NOTICE OF OPPORTUNITY FOR PUBLIC COMMENT

DRAFT TMDL-SPECIFIC PERMIT REQUIREMENTS FOR THE STATE WATER RESOURCES CONTROL BOARD'S INDUSTRIAL GENERAL STORM WATER PERMIT (Machado Lake Subwatershed)

NOTICE IS HEREBY GIVEN that the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) invites public comments on draft Total Maximum Daily Load (TMDL)-specific permit requirements for the statewide *General Permit for Storm Water Discharges Associated with Industrial Activities, Order No. 2014-0057-DWQ, NPDES Permit No. CAS000001* (Industrial General Permit). The draft TMDL-specific permit requirements are for the following TMDLs in the Machado Lake Subwatershed:

- Machado Lake Eutrophic, Algae, Ammonia, and Odors (Nutrient) TMDL
- Machado Lake Pesticides and PCBs TMDL

As explained below, after receiving public comment, the Los Angeles Water Board will submit proposed TMDL-specific permit requirements to the State Water Resources Control Board (State Water Board) for the State Water Board to consider adoption and incorporation into the Industrial General Permit. The Los Angeles Water Board will take no formal action regarding the proposed TMDL-specific permit language.

BACKGROUND

On April 1, 2014, the State Water Board reissued the Industrial General Permit.[1] As required by findings 38 through 42 of the Industrial General Permit, the State Water Board and Los Angeles Water Board are jointly developing proposed TMDL-specific permit requirements for the TMDLs established by the Los Angeles Water Board or U.S. EPA Region IX in which wasteload allocations are assigned to industrial storm water dischargers, as listed in Attachment E of the Industrial General Permit. The Los Angeles Water Board is providing notice and a 30-day public comment period on the draft proposed TMDL-specific permit requirements before submitting the proposed TMDL-specific permit requirements to the State Water Board. The Los Angeles Water Board will take no formal action regarding the proposed TMDL-specific permit requirements. The Los Angeles Water Board will forward all timely received written comments along with the proposed TMDL-specific permit requirements to the State Water Board for consideration during the State Water Board's proceedings to consider amendment of the Industrial General Permit. The State Water Board will provide a separate public comment period later this year regarding the reopening of the Industrial General Permit to amend Attachment E, the fact sheet, and other permit provisions as necessary for incorporation of the TMDL-specific permit requirements into the Industrial General Permit.

[1] The Industrial General Permit is available electronically at: http://www.swrcb.ca.gov/water_issues/programs/stormwater/industrial.shtml.

Interested persons are strongly encouraged to submit written comments to the Los Angeles Water Board during the comment period described below before the proposed TMDL-specific permit requirement language is submitted to the State Water Board. Until the State Water Board adopts an amendment to the Industrial General Permit incorporating the TMDL-specific permit requirements, dischargers enrolled in the Industrial General Permit are not required to take any additional actions beyond those already required in the Industrial General Permit.

DOCUMENT AVAILABILITY

The proposed TMDL-specific permit requirements and associated Fact Sheet language for each TMDL noted above is attached to this notice and is also available for review on the Los Angeles Water Board's website at:

http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/sw_index.shtml

SUBMISSION OF WRITTEN COMMENTS

All written comments pertaining to the Los Angeles Water Board's draft TMDL-specific Industrial General Permit requirements and associated Fact Sheet language must be *received* by the Los Angeles Water Board by **5:00 p.m. on Monday, April 17, 2016**. Written comments must be sent to the Los Angeles Water Board by mail or by email at the following addresses:

By Mail:
Los Angeles Regional Water Quality Control Board
Attention: Pavlova Vitale
320 West 4th Street Suite 200
Los Angeles, CA 90013

By Email:
losangeles@waterboards.ca.gov

Please indicate in the subject line of all written comments "**Comments on Draft TMDL-Specific IGP Requirements** – **Machado Lake Subwatershed**." In the comments, please also specify which TMDL(s) the comments pertain to.

CONTACT FOR FURTHER INFORMATION

Please contact Pavlova Vitale, Sr. Environmental Scientist, at (213) 576-6751 or Pavlova.Vitale@waterboards.ca.gov with any questions regarding this notice or any of the proposed TMDL-specific permit requirements.

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

Machado Lake Total Maximum Daily Load (TMDL) for Nutrients

Resolution No.	R08-006
Effective Date	March 11, 2009
Impaired Water Body(ies)	Machado Lake
Pollutant(s) and Related Effect(s)	Total Phosphorous, Total Nitrogen (TKN + NO_3-N + NO_2-N), Ammonia as Nitrogen, Algae, Odor, Eutrophic Conditions
Responsible Dischargers	Industrial Storm Water General Permittees whose facilities fall within Standard Industrial Classification (SIC) codes associated with the TMDL pollutants as set forth in Table 1 (102X, 144X, 207X, 281X, 284X, 287X, 34XX, 3479, 45XX and 4953) and that discharge non-storm water and/or storm water associated with industrial activities[1] to the impaired waterbody either directly or via a municipal separate storm sewer system (MS4) or upstream tributary. The State and/or Regional Water Board may identify other Responsible Dischargers in addition to those within the SIC codes listed above based on site-specific inspections and/or investigations.
Required Actions	Comply with the conditions and requirements of the Industrial Storm Water General Permit (Order No. 2014-0057-DWQ). If nutrients, including total phosphorous, total nitrogen, and ammonia, and odor 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 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), 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 shall comply with the existing Numeric Action Levels (NALs) for nitrate + nitrite nitrogen and ammonia as

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

nitrogen in Table 2. Additionally, these Responsible Dischargers shall comply with TMDL Action Levels (TALs)[2] for total phosphorous and total nitrogen expressed as instantaneous maximum values in the table below. If sampling results indicate a NAL/TAL exceedance as set forth in Section XII.A, the Discharger shall commence the Exceedance Response Actions (ERAs) process set forth in Section XII.

Total phosphorous and total nitrogen TALs for Storm Water Discharges and NSWDs from Industrial Storm Water Dischargers (instantaneous maximum, mg/L)

Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
0.1	1.0

The State and/or Regional Water Board may require industrial storm water dischargers to implement additional actions to address nutrients and related effects, including algae, odors, and ammonia in authorized NSWDs and/or storm water discharges based on, but not limited to, monitoring data and comparison to applicable NALs/TALs, visual/olfactory 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 industrial areas as a potential source of total phosphorous and total nitrogen outside the acceptable range, in authorized NSWDs and/or storm water discharges, 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 total phosphorous and total nitrogen during Qualifying Storm Events (QSEs) if not already monitored per Section XI.B;
- Sampling and analysis of the facility's authorized NSWDs for total phosphorous and total nitrogen, twice within a reporting year; and
- U.S. EPA approved analytical methods, with appropriate method detection and reporting limits relative to the TALs in the table above.

The updated Monitoring Implementation Plan shall be included in the

[2] 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).

	revised SWPPP and submitted via SMARTS no later than 6 months after the incorporation of these TMDL-specific requirements in this Order. Dischargers shall implement their updated SWPPP and monitoring program and report the analytical results along with the rest of the non-TMDL parameters required by the Industrial Storm Water General Permit in SMARTS.
TMDL documents are available at: http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/tmdl_list.shtml	

Fact Sheet for the Machado Lake Nutrients TMDL

Excessive loadings of nutrients, in particular nitrogen (including ammonia) and phosphorus, are causing eutrophic effects, including algae and odors, which are impairing the beneficial uses of Machado Lake, including recreation and aquatic life. On May 1, 2008, the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) established the Machado Lake Nutrient TMDL to address the eutrophic conditions, algae, and odor impairments resulting from elevated levels of nutrients.

The point sources of nutrients to Machado Lake identified in the TMDL include storm water discharges and urban runoff, including discharges from industrial facilities. These discharges to Machado Lake are conveyed through the following subdrainage systems: Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake. Discharges from Walteria Lake and Drain 553 are tributary to the Wilmington Drain, which then directly discharges to the northern portion of Machado Lake. Approximately, 88% of the discharge into the lake enters through Wilmington Drain.

Numeric Targets

The numeric targets are the target conditions in the waterbody necessary to support beneficial uses. The total phosphorus target for Machado Lake is 0.1 mg/L as a monthly average concentration in the water column, which is based upon the U.S. EPA Nutrient Criteria Technical Guidance Manual for Lakes and Reservoirs. A ratio of total nitrogen to total phosphorus of 10 is the basis for the total nitrogen (TKN + NO_3-N + NO_2-N) numeric target of 1.0 mg/L as a monthly average concentration in the water column. The total nitrogen target incorporates all forms of nitrogen including Total Kjeldahl Nitrogen (TKN), which is the sum of organic nitrogen and ammonia nitrogen, nitrate nitrogen (NO_3-N), and nitrite nitrogen (NO_2-N). The numeric targets and allocations for total phosphorus and total nitrogen will address the impairments due to eutrophic conditions, algae, and odors.

Wasteload Allocations

The Machado Lake Nutrient TMDL identifies storm water dischargers, including Industrial Storm Water General Permittees, as responsible dischargers.

The final wasteload allocations (WLAs) are assigned as concentration based allocations of 0.1 mg/L and 1.0 mg/L as instantaneous maximums for total phosphorus and total nitrogen (TKN + NO_3-N + NO_2-N), respectively.

Industrial Storm Water General Permittees are generally expected to be able to meet these WLAs through the implementation of best management practices (BMPs) and the related monitoring and reporting programs required by the Industrial Storm Water General Permit.

Industrial storm water dischargers were required to meet the WLAs upon incorporation of the WLAs into applicable NPDES permits.

Total phosphorus and total nitrogen WLAs for Storm Water Discharges and NSWDs from Industrial Storm Water Dischargers are expressed below as instantaneous maximums (mg/L).

WLAs for Industrial Storm Water Dischargers within the Machado Lake Watershed

Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
0.1	1.0

Required Actions

The required actions apply to Industrial Storm Water General Permittees whose facilities fall within Standard Industrial Classification (SIC) codes associated with the TMDL pollutants as set forth in Table 1 (102X, 144X, 207X, 281X, 284X, 287X, 34XX, 3479, 45XX and 4953) and that discharge non-storm water and/or storm water associated with industrial activities[3] to Machado Lake either directly or via a municipal separate storm sewer system (MS4) or upstream tributary. These are referred to as Responsible Dischargers. The State and/or Regional Water Board may identify other Responsible Dischargers in addition to those within the SIC codes listed above based on site-specific inspections and/or investigations.

If nutrients, including total phosphorous, total nitrogen, and ammonia, and odor 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 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), shall be updated based on the results, pursuant to Section X.B.1-2. The revised SWPPP shall be certified and

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

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

Compliance with Wasteload Allocations

Responsible Dischargers subject to the Machado Lake Nutrient TMDL will be required to implement BMPs identified in their updated SWPPP and conduct sampling and analysis of NSWDs and storm water discharges for TMDL pollutants to assess BMP effectiveness in order to ensure their 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 wasteload allocations 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 total phosphorous and total nitrogen can be achieved by utilizing Best Management Practices (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.

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; implementing BMPs as set forth in Section X.H, including 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 discharges in the Machado Lake Nutrient TMDL.

The Industrial Storm Water General Permit already contains Numeric Action Levels (NALs) for certain TMDL pollutants, including nitrate + nitrite nitrogen, total phosphorus, and ammonia-N (as annual averages) (Table 2 of the permit). However, the annual average NALs in Table 2 are less stringent than the WLAs for total phosphorus and total nitrogen. Therefore, TMDL Action Levels (TALs) are included in the table below for total phosphorus and total nitrogen as instantaneous maximums. Compliance with these TALs will achieve the compliance with the WLAs for these pollutants.

Total Phosphorus and Total Nitrogen TALs for Storm Water Discharges and NSWDs within the Machado Lake Watershed

Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
0.1	1.0

Responsible Dischargers will be required to demonstrate through sampling and analysis that the facility's NSWDs and storm water discharges associated with industrial activities do not exceed the applicable NALs/TALs for the Machado Lake Nutrient TMDL. If there is an exceedance of a NAL or TAL, the Responsible Discharger must undertake the Exceedance Response Actions (ERAs) process described in Section XII of the permit.

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 Advanced BMPs where necessary, the Discharger is not likely to discharge phosphorus and nitrogen compounds above the applicable WLAs from its industrial areas or in its authorized NSWDs. 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 NALs/TALs 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 NALs/TALs, visual/olfactory 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 applicable NALs/TALs, as necessary to achieve the WALs, the State Water Board finds that sampling and analysis of a facility's storm water discharges for phosphorus and nitrogen compounds 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) to include sampling and analysis for total phosphorous and total nitrogen during Qualifying Storm Events, if these parameters are not already monitored per Section XI.B.

To ensure that authorized NSWDs comply with the Industrial Storm Water General Permit and, in particular, Sections IV.B and VI.A and the TALs, as necessary to achieve the WLAs, the State Water Board finds that sampling and analysis of a facility's

authorized NSWDs for total phosphorous and total nitrogen 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) to include sampling and analysis of the facility's authorized NSWDs for these pollutants 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 NALs and TALs.

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

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 to analyze them for total phosphorous and total nitrogen to determine compliance with the applicable WLAs in the TMDL.

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

Machado Lake Total Maximum Daily Load (TMDL) for Pesticides and PCBs

<table>
<tr><td>Resolution No.</td><td>R10-008</td></tr>
<tr><td>Effective Date</td><td>March 20, 2012</td></tr>
<tr><td>Impaired Water Body(ies)</td><td>Machado Lake</td></tr>
<tr><td>Pollutant(s)</td><td>Chlordane, DDT, Dieldrin, PCBs, and Sediment Toxicity</td></tr>
<tr><td>Responsible Dischargers</td><td>Industrial Storm Water Permittees that discharge storm water associated with industrial activities[1] and/or non-storm water to the impaired waterbody either directly or via a municipal separate storm sewer system (MS4) or an upstream tributary.</td></tr>
<tr><td>Required Actions</td><td>Comply with the conditions and requirements of the Industrial Storm Water General Permit (Order No. 2014-0057-DWQ).

If chlordane, DDT, dieldrin, 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 chlordane, DDT, dieldrin, 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[2] their facility as a potential source of chlordane, DDT, dieldrin, and PCBs in storm water discharges associated with industrial activities and/or in authorized NSWDs 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.

<table>
<tr><th>Parameter</th><th>Test Method</th></tr>
<tr><td>SSC</td><td>ASTM D3977-97C</td></tr>
</table>
</td></tr>
</table>

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

[2] 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.

	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 chlordane, DDT, dieldrin, and 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 Machado Lake Pesticides and PCBs TMDL

Machado Lake is located in the Dominguez Channel Watershed Management Area in southern Los Angeles County. Chlordane, DDT, dieldrin, and PCBs are impairing the lake ecosystem and specifically the aquatic life and recreation, including fishing, beneficial uses of the lake. The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) adopted a TMDL to address these impairments in 2010. The

allocations set forth in the TMDL apply both to discharges to the lake as well as to upstream tributaries to the lake.

Because of potential harm to human health and the environment, the use of these pollutants has been banned for many years; however, the physio-chemical properties of the pollutants cause them to persist in the environment. Moreover, all of these pollutants biomagnify as they move up the food web, thereby increasing concentrations in higher trophic-level aquatic organisms and wildlife. These pollutants, bound to soil particles, are easily transported with surface runoff to waterbodies. Contaminated sediments accumulate in the receiving waterbodies and aquatic organisms are exposed to the toxic pollutants. Sediment toxicity has been documented at Machado Lake, and it is likely that pesticides and PCBs contribute to the toxic condition of the sediments.

The point sources of pesticides and PCBs into Machado Lake are storm water and urban runoff discharges, including discharges from industrial facilities. Storm water and urban runoff discharges to Machado Lake occur through the following sub-drainage systems: Wilmington Drain, Project 77 and Project 510.

Numeric Targets

Numeric targets are included in the TMDL for pesticides and PCBs in water, sediment, and fish tissue to protect aquatic life, fishing, and other recreational uses in the lake.

The sediment numeric targets are based on the freshwater Threshold Effect Concentration (TEC) guidelines compiled by the National Oceanic and Atmospheric Administration (NOAA).

Wasteload Allocations

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

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

Pollutant	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

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 Machado Lake either directly or via a MS4 or upstream tributary.

If chlordane, DDT, dieldrin, 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 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 Machado Lake Pesticides and PCBs 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 Machado Lake Pesticides and PCBs TMDL.

Responsible Dischargers that have identified[3] their facility as a potential source of chlordane, DDT, dieldrin, and PCBs in storm water discharges associated with industrial activities and/or in authorized NSWDs shall comply with a TMDL Action Level (TAL)[4] 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.

[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.

[4] 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).

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 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 D3977-97C

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, chlordane, DDT, dieldrin and PCBs to determine compliance with the applicable WLAs in the TMDL.