Proposed Addition to ATTACHMENT E, LIST OF TOTAL MAXIMUM DAILY LOADS (TMDLs) APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGERS

Oxnard Drain No. 3 Total Maximum Daily Load (TMDL) for Pesticides, PCBs, and Sediment Toxicity

Resolution No.	N/A (Established by U.S. Environmental Protection Agency Region IX)
Effective Date	October 6, 2011
Impaired Water Body(ies)	Oxnard Drain No. 3[1]
Pollutant(s)	Bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene, PCBs, and sediment toxicity
Responsible Dischargers	Industrial Storm Water Permittees that discharge storm water associated with industrial activities[2] and/or non-storm water to the impaired waterbody either directly or via a municipal separate storm sewer system (MS4) or an upstream reach or tributary.
Required Actions	Comply with the conditions and requirements of the Industrial Storm Water General Permit (Order No. 2014-0057-DWQ). If bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene, and PCBs are not already addressed in the facility's current Storm Water Pollution Prevention Plan (SWPPP), including its Assessment of Potential Pollutant Sources per Section X.G.2.a.ix, then Responsible Dischargers, as defined above, shall assess all areas of industrial activity at the facility relative to their potential as a source of bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene, and PCBs in storm water discharges associated with industrial activities and in authorized Non-Storm Water Discharges (NSWDs). The facility's SWPPP, including but not limited to the Assessment of Potential Pollutant Sources (Section X.G.2) and, where necessary, Best Management Practices (Section X.H) and Monitoring Implementation Plan (Section X.I), shall be updated based on the results. The revised SWPPP shall be certified and submitted via SMARTS no later than 6 months after incorporation of these TMDL-specific requirements in this Order. Responsible Dischargers that have identified[3] their facility as a potential source of bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene, and PCBs in storm water discharges associated with industrial activities and/or in authorized NSWDs

[1] Also known as Rio de Santa Clara, Arnold Road Drain, or L Street Drain.

[2] Including storm water not associated with industrial activities that is commingled with storm water associated with industrial activities.

[3] Either in the facility's existing SWPPP, or through the update to the facility SWPPP and the Assessment of Potential Pollutant Sources, as described below.

shall comply with a TMDL Action Level (TAL) for Suspended Sediment Concentration (SSC) of 1 mg/L. The following analytical test method shall be used.

Parameter	Test Method
SSC	ASTM D3877-97

If sampling results indicate a TAL exceedance as set forth in Section XII.A, the Discharger shall commence the Exceedance Response Actions (ERAs) process set forth in Section XII.

The State and/or Regional Water Board may require Industrial Storm Water General Permittees to implement additional actions to reduce these pesticides and PCBs in storm water discharges associated with industrial activities and in authorized NSWDs based on, but not limited to, monitoring data and comparison to the SSC TAL, visual observations, discharger reports, or site-specific inspections and/or investigations.

Monitoring and Reporting Requirements

Where the facility's Assessment of Potential Pollutant Sources (described above) identifies the facility as a potential source of bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene, and/or PCBs in storm water discharges associated with industrial activities and/or in authorized NSWDs, Responsible Dischargers shall update the facility Monitoring Implementation Plan (Section X.I) per Section XI.B.6.e-f to include:

- Sampling and analysis for SSC during Qualifying Storm Events (QSEs);
- Sampling and analysis of the facility's authorized NSWDs for SSC twice within a reporting year; and
- U.S. EPA approved analytical methods, with appropriate method detection and reporting limits relative to the SCC TAL.

The updated Monitoring Implementation Plan shall be included in the revised SWPPP and submitted via SMARTS no later than 6 months after incorporation of these TMDL-specific requirements in this Order.

TMDL documents are available at:
http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/

Fact Sheet for Oxnard Drain No. 3 Pesticides, PCBs, and Sediment Toxicity TMDL

Oxnard Drain No. 3 is located near Oxnard, CA in the Calleguas Creek watershed. The Oxnard Drain No. 3 watershed largely overlaps with the Mugu Lagoon subwatershed and the Ormond Beach area. The drain is 3.3 miles long and typically about 50 feet wide. Freshwater enters Oxnard Drain No. 3 through a system of agricultural drainage canals and seasonal ponds in a duck club. Oxnard Drain No. 3 also experiences muted tidal action from leaking tide gates connected to Mugu Lagoon. Almost all of Oxnard Drain No. 3 lies within the Point Mugu Naval Air Base. Although on naval property, most of the land immediately surrounding Oxnard Drain No. 3 is an undeveloped wetland, which supports a great diversity of wildlife. Over 200 migratory bird species utilize the Ormond Beach area, and more shorebird species are known to use Ormond Beach than any other site in Ventura County. Six threatened and endangered species and six species of concern have been identified in the area (Ormond Beach Wetlands Restoration Project, 2011). Human recreation is restricted to the area off naval property, near Arnold Road. Visitors are not allowed to fish, boat, or swim in the drain but fishing is known to occur (USEPA 2011).

Oxnard Drain No. 3 is on the Clean Water Act Section 303 (d) List as impaired due to pesticides, PCBs, and sediment toxicity. Pesticides and PCBs are chemical substances that persist in the environment, bioaccumulate through the food web, and pose a risk of causing adverse effects to human health and aquatic life. Chlordane, DDT, dieldrin, toxaphene and PCBs are legacy pollutants, the use of which has been banned or restricted, but which persist in the environment. Bifenthrin and chlorpyrifos are pesticides that are currently in use.

To address these impairments, the US EPA established a TMDL in 2011. The Oxnard Drain No. 3 Pesticides, PCBs, and Sediment Toxicity TMDL addresses the protection of beneficial uses of the Oxnard Drain No. 3 and Mugu Lagoon, which is downstream, associated with the following: preservation of biological habitats, commercial and sport fishing, estuarine habitat, marine habitat, migration of aquatic organisms, rare, threatened, or endangered species, water contact recreation, non-contact water recreation, shellfish harvesting, spawning, reproduction and/or early development of fish, wetland habitat, and wildlife habitat.

Numeric Targets

The numeric targets are those required to protect the beneficial uses above. The numeric targets include water column targets, sediment targets and fish tissue targets. They are based on the water quality objectives in 40 C.F.R. section 131.38, sediment quality guidelines by MacDonald et al. (2000), biota-sediment accumulation factors (BSAF), and Office of Environmental Health Hazard Assessment fish contaminant goals (FCGs).

Wasteload Allocations

The wasteload allocations (WLAs) for Industrial Storm Water General Permittees, in the table below, are equivalent to the concentration-based numeric targets.

WLAs Assigned to Storm Water Discharges and Authorized NSWDs from Industrial Storm Water General Permittees

Pollutant	Concentration (as instantaneous maximum)		
	Water Column (µg/L)	Suspended Sediment[4] (µg/dry kg)	Alternate Suspended Sediment WLA[5] (µg/dry kg)
Bifenthrin	0.0006	-	-
Chlordane (total)	0.00059	0.5	3.3
Chlorpyrifos	0.0056	-	-
4,4'-DDT	0.00059	1.0	-
4,4'-DDE	0.00059	2.2	2.2
4,4'-DDD	0.00084	2.0	2.0
Dieldrin	0.00014	0.02	4.3
Toxaphene	0.0002	0.1	360
PCBs (total)	0.00017	22.7	180

These organic substances preferentially bind to sediments; as a result, the key source of these organic substances in authorized NSWDs and in storm water discharges from Industrial Storm Water General Permittees is sediment conveyed in runoff from these industrial facilities.

Required Actions

The required actions apply to Industrial Storm Water General Permittees whose storm water discharges associated with industrial activities and authorized NSWDs have the potential to contribute pesticides and PCBs to Oxnard Drain No. 3 either directly or via a MS4 or upstream tributary.

If bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene and PCBs are not already addressed in the facility's current Storm Water Pollution Prevention Plan (SWPPP), including its Assessment of Potential Pollutant Sources per Section X.G.2.a.ix, then Responsible Dischargers, as defined above, will be required to assess all areas of industrial activity at the facility relative to their potential as a source of these parameters in authorized Non-Storm Water Discharges (NSWDs) and storm water discharges. The facility's SWPPP, including but not limited to the Assessment of Potential Pollutant Sources (Section X.G.2) and, where necessary, Best Management Practices (Section X.H) and Monitoring Implementation Plan (Section X.I), must be updated based on the results, pursuant to Section X.B.1-2. The revised SWPPP must be certified and

[4] The suspended sediment WLAs apply unless sampling results from the receiving water are provided demonstrating that the TMDL fish tissue target and sediment toxicity target are achieved in Oxnard Drain No. 3.

[5] The alternate suspended sediment WLAs apply if sampling results from the receiving water have been provided demonstrating that the TMDL fish tissue target and sediment toxicity target are achieved in Oxnard Drain No. 3.

submitted via SMARTS no later than 6 months after the incorporation of these TMDL-specific requirements into this Order.

Compliance with Wasteload Allocations

Responsible Dischargers subject to the Oxnard Drain No. 3 TMDL will be required to implement BMPs identified in their updated SWPPP and conduct sampling and analysis of authorized NSWDs and storm water discharges for TMDL pollutants to assess BMP effectiveness in order to ensure their authorized NSWDs and storm water discharges comply with the WLAs listed above.

Regarding NSWDs, the Industrial Storm Water General Permit identifies these as either unauthorized NSWDs or authorized NSWDs (Sections III and IV.A.). Unauthorized NSWDs are prohibited under Section III.B. Authorized NSWDs cannot be in violation of any Basin Plan, including TMDL WLAs contained in a Basin Plan, or statewide water quality control plan or policy (Section IV.B). The required Storm Water Pollution Prevention Plan (SWPPP) must include implementation of appropriate BMPs to ensure that authorized NSWDs do not contain quantities of pollutants that cause or contribute to an exceedance of a water quality standard (Section IV.B.3.c). Further, Section VI.A stipulates that Dischargers shall ensure that industrial storm water and authorized NSWDs do not cause or contribute to an exceedance of any applicable water quality standards in any affected receiving water.

Regarding storm water discharges, reducing the discharge of pesticides and PCBs can be achieved by utilizing Best Management Practices (BMPs). The pesticides and PCBs addressed by the TMDL preferentially bind to sediment; therefore, BMP that prevent erosion and sedimentation can be particularly effective. Additionally, BMPs that eliminate exposure of storm water discharges and NSWDs to pollutant sources, retain storm water onsite, and/or treat storm water prior to discharge from the industrial facility can be used.

Therefore, compliance with the existing conditions and requirements in the Industrial Storm Water General Permit, including but not limited to, updating the SWPPP to address TMDL pollutants and suspended sediment in the facility's discharges; implementing BMPs as set forth in Section X.H, including, in particular, Erosion and Sediment Controls (Section X.H.1.e) and Advanced BMPs (Sections X.H.2 and X.H.6); along with BMP effectiveness monitoring (Section XI) and the Exceedance Response Actions process (Section XII), is generally expected to ensure compliance with the WLAs assigned to industrial storm water dischargers in the Oxnard Drain No. 3 Pesticides, PCBs, and Sediment Toxicity TMDL.

Responsible Dischargers that have identified[6] their facility as a potential source of bifenthrin, chlorpyrifos, chlordane, DDT, dieldrin, toxaphene, and/or PCBs in storm water discharges associated with industrial activities and/or in authorized NSWDs shall

[6] Either in the facility's existing SWPPP, or through the update to the facility SWPPP and the Assessment of Potential Pollutant Sources, as described below.

comply with a TMDL Action Level (TAL)[7] for Suspended Sediment Concentration (SSC) of 1 mg/L, expressed as an instantaneous maximum value. Responsible Dischargers will be required to demonstrate through sampling and analysis that the facility's authorized NSWDs and its storm water discharges associated with industrial activities do not exceed the SSC TAL. If sampling results indicate a TAL exceedance as set forth in Section XII.A, the Discharger shall commence the Exceedance Response Actions (ERAs) process set forth in Section XII.

In conclusion, considering the existing conditions and requirements in the Industrial Storm Water General Permit regarding unauthorized and authorized NSWDs and storm water discharges, if a Discharger complies with the Industrial Storm Water General Permit, including updating the SWPPP and implementing Erosion and Sediment Control BMPs and other Advanced BMPs where necessary, the Discharger is not likely to discharge pesticides and PCBs above the applicable WLAs from its industrial areas. Therefore, no additional requirements beyond complying with the Industrial Storm Water General Permit, including updating and implementing the SWPPP, and implementing ERAs for exceedances of the SSC TAL are necessary to comply with the WLAs assigned to industrial storm water dischargers at this time.

However, if it is determined, based on, but not limited to, monitoring data and comparison of results to the SSC TAL, observations of the site, discharger reports, and/or site-specific inspections and/or investigations, that a Discharger may be causing or contributing to an exceedance of a WLA, the State and/or Regional Water Board retains the authority to require Dischargers to further revise SWPPPs, BMPs, and/or monitoring programs, or direct a Discharger to obtain an individual National Pollutant Discharge Elimination System (NPDES) permit, if deemed necessary.

Monitoring and Reporting Requirements

To ensure that storm water discharges comply with the Industrial Storm Water General Permit and, in particular, Section VI.A and the SSC TAL, as necessary to achieve the WLAs, the State Water Board finds that sampling and analysis of a facility's storm water discharges for SSC is necessary. Industrial Storm Water General Permittees identified as Responsible Dischargers, above, will be required, per Section XI.B.6.e-f, to update the facility Monitoring Implementation Plan (Section X.I) no later than 6 months after the incorporation of these TMDL-specific requirements into this Order to include sampling and analysis for SSC during Qualifying Storm Events.

To ensure that authorized NSWDs comply with the Industrial Storm Water General Permit and, in particular, Sections IV.B and VI.A and the SSC TAL, as necessary to achieve the WLAs, the State Water Board finds that sampling and analysis of a facility's authorized NSWDs for SSC is also necessary. Industrial Storm Water General Permittees will be required, per Section XI.B.6.e-f, to update the facility Monitoring Implementation Plan (Section X.I) no later than 6 months after the incorporation of these

[7] A TMDL Action Level (TAL) is treated in the same manner as a Numeric Action Level (NAL) for the purposes of permit requirements, including the Monitoring Implementation Plan (Section X.I), Monitoring (Section XI), and Exceedance Response Actions (Section XII).

TMDL-specific requirements into this Order to include sampling and analysis of the facility's authorized NSWDs for SSC twice during each reporting year, unless the Discharger provides documentation in its SWPPP per Section X.G.1.e, and through its monthly visual observations and records per Section XI.A.1-3, that there are no authorized NSWDs or these authorized NSWDs are fully contained on site.

To support the additional sampling and analysis required, Industrial Storm Water General Permittees will also be required to update the facility's Monitoring Implementation Plan to include U.S. EPA approved analytical methods, with appropriate method detection and reporting limits per Section XI.B.6.e, to determine the effectiveness of the BMPs for authorized NSWDs and storm water discharges at achieving the applicable TAL for SSC.

The following analytical test method is appropriate.

Parameter	**Test Method**
SSC	ASTM D3877-97

Regulatory Mechanisms

The regulatory mechanisms available to the State and/or Regional Water Boards to require Industrial Storm Water General Permittees to implement additional actions and additional monitoring include: the Industrial Storm Water General Permit and the authority contained in sections 13263, 13267, and 13383 of the California Water Code. Under these regulatory mechanisms, the State and/or Regional Water Boards may require an Industrial Storm Water General Permittee to collect samples of its storm water and NSWDs and analyze them for SSC, pesticides and PCBs to determine compliance with the applicable WLAs in the TMDL.