures.</p>	Same comment
13	pages 111 - 123 and Attachments K - R	TMDL	<p>The Machado Lake Nutrient TMDL provides for a reconsideration of the TMDL 7.5 years from the effective date prior to the final compliance deadline. Please include an additional statement as item C.3.c of Attachment N: "By September 11, 2016 Regional Board will reconsider the TMDL to include results of optional special studies and water quality monitoring data completed by the responsible jurisdictions and revise numeric targets, WLAs, LAs and the implementation schedule as needed."</p> <p>Table C is not provided in the section on TMDLs for Dominguez Channel and Greater LA and Long Beach Harbors Toxic Pollutants. Please clarify and reference that Attachment D Responsible Parties Table RB4 Jan 27, 12 which was provided to the State Board and responsible agencies during the SWRCB review of this TMDL, and is posted on the Regional Board website in the technical documents for this TMDL, is the correct table describing which agencies are responsible for complying with which waste load allocations, load allocations and monitoring requirements in this VERY complex TMDL. Attachment D should be included as a table in this section of the MS4 Permit.</p>	Same comment
14	pages 111 - 123 and Attachments K - R	TMDL	<p>The Dominguez Channel and Greater LA and Long Beach Harbor Waters Toxic Pollutants TMDL provides for a reconsideration of the TMDL targets and WLAs. Please include an additional statement as item E.5 of Attachment N: "By March 23, 2018 Regional Board will reconsider targets, WLAs and LAs based on new policies, data or special studies. Regional Board will consider requirements for additional implementation or TMDLs for Los Angeles and San Gabriel Rivers and interim targets and allocations for the end of Phase II."</p> <p>City of Hermosa Beach is only within one watershed, the Santa Monica Bay Watershed, and so should not be shown in italics as a multi-watershed permittee</p>	Partially addressed—the table provided in the Tentative Order is not the detailed Attachment D which clarifies which agencies are responsible for which portions of the TMDL—need to include that table.
15	pages 111 - 123 and Attachments K - R	TMDL	<p>Recommend not listing specific water bodies in E.5.b.i.(1)(c) because then it risks becoming obsolete if new TMDLs are established for trash, or if they are reconsidered. Furthermore, it is not clear why Santa Monica Bay was left out of this list since the Marine Debris TMDL allows for compliance via the installation of for full capture devices.</p>	Same comment
16	pages 111 - 123 and Attachments K - R	TMDL	N/A	Addressed in Table K-3 of the Tentative Order but not in Table K-2 of the Tentative Order.
17	pages 111 - 123 and Attachments K - R	TMDL		Not addressed, still don't know why Santa Monica Bay Marine Debris was not included in the list at E.5.b.i.(1)(c) but it is listed in E.5.a.ii and Attachment M Section B.
19	pages 111 - 123 and Attachments K - R	TMDL		Suggest wet weather compliance be partially defined by a design storm.

25	112	E.2.b.iv	For "each Permittee is responsible for demonstrating that its discharge did not cause or contribute to an exceedance," how is this going to be possible? There is allowed non-storm water discharges, a commingled system, and the LA County region is practically urbanized (impervious landscape). Additionally, a gas tanker on local freeways often discharges onto freeway drains, which connect to MS4 permittee drains - the point here is a private party as the actual discharger should be held responsible and not the MS4 permittee. Lastly, the Construction General Permit cannot establish numeric limitations without the Regional/State Boards clearly demonstrating how compliance will be achieved - the MS4 permit is overly conditioned in terms of achieving compliance and subjects MS4 permittees to violations/enforcement, and given these circumstances, the Boards need to clearly demonstrate how compliance will be achieved.	Same comment
26	112	E.2.b.v.(2)	N/A	This provision should not require that the permittee demonstrate that the discharge from the MS4 is treated to a level that does not exceed the applicable water quality-based effluent limitation. Permittees may achieve the applicable WQBELs through means other than treatment and they should be able to demonstrate that their discharge does not exceed the applicable water quality-based effluent limitation through monitoring or other means than demonstration of treatment.
28	113	E.2.d.i.4.b.	Is this in effect setting a design storm for the design of structural BMPs to address attainment of TMDLs, or is it simply referring to SUSMP/LID type structural BMPs? If it is in effect setting a design storm, there needs to be some sort of exception for TMDLs in which a separate design storm is defined, e.g., for trash TMDLs where the 1-year, 1-hour storm is used.	This is not clarified, but it is still a problem as not all retrofit projects which might be used to address TMDLs may be able to handle the full 85th percentile 24-hour storm, there should be some provision for doing this through a combination of BMPs, e.g., LID plus retrofit.
29	114	E.2.e	Please add the language from Interim limits E.2.d.4 a - c and EPA TMDLs to the Final Water Quality Based Effluent Limitations and/or Receiving Water Limitations to ensure sufficient coordination between all TMDLs and the timelines and milestones that will be implemented in the Watershed Management Program.	Same comment
30	116	E.4.a	This provision states "A-Permittees shall comply immediately ... for which final compliance deadlines have passed pursuant to the TMDL implementation schedule." This provision is unreasonable. First, various brownfields/abandoned toxic sites exist, some of which were permitted to operate by State/Federal agencies - nothing has or will likely be done with these sites that contribute various pollutants to surface and sub-surface areas. Additionally, this permit is going to require a regional monitoring program - this program will yield results on what areas are especially prone to particular pollutants. Until these results are made known, MS4 Permittees will have a hard time knowing where to focus its resources and particularly, the placement of BMPs to capture, treat, and remove pollutants. For these reasons, this provision should be revised to first assess pollutant sources and then focus on compliance with BMP implementation.	Same comment
31	116-123	E.5	Please clarify that cities are not responsible for retrofitting.	Same comment
32	116-123	E.5.a - c	Recommend not listing specific waterbody/trash TMDLs here, but simply leave the reference to Attachments to identify the Trash TMDLs. Otherwise, this may have to be revised in the future. Again, Santa Monica Bay Marine Debris TMDL was not included in this list, it is unclear whether it was an oversight or intentional?	Same comment
33	116-123	E.5.b.ii.2	Define "partial capture devices", define "institutional controls". Permittees need to have clear direction of how to attain the "zero" discharges which will have varying degrees of calculations regardless of which compliance method is followed. Explain the Regional Board's approval process for determining how institutional controls will supplement full and partial capture to attain a determination of "zero" discharge.	Same comment
34	116-123	E.5.b.ii.(4)	MFAC and TMRP should be an option available to the Los Angeles River.	Same comment
35	116-123	E.5.c.i.(1)	For reporting compliance based on Full Capture Systems, what is the significance of needing to know "the drainage areas addressed by these installations?" Unfortunately, record keeping in Burbank is limited to the location and size of City-owned catch basins. A drainage study would need to be done to define these drainage areas. As such, we do not believe this requirement serves a purpose in regards to full capture system installations and their intended function.	Same comment
36	Attachment L	D.3 a - c	Please change the Receiving Water Limitations for interim and final limits to the TMDL approved table. There should be no interpretation of the number of exceedance days based on daily for weekly sampling with, especially with no explanation of the ratio or calculations, and no discussion of averaging. Please revert to the original TMDL document.	The table was adjusted, but did not eliminate the interpretation of number of exceedance days that are not expressly completed in the Santa Clara River TMDL. Remove all interpretation of number of exceedance days other than what has been expressed in the original TMDL number of days of exceedances without interpretation or recalculation.

Document Name: Watershed Management Program Section Draft Tentative Order - July 2012

Agency/Reviewer: LA Permit Group

Comment No.	Doc. Reference		Comments
	Page	Section	
1	General	General	<p>Apr-12</p> <p>While it may be appropriate to have an overall design storm for the NPDES Permit and TMDL compliance, this element seems to address individual sites. Recommend developing more prominently in the areas of the Permit that deals with compliance that the overall Watershed Management Program should deal with the 85th percentile storm and that beyond that, Permittees are not held responsible for the water quality from the much larger storms. However, requiring individual projects to meet this standard is limiting as there may be smaller projects implemented that individually would not meet 85th percentile, but collectively would work together to meet that standard. Please clearly indicate cities are only responsible for the 85th percentile storm for compliance and that individual projects may treat more of less than number.</p> <p>Jul-12</p> <p>Changes were made but it is unclear that the overall program would be collectively only held to the 85th percentile storm if working in multiple areas, and individual sites only if the Watershed Management Program states that individual sites would be responsible.</p>
2	46	Process	<p>Apr-12</p> <p>Please clarify that Permittees will only be responsible for continuing existing programs and TMDL implementation plans during the interim 18 month period while developing the Watershed Management Program and securing approval of those programs</p> <p>Same comment</p>
3	46-47	Table 9 and Process	<p>Apr-12</p> <p>Please allow 24 months for development of the Watershed Management Program to provide sufficient time for calibration and the political process to adopt these programs.</p> <p>Same comment. However, there could be a phased approach in which a permittee could submit early actions within this timeline, while more time is offered for the resource intensive aspects.</p>
4	46-53	various	<p>Apr-12</p> <p>The Table (TBD) on page 2 states implementation of the Watershed Program will begin upon submittal of final plan. Page 11, section 4 Watershed Management Program Implementation states each Permittee shall implement the Watershed Management Program upon approval by the Executive Officer. Page 13 section iii says the Permittee shall implement modifications to the storm water management program upon acceptance by the Executive Officer. All three of these elements should be consistent and state upon approval by the Executive Officer. The item on page 13 should be changed to reflect the Watershed Management Program, or clarify that the Watershed Management Program is the storm water management program.</p> <p>Jul-12</p> <p>Table 9 and Watershed Management Implementation are still inconsistent. The table says submittal and the Watershed Management Program Implementation states upon approval. Please make these consistent</p>
5	47	Program Development	<p>Apr-12</p> <p>Please include a paragraph that Permittees are not responsible for pollutant sources outside the Permittees authority or control, such as aerial deposition, natural sources, sources permitted to discharge to the MS4, and upstream contributions.</p> <p>Same comment</p>
6	48	3.a.ii	<p>Apr-12</p> <p>Pollutants in category 4 should not be included in this permit term, request elimination of any evaluation of category 4. Request elimination of category 3, as work should focus on the first two categories at this point</p> <p>Jul-12</p> <p>Thank you for removing category 4. Category 3 puts a burden on cities during this permit cycle. In the next permit term, when permittees have a better understanding of sources and location of the high priority pollutant additional actions may be warranted. At this time including category 3 adds an investigative burden that is unwarranted given the substantial increase in requirements and monitoring that are already included in this draft tentative order.</p>
7	52	Reasonable Assurance Analysis	<p>Apr-12</p> <p>Reasonable assurance analysis and the prioritization elements should also include factors for technical and economic feasibility</p> <p>Same comment</p>
8	112	E.2.b.ii	<p>Apr-12</p> <p>For the "group of Permittees" having compliance determined as a whole, this should only be the case if the group of Permittees have moved forward with shared responsibilities (MOAs, cost sharing, a Watershed Management Program). It would not be fair to have one entity not be a part of the "group" and be the main cause of exceedances/violations.</p> <p>Jul-12</p> <p>In the Tentative Order, permittees must notify the Regional Board 6 months after the Order's effective date on whether it plans to participate in the development of a Watershed Management Program. Given this, a sub-watershed will not know whether all permittees will participate or not. It should also be noted that allowed non-stormwater discharges and other NPDES permit discharges may be the cause of exceedances/violations and not the "group of permittees."</p>

Document Name: Additional Sections Draft Tentative Order - July 2012

Agency/Reviewer: LA Permit Group

Comment No.	Doc. Reference		Comments
	Page	Section	
1	13-26	Findings	<p>Jul-12</p> <p>Apr-12</p> <p>several related</p> <p>Please add findings regarding the iterative process.</p> <p>The iterative process is a process of implementing, evaluating, revising, or adding new BMPs to attain water quality standards, including total maximum daily load (TMDL) waste load allocations (WLAs). The State Water Resources Control Board (State Board) has affirmed, in several precedential water quality orders (including WQ 99-05 and 2001-15), the inclusion of the iterative process in MS4 permits. As the State Board noted in WQ 2001-15:</p> <p>This Board has already considered and upheld the requirement that municipal storm water discharges must not cause or contribute to exceedances of water quality objectives in the receiving water. We adopted an iterative procedure for complying with this requirement, wherein municipalities must report instances where they cause or contribute to exceedances, and then must review and improve BMPs so as to protect the receiving waters.</p> <p>The iterative process goes hand-in-hand with the Receiving Water Limitation provision of this order, which is intended to address a water quality standard exceedance. An MS4 permit is a point source permit, which is defined by §40 CFR 122.2 to mean outfall or end-of-pipe. Attainment of a water quality standard in stormwater discharge is achieved in the effluent or discharge from the MS4 through the implementation of BMPs contained in a Stormwater Quality Management Plan (SQMP). If a water quality standard is frequently exceeded as determined by outfall monitoring relative to an ambient condition of the receiving water (during the 5-year term of the Order) the permittee shall be required to propose better-tailored BMPs to address the exceedance. The process includes determining (1) if the exceedances are statistically significant and if so, would require the permittee to (2) identify the source of the exceedance; and (2) propose new or intensified BMPs to be implemented in the next MS4 permit – unless the Executive Officer determines that a more immediate response is required.</p> <p>(continued from previous page) The iterative process does not apply to non-stormwater discharges. Section 402(p)(3)(B)(ii) of the Clean Water Act only prohibits non-stormwater discharges to the MS4 and not from it as is the case with stormwater discharges. This is because Congress set two standards for MS4 discharges: one stormwater and one for non-stormwater. As noted in WQO 2009-008, the Clean Water Act and the federal storm water regulations assign different performance requirements for storm water and non-storm water discharges. These distinctions in the guidance document, the Clean Water Act, and the storm water regulations make it clear that a regulatory approach for storm water – such as the iterative approach we have previously endorsed – is not necessarily appropriate for non-storm water.</p>

Document Name: Minimum Control Measures Draft Tentative Order - July 2012

Agency/Reviewer: LA Permit Group

Comment No.	Doc. Reference		Comments
	Page	Section	
1	General	General	<p>Jul-12</p> <p>It is appropriate to have an exemption for a Permittee from a violation of RWL and or WQBELs caused by a non-stormwater discharge from a potable water supply or distribution system not regulated by an NPDES permit but required by state or federal statute; this should clearly apply to all NPDES permits issued to others within, or flow through, the MS4 permittees jurisdiction. We would request that also included in this category should be emergency releases caused by water line breaks which are not necessary, but are unexpected and have to be dealt with as an emergency. MS4 permittees should be exempt from RWL or WQBEL violations associated with any permitted NPDES discharges that are effectively authorized by LARWQCB under the Clean Water Act.</p>
2	General	General	<p>Since it could take 6 months for an agency to decide if they want to join in the development of a Watershed Management Plan or just modify their current Stormwater Management Program to comply with the new permit MCMs, the implementation of the new MCMs should follow this timeline. In the interim the permittees will be required to continue implementing their current Stormwater Management Program.</p>
3	26	A.	<p>RB staff proposed language requires the permittees to "prohibit non-stormwater discharges through the MS4 to receiving waters" except where authorized by a separate NPDES permit or conditionally. This prohibition is inconsistent with legal authority provisions in the federal regulations since 40 CFR 122.26(d)(1)(ii) which requires legal authority to control discharges to the MS4 but not from the MS4. Additionally, with respect to the definition of an illicit discharge at 40 CFR 122.26(b)(2), an illicit discharge is defined as "a discharge to the MS4 that is not composed entirely of stormwater". In issuing its final rulemaking for stormwater discharges on Friday, November 16, 1990[1], USEPA states that</p> <p>"Section 405 of the WQA alters the regulatory approach to control pollutants in storm water discharges by adopting a phased and tiered approach. The new provision phases in permit application requirements, permit issuance deadlines and compliance with permit conditions for different categories of storm water discharges. The approach is tiered in that storm water discharges associated with industrial activity must comply with sections 307 and 402 of the CWA (requiring control of the discharge of pollutants that utilize the Best Available Technology (BAT) and the Best Conventional Pollutant Control Technology (BCT) and where necessary, water quality-based controls), but permits for discharges from municipal separate storm sewer systems must require controls to the maximum extent practicable, and where necessary water quality-based controls, and must include a requirement to effectively prohibit non-stormwater discharges into the storm sewers."</p> <p>This is further illuminated by the section on Effective Prohibition on Non-Stormwater Discharges[2]:</p> <p>"Section 402(p)(3)(B)(ii) of the amended CWA requires that permits for discharges from municipal storm sewers shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers. Based on the legislative history of section 405 of the WQA, EPA does not interpret the effective prohibition on non-storm water discharges to municipal separate storm sewers to apply to discharges that are not composed entirely of storm water, as long as such discharge has been issued a separate NPDES permit. Rather, an effective prohibition would require separate NPDES permits for non-storm water discharges to municipal storm sewers"</p> <p>The rulemaking goes on to say that the permit application:</p> <p>"requires municipal applicants to develop a recommended site-specific management plan to detect and remove illicit discharges (or ensure they are covered by an NPDES permit) and to control improper disposal to municipal separate storm sewer systems."</p> <p>Nowhere in the rulemaking is the subject of prohibiting discharges from the MS4 discussed. Furthermore, USEPA provides model ordinance language on the subject of discharge prohibitions: http://www.epa.gov/owow/NP-Stormwater/mcm5.htm. Section VII Discharge Prohibitions of this model ordinance provides discharge prohibition language as follows:</p> <p>"No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water."</p>
4	28	A.2.b.vi	<p>Thus we recommend that staff eliminate the "from" language at both Part III.A.1.a. and Part III.A.2.</p> <p>The conditional exemption of street/sidewalk water is inconsistent with the requirement in the industrial/commercial MCM section that street washing must be diverted to the sanitary sewer. Sidewalk water should definitely be conditionally exempt, but so also should patios and pool deck washing. If street washing has to be diverted to the sanitary sewer for industrial/commercial facilities, then it should for all facilities and so should parking lot wash water as they are similar in their pollutant loads.</p>
5	33-36, Table B	Discharge Prohibitions	<p>Enforcing NPDES permits issued for the various NSWDs referenced in this table should be the responsibility of the State/Regional Board, not the MS4 permittee. Therefore, it is inappropriate to include a condition that places a responsibility on the MS4 permittee to ensure requirements of NPDES permits are being implemented or effective in order for the pertaining NSWD category to be exempt. Proper enforcement of the various NPDES permits mentioned in this table should ensure impacts from these discharges are negligible.</p>

19	67	D.6.a.i.(3)	The stated objective of mimicking the predevelopment water balance is not consistent with the requirement that the entire design storm be managed onsite. Please consider allowing subtracting the predevelopment runoff from the design volume or flow.
20	69	D.6.b.ii.(1),(a)	Please clarify whether this paragraph applies to what is existing on the site or what is being redeveloped.
21	70	D.6.c.i.(2),(b)	Consider removing the "whichever is greater" wording. The two methods are considered equivalent and the 85 th percentile was calculated to be the 0.75-inch for downtown Los Angeles. Currently, the 0.75-inch storm criterion has been used throughout the County for uniformity. While requiring the 85 th percentile to be used instead appears more technically appropriate, requiring calculating both criteria and using the greater value appears punitive.
22	70	D.6.c.i.(4)	Consider deleting this sentence since it is redundant with item VI.D.6.c.i.1 and green roofs are not feasible not only based on the provisions of this order but also due to regional climate and implementability considerations.
23	70	D.6.c.ii.(2)	Add "lack of opportunities for rainwater use" as one of the technical infeasibility criteria to acknowledge the fact that most of the type of development projects cannot utilize the captured volume of water.
24	72	D.6.c.iii.(1),(b)	The requirement for raised underdrain placement to achieve nitrogen removal is inconsistent with standard industry designs and is based on limited evidence that this change will improve nitrogen removal. Furthermore, by raising the underdrain, other water quality problems may result such as low dissolved oxygen and bacterial growth due to the septic conditions that will be created.
25	72	D.6.c.iii.(2),(b)	The requirement to provide treatment for the project site runoff when offsite mitigation is provided is punitive and unfair considering that an alternative site needs to be retrofitted to retain the equivalent volume. Please consider removing the on-site requirement when mitigation occurs in an offsite location.
26	72	D.6.c.iii.(4)	The conditions listed for offsite projects are overly restrictive. Also, considering legal and logistical constraints regarding offsite mitigation, this alternative is not very feasible.
27	75	Table 11	The concept of establishing benchmarks for post construction BMPs was initially developed in the 2009 Ventura MS4 permit. However there is a significant different between the permits. The Ventura County's NPDES MS4 permit requires the project developer to determine the pollutant of concern(s) for the development project and use this pollutant as the basis for selecting a top performing BMP. In the case of the Draft Order, there is no determination of the pollutant of concern for the development project. Instead post construction BMPs must meet all the benchmarks established in Table 11. Unfortunately, no one traditional post construction BMP (non-infiltration BMPs) is capable of meeting all the benchmarks and thus the developer will not be able to select a BMP. We recommend that provision VI.D.6.c.iv.(1)(a) (page 74) be modified so that the selection of post construction BMPs is consistent with the Ventura permit and is based on the development site's pollutant of concern(s) and the corresponding top performing BMP(s) that can meet the Table 11 benchmarks.
28	75	D.6.c.v.(1),(a),(i)	Erosion Potential (Ep) is not a widely used term in our region, and may not be the most appropriate term to be used as an indicator of the potential hydromodification impacts.
29	76	D.6.c.v.(1),(a),(iv)	The requirement for development of a new Interim Hydromodification Control Criteria is unnecessary considering there is already peak storm control requirements in the existing MS4 Permit and that the State Water Board is finalizing the statewide Hydromodification Policy.
30	77	D.6.c.v.(1),(c),(f),1	The requirement to retain on site the 95 th percentile storm is excessive and inconsistent with all other storm design parameters that appear in this order. It may also not be an appropriate storm in terms of soil deposits for the soil deprived streams such as Santa Clara Creek. Again, consider referring to the statewide policy for a consistent and technical basis of the hydromodification requirements.
31	80	D.6.d.i.1	The requirement of 180 days for the "Local Ordinance Equivalence" may be difficult to be met due to the typical processing and public review period for changes to local municipal codes.
32	83	D.7.a.iii	Consider revising this provision to require immediate start of this effort instead.
33	83	D.7.d	MEP should be changed to BAT and BCT for consistency with the State's General Construction Permit (GCASP).
34	83	Table 12	Consider introducing a minimum threshold for construction sites such as those for grading permits. As proposed, minor repair works or trivial projects will be considered construction projects and will unnecessarily be subject to these provisions.
35	84-91	D.7.e-j	Some of the listed BMPs will not be applicable for all construction sites. Consider replacing the title of the Table 12 to "Applicable Set of BMPs for Construction Sites". All these provisions refer to construction sites of greater than one acre. These sites are subject to the General Construction Permit provisions and within the authority of the State agencies. Towards ensuring compliance with these regulations, the State is collecting a significant fee that covers inspection and tracking of these facilities. We are disputing the need to establish an unnecessary parallel enforcement scheme for these sites. This is consistent with the RWQCB member(s) voice at one of the workshops.
36	84-91	D.7.g-j	Refer to the State's GCASP and its SWPPP requirements to avoid duplicity.
37	85	D.7.g.ii.(9)	There is no need to introduce a new term/document of Erosion and Sediment Control Plan for construction sites that are already subject to GCASP's SWPPP requirements.
38	87	Table 13	Delete. This table is the same as Table 12.
39	90	Table 17	The suggested inspections could not possibly be accommodated based on current resources because of the concurrent need to visit all sites. However, if the GCASP funding is transferred for locally-based enforcement, an increase number of inspections may be accommodated.
40	90	D.7.ii.(2),(e)	Consider deleting this requirement as being unnecessary. The placement of BMPs may not be needed based on the season of construction and the planned phases.
41	94	D.8.d	If there is a specific pollutant to address, retrofitting or any other BMP would best be accomplished through a TMDL, which is for the Permittees to determine rather than a prescribed blanket approach. As written, this is too broad of a requirement with unknown costs that is attempting to solve a problem before there is a problem. Please delete VI.D.8.d.
42	94	D.8.c.i.	Staff proposal states: "Each Permittee shall develop an inventory of retrofitting opportunities that meets the requirements of this Part VI.D.8.d... The goals of the existing development retrofitting inventory are to address the impacts of existing development through regional or sub-regional retrofit projects that reduce the discharges of storm water pollutants into the MS4 and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards."
			This process would require land acquisition, a feasibility analysis, no impacts to existing infrastructure, proper soils, and support of various interested stakeholders. Additionally, if a property or area is being developed/redeveloped, retrofitting the site for water quality purposes makes sense, but not for an area where no development/redevelopment is planned. Finally, the LID provisions have already included provisions for off-site mitigation, in which we recommend that regional water quality projects be considered in lieu of local-scale water quality projects that will prove difficult to upkeep, maintain, and replace, let alone have existing sites evaluated as feasible. For these reasons, this requirement should be removed.

Document Name: Attachment E - Monitoring and Reporting Program Draft Tentative Order - July 2012

Agency/Reviewer: LA Permit Group

Comment No.	Doc. Reference		Comments
	Page	Section	
1	Multiple	Multiple	<p>Jul-12</p> <p>The use of the HUC-12 watershed for limits is a good start but there needs to be some flexibility in its use to insure that the HUC-12 truly reflects the actual watershed boundary. The rain gages to be used for determining a wet versus dry weather day should be selected by the agencies and approved by the Regional Board. Since monitoring plans will be on a regional basis the use of 50% of County rain gages in a watershed may not be necessary. Plus, predictions do not necessarily use County rain gages.</p> <p>Omit as a primary objective to assess the "biological impacts" of discharges from the MS4. The MS4 Permit is to regulate water quality. It is the role of the State EPA and Water Quality Control Board, not municipal governments, to assess biological impacts of discharges and to set water quality regulations to prevent adverse biological impacts. This imposing of State responsibilities beyond Federal requirements on local municipal governments is an unfunded mandate. Please provide legal justification for this transfer of jurisdiction.</p> <p>Monitoring requirements relative to MS4 permits are limited to effluent discharges and the ambient condition of the receiving water, as §122.22(C)(3) indicates:</p> <p><i>The permit requires all effluent and ambient monitoring necessary to show that during the term of the permit the limit on the indicator parameters continues to attain water quality standards.</i></p> <p>The only definition of "ambient" monitoring is defined by SWAMP protocol as being 72 hours after a storm event.</p> <p>Regarding monitoring purposes "b" and "c" assessing trends in pollution concentrations should be: (1) limited to ambient water quality monitoring; and (2) Regional Board's surface water ambient monitoring program (SWAMP) should be charged with this responsibility. MS4 permittees fund SWAMP activities through an annual surcharge levied on annual MS4 permit fees.</p> <p><i>Recommended Corrective Action:</i> Clarify that RWL monitoring is only in the ambient condition as defined by SWAMP and that ambient monitoring is performed as part of the SWAMP and is not the responsibility of MS4 permittees.</p>
2	Multiple	Multiple	
3	Attachment E, Page 3	II.A.1	
4	Attachment E, Page 4	II.E.1	<p>Omit item c. The MS4 Permit is to regulate water quality. It is the role of the State EPA and Water Quality Control Board, not municipal governments, to "Determine whether the designated beneficial uses are fully supported as...aquatic toxicity and bio-assessment monitoring." This imposing of State responsibilities beyond Federal requirements on local municipal governments is an unfunded mandate. Please provide legal justification for this transfer of jurisdiction.</p> <p>Outfall monitoring for stormwater for attainment of municipal action levels (MALs) would be acceptable were it not for their purpose. MALs represent an additional monitoring requirement for non-TMDL pollutants. MALs should really be used to monitor progress towards achieving TMDL WLAs that are expressed in the receiving water. Instead, Regional Board staff has chosen to create another monitoring requirement, without regard for cost or benefit to water quality or to permittees. Non-TMDL pollutants should not be given special monitoring attention until it has been determined that they pose an impairment threat to a beneficial use. Such a determination needs to be done by way of ambient monitoring performed by the Regional Board SWAMP. The resulting data could then be used to develop future TMDLs, if necessary.</p> <p>Furthermore, many of the MAL constituents (both stormwater and non-storm water) listed in Appendix G, are included in several TMDLs such as metals and bacteria. This is, of course, a consequence of the redundancy created by two approaches that are intended to serve the same purpose: protection of water quality.</p> <p><i>Recommended Correction:</i> Either utilize MALs, in lieu of numeric WQBELs, to measure progress towards achieving TMDL WLAs expressed in the receiving water or eliminate MALs entirely.</p>
5	Attachment E, Page 4	II.E.1.c	<p>Regarding "a", This requirement is redundant in view of the aforementioned MALs and in any case is not authorized under federal stormwater regulations. 402(p)(B)(ii) of the Clean Water Act only prohibits discharges to the MS4 (streets, catch basins, storm drains and intra MS4 channels), not through or from it. This applies to all water quality standards, including TMDLs. Nevertheless, compliance with dry weather WQBELs can be achieved through BMPs and other requirements called for under the illicit connection and discharge detection and elimination (ICDDE) program, or requiring impermissible non-stormwater discharges to obtain coverage under a permit issued by the Regional Board.</p> <p><i>Recommended Correction:</i> Delete this requirement and specify compliance with dry weather WLAs, expressed in ambient terms, through the implementation of the IC/ID program.</p>
6	Attachment E, Page 4	II.E.2.a	<p>With regard to "b", see previous responses regarding MALs and the limitation of the non-stormwater discharge prohibition to the MS4.</p> <p><i>Recommended Correction:</i> Delete this requirement because it exceeds the non-stormwater discharge prohibition to the MS4; and determine whether MALs or TMDLs are to be used to protect receiving water quality.</p>
7	Attachment E, Page 4	II.E.3.a	<p>Regarding "c", as mentioned, non-stormwater discharges cannot be applied to receiving water limitations because they are only prohibited to the MS4, not from or through it.</p> <p><i>Recommended Correction:</i> Delete this requirement because it exceeds the non-stormwater discharge prohibition to the MS4.</p>
8	Attachment E, Page 4	II.E.3.b	
9	Attachment E, Page 4	II.E.3.c	

17	Attachment E, Page 8	IV.C.5	Revise to allow 9 months after approval of an IMP or CIMP by the Executive Officer to commence monitoring. It takes 3 months to issue Request for Proposals and award a contract for monitoring. It takes an additional 6 months to obtain permits from the Los Angeles County Flood Control District to access monitoring locations on their systems.
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32	Attachment E, Page 22	IX.F.2	Omit the requirement to report to the Regional Board "within 30 days of determination" because there are too many report submittals that could lead to a Notice of Violation that will have no impact on water quality. Reporting source identifications in the annual report provides central location for submittals.
33	Attachment E, Page 23	IX.G.3 & 4	Outfalls not subject to dry weather TMDLs that have significant dry weather flows should have continuous flow monitoring done for a quarter with water quality sampling done once at the beginning of that time period. If the water quality sampling indicates pollutant concentrations that exceed water quality standards, then the IC/ID investigation procedures should begin. If no water quality standards are exceeded or the IC/ID investigation eliminates the source of pollutants, then that flow has been demonstrated NOT to cause or contribute to pollutant loading and should be stopped. To continue monitoring a site that is known NOT to cause or contribute to pollutant loading is a waste of resources and an un-funded mandate.
34	Attachment E, Page 24	X	This section should be moved to Section VI.D.6.d.iv. for clarity.
35	Attachment E, Page 25	XI	Omit this section. Regional monitoring should be done by County, State and Federal agencies that have jurisdiction over pollutants of concern. It is a waste of municipal resources to have 85 Permittees all perform Pyrethroid and SCCWRP regional studies. This imposing of State responsibilities beyond Federal requirements on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.
36	Attachment E, Page 28	XII	Omit this section. Regional monitoring should be done by County, State and Federal agencies that have jurisdiction over pollutants of concern. It is a waste of municipal resources to have 85 Permittees all perform aquatic toxicity regional studies. This imposing of State responsibilities beyond Federal requirements on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.
37	Attachment E, Page 38	XIV.I.1 & 2	It is not reasonable to force Permittees to make changes to approved Monitoring and Reporting Programs based on the whim of an "interested" party or "as deemed necessary by EO". This provides unlimited power to interested parties or EO. Recommend these items be revised to include a caveat that there would be no additional costs or as approved by Regional Board, to make those changes open and transparent.
38	Attachment E, Page 39	XIV.M	Omit section M. as it is redundant to section L.
39	Attachment E, Page 44	XVIII.A.5	Omit items b. & c. Regional monitoring should be done by County, State and Federal agencies that have jurisdiction over pollutants of concern. It is a waste of municipal resources to have 85 Permittees all perform aquatic toxicity regional studies. This imposing of State responsibilities beyond Federal requirements on local municipal governments is an un-funded mandate. Please provide legal justification for this transfer of jurisdiction.
40	Attachment E, Pages 49-52	XIX.B	Only include schedules for IMP and CIMP for USEPA established TMDLs and revise those schedules to be 9 months for IMP and 24 months for CIMP. Having due dates for Monitoring and Reporting plans for IMP and CIMP past the due date established by the TMDL creates confusion.



LA PERMIT GROUP

*A collaborative effort to negotiate the
Los Angeles County MS4 NPDES Permit*

February 9, 2012

Sam Unger, Executive Officer
Los Angeles Regional Water Quality Control Board
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

SUBJECT: *LA Permit Group Comments Regarding the 1/23/12 Workshop on Monitoring and TMDLs*

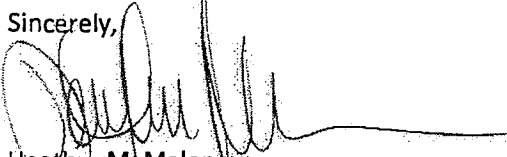
Dear Mr. Unger:

The LA Permit group appreciates the opportunity to provide comments regarding the Regional Board's January 23, 2012 Workshop on the proposed Monitoring and TMDL programs for the upcoming Los Angeles County MS4 NPDES permit. Detailed comments and recommendations regarding each of these programs are attached (Monitoring Program Comments – Exhibit A and TMDL Program Comments – Exhibit B). The LA Permit Group recognizes that the upcoming MS4 NPDES permit is a very difficult and complicated permit to develop, especially given the integration of many TMDLs. However, the permit must contain provisions that are economically achievable and sustainable and that will not expose permittees to unreasonable compliance issues. We look forward to continued discussion and collaboration with you and your staff in order to cooperatively develop economically achievable and sustainable permit provisions.

The LA Permit Group is a collaborative effort developed to negotiate the Los Angeles County MS4 NPDES Permit. Over 60 Los Angeles County municipalities are actively participating in the effort to develop and provide comments and recommendations throughout the MS4 NPDES Permit development process. Comments and recommendations are developed by each of the LA Permit Group's four Technical Sub-Committees (Land Development, Reporting & Core Programs, Monitoring, and TMDLs) which are then approved by the LA Permit Group; the group's consensus is represented by the Negotiations Committee. The LA Permit Group's comments and recommendations contained in Exhibits A and B of this letter have been developed by the Monitoring and TMDL Technical Sub-Committees and were approved by the LA Permit Group at our February 8, 2012 meeting.

Thank you for the opportunity to comment on the proposed Monitoring and TMDLs programs and we look forward to meeting with you to discuss our comments and recommendations presented in this letter. Please feel free to contact me at (626) 932-5577 or hmaloney@ci.monrovia.ca.us if you have any questions regarding our comments.

Sincerely,



Heather M. Maloney
Chair, LA Permit Group

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questions. Furthermore the proposed strategy isolates the stormwater/non-stormwater monitoring from other elements of the monitoring program such as receiving water and tributary monitoring. As a result it is difficult to understand the overall relationships between the various monitoring efforts and limits the Permittees' ability to direct their monitoring efforts according to local and watershed specific concerns.

Recommendation: We strongly recommend that the Regional Board revisit the stormwater monitoring programs to incorporate an integrated watershed monitoring strategy that addresses water quality management based questions and TMDLs. Similarly, we recommend that the monitoring program reflect an adaptive management approach such that we have the ability to modify our monitoring efforts as monitoring data and information are gathered.

Specific Comments

Although we have fundamental concerns with the overall approach provided in the 1/23/12 workshop and strongly recommend modifications in the approach, we have none-the-less developed specific comments on the Regional Board approach. These comments are provided below.

Regional Monitoring Programs

1. Pyrethroid Study. We suggest that the Surface Water Ambient Monitoring Program would be a better vehicle for assessing the overall impacts of pesticides (pyrethroids) in the watersheds than the MS4 stormwater programs. This is especially true since pyrethroid is a statewide issue and not just a potential Los Angeles area issue.
2. Hydromodification Study. Many municipalities discharge directly or indirectly into concrete channels thus calling into question the value of a hydromodification study for these municipalities. Furthermore, the Southern California Coastal Water Research Project (SCCWRP) has a number of studies focused on hydromodification including one that assesses the impacts of hydromodification and identifies management practices that could offset the impacts¹. Thus we would suggest that the proposed hydromodification study for the LA permittees be eliminated and instead allow SCCWRP efforts in this area to be the base studies.
3. Low Impact Development Study. As with the hydromodification study we believe that there is already ongoing research with LID and that the proposed study for the LA permittees is unwarranted. The Southern California Monitoring Coalition had previously identified this area for research and received grant monies to assess the effectiveness of LID strategies. This work was recently conducted by the SCM. In addition, the SCM Coalition conducted a study to identify impediments to LID implementation and this study is also just now being completed. Thus we question the value of LA permittee specific studies for LID.

Recommendation: Modify the requirement for regional monitoring programs to account for existing and ongoing regional monitoring efforts.

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<http://www.sccwrp.org/ResearchAreas/Stormwater/Hydromodification/AssessmentAndManagementOfHydromodification.aspx>

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- d. When are field measurements and grab samples collected during a storm event? Logistically it will be difficult and costly to require grab samples in addition to the flow weighted samples. Most stormwater data are categorized as event mean concentrations which is a flow weighted composite sample. Grab samples do not reflect EMC but rather just a point in time concentrations.
- e. The use of bacteria as a monitoring parameter to identify sources of sewage is questionable given bacteria is ubiquitous in our environment and difficult to track. Bacteria source tracking should be addressed in the TMDL on a case by case situation.
- f. Without receiving water data the MS4 is limited in its ability to determine whether non-stormwater discharges are causing or contributing to exceedances of water quality standards. However there is no receiving water monitoring coupled with the non-stormwater monitoring.
- g. The 1/23/12 presentation introduced some new as well as some not so new terms. Given the relatively early stage of development of the stormwater permitting program, it is important to clearly define these terms to avoid confusion and misunderstanding during the permit approval process. We realize that the adopted Permit will have a definition section but to assist in the permit development and adoption stage it would be useful to provide definitions upfront including the definition for outfalls, major or otherwise.

Recommendation: Conduct case studies for Torrance and the Los Angeles River watershed and others as appropriate to address a range of different conditions (e.g. size, receiving waters, TMDLs, etc.). These case studies will likely clarify the purpose and approach of the monitoring and lead to improvements in the monitoring program. Furthermore we believe it would be constructive to have PG Environmental participate in these discussions.

Closing

The LA Permit Group again appreciates the opportunity to provide these comments and look forward to working with the Regional Board especially in evaluating case studies to better craft a long term, constructive and cost effective monitoring program.

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LA Permit Group, proposal for
INTEGRATED WATERSHED MONITORING PLANS, cont.

Watershed Monitoring Plan and the requirement for implementing individual TMDL monitoring plans would be eliminated once they have been incorporated into the approved Integrated Watershed Monitoring Plan. The Co-Permittees would need to develop a Memorandum of Understanding to contract for preparation of the Integrated Watershed Monitoring Plans and Annual Reports.

The Co-Permittees recognize the value of having Integrated Watershed Monitoring Plans to assess the extent of MS4 contribution to TMDL-listed impairments and to design and evaluate BMPs to reduce those contributions to attain WLAs, but also recognize that the same monitoring data can be used by the Regional Board to issue Notices of Violation and/or for Third Party lawsuits. Such regulatory and legal actions would be counterproductive and would obstruct the iterative adaptive process needed to efficiently and effectively improve water quality, thus the co-permittees request that the MS4 Permit language for Monitoring and TMDLs be written to require Integrated Watershed Monitoring Plans but to clearly state that so long as a Co-Permittee is carrying out its obligations in implementing measures in accordance with the provisions of an approved TMDL Implementation Plan and participating in a cooperative MOA to carry out the Integrated Watershed Monitoring Plans, that during this Permit term exceedances of Water Quality Standards, TMDL Waste Load Allocations, or Effluent Limits will not constitute a Permit violation. Integrated Watershed Monitoring Plans approved by the Executive Officer would supersede previously approved TMDL Monitoring and Reporting Plans.

Permittees that do not want to participate in the Integrated Watershed approach shall develop and/or utilize existing or future TMDL monitoring plans and schedules. Existing TMDLs should have the option to be included in the Integrated Watershed approach, and resulting timeframe adjustments, if they so chose.

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TMDL Compliance

Our second, and primary concern, is the way in which compliance with TMDL permit provisions is being discussed. It is our understanding from the presentation, that at the end of a TMDL implementation schedule, if a permittee is not meeting the numeric values assigned as WLAs in the TMDL, the permittee will be considered out of compliance with the permit requirements. We have significant concerns with this approach to developing the permit for a number of reasons.

It is our understanding that this approach would result in the inclusion of numeric effluent limitations as the mechanism for incorporating the TMDL WLAs. For those TMDLs whose compliance dates have passed, permittees would be considered in violation of the permit if they are not meeting the numeric effluent limitations from the moment the permit is effective. If warranted, the Regional Board would use a Time Schedule Order (TSO) to provide some additional time for coming into compliance. If this is the proposed approach, in essence, the permittees would be going from complying with the current permit that includes only a few TMDL requirements to potentially being out of compliance for requirements that have never been in their permit.

Permittees are planning on taking actions as outlined in the Stormwater Quality Management Plan above to make significant progress towards improving water quality. However, we have concerns that requirements being proposed go beyond MEP given the economic and staff resources available to achieve the WLAs for an unprecedented number of TMDLs being incorporated into this permit. These concerns are based on a number of factors including but not limited to:

- TMDLs were developed using inadequate data with the intent that TMDL provisions would be revised through TMDL reconsiderations and special studies. Most of the TMDLs have not been reconsidered.
- Other sources may prevent attainment of standards in the receiving water no matter what actions are taken by the MS4 permittees.
- Many WLAs cannot be met within the permit term.
- Regulation of the sources of some pollutants are outside of MS4 permittees control.
- The design storm has not yet been defined and implementation of BMPs to ensure compliance under all conditions, including extreme storm events, could be extremely costly and technically infeasible.

Although we recognize that additional requirements and rigor need to be added to the permit to address TMDLs, we feel that there are straightforward ways to do this that do not represent such a significant shift in the regulation of stormwater discharges and place dischargers into an untenable situation of potentially being out of compliance with their permit from the effective date.

To address these concerns, the group would like to propose the following approach for compliance with TMDL WLAs.

1. Implement TMDL WLAs as BMP-based water quality based effluent limitations (WQBELs) in the permit. This is consistent with federal regulations (40 CFR 122.44(d)(1)(vii)(B) which require inclusion of effluent limits, defined at 40 CFR 122.2 as "any restriction imposed by the Director on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from

We feel that these concerns could be addressed through the approach outlined above for incorporation of TMDL WLAs.

MS4 Permit Provisions to Implement Trash TMDLs

We appreciate the incorporation of language to define alternative methods of compliance (i.e. full capture) and hope to see similar language for other constituents. However, we feel that some minor language modifications may be necessary to clearly show the linkage and ensure the permit is clear.

In B. (1)(d) Language regarding compliance through an MFAC program is not clearly defined. We feel that the language should clearly state that the permittee is deemed in compliance through implementing an approved MFAC program.

In B.(2), the language discussing violations of the permit should reference the previous section where compliance is defined.

- All compliance points (interim WLA, milestones, and final WLA) for all TMDLs should allow for compliance timelines and actions consistent with the Watershed Management Programs that will be developed, rather than with strict numeric limits to determine compliance.

As noted in discussions with you, the LA Permit Group requested additional time to review the working proposals presented at the May 3, 2012 Regional Board Workshop. Given the brief comment deadline, there are significant, additional concerns that could not be fully explored or analyzed. Prior to issuing a tentative order, a complete administrative draft is needed to provided stakeholders (with a minimum 30 day review period) to allow the permittees to fully see how the various provisions of the permit will work together in order to gain a holistic view of the permit. This is essential in order to address the unprecedented policies and actions anticipated in the Los Angeles MS4 NPDES Permit.

These topics are further highlighted below. Detailed comments are attached for each Watershed Management Program, Receiving Water Limitations and TMDLs.

Watershed Management Programs

Overall, the LA Permit Group supports the Regional Board's proposed approach to address high priority water quality issues through the development and implementation of a watershed management program. We believe the working proposal provides sufficient detail to guide the development of the programs without being overly prescriptive and constraining. However, one of our biggest concerns with the working proposal is the proposed timeline for developing the watershed management programs. As noted in the working proposals and the workshop, municipalities would have only one year to develop a comprehensive watershed management program. This is insufficient time to organize the watershed cities and other agencies, develop cooperative agreements, initiate the studies, calibrate the data, draft the plans, and obtain necessary approvals from political bodies. As a comparison, the City of Torrance required two years to prepare a comprehensive water quality plan that addressed a suite of TMDLs, similar to what is being considered in the watershed management program. The permit should provide that the time schedule for submittal of the Draft Plan be 24 months after permit adoption.

We also offer the following comments regarding the watershed management program (our line item by line item review and comments are attached):

- The working proposal seems to be silent on the critical issue of sources of pollutants outside the authority of MS4 permittees (e. g. aerial deposition, upstream contributions, discharges allowed by another NPDES permit, etc.). We request that permittees be allowed to demonstrate that some sources are outside the permittee's control.
- Reasonable assurance necessitates closer integration with TMDL and storm water monitoring programs. Currently the working proposal does not provide a sufficient tie-in between the monitoring and the watershed program. This lack of tie-in was acknowledged in the workshop by Board staff. It is expected that this tie-in will be addressed once the monitoring provisions are drafted.
- The watershed plan is obviously tied closely with the TMDLs which is reasonable and constructive. But we would suggest that staff broaden the definition of water quality issues to consider protection of and impacts to existing ecosystems in the analysis.
- More careful consideration should be given to the frequency and extent of the reporting and adaptive management assessments. The current proposal results in a significant annual effort and the LA Permit Group members question the value of such an effort. Current reporting appears to overwhelm state staff resources without providing the state with usable feedback on the significant efforts about our programs. We believe that the reporting can be streamlined and that the jurisdictional and watershed reporting should be combined.

WQ 2009-0008, In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District, at p. 10)² have affirmed that WLAs can be incorporated as non-numeric effluent limitations. Under 40 CFR Section 122.44 (k), the Regional Board may impose BMPs for control of storm water discharges in lieu of numeric effluent limitations when numeric limits are infeasible. It states that best management practices may be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible. In 2006, the Blue Ribbon Panel made recommendations to the State Water Resources Control Board concluding that it was not feasible to incorporate numeric limits into permits to regulate storm water, and at best there could be some action level, but not numeric waste load allocations. Very little has changed in the technology and the feasibility of controlling storm water pollutants since 2006. What has changed is that a legally compelled, long list of TMDLs has been adopted in the LA Region in a very short time period.

Additionally, during the May 3, 2012 MS4 Permit workshop, Regional Board staff seemed to indicate that the basis for incorporating the final WLAs as numeric effluent limitations is EPA's 2010 memorandum pertaining to the incorporation of TMDL WLAs in NPDES permits³. This memorandum (which is currently being reconsidered by U.S. EPA) states that "EPA recommends that, *where feasible*, the NPDES permitting authority *exercise its discretion* to include numeric effluent limitations as necessary to meet water quality standards" (emphasis added). This statement highlights the basic principle that the Regional Board has **discretion** in how the WLAs are incorporated into the MS4 Permit. Regional Board staff commented during the workshop that staff have evaluated data and have determined numeric effluent limitations are now feasible. However, no information refuting the Blue Ribbon Panel report recommendations has been provided that demonstrates how the appropriateness of using strict numeric limits was determined and why these limits are considered feasible now even though historically both EPA and the State have made findings that developing numeric limits was likely to be infeasible⁴.

Given the discretion available to Regional Board staff and the variability among the TMDLs with respect to understanding of the pollutant sources, confidence in the technical analysis, and availability of control measures sufficient to address the pollutant targets, **it is critical to use non-numeric water quality based effluent limitations for both interim and final WLAs in this permit.** The proposed Watershed Management Program will require quantitative analysis to select actions that will be taken to achieve TMDL WLAs. For the entire length of the TMDL compliance schedule, permittees will be required to demonstrate compliance with interim WLAs by implementing actions that they have estimated to the best of their knowledge will result in achieving the WLAs and water quality standards. Additionally, permittees will be held responsible for compliance with actions to meet the core program requirements of the permit. However, unless final WLAs are also expressed in this permit as action-based water quality based effluent limitations, and if instead strict numeric limits are required for final WLAs, then, at the specified final compliance date, no matter how much the permittee has done, no matter how much money has been spent, no matter how close to complying with the numeric values, and no matter what other information has been developed and submitted to the Regional Board, the permittee will be considered out of compliance with the permit requirements. And because of the structure established in this permit, the Regional Board staff will have to consider all permittees in this situation as being out of compliance with the permit provisions if the strict numeric limits have not been met, regardless of the actions

² "[i]t is our intent that federally mandated TMDLs be given substantive effect. Doing so can improve the efficacy of California's NPDES storm water permits. This is not to say that a wasteload allocation will result in numeric effluent limitations for municipal storm water dischargers. Whether future municipal storm water permit requirement appropriately implements a storm water wasteload allocation will need to be decided on the regional water quality control board's findings supporting either the numeric or non-numeric effluent limitations contained in the permit." (Order WQ 2009-0008, In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District, at p. 10 (emphasis added).)

³ U.S. EPA, *Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*, Memorandum from U.S. EPA Director, Office of Wastewater Management James A. Hanlon and U.S. EPA Director, Office of Wetlands, Oceans, and Watershed Denise Keehner (Nov. 10, 2010).

⁴ Storm Water Panel Recommendations to the California State Water Resources Control Board "The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities. June 19, 2006.

Receiving Water Limitations

The proposed Receiving Water Limitations (RWL) language creates a liability to the municipalities that we believe is unnecessary and counterproductive. The proposed language for the receiving water limitations provision is almost identical to the language that was litigated in the 2001 permit. On July 13, 2011, the United States Court of Appeals for the Ninth Circuit issued an opinion in *Natural Resources Defense Council, Inc., et al., v. County of Los Angeles, Los Angeles County Flood Control District, et al.*⁵ (NRDC v. County of LA) that determined that a municipality is liable for permit violations if its discharges cause or contribute to an exceedance of a water quality standard.

In light of the 9th Circuit's decision and based on the significant monitoring efforts being conducted by other municipal stormwater entities, municipal stormwater permittees will now be considered to be in non-compliance with their NPDES permits. Accordingly, municipal stormwater permittees will be exposed to considerable vulnerability, even though municipalities have little control over the sources of pollutants that create the vulnerability. Fundamentally, the proposed language again exposes the municipalities to enforcement action (and third party law suits) even when the municipality is engaged in an adaptive management approach to address the exceedance.

The LA Permit Group would like to more fully address Board Member Glickfeld's question raised at the May 3rd workshop about how RWL language as currently written puts cities in immediate non compliance, either individually or collectively. As written, TMDLs as well as water quality standards in the basin plan would have to be specifically met as soon as this permit is adopted. Many of the adopted TMDLs include language that cities are jointly and severably liable for compliance.

While the Regional Board staff has noted that enforcement action is unlikely if the permittees are implementing the iterative process, the reality is that municipalities are immediately vulnerable to third party lawsuits as well as enforcement action by Regional Board staff. In the Santa Monica Bay, cities were sent Notices of Violation that, in essence, stated that all cities in the watershed were guilty until they proved their innocence when receiving water violations were found, in some cases miles away. The "cause and contribute" language was quoted prominently in those NOV's as justification for why the Regional Board could take such action. As another case in point the City of Stockton was sued by a third party for violations of the cause/contribute prohibition even though the City was implementing a comprehensive iterative process with specific pollutant load reduction plans. Cities will have no warning or time to react to any water quality exceedances, but still be vulnerable to third party lawsuits even when cities are diligently working to address the pollutants of concern. This will be disastrous public policy, creating a chilling affect on productive storm water programs.

It is not fair and consistent enforcement to put cities in a vulnerable situation to be determined out of compliance with water quality standards in the basin plan without time to develop a plan of action, develop source identification, and implement a plan to address the concern. With the very recent legal interpretation that fundamentally changes how these permits have been traditionally implemented, please understand that adjusting the Receiving Water Limitations language is a critical issue. Again, the receiving water limitation language must be modified to allow for the integrated approach to address numerous TMDLs within the watershed based program to solve prioritized water quality problems in a systematic way. This is a fair and focused method to enforce water quality standards.

The receiving water limitation provision as crafted in the contested 2001 Los Angeles permit is unique to California. Recent USEPA developed permits (e.g. Washington D.C.) do not contain similar limitations. Thus, we would submit that the decision to include such a provision and the structure of the provision is a State defined requirement and therefore an opportunity exists for the Regional and State Boards to reaffirm the iterative process as the preferred approach for long term water quality improvement.

⁵ No. 10-56017, 2011 U.S. App. LEXIS 14443, at *1 (9th Cir., July 13, 2011).

Board Member Charles Stringer (Vice Chair) LARWQCB
Board Member Francine Diamond LARWQCB
Board Member Mary Ann Lutz LARWQCB
Board Member Madelyn Glickfeld LARWQCB
Board Member Maria Camacho LARWQCB
Board Member Irma Munoz LARWQCB
Board Member Lawrence Yee LARWQCB
Senator Hernandez
Senator Huff

2		B.1.	<p>The SMBBB TMDL Coordinated Shoreline Monitoring Plan (CSMP) was approved by the Regional Board staff and that CSMP should be incorporated into the TMDL monitoring requirements of the next MS4 Permit. The CSMP established that compliance monitoring would be conducted on a weekly basis, and although some monitoring sites are being monitored on additional days of the week, none of the sites are monitored seven days per week, thus it is highly confusing and misleading to refer to "daily monitoring". The CSMP established that compliance monitoring would be conducted on a weekly basis, and although some monitoring sites are being monitored on additional days of the week, none of the sites are monitored seven days per week.</p>		
3		B.1.	<p>The SMBBB TMDL is currently being reconsidered at a hearing scheduled for June 7, 2012. The 4th term MS4 Permit should incorporate the revised waste load allocations which are to be adopted at that hearing, rather than the previous basin plan amendments.</p>		
4	5	B.1.c.(3)	<p>Description of SMB 5-5 under Beach Monitoring Location is incorrect (and seems to have been switched with the description of SMB 5-3). SMB 5-5 is a historic monitoring location "50 yards south of the Hermosa Pier", as described in the adopted basin plan amendment and in the Regional Board approved Coordinated Shoreline Monitoring Plan. Whereas SMB 5-3 has been relocated from the historic location 50 yards south of the Manhattan Beach Pier to the zero point of the southern storm drain outfall against the strand wall under the Pier, thus an apt description of that location would be: "Manhattan Beach Pier, southern drain".</p>		
5	1-6	B.1 throughout	<p>This discussion in this section devoted to the SMBBB TMDL seems to create confusion regarding the meaning of the terms "water quality objectives or standards, and "receiving water limitations" and "water quality-based effluent limitations". Water quality objectives or water quality standards are those that apply in the receiving water. Water Quality Effluent Based Limits apply to the MS4. So the "allowable exceedance days" for the various conditions of summer dry weather, winter dry weather and wet weather should be referred to as "water quality-based effluent limitations" since those are the number of days of allowable exceedances of the water quality objectives that are being allowed for the MS4 discharge under this permit. While the first table that appears under this section at B.1 (b) should have the heading "water quality standards" or "water quality objectives" rather than the term "effluent limitations".</p>		

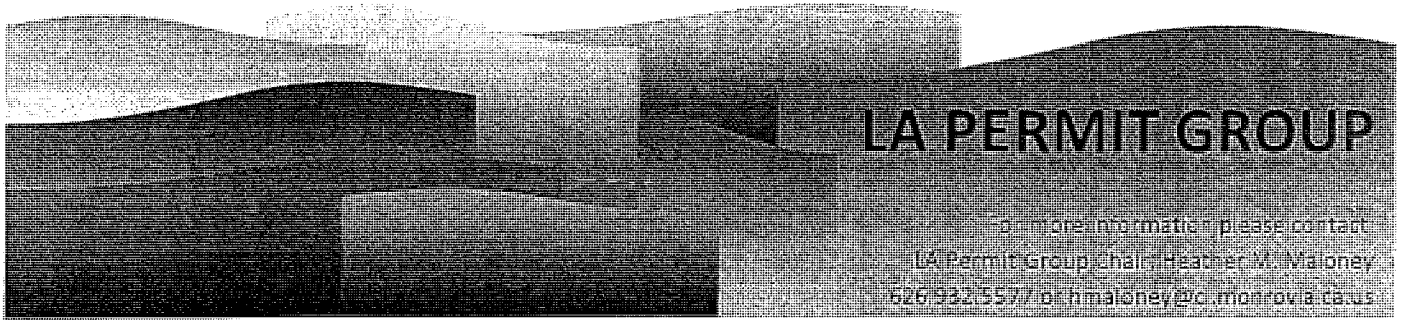
9	7	B.3	<p>Although the Santa Monica Bay DDT and PCB TMDL issued by USEPA assigns the waste load allocation as a mass-based waste load allocation to the entire area of the Los Angeles County MS4, they should be translated as WQBELs in a manner such that watershed management areas, subwatersheds and individual permittees have a means to demonstrate attainment of the WQBEL. Recommend that the final WLAs be expressed as an annual mass loading per unit area, e.g., per square mile. This in combination with the preceding recommendation for an interim WQBEL will still serve to protect the Santa Monica Bay beneficial uses for fishing while giving the MS4 Permittees time to collect robust monitoring data and utilize it to evaluate and identify controllable sources of DDT and PCBs.</p>		
10	3	C.2.c)	<p>The Machado Lake Trash WQBELs listed in the table at C.2.c) in the staff working proposal appear to have been calculated from preliminary baseline waste load allocations discussed in the July 11, 2007 staff report for the Machado Lake Trash TMDL, rather than from the basin plan amendment. In some cases the point source land area for responsible jurisdictions used in the calculation are incorrect because they were preliminary estimates and subsequent GIS work on the part of responsible agencies has corrected those tributary areas. In other cases some of the jurisdictions may have conducted studies to develop a jurisdiction-specific baseline generation rate. The WQBELs should be expressed as they were in the adopted TMDL WLAs, that is as a percent reduction from baseline and not assign individual baselines to each city but leave that to the individual city's trash reporting and monitoring plan to clarify.</p>		

14	3	C.3	<p>The Machado Lake Nutrient TMDL provides for a reconsideration of the TMDL 7.5 years from the effective date prior to the final compliance deadline. Please include an additional statement as item: 3.c)(3)"By September 11, 2016 Regional Board will reconsider the TMDL to include results of optional special studies and water quality monitoring data completed by the responsible jurisdictions and revise numeric targets, WLAs, LAs and the implementation schedule as needed."</p> <p>Table C is not provided in the section on TMDLs for Dominguez Channel and Greater LA and Long Beach Harbors Toxic Pollutants. Please clarify and reference that Attachment D Responsible Parties Table RB4 Jan 27, 12 which was provided to the State Board and responsible agencies during the SWRCB review of this TMDL, and is posted on the Regional Board website in the technical documents for this TMDL, is the correct table describing which agencies are responsible for complying with which waste load allocations, load allocations and monitoring requirements in this VERY complex TMDL. Attachment D should be included as a table in this section of the MS4 Permit.</p>		
15	4	C.5.a)	<p>The Dominguez Channel and Greater LA and Long Beach Harbor Waters Toxic Pollutants TMDL provides for a reconsideration of the TMDL targets and WLAs. Please include an additional statement as item: 4.e) "By March 23, 2018 Regional Board will reconsider targets, WLAs and LAs based on new policies, data or special studies. Regional Board will consider requirements for additional implementation or TMDLs for Los Angeles and San Gabriel Rivers and interim targets and allocations for the end of Phase II."</p>		
16	4-8	C.5.	<p>City of Hermosa Beach is only within one watershed, the Santa Monica Bay Watershed, and so should not be shown in italics as a multi-watershed permittee</p>		
17	1, 3, 15	Attach I	<p>Recommend using the same language from E.2.d.i.3 to describe the demonstration. Therefore substitute this for the current language at E.2.b.v.1: "Demonstrate that there is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant(s) associated with a specific TMDL."</p>		
18	2	E.2.b.v.1.			

26	3	E.2.c.iii	<p>For time schedule orders, the Burbank Water Reclamation Plant required a TSO since its interim permit limits expired, with the TSO bridging the gap between the time when the interim limits expired and when the new BWRP NPDES permit became effective. It should be noted that the Water-Effects-Ratio study was submitted in 2008 and it took the Regional Board nearly 2 years to complete its review of the study, which as a result required Burbank to request 2 1-year TSOs. Our concern with TSOs in the MS4 permit is that various efforts will be made to comply with the permit provisions and permit limits, including special studies for reopening purposes, and yet the TSO requests can either be delayed, or be limited to 1-year TSOs, placing extra burden on MS4 permittees to apply each year for the TSO, which requires a Regional Board hearing for adoption/approval.</p>		
28	5	E.4.a	<p>This provision states "A Permittee shall comply immediately ... for which final compliance deadlines have passed pursuant to the TMDL implementation schedule." This provision is unreasonable. First, various brownfields/abandoned toxic sites exist, some of which were permitted to operate by State/Federal agencies - nothing has or will likely be done with these sites that contribute various pollutants to surface and sub-surface areas. Additionally, this permit is going to require a regional monitoring program - this program will yield results on what areas are especially prone to particular pollutants. Until these results are made known, MS4 Permittees will have a hard time knowing where to focus its resources and particularly, the placement of BMPs to capture, treat, and remove pollutants. For these reasons, this provision should be revised to first assess pollutant sources and then focus on compliance with BMP implementation.</p>		
29	12-13	E.5.c.i(1)	<p>For reporting compliance based on Full Capture Systems, what is the significance of needing to know "the drainage areas addressed by these installations?" Unfortunately, record keeping in Burbank is limited to the location and size of City-owned catch basins. A drainage study would need to be done to define these drainage areas. As such, we do not believe this requirement serves a purpose in regards to full capture system installations and their intended function.</p>		
30	7	E.5	<p>Please clarify that cities are not responsible for retrofitting.</p>		
31	4	E.2.e	<p>Please add the language from interim limits E.2.d.a - c to the Final Water Quality Based Effluent Limitations and/or Receiving Water Limitations to ensure sufficient coordination between all TMDLs and the timelines and milestones that will be implemented in the Watershed Management Program.</p>		

43	1	G	<p>Please remove, in its entirety, the Santa Ana River TMDLs</p> <p>Any TMDL, for which compliance with a waste load allocation (WLA) is exclusively set in the receiving water, shall be amended by a re-opener to also include compliance at the outfall, or other end-of-pipe, that shall be determined by translating the WLA into non-numeric WQBELs, expressed as best management practices (BMPs). While the TMDL re-opener is pending, an affected Permittee shall be in compliance with the receiving water WLA through the implementation of core programs.</p>		
44	general	general	<p>For the Freshwater portion of the Dominguez Channel: There are no provisions for BMP implementation to comply with the interim goals. The wording appears to contradict Section E.2.d.i.4 which allows permittees submit a Watershed Management Plan or otherwise demonstrate that BMPs being implemented will have a reasonable expectation of achieving the interim goals.</p>		
45	4 of 8	C.5.b.1	<p>For Greater LA Harbor: Similar to the previous comment regarding this section. The Table establishing Interim Effluent Limitations, Daily Maximum (mg/kg sediment), does not provide for natural variations that will occur from time to time in samples collected from the field. Given the current wording for the proposed Receiving Waters Limitations, even one exceedance could potentially place permittees in violation regardless of the permittees level of effort. Reference should be made in this section to Section E.2.d.i.4 which will provide the opportunity for Permittee to develop BMP-based compliance efforts to meet interim goals.</p>		
46	4 of 8	C.5.b.2	<p>For the freshwater portion of the Dominguez Channel: the wording should be clarified. Section 5.a states that "Permittees subject to this TMDL are listed in Table C." Then the Table in Section C.5.b.2 Table "Interim Effluent Limitations-- Sediment", lists all permittees except the Fresh water portion of the Dominguez Channel. For clarification purposes, we request adding the phase to the first row: "Dominguez Channel Estuary (below Vermont)"</p>		
47	4 of 8	C.5.b.2			

7	9	(4)(c)	<p>While it may be appropriate to have an overall design storm for the NPDES Permit and TMDL compliance, this element seems to address individual sites. Recommend developing more prominently in the areas of the Permit that deals with compliance that the overall Watershed Management Program should deal with the 85th percentile storm and that beyond that, Permittees are not held responsible for the water quality from the much larger storms. However, requiring individual projects to meet this standard is limiting as there may be smaller projects implemented that individually would not meet 85th percentile, but collectively would work together to meet that standard. Please clearly indicate cities are only responsible for the 85th percentile storm for compliance and that individual projects may treat more of less than than number.</p>		
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April 13, 2012

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Los Angeles Regional Water Quality Control Board
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Los Angeles, CA 90013

VIA EMAIL - iridgeway@waterboards.ca.gov

SUBJECT: Technical Comments on Los Angeles Regional Water Quality Control Board Staff Working Proposals for the Greater Los Angeles County MS4 Permit (Permit) – Minimum Control Measures and Non-Stormwater Discharges

Dear Ms. Purdy and Mr. Ridgeway:

The Los Angeles Permit Group would like to take this opportunity to provide comments on the working proposals for Minimum Control Measures (MCMs) and prohibitions for non-stormwater discharges. These documents were posted on the Regional Board website on March 21 and March 28, 2012 respectively. The LA Permit Group appreciates the Regional Board staff's effort to develop the next NPDES stormwater permit and their commitment to meet with various stakeholders including our group. We look forward to continuing the dialogue with the Board staff on this very important permit. Our overarching comments on the MCMs and non-stormwater discharges are highlighted in this letter. Detailed comments regarding the Staff Working Proposal for MCMs are attached. Detailed comments related to Non-stormwater Discharges will be submitted next week.

Watershed-Based Program and Maximum Extent Practical Standard

In order to achieve further water quality improvements, the Permit needs to set clear goals, while allowing flexibility with the programs and BMPs implemented. The way to accomplish this is through integrated watershed planning and monitoring. This strategy has been presented by the LA Permit Group as it will allow permittees to look at the larger picture and develop programs and BMPs based on addressing multiple pollutants. In doing so, limited local resources can be concentrated on the highest priorities. The LA Permit Group has on numerous occasions expressed our support of a watershed based approach to stormwater management. It would appear in Provision VI.C.1.a that the Board proposal also supports this approach.

The permit should allow permittees to tailor actions as part of a Watershed Plan.. The permit should clearly indicate that permittees have the option of either adopting the MCMs as they are laid out within the permit or pursue a Watershed Plan that provides permittees with the flexibility to customize the MCMs. The opportunity for a municipality to customize the MCMs to reflect the jurisdiction's water quality conditions is absolutely critical if municipalities are to

- Maintaining a database that overlaps with the State's own SMARTS database. Asking Permittees to collect the same data adds unnecessary time and expense with no benefit to water quality.
- Maintaining a database for all types of permits is excessive and includes building permits that have little or no relevance to water quality protection.
- Requiring the development of a Rain Event Action Plan for small sites under 1 acre or for sites that would be categorized as Risk Level 1 under the CGP.

Those elements that shift State responsibility should be eliminated and the MCMs should be coordinated with other state and federal requirements, with particular attention to CGP and IGP requirements.

MCMs Should Reflect Effective Current Efforts

The LA Permit Group understands that the new Permit must reflect current efforts of stormwater management and water quality issues. Where the current stormwater management effort is assessed to be inadequate, then additional efforts are warranted. However, when permittees' current efforts are assessed to be adequate for protecting water quality, then the MCMs should reflect permittees' current efforts. One significant area where the LA Permit Group believes that the current effort is protective of water quality is in the new development program. Both the City and County of Los Angeles have developed and adopted Low Impact Development Ordinances and significant work, technical analysis, and public input have gone into the development of these ordinances. Rather than developing more stringent standards, the Permit should use these pre-established Ordinances as a reference for the type of program and flexibility needed to accommodate the unique and vastly varying characteristics throughout the County. Instead of providing detailed information in the text of the Permit, the LID provisions should outline general requirements of the program, and the details contained in a technical guidance manual. This point was reiterated by several speakers at the April 5, 2012 workshop, including BIA and supported by several Regional Board Members.

"MCMs for New Development"

Notwithstanding our comments above, the LA Permit Group has a number of concerns with the New Development provision of the MCMs. While the LA Permit Group has concerns and requests clarification with the other MCMs, we find the New Development MCMs the most challenging and unsupportable. These provisions are difficult to follow and the BMP selection hierarchy is confusing and at times in conflict. The LA Permit Group believes this provision should be redrafted. We have significant concerns with the following parts of the New Development MCMs:

- Selection hierarchy
- Infeasibility criteria
- Treatment Control Performance benchmarks (water quality based versus technology based)
- BMP tracking
- Inspection program
- BMP specificity

"MCMs for Public Agency Activities"

The Staff Working Proposal identifies, in a number of provisions, requirements to address trash regardless of whether the area is subject to a trash TMDL. We take exception to this approach, as on the one hand the MCMs requires prioritization, cleaning and inspection of catch basins as well as street sweeping and some other management control measures to address trash at public events. And then, even if the municipality is controlling trash through these control measures, the municipality must still install trash excluders (see page 63 regarding "additional trash management practices"). This makes little sense and the LA Permit Group would submit that if the initial control measures are successful, then the "additional trash management practices" are unnecessary (as evident by the lack of a TMDL).

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No.	Page	Citation	Comment
1	2	C.1.c	<p>The Definition of: "Development", "New Development" and "Re-development" should be added. The definitions in the existing permit should be used:</p> <p>"Development" means any 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.</p> <p>"New Development" means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.</p> <p>"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 a routine maintenance activity; and land disturbing activities 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.</p>
Legal Authority	4	2.a.i	<p>The last of the three "routine maintenance" activities listed above should exclude projects related to existing streets since typically you are not changing the "purpose" of the street to carry vehicles and should not be altered.</p> <p>Staff proposal states: "Control the contribution of pollutants to its MS4 from stormwater discharges associated with industrial and construction activity and control the quality of stormwater discharged from industrial and construction sites."</p> <p>It appears the intent of this language is to transfer the State's inspection and enforcement responsibilities to municipalities through the MS4 permit. When a separate general NPDES permit is issued by the Regional or State Board it should be the responsibility of that agency collecting such permit fees to control the contribution of pollutants, not MS4 permittees.</p>

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7	5	3.a	<p>Staff proposal states: "Each permittee shall exercise its full authority to secure fiscal resources necessary to meet all requirements of this Order"</p> <p>This sentence has no legally enforceable standard. What exactly does the exercise of "full authority" mean, when the exercise of a city's right to tax comes with consequences and no guarantee of success. Municipal entities must adjust for a variety of urgent needs, some federally mandated in a manner that cannot be ignored. So, if we seek the fiscal resources to fund the programs required in the permit and the citizens say "No", then a municipality will have a limited ability to comply with "all requirements of this Order"... Can the language be changed to state: "Each permittee shall make its best efforts given existing financial and budget constraints to secure fiscal resources necessary to meet all requirements of this Order"?</p>
Public Information and Participation Program			
8	6	6.a.iii	<p>Staff proposal states: "To measurably change the waste disposal and stormwater pollution generation behavior of target audiences..."</p> <p>Define the method to be used to measure behavior change. As written, this requirement is vague and open to interpretation.</p>
9	7	6.d.i.2.b	<p>Staff proposal states: "... including personal care products and pharmaceuticals)"</p> <p>The stormwater permit should pertain only to stormwater issues. Pharmaceuticals getting into waters of the US are typically a result of waste treatment processes. All references to pharmaceuticals should be removed from this MS4 permit.</p>
10	8	6.d.i.3	<p>The Regional Board assumes that all of the listed businesses will willingly allow the City to install displays containing the various BMP educational materials in their businesses. If the businesses do allow the installations then the City must monitor the availability of the handouts because the business will not monitor or keep the display full or notify the City when the materials are running out. If the business will not allow the City to display the educational material must we document that denial? Will that denial indicate that the City is not in compliance?</p>
Industrial/Commercial Facilities Program			
11	10	7.b.i.4	<p>Staff proposal states: "All other facilities tributary to waterbody segment addressed by a TMDL..."</p> <p>As written, this category is so vague that it could mean every single industrial or commercial facility. Please clearly define or revise this requirement. In this context, "commercial" refers to a currently unspecified category of facilities beyond those listed in VI.C.7.b.i.1 (page 9). Provide a precise definition for a commercial facility, or specify the extended category (or NAICS/SICs) of facilities to be considered. Also, clarify how the Permittees will initially determine the pollutants generated for these facilities. A method that will promote consistency among Permittees is preferred, such as a table of potential pollutants based on business type or activities.</p>

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20	21	8.b.i.1.g	We support the use of opportunity-based BMP guidance for roadway projects such as the referenced USEPA's "Green Infrastructure: Green Streets", however calling for this implementation to the maximum control possible is contradictory.
21	24	8.c.i.1	It appears based on the language that the project performance criteria of c. is intended to apply to all categories of new development and redevelopment projects as listed in b.i and b.ii. Please clarify whether this is meant to apply to single family hillside homes with no size limit? A new definition of single family hillside home has not been provided in this working draft, so it is unclear whether this is the case. If the intention was to only require the narrative measures for single-family hillside homes as listed in 8.b.i.(1)(k)-v, and not require to retain the design volume onsite, then that should be clarified by excluding them from the 8.c.i(1) statement.
22	24	8.c.i.2	The SWQDv definition should be modified to better reflect the purpose of the regulation as stated in 8.a.i(3) "... designing projects to minimize the impervious area footprint, and employing Low Impact Development (LID) design principles to mimic predevelopment water balance...". Modify as follows: "... the Stormwater Quality Design Volume (SWQDv) defined as the runoff from all impervious surfaces that are generated by a..."
23	24	8.c.i.2.c	The "whichever is greater" requirement is unnecessary since both criteria are deemed to be equivalent. This requirement will only increase design time by having engineering staff perform multiple analyses.
24	24	8.c.i.5	Please define the term "wet-weather season".
25	24	8.c.i.5	The only reasonable and still beneficial rainwater harvesting approach would require the storage of the seasonal (winter-time) runoff for use when needed (spring and summer). This would increase the size of the rainwater harvesting BMPs. RWQCB should acknowledge that rainwater harvesting is both economically and technically infeasible for the vast majority of development projects in arid Los Angeles region climates.
26	24	8.c.i.6	The 72 hour drawdown requirement is counterproductive. Most irrigation practices do not irrigate landscaping within 72 hours after heavy/medium rainfall events because the ground could be saturated and the plants do not require water. Irrigating saturated ground could result in increase dry weather runoff because the water will not percolate into the saturated soil quick enough.
27	25-26	Table	The table provided lacks clarity and the use of M, parameter is not clear and is not defined. However it appears to require projects that cannot retain runoff on-site to seek alternative locations to retrofit. We anticipate that this requirement will be unfeasible for a number of legal, logistical and technical reasons and as a result the "Least Preferred Option" will be exercised in most cases. The "Least Preferred Option" requires the over-sizing of the biofiltration systems by a factor of 1.5. We recommend that any design be consistent with established design standards (i.e. California Stormwater Quality Association) for consistency and ease in its implementation.
28	25-26	Table	The requirements that are provided in this table seem to be overly prescriptive. The requirements are not water-quality driven but rather groundwater-recharge driven. A more balanced approach will allow the use of multiple BMP options and not excluding effective treatment technologies.
29	28	8.c.iii.3.b	The proposed language uses terms that may be understood by hydrologists, but most city engineers and development engineers would not know what a HUC-10 or an HUC-12 Hydrologic Area is. Please define these terms if they are going to be used in this regulatory permit.

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41	40	8.d.iv.b	This requirement should be limited to the sites already visited as part of the "critical sources" program. Allow a self-inspection program where the property owners will be required to maintain their BMPs based on their type and maintenance needs. These requirements can be incorporated in the Covenant and Agreement (C & A). Property owners will be required to keep records of maintenance performed on these BMPs. Municipalities lack the resources to conduct the inspection. Municipalities can perform instead a review of the inspection records on a random and as-needed limited basis.
Development Construction			
42	41	9.d	Requiring this on all projects regardless of size is excessive. Small project will have minimal if any impact on water quality. A lower limit needs to be set for applicability such as 100 cubic yards of disturbed soil. It may be appropriate for projects to install a minimum set of BMPs without the need for a plan.
43	41	9.e.1.i	Maintaining the required database for all types of permits issued by the municipalities is excessive since not all permits require this type of information. In the City of Los Angeles for example about 35,000 building permits are issued annually.
44	42-43	9.f.ii	The number of elements for the ESCP should not be the same as those of the State SWPPP as required by the General Construction Permit. Existing Erosion Control Plans require the identification and placement of the BMPs in the engineering drawings and this has been identified as adequate.
45	43	9.f.ii.3.i	An example of how excessive it is to require these elements for the smaller sites is the requirement to prepare a Rain Event Action Plan (REAP). Under the Construction General Permit, a REAP is not required until the project reaches a Risk Level 2 status. It is not justifiable to say that a grading project, that does not disturb more than an acre and is not subject to a CGP, should be required to prepare a REAP.
46	43	9.f.ii.4	The requirement to discuss the rationale for the selection and design of the proposed BMPs (including soil loss calculations for the non-selected BMPs) is excessive and it dramatically increases the engineering costs of small construction projects. Please delete this requirement.
47	43	9.f.ii.5	The proposed language shifts much of the State responsibilities for sites greater than one acre to the Municipal Permittees without shifting the corresponding funding. Please consider setting-up a mechanism for the municipalities to operate the registration, fee collection, and inspection for sites that are under GCP coverage or revise the language so that Municipal Permittees are not made responsible parties for this activity.
48	43	9.f.ii.8	The proposed language asks cities to verify the approvals of the Army Corps of Engineers, Department of Fish and Game and the Regional Water Boards prior to the issuance of a grading or building permit. This requirement should not be implemented unless the Regional Board can provide a simple, easy to use system to accomplish the check. Furthermore, many projects reviewed every day do not require a 401, 404 or a 1600 certification to be allowed to grade on their site. The few cases where these certifications are required, they are taken care of in the EIR process rather than the Building or Grading permit process. This restriction should cite the Planning process rather than the building or grading process.
49	43-44	9.g.i	The Regional Board should not write this MS4 permit to overlap the CGP. A project that is required to have coverage under the CGP will deal with the Risk levels and apply the appropriate provisions of the CGP. Smaller sites that do not require coverage under the CGP should have lesser requirements than Risk Level 1 provisions.

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57	54	10.d	<p>Staff proposal states: "Each Permittee shall develop an inventory of retrofiting opportunities that meets the requirements of this Part. The goals of the existing development retrofiting inventory are to address the impacts of existing development through retrofit projects that reduce the discharges of stormwater pollutants into the MS4 and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards."</p> <p>This process would require land acquisition, a feasibility analysis, no impacts to existing infrastructure, proper soils, and support of various interested stakeholders. Additionally, if a property or area is being developed/redeveloped, retrofitting the site for water quality purposes makes sense, but not for an area where no development/redevelopment is planned. Finally, the LID provisions have already included provisions for off-site mitigation, in which we recommend that regional water quality projects be considered in lieu of local-scale water quality projects that will prove difficult to upkeep, maintain, and replace, let alone have existing sites evaluated as feasible. For these reasons, this requirement should be removed.</p> <p>Any retrofit activities should be the result of either an illicit discharge investigation or TMDL monitoring follow-up and will need to be addressed on a site-by-site basis. A blanket effort as proposed in a highly urbanized area is simply not feasible at this time.</p>
58	56	10.d.v	<p>Staff proposal states: "Each Permittee shall implement the following measures for flood management projects"</p>
59	56	10.e.ii	<p>Flood management projects need to be clearly defined.</p>
60	60	10.g.ii.7	<p>Staff proposal states: "Policies, procedures, and ordinances shall include commitments and a schedule to reduce the use of pesticides that cause impairment of surface waters..."</p>
61	62	10.h.iv.1.c	<p>The method which a pesticide that causes "impairment" to waterbodies needs to be defined. Staff proposal states: "Provide clean out of catch basins... 24 hours after event"</p>
62	63	10.h.vii.1	<p>Many public events happen on the weekends (i.e. Saturday). To avoid excessive overtime costs, please change the requirement to "next business day after the event" or "next business day." This requirement appears to be an "end-run" around the lack of catch basin structural BMPs in areas not covered by Trash TMDLs. The requirement has the potential to be extraordinarily economically burdensome. If an area is NOT subjected to a Trash TMDL, then the need for any mitigation devices is baseless. The MS4 permit requirements should not circumvent nor minimize the CWA 303(d) process.</p>
63	64	10.h.ix	<p>Staff proposal requires: "Infiltration from Sanitary Sewer to MS4 / Preventive Maintenance...." The State Water Board has implemented a separate permit for sewer maintenance activities. Additional sewer maintenance requirements are redundant and unnecessary. Please delete this requirement.</p>

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72	70	11.d.ii	Please revise the proposed language to "At a minimum, each Permittee/Permittees shall initiate an investigation(s) to identify and locate the source within 48 hours of becoming aware of the suspected illicit discharge." Due to the intermittent nature of illicit discharges, it may not be possible to conduct the investigation within 48 hours.
73	70	11.d.iii.1	"illicit discharges suspected of sanitary sewage... shall be investigated first." ICID inspectors should be allowed to make the determination of which event should be investigated first. For example, a toxic waste spill or a truck full of gasoline spill should take precedence over a sewage spill. This requirement should be amended to the "most toxic or severe threat to the watershed" shall be investigated first.
74	70	11.d.iii.4	Please revise the proposed language to "if the source of the discharge is found to be authorized under a NPDES permit..." if the discharge is permitted, then it is not "illicit".
75	70	11.d.iv.1	Please revise the first sentence of the proposed language to "if the source of the illicit discharge has been determined to originate within a Permittee's jurisdiction, the Permittee shall immediately notify the responsible party of the problem, and require the responsible party to conduct all necessary corrective actions to eliminate the illicit discharge within 48 hours of notification." "Non-stormwater" discharges do not equate to "illicit" discharges.
76	70	11.d.iv.2	Please revise the first sentence of the proposed language to "if the source of the suspected illicit discharge has been determined to originate within an upstream jurisdiction, the Permittee shall..." Unknown discharges are suspected of being illicit discharges, but may in fact prove to be authorized discharges.
77	71	11.d.v	Please revise the proposed language " <i>the Permittee shall work with the Regional Water Board to provide diversion of the entire flow to the sanitary sewer or provide treatment. In either instance, the Permittee shall notify the Regional Water Board in writing within 30 days of such determination and shall provide a written plan for review and comment that describes the efforts that have been undertaken to eliminate the illicit discharge, a description of the actions to be undertaken, anticipated costs, and a schedule for completion.</i> " To "the Permittee shall work with and provide support to the Regional Water Board to continue Progressive Enforcement Policy of the Regional Board."
78	71	11.e.i	In the case that an Illicit Discharge is ongoing, then the discharger can be identified and the responsibility to clean up and eliminate the discharge lies with the discharger. Any illicit discharge for which the Permittee has exhausted their Progressive Enforcement Policy should be deferred to the Regional Water Quality Control Board for additional Progressive Enforcement or permitting. Please revise the first sentence to "Permittee/Permittees, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation within 21 days..." The process to determine the source of an illicit connection or responsible party may take a considerable time should the suspected source be an unoccupied site.
79	71	11.e.ji	Please revise the "days of completion" from 90 to 180 days. Illicit connections need to be disconnected from the storm drain system in the street Right of Way, which will require plans and permitting. Permitting with in State Right of Way can take on average 60 to 120 days.

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1	1	III.A.1.a and III.A.2	<p>RB staff proposed language requires the permittees to “effectively prohibit non-stormwater discharges <i>into</i> the MS4 and <i>from</i> the MS4 to receiving waters” except where authorized by a separate NPDES permit or conditionally authorized in sections III.A.3-6.</p> <p>This may overstep the required legal authority provisions in the federal regulations since 40CFR122.26 (d)(1)(ii) requires legal authority to control discharges <i>to</i> the MS4 but not <i>from</i> the MS4. Additionally, with respect to the definition of an illicit discharge at 40CFR122.26(b)(2), an illicit discharge is defined as “a discharge <i>to</i> the MS4 that is not composed entirely of stormwater”. In issuing its final rulemaking for stormwater discharges on Friday, November 16, 1990¹, USEPA states that:</p> <p style="padding-left: 40px;"><i>Section 405 of the WQA alters the regulatory approach to control pollutants in storm water discharges by adopting a phased and tiered approach. The new provision phases in permit application requirements, permit issuance deadlines and compliance with permit conditions for different categories of storm water discharges. The approach is tiered in that storm water discharges associated with industrial activity must comply with sections 301 and 402 of the CWA (requiring control of the discharge of pollutants that utilize the Best Available Technology (BAT) and the Best Conventional Pollutant Control Technology (BCT) and where necessary, water quality-based controls), but permits for discharges from municipal separate storm sewer systems must require controls to the maximum extent practicable, and where necessary water quality-based controls, and must include a requirement to effectively prohibit non-stormwater discharges into the storm sewers.</i></p> <p>This is further illuminated by the section on Effective Prohibition on Non- Stormwater Discharges²:</p> <p style="padding-left: 40px;"><i>“Section 402(p)(3)(B)(ii) of the amended CWA requires that permits for discharges from municipal storm sewers shall include a requirement to effectively prohibit non-storm water</i></p>

¹ 55 FR 47990-01 VI.G.2. Effective Prohibition on Non-Stormwater Discharges

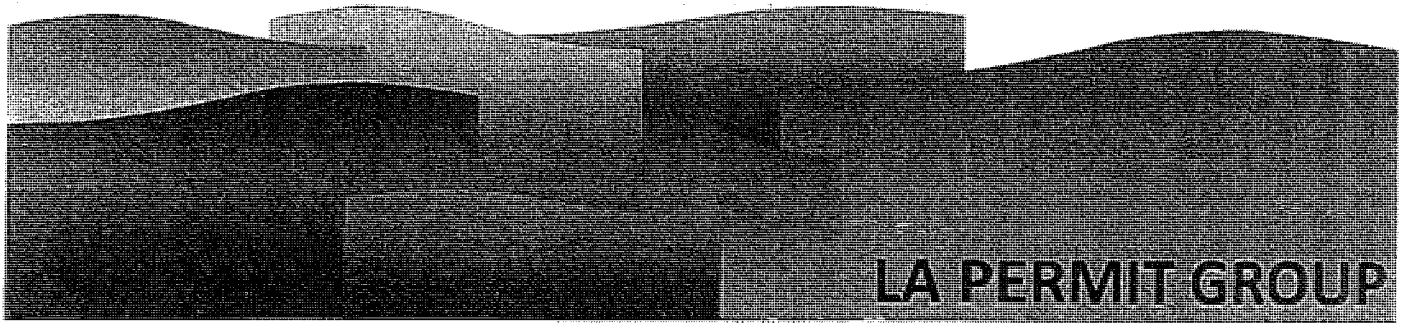
² 55 FR 47990-01 VI.G.2. Effective Prohibition on Non-Stormwater Discharges

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3	3	III.A.3.b.i and III.A.3.b.ii	We'd suggest that Table "X" be revised to include specific sections in Part V or VI.D that may modify the exempt determination. We'd respectfully request that, based on the Executive Officer's determination of a problem, a reopener clause is added so the Permit may be amended to account for changes exempt/conditionally exempt status.
4	3	III.A.3.b.iii	MS4 Permittees do not have the legal authority to divert and/or treat water from natural springs or riparian wetlands (including those which are spring fed) before they enter the MS4. We believe such flows should be unconditionally exempt from the discharge prohibitions.
5	4	III.A.3.b.x	MS4 Permittees do not have the legal authority to override State or Regional Board authorized discharges from stream diversions. Once the State or Regional Board authorizes a discharge, the State or Regional Board becomes responsible for any pollutants in that discharge. For MS4 Permittees, this discharge should be unconditionally exempt.
6	4	III.A.3.b.xv	The combination of gravity flow and a pumped flow is not appropriate. Gravity flow is not dewatering while pumped flow is dewatering. Please separate the two types of discharge. The installation of drain piping around a below grade foundation wall is intended to provide safety so that water pressure does not build up against a below grade wall. If the built-up water, which is generally not ground water but rather infiltrating rain water, then it can be drained by gravity which is not dewatering and therefore should not require an NPDES permit.
7	4	III.A.3.b.xvi	The conditional exemption of street/sidewalk water is inconsistent with the requirement in the industrial/commercial MCM section that street washing must be diverted to the sanitary sewer. Sidewalk water should be conditionally exempt, but so also should patios and pool deck washing. If street washing has to be diverted to the sanitary sewer for industrial/commercial facilities, then it should for all facilities and so should parking lot wash water as they are similar in their pollutant loads.
8	4	III.A.3.b.xvi	Emergency fire fighting flows should be unconditionally exempt since they are necessary to protect life and property, regardless of whether or not they cause or contribute to an exceedance of RWL and/or WQBEL. To be consistent with the Ventura county permit, and because of the close link between emergency and non-emergency fire-fighting flows, we request all fire-fighting flows be unconditionally exempt or at minimum consider revising some of the proposed conditions of Table X to be more practicable and flexible.
9	6	III.A.5.c.i	Footnote No.10 which expressly prohibits building fire suppression system maintenance (e.g. fire line flushing) discharges to the MS4. With no viable alternative than discharging to the MS4, this prohibition directly conflict with California Health and Safety Code and the State Fire Marshall on the necessity to flush the system. Please delete this explicit prohibition. The requirement to "eliminate irrigation overspray" is impossible to attain. An ordinance that

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15	Table X	General	Enforcing NPDES permits issued for the various NSWDs referenced in this table should be the responsibility of the State/Regional Board, not the MS4 permittee. Therefore, it is inappropriate to include a condition that places a responsibility on the MS4 permittee to ensure requirements of NPDES permits are being implemented or effective in order for the pertaining NSWD category to be exempt. Proper enforcement of the various NPDES permits mentioned in this table should ensure impacts from these discharges are negligible.
16	Table X	Rising Groundwater	The condition that an NPDES permit is required when rising groundwater occurs where a sump pump is necessary in basement of residential buildings may become a significant burden to the LARWQCB—the number of such occurrences in the LA Basin will be very large.
17	Table X	Landscape Irrigation	Conditions should distinguish new landscape installation from retrofits. These conditions are much easier to require on new landscapes than on existing landscapes.
18	Table X	Swimming Pool/spa dischargers	By imposing additional criteria for the proper discharge of swimming pool water, it greatly increases the complexity for the thousands of homeowners in Los Angeles county to comply with these conditions and may result in fewer amounts of these flows from being dechlorinated. Consider simplifying the proposed conditions.



July 2, 2012

Maria Mehranian, Chairperson
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th St., Suite 200
Los Angeles, CA 90013

SUBJECT: Comment Period for Draft NPDES Permit for MS4 Discharges

Honorable Chairperson Mehranian:

This letter is to request the Regional Board to provide sufficient time for review the draft NPDES Permit for MS4 Discharges needed to make this process **open and transparent**.

The LA Permit Group is in receipt of the Notice of Opportunity for Public Comment and Notice of Public Hearing for the Draft NPDES Permit for MS4 Discharges and of the draft permit. This draft permit is over 500 pages and incorporates provisions for 33 TMDLs and implementation requirements, new low impact development requirements and extensive new requirements for new water quality monitoring, however our permittees have been given only 45 days to provide written comments.

While we understand a new MS4 Permit is long overdue in LA County, we do not understand why the Regional Board would want to rush this landmark regulation through the approval process. It is in everyone's best interest to keep the permitting process as open and transparent as possible. Through this entire process, the LA Permit Group has committed to a process that would cooperatively develop the next MS4 Permit. We have made every effort to stay engaged in the process and have proactively sought involvement in all aspects of the Permit development. The LA Permit Group is appreciative of the efforts the Board and Staff has taken to review certain aspects of the Permit with permittees in workshops; however, upon release of the Tentative, many of the Permit provisions contained substantial changes from previous versions, or contained brand new sections that we had not yet seen throughout this process. Seeing the permit in its entirety and having the opportunity to understand how each of the sections and programs work together is imperative in order for permittees to fully understand the permit provisions and to prepare comments.

We believe the Regional Board wants a review process that is open and transparent; however, providing permittees only 45 days to comment makes it impossible for this process to be open and transparent. In order to develop and provide relevant and meaningful comments, each permittees must first:

- Read a 500 page permit,
- Study the 500 page permit to understand how the provisions work together,
- Compare it to the last permit,
- Evaluate the resource needs to comply with the permit,
- Determine the fiscal and organizational impacts on city services; this requires coordination with several city departments,
- Prepare legal review and comments,

Exhibit E:

RWL submitted by CASQA re Caltrans permit

CASQA comments on Caltrans MS4 Permit Second Revised Draft Tentative Order

Like the Caltrans draft Tentative Order, the County of Los Angeles MS4 permit includes Receiving Water Limitations language that is consistent with the language developed by the State Water Board in its Order WQ 99-05. In previous State Water Board orders, the Board indicated that the language specified in Order WQ 99-05 did not require strict compliance with water quality standards. The language in question is often referred to as the "iterative process."

However, contrary to the State Water Board's stated intent and the understanding of CASQA, the Ninth Circuit Court of Appeals found that, because the iterative process paragraph did not explicitly state that a party who was implementing the iterative process was not in violation of the permit, a party whose discharge "causes or contributes" to an exceedance of a water quality standard is in violation of the permit, even though that party is implementing the iterative process in good faith.

As a result of the court's decision, if the draft language is not changed, all discharges to receiving waters must meet water quality standards to avoid being in violation of permit terms. Although an important goal, no one reasonably expects Caltrans or any other municipal permittee to be able to meet this goal now. Indeed, the impossibility of meeting this goal is reflected by the hundreds of TMDLs across the state that specifically recognize that water quality standards cannot currently be met, often for reasons beyond Caltrans or other permittees' control, and that instead an adaptive program over a span of several years or longer is necessary.

Thus, unless this language is changed, Caltrans may be vulnerable to enforcement actions by the state and third party citizen suits alleging violations of the permit terms in question. Indeed, the liability resulting from a failure to address these provisions may be a risk to Caltrans regardless of the current or future enforcement policy of the State or Regional Water Boards. For example, the City of Stockton was engaged in the iterative process per the terms of its Permit, but was nonetheless challenged by a third-party on the basis of the Receiving Water Limitations language. There is no regulatory benefit to imposing permit provisions that result in the potential of immediate non-compliance for the Permittee.

To avoid undercutting the regulatory benefits of the State Water Board's program for Caltrans (and other MS4s), the Receiving Water Limitations language must be revised. In an attempt to avoid this undercutting we have attached proposed language for the Receiving Water Limitation provision. CASQA believes that our suggested Receiving Water Limitations language is drafted in a manner to clearly indicate that compliance with the iterative process provides effective compliance with the discharge prohibition (General Discharge Prohibition A.4), and the "shall not cause or contribute" receiving water limitations (Receiving Water Limitations D.2 and D.3). Furthermore the proposed language allows the MS4s to focus and prioritize their resources on critical water quality issues that will lead to water quality improvement, such as those reflected by the TMDLs. We therefore request further consideration of this or other alternative language so as to avoid a situation where, even if Caltrans is in complete compliance with the iterative process provisions, it could be subject to significant liability and lawsuits.

We thank you again for the opportunity to provide our comments and we ask that the Board carefully consider them and our suggested Receiving Water Limitations language for the



California Stormwater Quality Association

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

February 21, 2012

Mr. Charles Hoppin, Chair
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-0100

Subject: Receiving Water Limitation Provision to Stormwater NPDES Permits

Dear Mr. Hoppin:

As a follow up to our December 16, 2011 letter to you and a subsequent January 25, 2012 conference call with Vice-Chair Ms. Spivy-Weber and Chief Deputy Director Jonathan Bishop, the California Stormwater Quality Association (CASQA) has developed draft language for the receiving water limitation provision found in stormwater municipal NPDES permits issued in California. This provision, poses significant challenges to our members given the recent 9th Circuit Court of Appeals decision that calls into question the relevance of the iterative process as the basis for addressing the water quality issues presented by wet weather urban runoff. As we have expressed to you and other Board Members on various occasions, CASQA believes that the existing receiving water limitations provisions found in most municipal permits needs to be modified to create a basis for compliance that provides sufficient rigor in the iterative process to ensure diligent progress in complying with water quality standards but also allows the municipality to operate in good faith with the iterative process without fear of unwarranted third party action. To that end, we have drafted the attached language in an effort to capture that intent. We ask that the Board give careful consideration to this language, and adopt it as 'model' language for use statewide.

Thank you for your consideration and we look forward to working with you and your staff on this important matter.

Yours Truly,

Richard Boon, Chair
California Stormwater Quality Association

cc: Frances Spivy-Weber, Vice-Chair – State Water Board
Tam Doduc, Board Member – State Water Board
Tom Howard, Executive Director – State Water Board
Jonathan Bishop, Chief Deputy Director – State Water Board
Alexis Strauss, Director – Water Division, EPA Region IX

- b. Submit any modifications to the report required by the State of Regional Water Board within 60 days of notification. The report is deemed approved within 60 days of its submission if no response is received from the State or Regional Water Board.
 - c. Implement the actions specified in the report in accordance with the acceptance or approval, including the implementation schedule and any modifications to this Order.
 - d. As long as the Permittee has complied with the procedure set forth above and is implementing the actions, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the State Water Board or the Regional Water Board to develop additional BMPs.
4. For Receiving Water Limitations associated with waterbody-pollutant combinations addressed in an adopted TMDL that is in effect and that has been incorporated in this Order, the Permittees shall achieve compliance as outlined in Part XX (Total Maximum Daily Load Provisions) of this Order. For Receiving Water Limitations associated with waterbody-pollutant combinations on the CWA 303(d) list, which are not otherwise addressed by Part XX or other applicable pollutant-specific provision of this Order, the Permittees shall achieve compliance as outlined in Part D.3 of this Order.
5. If a Permittee is found to have discharges from its MS4 causing or contributing to an exceedance of an applicable water quality standard or causing a condition of nuisance in the receiving water, the Permittee shall be deemed in compliance with Parts D.1 and D.2 above, unless it fails to implement the requirements provided in Parts D.3 and D.4 or as otherwise covered by a provision of this order specifically addressing the constituent in question, as applicable.