coming soon...
the NEW construction general permit

The Monthly Dirt
A monthly newsletter on the California Construction General Permit

Part 4 of a 4 Part Series

"It's all very well to run around saying regulation is bad, get the government off our backs, etc. Of course our lives are regulated. When you come to a stop sign, you stop; if you want to go fishing, you get a license; if you want to shoot ducks, you can shoot only three ducks. The alternative is dead bodies at the intersection, no fish, and no ducks. OK?
Molly Ivins (American columnist)

As we have seen in the last three Monthly Dirt editions, **change is coming** quickly as we approach the soon-adoption of the Proposed Statewide Construction Storm Water General Permit Reissuance. Last month, we explored the new requirements the State Water Board has placed on dewatering activities. This month we will turn our attention to Total Maximum Daily Loads (TMDLs) and how they will be incorporated into the new Construction General Permit (CGP). Will it affect your next construction project? It all depends on where your project is located and what potential pollutants you have on site.

DEFINING TERMS: Although many have probably seen references to TMDLs, perhaps not all of our readers are familiar with how and why they are being incorporated into NPDES Permits, including this Construction General Permit. TMDLs are a product of the implementation of the Clean Water Act which required States to start the process of identifying all of their water bodies and associated beneficial uses (e.g., swimming, fishing, drinking water, agricultural, and ecological uses). In California, the list of water bodies can be found in the Basin Plans for the various Regional Water Quality Control Boards (RWQCBs). The next step was, according to Section 303(d) of the Clean Water Act, to identify impairments in those water bodies which are preventing them from realizing the full potential of their beneficial uses. Impairments might include chemicals such as certain metals, pesticides, nutrients, or toxic pollutants; or it could also include conditions such as high temperature, low dissolved oxygen, salinity, or high or low pH. Identified impairments for each water body were put on a list—the 303d List. Next, the States were to answer the following question for each impairment: "How much of this impairment can the water body assimilate without jeopardizing the beneficial uses of that water body?" or, in other words, what is the Total Maximum Daily Load (TMDL) of that pollutant that the water body can handle without negative consequences? A final step was to take the TMDL and divvy it up (like a "slice of pie") among all of the discharges to that water body. As long as dischargers stay within their "slice" or waste load allocation (WLA), which is usually expressed as a concentration, then, in theory, the water body would be protected from that impairment. However, real life and real science can sometimes get really messy, and it was not always possible or practicable to develop a numeric TMDL. Therefore, in certain circumstances the RWQCBs specifies best management practices in lieu of numeric limits to meet the TMDL Clean Water Act requirement.

A new term introduced to the renewed CGP in Attachment B vital to understanding TMDL implementation in the permit is "Responsible Discharger". Now, don't confuse this with Legally Responsible Person (LRP). While all Responsible Dischargers are LRPs, not all LRPs are Responsible Discharges. They are a subset of LRPs and refer to those needing to comply with the TMDL requirements. Responsible dischargers are dischargers who:

1. Discharge storm water and authorized non-storm water directly, or through a municipal separate sewer system (MS4) or other conveyance, to impaired water bodies or watersheds identified in a U.S. EPA-approved TMDL **with a waste load allocation assigned to construction storm water sources**; AND,
2. Have identified, **through the site-specific pollutant source assessment**, that one or more pollutants specific to the TMDL are present on-site with the potential to enter construction storm water discharges.

HOW DO I KNOW IF MY STORM WATER DISCHARGES TO A WATER BODY WITH A TMDL?

Table H-1 in Attachment H of the proposed General Permit provides a list of applicable TMDLs to the CGP. Note that not all TMDLs are listed in Attachment H, but only those that have been identified by the Regional Water Quality Control Boards as being applicable to discharges from construction sites. The North Coast Region 1 has 24 TMDLs listed in Attachment H which are all for sediment or temperature. While San Francisco Bay Region 2 has only four TMDLs listed for sediment. There are 2 TMDLs listed for the Central Coast Region 3 including nutrients and sediment. Los Angeles Region 4 has an extensive list of 30 different TMDLs with also the most extensive list of parameters including metals, dissolved solids, nutrients, pesticides, toxic chemicals, bacteria, and even benthic sediment toxicity. The Lahontan Region 6 has 2 TMDLs both for sediment. There are 4 TMDLs listed for the Santa Ana Region 8 which are all for the same

water body and include pesticides, nutrients, sediment, and toxics. Finally, San Diego's Region 9 has 3 TMDLs for pesticides, metals, and sediment. But if you are keeping count on the Regional Boards you probably noticed that two of them did not contribute to Attachment H. Neither the Central Valley's Region 5 nor the Colorado River Basin Region 7 reported any TMDLs. Is it because they do not have any TMDLs that are attributable to construction activities? Doubtful! Water bodies in those regions have many of the same impairments, and, even, approved TMDLs as in the other Regional Boards. Interestingly, Region 5 was also missing from the same process done for the Industrial General Permit. It's hard to say the reason why they are not present in Appendix H; but until they are added, either before the permit renewal or through the permit reopener clause, if you have a project in these two Regional Boards, you will not need to worry about complying with the TMDL aspect of the renewed permit.

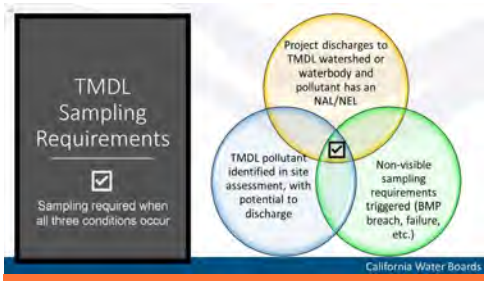
POLLUTANT SOURCE ASSESSMENT:

But remember, there are two criterium that need to be met in order to be a Responsible Discharger. Even if your project is located within a Regional Board and an identified watershed in Attachment H having a construction-related TMDL, in order to be a Responsible Discharger, the pollutant source must actually be present on-site with the potential to enter construction storm water discharges. If the pollutant is sediment, I am sorry—but that will automatically qualify your project because soil disturbance is inherent to construction projects. But there are other potential TMDL pollutants that may or may not be present on your project. For example, Santa Clara River has a TMDL for ammonia. If the site assessment performed by the QSD for the project does not indicate the potential presence of ammonia on the site, the discharger would not be considered a "Responsible Discharger" for ammonia at this project. Please refer to the side bar article for CGP requirements for performing Pollutant Source Assessments. If your project is in the Los Angeles Area and has a potential TMDL for chlordane, DDT, dieldrin, PCBs, copper, lead, or zinc, please beware that the source assessment may require a pre-construction soil screening investigation similar to the USEPA's soil screening protocol. Attachment H provides details about where and how to collect the soil samples. You can also click here to watch an explanation by Water Board staff concerning this region-specific soil sampling protocol.

TMDL SAMPLING:

Once it has been determined that you are a Responsible Discharger, when do you need to sample for TMDL analytes? There are three conditions that must be concurrently met:

1. The project discharges to a TMDL watershed or water body and the pollutant has an NAL/NEL;
2. TMDL pollutant was identified in the site assessment with the potential to discharge; and
3. Non-visible pollutant sampling requirements were triggered by a failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.



Click graphic to hear State Water Board's Brandon Roosenboom's explanation of the TMDL sampling triggers.

So, what is a good way to avoid TMDL sampling and any associated numeric action levels (NALs) or numeric effluent limits (NELs)? While you can't do much about the watershed your site is in, and you may not be able to avoid having the potential pollutant present, you can avoid sampling by implementing good BMPs and preventing spills or situations that would trigger non-visible pollutant sampling.

COMPLIANCE ACTIONS:

While you may or may not trigger the need to sample for a TMDL pollutant, your project still will be required to implement some compliance actions that are specific to the pollutant. Table H-2 in Attachment H has a complete listing of TMDLs organized by RWQCB. Specified on this table are compliance actions for each TMDL, the required actions range from just complying with the CGP to region-specific requirements. You will want to note that the same parameter does not always have the same compliance actions. For example, in the San Francisco RWQCB, the compliance action for a sediment TMDL is to "comply with the General Permit." But, in the North Coast RWQCB, those Responsible Dischargers with a sediment TMDL also have to use the RUSLE2 Modeling Tool to show that sediment delivery rates for the selected BMPs are equal to, or less than, the soil loss and sediment delivery rates for the pre-construction conditions.

Attachment H contains specific TMDL implementation requirements for:

- Bacteria;
- Chloride and Salts;
- Diazinon;
- Nutrients (ammonia, nitrate/nitrite, phosphates);
- Sediment;
- Temperature; and
- Metals and Toxic Chemicals

It is important to check Table H-2 first for the TMDL specific to your project's location and then go to the TMDL requirements section specified for that parameter and location (e.g., Section I.G.3).

Since it may be necessary to run RUSLE2 to size BMPs or to perform pre-construction soil sampling, addressing TMDLs needs to occur before construction starts during the SWPPP development phase.

Pollutant Source Assessments

In developing the SWPPP, the QSD must include pollutant source assessments, including a list of potential pollutant sources and identification of site areas where additional BMPs are necessary to reduce or prevent pollutants in storm water and authorized non-storm water discharges. QSDs need to follow these minimum requirements when developing the pollutant source assessment:

- Consider all potential sources of pollutants, including non-visible pollutants which are known, or should be known to occur on-site including those that:
  - ⇨ Are used in construction activities;
  - ⇨ Are stored on-site;
  - ⇨ Were spilled or released during construction activities or past land use activities and not cleaned up; and,
  - ⇨ Were applied to land as part of past land use activities.
- Consider all potential sources of pollutants associated with applicable TMDLs listed in Attachment H, and state whether or not sources of those pollutants are present on-site;
- Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant exposed, source handled, produced, stored, recycled, or disposed of on-site.
- Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.
- Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

Please contact us if you have any questions ...

The Monthly Dirt

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ATTACHMENT H

TOTAL MAXIMUM DAILY LOAD IMPLEMENTATION REQUIREMENTS APPLICABLE TO CONSTRUCTION STORMWATER DISCHARGES

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED
WITH CONSTRUCTION ACTIVITIES
(GENERAL PERMIT)

The following table contains a list of existing Total Maximum Daily Loads (TMDLs) that are identified as applicable to construction stormwater dischargers covered under this General Permit. The listed TMDLs were adopted by a Regional Water Quality Control Board or established by the U.S. EPA prior to the adoption date of this General Permit. This General Permit may be reopened to update TMDL-specific permit requirements in this Attachment, or to incorporate new TMDLs adopted during the term of this General Permit that include requirements applicable to dischargers regulated by this General Permit.

Table H-1: List of Applicable TMDLs

North Coast Regional Water Quality Control Board (Region 1)

TMDL	Pollutant
Albion River Sediment TMDL	Sediment
Big River Sediment TMDL	Sediment
Eel River – Lower Main Sediment TMDL	Sediment
Eel River – Lower Main Temperature TMDL	Temperature
Eel River – Middle Fork Sediment TMDL	Sediment
Eel River – Middle Main Sediment TMDL	Sediment
Eel River – Middle Main Temperature TMDL	Temperature
Eel River – North Fork Sediment TMDL	Sediment
Eel River – North Fork Temperature TMDL	Temperature
Eel River – South Fork Sediment TMDL	Sediment
Eel River – Upper Main Sediment TMDL	Sediment
Eel River – Upper Main Sediment TMDL	Temperature

TMDL	Pollutant
Gualala River Sediment TMDL	Sediment
Mad River Sediment TMDL	Sediment
Mattole River Sediment TMDL	Sediment
Mattole River Temperature TMDL	Temperature
Navarro River Sediment TMDL	Sediment
Navarro River Temperature TMDL	Temperature
Noyo River Sediment TMDL	Sediment
Scott River Sediment TMDL	Sediment
Scott River Temperature TMDL	Temperature
Ten Mile River Sediment TMDL	Sediment
Trinity River Sediment TMDL	Sediment
Van Duzen River Sediment TMDL	Sediment

San Francisco Bay Regional Water Quality Control Board (Region 2)

TMDL	Pollutant
Napa River Sediment TMDL	Sediment
Sonoma Creek Sediment TMDL	Sediment
Lagunitas Creek Sediment TMDL	Sediment
Pescadero and Butano Creek Sediment TMDL	Sediment

Central Coast Regional Water Quality Control Board (Region 3)

TMDL	Pollutant
Pajaro River Nutrients TMDL	Nitrogen Compounds and Orthophosphate
San Lorenzo River Siltation TMDL	Sediment

Los Angeles Regional Water Quality Control Board (Region 4)

TMDL	Pollutant
Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL	Bacteria
Ballona Creek Metals TMDL	Metals
Ballona Creek Estuary Toxics TMDL	Toxics
Calleguas Creek Watershed Salts TMDL	Salts (Boron, Chloride, Sulfate, TDS)
Calleguas Creek Watershed Metals and Selenium TMDL	Metals and Selenium
Calleguas Creek Watershed OC Pesticides and PCBs TMDL	Organochlorine Pesticides and PCBs
Colorado Lagoon Toxics TMDL	Metals, Organochlorine Pesticides, PAHs, PCBs, and Sediment Toxicity

TMDL	Pollutant
Harbor Beaches of Ventura County Bacteria TMDL	Bacteria
Los Angeles Area Lakes TMDLs	Mercury, Nitrogen, Organochlorine Pesticides, PCBs, and Phosphorus
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Bacteria
Los Angeles and Long Beach Harbor Waters TMDL	Metals and Toxics
Los Angeles Harbor Bacteria TMDL	Bacteria
Los Angeles River Bacteria TMDL	Bacteria
Los Angeles River Metals TMDL	Metals
Los Angeles River Nutrients TMDL	Nutrients
Los Cerritos Channel Metals TMDL	Metals
Machado Lake Nutrients TMDL	Nutrients
Machado Lake Toxics TMDL	PCBs and Pesticides
Malibu Creek Bacteria TMDL	Bacteria
Marina del Rey Harbor Bacteria TMDL	Bacteria
Marina Del Rey Harbor Toxics TMDL	Toxics
Oxnard Drain No. 3 TMDL	PCBs, Pesticides, and Sediment Toxicity
San Gabriel River Metals and Selenium TMDL	Metals and Selenium
Santa Clara River Bacteria TMDL	Bacteria
Santa Clara River Nitrogen Compounds TMDL	Nutrients
Santa Clara River Reach 3 Chloride TMDL	Chloride
Santa Monica Bay Beaches Bacteria TMDL	Bacteria
Santa Monica Bay DDTs and PCBs TMDL	DDTs and PCBs
Upper Santa Clara River Chloride TMDL	Chloride
Ventura River Algae TMDL	Nutrients

Lahontan Regional Water Quality Control Board (Region 6)

TMDL	Pollutant
Squaw Creek Sediment TMDL	Sediment
Truckee River Sediment TMDL	Sediment

Santa Ana Regional Water Quality Control Board (Region 8)

TMDL	Pollutant
San Diego Creek and Newport Bay Organochlorine Compounds TMDL	Organochlorine Compounds
San Diego Creek and Newport Bay Nutrients TMDL	Nutrients
San Diego Creek and Newport Bay Sediment TMDL	Sediment
San Diego Creek and Newport Bay Toxics TMDL	Toxics

San Diego Regional Water Quality Control Board (Region 9)

TMDL	Pollutant
Chollas Creek Diazinon TMDL	Diazinon
Chollas Creek Metals TMDL	Metals
Los Peñasquitos Lagoon Sediment TMDL	Sediment

Table H-2: Compliance Table for TMDL Implementation Requirements

North Coast Regional Water Quality Control Board (Region 1) [1, 2]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Albion River Sediment TMDL	Albion River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [Effective Date of this General Permit]
Big River Sediment TMDL	Big River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [Effective Date of this General Permit]
Eel River – Lower Main Sediment TMDL	Lower Eel River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [Effective Date of this General Permit]
Eel River – Lower Main Temperature TMDL	Lower Eel River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [Effective Date of this General Permit]

[1] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[2] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Eel River – Middle Fork Sediment TMDL	Middle Fork Eel River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [Effective Date of this General Permit]
Eel River – Middle Main Sediment TMDL	Middle Main Eel River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [Effective Date of this General Permit]
Eel River – Middle Main Temperature TMDL	Middle Main Eel River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [Effective Date of this General Permit]
Eel River – North Fork Sediment TMDL	North Fork Eel River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [Effective Date of this General Permit]
Eel River – North Fork Temperature TMDL	North Fork Eel River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [Effective Date of this General Permit]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Eel River – Upper Main Sediment TMDL	Upper Eel River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Eel River – Upper Main Temperature TMDL	Upper Eel River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Eel River – South Fork Sediment TMDL	South Fork Eel River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Gualala River Sediment TMDL	Gualala River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Mad River Sediment TMDL	Mad River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Mattole River Sediment TMDL	Mattole River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Mattole River Temperature TMDL	Mattole River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Navarro River Sediment TMDL	Navarra River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Navarro River Temperature TMDL	Navarro River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Noyo River Sediment TMDL	Noyo River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Scott River Sediment TMDL	Scott River Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Scott River Temperature TMDL	Scott River Watershed	Temperature	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Ten Mile River Sediment TMDL	Ten Mile River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Trinity River Sediment TMDL	Trinity River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Van Duzen River Sediment TMDL	Van Duzen River Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

San Francisco Bay Regional Water Quality Control Board (Region 2) [3, 4]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Lagunitas Creek Sediment TMDL	Lagunitas Creek Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Napa River Sediment TMDL	Napa River Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Pescadero and Butano Creek Sediment TMDL	Pescadero-Butano Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Sonoma Creek Sediment TMDL	Sonoma Creek Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]

[3] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[4] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

Central Coast Regional Water Quality Control Board (Region 3) [5, 6]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Pajaro River Nutrients TMDL	Pajaro River Watershed	Un-ionized Ammonia	NAL of 0.025 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 12, 2041
Pajaro River Nutrients TMDL	Pajaro River Watershed Streams with MUN Beneficial Use	Nitrate-Nitrogen	NAL of 10.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 12, 2041
Pajaro River Nutrients TMDL	Pajaro River and Pajaro River Estuary Corralitos Creek and Salsipuedes Creek Beach Road Ditch and McGowan Ditch	Nitrate-Nitrogen	NAL of 8.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 12, 2041

[5] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[6] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Pajaro River Nutrients TMDL	Pajaro River and Pajaro River Estuary Corralitos Creek and Salsipuedes Creek Beach Road Ditch and McGowan Ditch	Orthophosphate-Phosphorus	NAL of 0.3 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 12, 2041

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Pajaro River Nutrients TMDL	Llagas Creek (Downstream of Cheseboro Reservoir), Carnadero Creek, Uvas Creek, and Furlong Creek San Juan Creek and West Branch of San Juan Creek Tequisquita Slough Watsonville Slough, Harkins Slough, Gallighan Slough, and Struve Slough Millers Canal	Nitrate-Nitrogen	NAL of 8.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 12, 2041

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Pajaro River Nutrients TMDL	Llagas Creek (Downstream of Cheseboro Reservoir), Carnadero Creek, Uvas Creek, and Furlong Creek San Juan Creek and West Branch of San Juan Creek Tequisquita Slough Watsonville Slough, Harkins Slough, Gallighan Slough, and Struve Slough Millers Canal	Orthophosphate-Phosphorus	NAL of 0.3 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 12, 2041
San Lorenzo River Siltation TMDL	San Lorenzo River Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [Effective Date of this General Permit]

Los Angeles Regional Water Quality Control Board (Region 4) [7, 8]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria TMDL	Ballona Creek	E. coli, Fecal Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria TMDL	Ballona Estuary	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria TMDL	Sepulveda Channel	E. coli	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]

[7] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[8] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Ballona Creek Metals TMDL	Ballona Creek or Sepulveda Canyon Channel	Copper, Lead, and Zinc	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Ballona Creek Estuary Toxics TMDL	Ballona Creek or Ballona Creek Estuary	Cadmium, Chlordane, Copper, DDT, Lead, PCBs, Silver, and Zinc	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Salts TMDL	Calleguas Creek Watershed	Boron, Chloride, Sulfate, and Total Dissolved Solids (TDS)	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Watershed Metals and Selenium TMDL	Calleguas Creek or Conejo Creek	Total Copper	Interim NAL of 0.204 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Watershed Metals and Selenium TMDL	Calleguas Creek or Conejo Creek	Copper, Nickel, and Selenium	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Calleguas Creek Watershed Metals and Selenium TMDL	Calleguas Creek or Conejo Creek	Mercury	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Watershed Metals and Selenium TMDL	Revolon Slough	Total Copper	Interim NAL of 0.204 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Watershed Metals and Selenium TMDL	Revolon Slough	Copper, Nickel, and Selenium	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Watershed Metals and Selenium TMDL	Revolon Slough	Mercury	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Calleguas Creek Watershed Organo-chlorine Pesticides and PCBs TMDL	Calleguas Creek Watershed	Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, PCBs, and Toxaphene	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Colorado Lagoon Toxics TMDL	Colorado Lagoon Watershed	Chlordane, Dieldrin, DDT, Lead, PAHs, PCBs, and Zinc	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Harbor Beaches of Ventura County Bacteria TMDL	Kiddie and Hobie Beaches in the Channel Islands Harbor	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	Long Beach City Beaches or Los Angeles River Estuary	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles Area Lakes TMDL	Echo Park Lake	Total Nitrogen	NAL of 1.33 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles Area Lakes TMDL	Echo Park Lake	Total Phosphorous	NEL of 0.16 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.4 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles Area Lakes TMDL	Echo Park Lake	Chlordane	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles Area Lakes TMDL	Echo Park Lake	Dieldrin	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles Area Lakes TMDL	Echo Park Lake	Total PCBs	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles Area Lakes TMDL	Legg Lakes	Total Nitrogen	NAL of 1.8 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles Area Lakes TMDL	Legg Lakes	Total Phosphorous	NEL of 0.64 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.4 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles Area Lakes TMDL	Peck Road Park Lake	Total Nitrogen	NAL of 3.61 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Peck Road Park Lake	Total Phosphorous	NEL of 0.37 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.4 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Peck Road Park Lake	Chlordane	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Peck Road Park Lake	Dieldrin	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Peck Road Park Lake	Total DDTs	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles Area Lakes TMDL	Peck Road Park Lake	Total PCBs	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Pudding-stone Reservoir	Total Nitrogen	NAL of 2.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Pudding-stone Reservoir	Total Phosphorous	NEL of 0.4 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.4 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Pudding-stone Reservoir	Chlordane	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Pudding-stone Reservoir	Dieldrin	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles Area Lakes TMDL	Pudding-stone Reservoir	Total DDTs	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles Area Lakes TMDL	Pudding-stone Reservoir	Total PCBs	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.5 below.	July 1, 2023 [*Effective Date of this General Permit*
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral	Total Copper	Interim NAL of 0.20751 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral	Total Lead	Interim NAL of 0.12288 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral	Total Zinc	Interim NAL of 0.89887 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral	Total Copper	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.5 and I.G.6 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral	Total Lead	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.5 and I.G.6 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral	Total Zinc	NEL of 100 mg/L TSS (if applicable per Section I.G.5 below)	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.5 and I.G.6 below.	March 23, 2032

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary and Greater Los Angeles/ Long Beach Harbor Waters including: Inner and Outer Harbor Main Channel Southwest Slip Cabrillo Marina Inner Cabrillo Beach Los Angeles River Estuary, San Pedro Bay	Copper, DDT, Lead, PAHs, PCBs, and Zinc	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	4,4-DDT	Final NAL of 5.9 $X10^{-7}$ mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Chlordane	Final NAL of 5.9 $X10^{-7}$ mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Dieldrin	Final NAL of 1.4 $X10^{-7}$ mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Total Copper	Final NAL of 0.0058 mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Total Lead	Final NAL of 0.221 mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	PAHs	Final NAL of $4.9 X10^{-5}$ mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Total PCBs	Final NAL of $1.7 X10^{-7}$ mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Total Zinc	Final NAL if 0.095 mg/L	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.3 below.	March 23, 2032

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel Estuary	Cadmium	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Consolidated Slip	Cadmium, Chromium, and Mercury	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	March 23, 2032
Los Angeles and Long Beach Harbor Waters TMDL	Fish Harbor	Mercury	None	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.2 below.	March 23, 2032
Los Angeles Harbor Bacteria TMDL	Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel)	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Bacteria TMDL	Los Angeles River Watershed	E. Coli	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles River Metals TMDL	Los Angeles River Watershed	Total Cadmium	NAL of 0.0031 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Metals TMDL	Los Angeles River Watershed	Total Copper	NAL of 0.06749 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Metals TMDL	Los Angeles River Watershed	Total Lead	NAL of 0.094 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Metals TMDL	Los Angeles River Watershed	Total Zinc	NAL of 0.159 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Nutrients TMDL	Los Angeles River above the LA-Glendale WRP	Ammonia	NAL of 4.7 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Angeles River Nutrients TMDL	Los Angeles River below the LA-Glendale WRP	Ammonia	NAL of 8.7 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Nutrients TMDL	Los Angeles River Watershed	Ammonia	NAL of 10.1 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Nutrients TMDL	Los Angeles River Watershed	Nitrate-Nitrogen	NAL of 8.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Nutrients TMDL	Los Angeles River Watershed	Nitrite-Nitrogen	NAL of 1.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Angeles River Nutrients TMDL	Los Angeles River Watershed	Nitrate-Nitrogen + Nitrite-Nitrogen	NAL of 8.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Los Cerritos Channel Metals TMDL	Los Cerritos Channel	Total Copper	NAL of 0.0098 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Cerritos Channel Metals TMDL	Los Cerritos Channel	Total Lead	NAL of 0.0558 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Los Cerritos Channel Metals TMDL	Los Cerritos Channel	Total Zinc	NAL of 0.0956 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Machado Lake Nutrients TMDL	Machado Lake, Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake	Total Nitrogen	NAL of 1.0 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Machado Lake Nutrients TMDL	Machado Lake, Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake	Total Phosphorus	NAL of 0.1 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Machado Lake Toxics TMDL	Machado Lake, Drain 553, Wilmington Drain, Project 77/510, and Walteria Lake	Chlordane, DDD (all cogeners), DDE (all cogeners), DDT (all cogeners), Dieldrin, Total DDTs, and Total PCBs	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Malibu Creek Watershed Bacteria TMDL	Malibu Creek Watershed	E. coli	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Malibu Creek Watershed Bacteria TMDL	Malibu Lagoon and Adjacent Beach	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Marina del Rey Harbor Bacteria TMDL	Marina del Rey Harbor Mother's Beach and Back Basins D, E, and F	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Marina del Rey Harbor Toxics TMDL	Marina del Rey Harbor	Chlordane, Copper, Lead, p,p'-DDE, Total DDTs, Total PCBs, and Zinc	None	Comply with General Permit and the additional Metals and Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
Oxnard Drain No. 3 TMDL	Oxnard Drain No. 3	4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Bifenthrin, Chlordane, Chlorpyrifos, Dieldrin, PCBs, Sediment Toxicity, and Toxaphene	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Gabriel River Metals and Selenium	San Gabriel River Reach 2 and Upper Reaches Watersheds	Total Lead	NAL 0.166 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
San Gabriel River Metals and Selenium	Coyote Creek Watershed	Total Copper	NAL 0.027 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Gabriel River Metals and Selenium	Coyote Creek Watershed	Total Lead	NAL 0.106 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Gabriel River Metals and Selenium	Coyote Creek Watershed	Total Zinc	NAL 0.158 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Santa Clara River Bacteria	Santa Clara River Estuary	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Santa Clara River Bacteria	Santa Clara River Reaches 3, 4, 5, 6, 7	E. coli	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Santa Clara River Chloride TMDL	Santa Clara River Reach 3	Chloride	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Santa Clara River Nitrogen Compounds TMDL	Santa Clara River Reach 3	Ammonia	NAL of 4.2 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Santa Clara River Nitrogen Compounds TMDL	Santa Clara River Reach 7	Ammonia	NAL of 5.2 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Santa Monica Bay Beaches Bacterial TMDL	Santa Monica Bay Watershed Management Area	Enterococcus, Fecal Coliform, Total Coliform	None	Comply with General Permit and the additional Bacteria TMDL Requirements in Section I.A below.	July 1, 2023 [*Effective Date of this General Permit*]
Santa Monica Bay DDTs and PCBs TMDL	Santa Monica Bay	DDT and PCBs	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Upper Santa Clara River Chloride TMDL	Santa Clara River Reach 5 and 6	Chloride	Chloride NAL of 100 mg/L	Comply with General Permit and the additional TMDL Requirements in Section I.B below.	July 1, 2023 [*Effective Date of this General Permit*]
Ventura River Algae TMDL	Ventura River Estuary and Ventura River Reach 1	Total Nitrogen	NAL of 7.4 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Ventura River Algae TMDL	Ventura River Reach 2 and Cañada Larga	Nitrate-Nitrogen + Nitrite-Nitrogen	NAL of 10 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit]*
Ventura River Algae TMDL	Ventura River Reaches 3, 4, 5, and San Antonio Creek	Nitrate-Nitrogen + Nitrite-Nitrogen	NAL of 5 mg/L	Comply with General Permit and the additional Nutrients TMDL Requirements in Section I.D.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

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TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Squaw Creek Sediment TMDL	Squaw Creek Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
Truckee River Sediment TMDL	Middle Truckee River Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]

[9] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[10] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

Santa Ana Regional Water Quality Control Board (Region 8) [11, 12]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
San Diego Creek and Newport Bay Nutrients TMDL	San Diego Creek, Newport Bay Watershed	Total Phosphorus	None	Comply with General Permit and the additional TMDL Requirements in Section I.D.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Organo-chlorine Compounds TMDL	San Diego Creek Watershed	Total DDT and Toxaphene	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Organo-chlorine Compounds TMDL	Upper Newport Bay	Chlordane, Total DDT, and Total PCBs	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Organo-chlorine Compounds TMDL	Lower Newport Bay	Chlordane, Total DDT, and Total PCBs	None	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.2 below.	July 1, 2023 [*Effective Date of this General Permit*]

[11] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[12] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
San Diego Creek and Newport Bay Sediment TMDL	Newport Bay/San Diego Creek Watershed	Sediment	None	Comply with General Permit	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	San Diego Creek Watershed	Total Cadmium	NAL of 0.0097 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	San Diego Creek Watershed	Total Copper	NAL of 0.027 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	San Diego Creek Watershed	Total Lead	NAL of 0.194 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	San Diego Creek Watershed	Total Zinc	NAL of 0.21 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
San Diego Creek and Newport Bay Toxics TMDL	Upper Newport Bay	Total Cadmium	NAL of 0.042 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	Upper Newport Bay	Total Copper	NAL of 0.00578 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	Upper Newport Bay	Total Lead	NAL of 0.221 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	Upper Newport Bay	Total Zinc	NAL of 0.095 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
San Diego Creek and Newport Bay Toxics TMDL	Lower Newport Bay, Bay Segments (including Costa Mesa Channel and Santa Ana Delhi Channel), and Rhine Channel Area	Total Copper	NAL of 0.00578 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
San Diego Creek and Newport Bay Toxics TMDL	Lower Newport Bay, Bay Segments (including Costa Mesa Channel and Santa Ana Delhi Channel), and Rhine Channel Area	Total Lead	NAL of 0.221 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
San Diego Creek and Newport Bay Toxics TMDL	Lower Newport Bay, Bay Segments (including Costa Mesa Channel and Santa Ana Delhi Channel), and Rhine Channel Area	Total Zinc	NAL of 0.095 mg/L	Comply with General Permit and the additional Metals TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

San Diego Regional Water Quality Control Board (Region 9) [13, 14]

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Chollas Creek Diazinon TMDL	Chollas Creek Watershed	Diazinon	None	Comply with General Permit and the use of Diazinon at the site is prohibited.	July 1, 2023 [*Effective Date of this General Permit*]
Chollas Creek Metal TMDL	Chollas Creek	Dissolved Copper	Interim NAL of 0.083 mg/L	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Chollas Creek Metal TMDL	Chollas Creek	Dissolved Lead	Interim NAL of 0.068 mg/L	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]
Chollas Creek Metal TMDL	Chollas Creek	Dissolved Zinc	Interim NAL of 0.175 mg/L	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.3 below.	July 1, 2023 [*Effective Date of this General Permit*]

[13] Some of the TMDLs did not specifically state total concentrations for the constituents. Unless otherwise stated in Attachment H Table H-2, the pollutant should be reported in total concentrations.

[14] Responsible Dischargers shall comply with the applicable TMDL-specific requirements by, and after, the date listed in the Compliance Deadline column.

TMDL	Applicable Water Body/ Watershed	Pollutants	Additional TMDL-Related Numeric Action Level(s) or Numeric Effluent Limitation(s) (NAL/NEL)	Compliance Actions	Compliance Deadline
Chollas Creek Metal TMDL	Chollas Creek	Dissolved Copper	Final NEL of 0.083 mg/L	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.4 below.	October 22, 2028
Chollas Creek Metal TMDL	Chollas Creek	Dissolved Lead	Final NEL of 0.068 mg/L	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.4 below.	October 22, 2028
Chollas Creek Metal TMDL	Chollas Creek	Dissolved Zinc	Final NEL of 0.175 mg/L	Comply with General Permit and the additional Toxics TMDL Requirements in Section I.G.4 below.	October 22, 2028
Los Peñasquitos Lagoon Sediment TMDL	Los Peñasquitos Lagoon Watershed	Sediment	None	Comply with General Permit and the additional Sediment TMDL Requirements in Section I.E.3 below.	July 14, 2034

I. TMDL IMPLEMENTATION REQUIREMENTS

This Section contains the TMDL-specific requirements that Responsible Dischargers shall implement to address applicable TMDLs by the respective TMDL compliance deadlines indicated in Table H-2. These requirements are listed in order of pollutant category, while Table H-2 is organized by Regional Water Board jurisdiction and watershed. The terms including, but not limited to, Responsible Discharger, numeric action levels and exceedances, and numeric effluent limitations and exceedances are defined in Attachment B of this General Permit.

A. Bacteria TMDL Implementation Requirements

1. Compliance with General Permit

    a. All Responsible Dischargers for the Bacteria TMDLs listed in Table H-2 shall comply with the requirements of this General Permit.

2. Bacteria TMDL BMPs

    a. Minimum BMPs

        i. The Responsible Discharger that identifies on-site sources of indicator bacteria in their pollutant source assessment shall implement BMPs specific to preventing or controlling stormwater exposure to indicator bacteria in addition to complying with this General Permit's requirements. The minimum bacteria source control BMPs include the following:

            1. Qualified SWPPP Practitioner-conducted training for construction site staff; and

            2. Routine housekeeping and sanitary waste management of identified sources of bacteria (e.g., portable toilets, dumpsters, etc.).

    b. Structural BMPs

        i. The Responsible Discharger shall evaluate and implement any necessary structural BMPs designed for retention, infiltration, or diversion of stormwater when the implemented minimum BMPs are inadequate to reduce bacteria loading to receiving waters.

    c. The Responsible Discharger shall ensure all BMPs are implemented and address Bacteria TMDL requirements. The BMPs shall be visually inspected, maintained, repaired, and kept updated in the SWPPP in

accordance with this General Permit's requirements specified in the Order and applicable requirements in Attachments D or E for the site's Risk or Type.

B. Chloride and Salts TMDL Implementation Requirements

1. Compliance with this General Permit

a. All Responsible Dischargers for the Chloride and Salts TMDLs listed in Table H-2 shall comply with the requirements of this General Permit. Compliance with the requirements of this General Permit is consistent with the requirements and assumptions of the Chloride and Salts TMDL(s), unless specified below.

2. Numeric Action Level (NAL)

a. The Responsible Discharger shall implement BMPs to address chloride and salts and prevent exceedances of the applicable NALs to the extent possible. The BMPs shall be visually inspected, maintained, repaired, and updated in the SWPPP in accordance with this General Permit's requirements specified in the Order and applicable requirements in Attachments D or E for the site's Risk or Type.

b. The Responsible Discharger shall conduct non-visible pollutant monitoring, as required in Attachment D or E Section III.D.3, when the TMDL-specific pollutant may be discharged due to a failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

c. The Responsible Discharger shall compare the non-visible pollutant monitoring analytical results to the applicable NAL(s) in Table H-2.

d. The Responsible Discharger shall certify and submit all analytical results in SMARTS within 30 days of receiving the results, or within 10 days of receiving results above an applicable NAL.

e. A TMDL-related NAL exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with this attachment, that is above the concentration set forth in the applicable NAL. An NAL exceedance is not a violation of this General Permit, however, it is a violation when the discharger fails to report and respond to the NAL exceedance(s).

f. The Regional Water Boards may assign additional monitoring, reporting, and BMP requirements upon obtaining site-specific information, including information about NAL exceedance(s).

C. Diazinon TMDL Implementation Requirements

1. Compliance with this General Permit

a. All Responsible Dischargers for the Diazinon TMDLs listed in Table H-2 shall comply with the requirements of this General Permit. Compliance with the requirements of this General Permit is consistent with the requirements and assumptions of the TMDL. The use of diazinon has been banned for non-agricultural use by the California Department of Pesticide Regulation and the use is prohibited at construction sites.

D. Nutrient TMDL Implementation Requirements

1. Compliance with this General Permit

a. All Responsible Dischargers for the Nutrient TMDLs listed in Table H-2 shall comply with the requirements of this General Permit.

2. Erosion and Sediment Control and RUSLE2[15] Modeling

a. A Responsible Discharger that identifies on-site sources of nutrients in their pollutant source assessment and that were assigned a mass-based WLA in an applicable Nutrient TMDL(s),[16] shall address the TMDL through the following in addition to complying with this General Permit:

i. Comply with the site-specific erosion and sediment control, post-construction, and all other requirements in this General Permit;

ii. Install erosion and sediment controls that will result in predicted erosion rates that are equal to pre-construction conditions (e.g., undisturbed vegetation for the area) for each phase of the construction project;

iii. Use RUSLE2 modeling to calculate the predicted soil losses and sediment delivery rates when selecting temporary BMPs and controls to be applied during each phase of the project. The RUSLE2 modeling included in the SWPPP shall include:

15 Revised Universal Soil Loss Equation, Version 2
16 Table H-2 specifies this Section in the Compliance Action column for these TMDLs.

1. Appropriate climatic variables, soil types, and slope topography for the area disturbed; and

2. Calculated soil loss and sediment delivery rates for the selected BMPs and controls equal to, or less than, the soil loss and sediment delivery rates for pre-construction conditions during each phase of the construction project.

3. Numeric Action Level (NAL)

   a. The Responsible Discharger shall implement BMPs to address nutrients listed in the TMDL and prevent exceedances of the applicable NALs to the extent possible. The BMPs shall be visually inspected, maintained, repaired, and updated in the SWPPP in accordance with this General Permit's requirements specified in the Order and applicable requirements in Attachments D or E for the site's Risk or Type.

   b. The Responsible Discharger shall conduct non-visible pollutant monitoring, as required in Attachment D or E Section III.D.3, when the TMDL-specific pollutant may be discharged due to a failure to implement BMPs, a container spill or leak, or a breach, failure, or malfunction.

   c. The Responsible Discharger shall compare the non-visible pollutant monitoring analytical results to the applicable NAL(s) in Table H-2.

   d. The Responsible Discharger shall certify and submit all analytical results in SMARTS within 30 days of receiving the results, or with 10 days of receiving results above an applicable NAL.

   e. A TMDL-related NAL exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D or E Section III.D.3, that is above the concentration set forth in the applicable NAL. An NAL exceedance is not a violation of this General Permit, however, it is a violation when the discharger fails to report and respond to the NAL exceedance(s).

   f. The Regional Water Boards may assign additional monitoring, reporting, and BMP requirements upon obtaining site-specific information, including information about the NAL exceedance(s).

4. Numeric Effluent Limitation (NEL)

a. The Responsible Discharger shall implement BMPs to address nutrients and prevent exceedances of the applicable NELs. The BMPs shall be visually inspected, maintained, repaired, and updated in the SWPPP in accordance with this General Permit's requirements specified in the Order and applicable requirements in Attachments D or E for the site's Risk or Type.

b. The Responsible Discharger shall conduct non-visible pollutant monitoring, as required in Attachment D or E, Section III.D.3, when the TMDL-specific pollutant may be discharged due to a failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

c. The Responsible Discharger shall compare the non-visible pollutant monitoring analytical results to the applicable NEL(s) in Table H-2.

d. The Responsible Discharger shall certify and submit the analytical results in SMARTS within 30 days of receiving the results, or within 10 days of receiving results above an applicable the NEL.

e. A TMDL-related NEL exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D or E Section III.D.3, that is above the concentration set forth in the applicable NEL. Upon exceedance of the applicable NEL, the Responsible Discharger shall comply with the Water Quality Based Corrective Actions in Section VI.R of this General Permit's Order. An NEL exceedance is a violation of this General Permit and is subject to mandatory minimum penalties.

f. The Regional Water Boards may assign additional monitoring, reporting, and BMP requirements upon obtaining site-specific information, including information about exceedances of the NEL(s).

E. Sediment TMDL Implementation Requirements

1. Compliance with this General Permit

a. All Responsible Dischargers for the Sediment TMDLs listed in Table H-2 are to comply with the requirements of this General Permit. Compliance with the requirements of this General Permit is consistent with the requirements and assumptions of the Sediment TMDLs, unless specified below.

2. Erosion and Sediment Control BMPs and RUSLE2 Modeling

a. A Responsible Discharger assigned a mass-based sediment waste load allocation for sediment shall address the TMDL through the following in addition to complying with this General Permit:

   i. Comply with the site-specific erosion and sediment control, post-construction, and all other requirements in this General Permit;

   ii. Use RUSLE2 modeling to calculate the predicted soil losses and sediment delivery rates when selecting temporary BMPs and controls to be applied during each phase of the project. The RUSLE2 modeling included in the SWPPP shall include:

      1. Appropriate climatic variables, soil types, and slope topography for the area disturbed; and

      2. Calculated soil loss and sediment delivery rates for the selected BMPs and controls equal to, or less than, the soil loss and sediment delivery rates for pre-construction conditions during each phase of the construction project.

   iii. A Responsible Discharger that is assigned a mass-based sediment waste load allocation of zero (0),[17] shall install erosion and sediment controls that will result in predicted erosion rates that are as protective as pre-construction conditions (e.g., undisturbed vegetation for the area). The calculated RUSLE2 soil loss and sediment delivery rates for the selected BMPs and controls shall be equal to, or less than, the soil loss and sediment delivery rates for pre-construction conditions during each phase of the construction project.

   iv. A Responsible Discharger that is assigned a site-specific mass-based sediment waste load allocation,[18] shall install erosion and sediment controls that will result in predicted erosion rates that are equal to or less than the site-specific allocation for sediment loading. The calculated RUSLE2 soil loss and sediment delivery rates for the selected BMPs and controls shall be equal to, or less than, the site-specific mass-based sediment waste load allocation. The Responsible Discharger is required to calculate their site-specific mass-based sediment waste load allocation by multiplying the construction site's

17 Table H-2 specifies this Section in the Compliance Action column for these TMDLs.
18 Table H-2 specifies this Section in the Compliance Action column for these TMDLs.

area by the water body's applicable load allocation, provided in Table H-3.

Table H-3: TMDL Watersheds with Site-specific Mass-based Sediment WLAs[19]

TMDL Watershed	WLA (tons/mi^2/yr)
Lower Eel River Watershed (Road, Episodic)[20]	9
Lower Eel River Watershed (Road, Chronic)	17
Lower Eel River Watershed (Bank Erosion)	6
Middle Fork Eel River – Black Butte Subwatershed	7
Middle Fork Eel River – Elk Creek Subwatershed	41
Middle Fork Eel River – Round Valley Subwatershed	9
Middle Fork Eel River – Upper Middle Fork Subwatershed	9
Middle Fork Eel River – Williams/Thatcher Subwatershed	19
Middle Fork Eel River Watershed	23
Upper Main Eel River Watershed (Large Features >3,000 yds^3)	36
Upper Main Eel River Watershed (Road Related – Small Features)	14
Mad River Watershed (Roads)	174
Scott River Watershed (Roads and Small Streamside Features)	69
Trinity River – Upper Area Reference Subwatersheds[21]	281
Trinity River – Westside Tributaries Subwatershed	105
Trinity River – Upper Trinity Subwatershed	690
Trinity River – East Fork Tributaries Subwatershed	65
Trinity River – Eastside Tributaries Subwatershed	60
Trinity River – Weaver and Rush Creeks Subwatershed	169
Trinity River – Deadwood Creek, Hoadley Gulch, and Poker Bar Area Subwatershed	68
Trinity River – Lewiston Lake Area Subwatershed	49
Trinity River – Grass Valley Creek Subwatershed	44
Trinity River – Indian Creek Subwatershed	81
Trinity River – Reading and Browns Creek Subwatershed	66
Trinity River – Lower Middle Area Reference Subwatersheds[22]	24
Trinity River – Canyon Creek Subwatershed	326
Trinity River – Upper Tributaries Subwatershed	67
Trinity River – Middle Tributaries Subwatershed	53
Trinity River – Lower Tributaries Subwatershed	55
Trinity River – Lower Area Reference Subwatersheds[23]	528
Trinity River – Mill Creek and Tish Tang Subwatershed	210
Trinity River – Willow Creek Subwatershed	94
Trinity River – Campbell Creek and Supply Creek Subwatershed	1961
Trinity River – Lower Mainstem Area and Coon Creek Subwatershed	63

[19] More information for specific TMDL watersheds and site-specific mass-based sediment TMDLs can be found in Section W.6.e of this General Permit's Fact Sheet.

[20] Some WLAs may only apply to certain projects (e.g., roads, along banks, small or large features). WLAs that only apply to certain projects are noted in parentheticals.

[21] Stuarts Fork, Swift Creek, and Coffee Creek

[22] New River, Big French, Manzanita, North Fork, East Fork, North Fork

[23] Horse Linto Creek

3. Los Peñasquitos Lagoon Sediment TMDL

    a. All Responsible Dischargers for the Los Peñasquitos Lagoon Sediment TMDL shall provide an estimate of the representative flow rate of discharge from the construction project for at least one precipitation event each reporting year, in addition to complying with this General Permit.

    b. The Responsible Discharger shall submit the representative flow estimate as a PDF attachment to the Annual Report (due in SMARTS no later than September 1 of each year).

F. Temperature TMDL Implementation Requirements

1. Compliance with this General Permit

    a. All Responsible Dischargers for the Temperature TMDLs listed in Table H-2 shall comply with the requirements of this General Permit. Compliance with this General Permit is consistent with the requirements and assumptions of the North Coast Temperature TMDL Implementation Policy and no additional requirements are incorporated into this General Permit to implement Temperature TMDLs listed in Table H-2.

G. Metals and Toxics TMDL Implementation Requirements

1. Compliance with this General Permit

    a. All Responsible Dischargers for the Metals or Toxics TMDLs listed in Table H-2 shall comply with the requirements of this General Permit. Compliance with the requirements of this General Permit is consistent with the requirements and assumptions of the Metals or Toxics TMDLs, unless specified below.

2. Erosion and Sediment Control BMPs and RUSLE2 Modeling

    a. A Responsible Discharger that identifies on-site sources of metals or toxics in their pollutant source assessment and are assigned a mass-based waste load allocation, shall address the TMDL through the following in addition to complying with this General Permit:

        i. Comply with the site-specific erosion and sediment control, post-construction, and all other requirements in this General Permit;

        ii. Install erosion and sediment controls that will result in predicted erosion rates that are as protective as pre-construction conditions

(e.g., undisturbed vegetation for the area) for each phase of the construction project;

iii. Use RUSLE2 modeling to calculate the predicted soil losses and sediment delivery rates when selecting temporary BMPs and controls to be applied during each phase of the project. The RUSLE2 modeling included in the SWPPP shall include:

1. Appropriate climatic variables, soil types, and slope topography for the area disturbed; and

2. Calculated soil loss and sediment delivery rates for the selected BMPs and controls equal to, or less than, the soil loss and sediment delivery rates for pre-construction conditions during each phase of the construction project.

3. Numeric Action Level (NAL)

a. The Responsible Discharger shall implement BMPs to address the metals or toxics listed in the TMDL and prevent exceedances of the applicable NALs to the extent possible. The BMPs shall be visually inspected, maintained, repaired, and updated in the SWPPP in accordance with this General Permit's requirements specified in the Order and applicable requirements in Attachments D or E for the site's Risk or Type.

b. The Responsible Discharger shall conduct non-visible pollutant monitoring, as required in Attachment D or E Section III.D.3, when the TMDL-specific pollutant may be discharged due to a failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

c. The Responsible Discharger shall compare the non-visible pollutant monitoring analytical results to the applicable NAL(s) in Table H-2. The Responsible Discharger may provide the Water Boards adequate information demonstrating that it is infeasible to analyze these NALs using an ELAP-certified laboratory for methods compliant with 40 Code of Federal Regulations Part 136. In this case, the Water Boards will specify the appropriate monitoring methods to determine compliance.

d. The Responsible Discharger shall certify and submit all analytical results in SMARTS within 30 days of receiving the results, or within 10 days of receiving results above an applicable NAL .

e. A TMDL-related NAL exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge

location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D or E Section III.D.3, that is above the concentration set forth in the applicable NAL. An NAL exceedance is not a violation of this General Permit, however, it is a violation when the discharger fails to report and respond to the NAL exceedance(s).

f. The Regional Water Boards may assign additional monitoring, reporting, and BMP requirements upon obtaining site-specific information, including information about the NAL exceedance(s).

4. Numeric Effluent Limitation (NEL)

a. The Responsible Discharger shall implement BMPs to address the metals or toxics listed in the TMDL and prevent exceedances of the applicable NELs. The BMPs shall be visually inspected, maintained, repaired, and updated in the SWPPP in accordance with this General Permit's requirements specified in the Order and applicable requirements in Attachments D or E for the site's Risk Level or Type.

b. The Responsible Discharger shall conduct non-visible pollutant monitoring, as required in Attachment D or E, Section III.D.3, when the TMDL specific pollutant may be discharged due to a failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

c. The Responsible Discharger shall compare the non-visible pollutant monitoring analytical results to the applicable NEL(s) in Table H-2. The Responsible Discharger may provide the Water Boards information demonstrating that it is infeasible to analyze these NELs using an ELAP-certified laboratory for methods compliant with 40 Code of Federal Regulations Part 136. In this case, the Water Boards will specify the appropriate monitoring methods to determine compliance. Additionally, see the sediment-based approach for Los Angeles Area Lakes Toxics TMDL in Section I.G.5 below, if applicable.

d. The Responsible Discharger shall certify and submit the analytical results in SMARTS within 30 days of receiving the results, or within 10 days of receiving results above an applicable NEL.

e. A TMDL-related NEL exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D or E Section III.D.3, that is

above the concentration set forth in the applicable NEL. Upon exceedance of the applicable NEL, the Responsible Discharger shall comply with the Water Quality Based Corrective Actions in Section VI.R of this General Permit's Order. An NEL exceedance is a violation of this General Permit and is subject to mandatory minimum penalties.

f. The Regional Water Boards may assign additional monitoring, reporting, and BMP requirements upon obtaining site-specific information, including information about exceedances of the NEL(s).

5. Sediment-based Compliance Method

a. To comply with the Los Angeles Area Lakes TMDL for chlordane, DDT, dieldrin, and PCBs and the Los Angeles and Long Beach Harbor Waters for copper, lead, and zinc, dischargers that discharge to 1) Peck Road Park Lake, Echo Park Lake, Legg Lakes, or Puddingstone Reservoir; or 2) Dominguez Channel or Torrance Lateral Channel shall use the following soil screening investigation as part of their pollutant source assessment and comply with the NEL for total suspended solids, if applicable.

i. The discharger shall conduct a soil screening investigation as part of the pollutant source assessment, prior to initiation of land disturbing activities at the site, to determine whether subsequent NEL sampling is required. The soil screening investigation shall be conducted by, or under the direction of, a California Professional Engineer (PE), California Professional Geologist (PG), or Qualified SWPPP Developer (QSD).

ii. Soil Sampling Locations[24]

1. The discharger shall determine sampling plots by graphically applying a sampling grid with perpendicular line intersections to a map or other representation of the entire parcel or construction site. Each plot or block of the grid overlay must be sized in accordance with the scale specifications in Table H-4 below.

[24] The sampling protocol was modified from United States Environmental Protection Agency "Superfund Soil Screening Guidance" and United States Department of Agriculture and Natural Resource Conservation Service "Sampling Soils for Nutrient Management".

Table H-4: Soil Sampling Plot Specifications

Total Parcel or Site Area	>1 to 5 acres	>5 to 20 acres	>20 acres
Sampling Grid Scale	One-quarter acre	One-half acre	One acre

2. The discharger shall collect at least one sample from a randomly selected location within each sampling plot. To in ensure randomness, each plot shall be further divided into nine equal subsections, each assigned a unique number from 1 to 9. The discharger shall use a random number generator to select which subsection will be sampled; the sample location may be anywhere within the selected subsection.

iii. Soil Sample Collection

1. The discharger may utilize hand sampling methods or devices such as mechanical or hydraulic earth drills to collect soil samples. Hand methods may be economically preferable as the required samples depths are less than 2 feet.

2. The discharger shall obtain a three-point composite sample of in-situ soil, consisting of roughly equal volumes from 6 inches, 12 inches, and 18 inches below surface at each sample location. The listed depths are ‘start depths’ or ‘top depths’ for each composite portion. Samples shall be obtained from below the grass or forb root zone, if present.

3. The total quantity of each sample shall be approximately 20 cubic inches of volume, or one pound (0.5 kilograms) by weight.

4. The discharger shall immediately seal brass or acrylic sampling tubes sealed with Teflon™ squares and plastic caps. Otherwise, samples shall be placed in 500 milliliter glass jars with tightly sealable caps.

5. The discharger shall label each sample with a unique identifier, the address or location of the site, the name of the person that collected the sample, and the collection date.

6. Samples shall be maintained at a temperature of 4° Celsius until delivered to an ELAP-certified analytical laboratory under chain-of-custody for analysis.

iv. Soil Sample Analysis

1. For some analytes, more than one EPA Method may be available, and the most suitable method may be selected by the analytical laboratory. Typical methods include:

   a. Chlordane, DDT, and dieldrin: EPA Method 8081B

   b. PCBs: EPA Method 8082A

   c. Total copper, lead, and zinc: EPA Method 6010

2. The laboratory report must include the method reporting limit (RL) or reporting detection limit (RDL) for each analyte.

v. Soil Sample Reporting

The discharger shall submit soil sample analytical results via SMARTS prior to initiation of land disturbing activities.

vi. TSS Numeric Effluent Limitation (NEL)

1. If all sample analysis results for each applicable TMDL analyte are below their respective monitoring thresholds, as shown in Table H-5, the discharger is not considered a Responsible Discharger and does not have to sample for the TMDL-specific pollutant(s) under the non-visible pollutant monitoring requirements in Attachments D or E Section III.D.3, of this General Permit.

Table H-5: TMDL-specific Pollutant Thresholds for TSS Monitoring

TMDL-specific Pollutant	DDT, Dieldrin, Chlordane, PCBs	Total Copper	Total Lead	Total Zinc
Monitoring Threshold	Analytical Reporting Limit	0.0097 mg/L	0.0427 mg/L	0.0697 mg/L

2. If one or more of the specified TMDL analytes are detected above the respective monitoring thresholds, the discharger is considered a Responsible Discharger and shall:

   a. Implement sediment control BMPs that are effective at removing the applicable TMDL-specific pollutant, such as, but not limited to, media filter socks or fiber rolls, advanced silt fencing, and sedimentation basins. The BMPs shall be visually inspected, maintained, repaired, and updated in the SWPPP in accordance with this General Permit's requirements specified in the Order

and applicable requirements in Attachments D or E for the site's Risk Level or Type.

b. Collect samples and for total suspended solids (TSS) following the same procedure as non-visible pollutant monitoring, as required in Attachment D or E Section III.D.3, when the pollutants may be discharged due to failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

c. Analyze the collected samples using EPA Method 2540.

d. Compare the analytical results to an NEL of 100 mg/L of TSS[25].

e. Certify and submit the analytical results in SMARTS within 30 days of receiving the results or within 10 days of receiving results above the NEL for TSS.

3. A TMDL-related NEL exceedance occurs on the second, and each subsequent, analytical result for samples taken from any and all discharge location(s) within the same drainage area, during the same reporting year and taken in accordance with Attachment D or E Section III.D.3, that is above the concentration set forth in the NEL. Upon exceedance of the NEL, the Responsible Discharger shall comply with the Water Quality Based Corrective Actions in section VI.R of this General Permit's Order. An NEL exceedance is a violation of this General Permit and is subject to mandatory minimum penalties.

4. The Regional Water Boards may require additional monitoring, reporting, and BMP requirements upon obtaining site-specific information, including information about exceedances of the NEL.

6. Water Quality Sampling for Los Angeles and Long Beach Harbor Waters Metals TMDL

This general permit implements sediment-based numeric effluent limitations

[25] Nasrabadi T, Ruegner H, Schwientek M, Bennett J, Fazel Valipour S, Grathwohl P (2018) "Bulk metal concentrations versus total suspended solids in rivers: Time-invariant & catchment-specific relationships."
Washington Department of Ecology (2004) "A Total Maximum Daily Load Evaluation for Chlorinated Pesticides and PCBs in the Walla Walla River."
Angela Gorgoglione, Fabián A. Bombardelli, Bruno J. L. Pitton, Lorence R. Oki, Darren L. Haver and Thomas M. Young (2018), "Role of Sediments in Insecticide Runoff from Urban Surfaces: Analysis and Modeling."

as a surrogate for controlling discharges of copper, lead, and zinc. To correlate and quantify actual discharges of copper, lead, and zinc in construction stormwater with measured discharges of total suspended solids, the Responsible Dischargers as determined by Table H-2 above shall:

a. Collect effluent water quality samples following the same procedure as non-visible pollutant monitoring, as required in Attachment D or E Section III.D.3, when the pollutants may be discharged due to failure to implement BMPs, a container spill or leak, or a BMP breach, failure, or malfunction.

b. Analyze the collected samples for total copper, total lead, and total zinc, using an ELAP-certified laboratory for methods compliant with 40 Code of Federal Regulations Part 136.

c. Certify and submit the analytical results in SMARTS within 30 days of receiving the results.

d. The analytical results are informational only and will not be used to assess compliance with any limitation in this general permit.