

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

ORDER WQ 2014-0057-DWQ,
AS AMENDED BY ORDER WQ 2015-0122-DWQ &
ORDER WQ 2018-0028-DWQ

GENERAL PERMIT FOR
STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES

ORDER
NPDES NO. CAS000001

Order WQ 2014-0057-DWQ was adopted by the State Water Resources Control Board on:	April 1, 2014
Order WQ 2014-0057-DWQ became effective on:	July 1, 2015
Order WQ 2015-0122-DWQ was adopted and became effective on:	August 4, 2015
Order WQ 2018-0028-DWQ was adopted on:	November 6, 2018
Order WQ 2018-0028-DWQ shall become effective on:	July 1, 2020
This Order's expiration date is:	June 30, 2020
In accordance with Order Section XXI.S, if this Order is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 Code of Federal Regulations 122.6 and remain in full force and effect.	

CERTIFICATION

I, Courtney Tyler, Clerk to the Board, do hereby certify that this Order, including its fact sheet, attachments, and appendices is a full, true, and correct copy of an Order adopted by the State Water Resources Control Board, on April 1, 2014, and amended by the State Water Resources Control Board on August 4, 2015, and November 6, 2018.

AYE: Vice Chair Steven Moore
Board Member Dorene D'Adamo
Board Member E. Joaquin Esquivel
NAY: None
ABSENT: Chair Felicia Marcus
Board Member Tam M. Doduc
ABSTAIN: None



Courtney Tyler
Clerk to the Board

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I. FINDINGS

A. General Findings

The State Water Resources Control Board (State Water Board) finds that:

1. The Federal Clean Water Act (Clean Water Act) prohibits certain discharges of storm water containing pollutants except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. (33 U.S.C. §§ 1311, 1342 (also referred to as Clean Water Act §§ 301, 402).) The United States Environmental Protection Agency (U.S. EPA) promulgates federal regulations to implement the Clean Water Act's mandate to control pollutants in storm water discharges. (40 C.F.R. § 122, et seq.) The NPDES permit must require implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges (NSWDs). The NPDES permit must also include additional requirements necessary to implement applicable water quality objectives or water quality standards (water quality standards, collectively).
2. On November 16, 1990, U.S. EPA promulgated Phase I storm water regulations in compliance with section 402(p) of the Clean Water Act. (55 Fed. Reg. 47990, codified at 40 C.F.R. § 122.26.) These regulations require operators of facilities subject to storm water permitting (Dischargers), that discharge storm water associated with industrial activity (industrial storm water discharges), to obtain an NPDES permit. Section 402(p)(3)(A) of the Clean Water Act also requires that permits for discharges associated with industrial activity include requirements necessary to meet water quality standards.
3. Phase II storm water regulations¹ require permitting for storm water discharges from facilities owned and operated by a municipality with a population of less than 100,000. The previous exemption from the Phase I permitting requirements under section 1068 of the Intermodal Surface Transportation Efficiency Act of 1991 was eliminated.
4. This Order (General Permit) is an NPDES General Permit issued in compliance with section 402 of the Clean Water Act and shall take effect on July 1, 2015, provided that the Regional Administrator of U.S. EPA has no objection. If the U.S. EPA Regional Administrator has an objection, this General Permit will not become effective until the objection is withdrawn.
5. This action to adopt an NPDES General Permit is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000, et seq.) in accordance with section 13389 of the Water Code. (See County of

¹ U.S. EPA. [Final NPDES Phase II Rule](http://cfpub.epa.gov/npdes/stormwater/swfinal.cfm). <<http://cfpub.epa.gov/npdes/stormwater/swfinal.cfm>>. [as of February 4, 2014]

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Los Angeles v. California State Water Resources Control Bd. (2006) 143 Cal.App.4th 985.)

6. State Water Board Order 97-03-DWQ is rescinded as of the effective date of this General Permit (July 1, 2015) except for Order 97-03-DWQ's requirement that annual reports be submitted by August 14, 2015 and except for enforcement purposes.
7. Effective July 1, 2015, the State Water Board and the Regional Water Quality Control Boards (Regional Water Boards) (Water Boards, collectively) will enforce the provisions herein.
8. This General Permit authorizes discharges of industrial storm water to waters of the United States, so long as those discharges comply with all requirements, provisions, limitations, and prohibitions in this General Permit.
9. Industrial activities covered under this General Permit are described in Attachment A.
10. The Fact Sheet for this Order is incorporated as findings of this General Permit.
11. Acronyms are defined in Attachment B and terms used in this General Permit are defined in Attachment C.
12. This General Permit regulates industrial storm water discharges and authorized NSWDs from specific categories of industrial facilities identified in Attachment A hereto, and industrial storm water discharges and authorized NSWDs from facilities designated by the Regional Water Boards to obtain coverage under this General Permit. This General Permit does not apply to industrial storm water discharges and NSWDs that are regulated by other individual or general NPDES permits
13. This General Permit does not preempt or supersede the authority of municipal agencies to prohibit, restrict, or control industrial storm water discharges and authorized NSWDs that may discharge to storm water conveyance systems or other watercourses within their jurisdictions as allowed by state and federal law.
14. All terms defined in the Clean Water Act, U.S. EPA regulations, and the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000, et seq.) will have the same definition in this General Permit unless otherwise stated.
15. Pursuant to 40 Code of Federal Regulations section 131.12 and State Water Board Resolution 68-16, which incorporates the requirements of 40 Code of Federal Regulations section 131.12 where applicable, the State Water Board finds that discharges in compliance with this General Permit will not result in the lowering of water quality to a level that does not achieve water quality objectives and protect beneficial uses. Any degradation of water quality from existing high quality water to a level that achieves water quality objectives and

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- protects beneficial uses is appropriate to support economic development. This General Permit's requirements constitute best practicable treatment or control for discharges of industrial storm water and authorized non-storm water discharges, and are therefore consistent with those provisions.
16. Compliance with any specific limits or requirements contained in this General Permit does not constitute compliance with any other applicable permits.
 17. This General Permit requires that the Discharger certify and submit all Permit Registration Documents (PRDs) for Notice of Intent (NOI) and No Exposure Certification (NEC) coverage via the State Water Board's Storm Water Multiple Application and Report Tracking System (SMARTS) website. (See Attachment D for an example of the information required to be submitted in the PRDs via SMARTS.) All other documents required by this General Permit to be electronically certified and submitted via SMARTS can be submitted by the Discharger or by a designated Duly Authorized Representative on behalf of the Discharger. Electronic reporting is required to reduce the state's reliance on paper, to improve efficiency, and to make such General Permit documents more easily accessible to the public and the Water Boards.
 18. All information provided to the Water Boards shall comply with the Homeland Security Act and all other federal law that concerns security in the United States, as applicable.

B. Industrial Activities Not Covered Under this General Permit

19. Discharges of storm water from areas on tribal lands are not covered under this General Permit. Storm water discharges from industrial facilities on tribal lands are regulated by a separate NPDES permit issued by U.S. EPA.
20. Discharges of storm water regulated under another individual or general NPDES permit adopted by the State Water Board or Regional Water Board are not covered under this General Permit, including the State Water Board NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities.
21. Storm water discharges to combined sewer systems are not covered under this General Permit. These discharges must be covered by an individual permit. (40 C.F.R. § 122.26(a)(7).)
22. Conveyances that discharge storm water runoff combined with municipal sewage are not covered under this General Permit.
23. Discharges of storm water identified in Clean Water Act section 402(l) (33 U.S.C. § 1342(l)) are not covered under this General Permit.
24. Facilities otherwise subject to this General Permit but for which a valid Notice of Non-Applicability (NONA) has been certified and submitted via SMARTS, by the Entity are not covered under this General Permit. Entities

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(See Section XX.C.1 of this General Permit) who are claiming “No Discharge” through the NONA shall meet the eligibility requirements and provide a No Discharge Technical Report in accordance with Section XX.C.

25. This General Permit does not authorize discharges of dredged or fill material regulated by the US Army Corps of Engineers under section 404 of the Clean Water Act and does not constitute a water quality certification under section 401 of the Clean Water Act.

C. Discharge Prohibitions

26. Pursuant to section 13243 of the Water Code, the State Water Board may specify certain conditions or areas where the discharge of waste, or certain types of waste, is prohibited.
27. With the exception of certain authorized NSWDS as defined in Section IV, this General Permit prohibits NSWDS. The State Water Board recognizes that certain NSWDS should be authorized because they are not generated by industrial activity, are not significant sources of pollutants when managed appropriately, and are generally unavoidable because they are related to safety or would occur regardless of industrial activity. Prohibited NSWDS may be authorized under other individual or general NPDES permits, or waste discharge requirements issued by the Water Boards.
28. Prohibited NSWDS are referred to as unauthorized NSWDS in this General Permit. Unauthorized NSWDS shall be either eliminated or permitted by a separate NPDES permit. Unauthorized NSWDS may contribute significant pollutant loads to receiving waters. Measures to control sources of unauthorized NSWDS such as spills, leakage, and dumping, must be addressed through the implementation of Best Management Practices (BMPs).
29. This General Permit incorporates discharge prohibitions contained in water quality control plans, as implemented by the Water Boards.
30. Direct discharges of waste, including industrial storm water discharges, to Areas of Special Biological Significance (ASBS) are prohibited unless the Discharger has applied for and the State Water Board has granted an exception to the State Water Board’s 2009 Water Quality Control Plan for Ocean Waters of California as amended by State Water Board Resolution 2012-0056 (California Ocean Plan)² allowing the discharge.

² State Water Resources Control Board. [Ocean Standards Web Page](http://www.waterboards.ca.gov/water_issues/programs/ocean/).
<http://www.waterboards.ca.gov/water_issues/programs/ocean/>.
[as of February 4, 2014].

State Water Resources Control Board. [Water Quality Control Plan for Ocean Waters of California 2009](#).

D. Effluent Limitations

31. Section 301(b) of the Clean Water Act and 40 Code of Federal Regulations section require NPDES permits to include technology-based requirements at a minimum, and any more stringent effluent limitations necessary for receiving waters to meet applicable water quality standards. Clean Water Act section 402(p)(3)(A) requires that discharges of storm water runoff from industrial facilities comply with Clean Water Act section 301.
32. This General Permit requires control of pollutant discharges using BAT and BCT to reduce and prevent discharges of pollutants, and any more stringent effluent limitations necessary for receiving waters to meet applicable water quality standards.
33. It is not feasible for the State Water Board to establish numeric technology based effluent limitations for discharges authorized by this General Permit at this time. The rationale for this determination is discussed in detail in the Fact Sheet of this General Permit. Therefore, this General Permit requires Dischargers to implement minimum BMPs and applicable advanced BMPs as defined in Section X.H (collectively, BMPs) to comply with the requirements of this General Permit. This approach is consistent with U.S. EPA's 2008 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2008 MSGP).
34. 40 Code of Federal Regulations section 122.44(d) requires that NPDES permits include Water Quality Based Effluent Limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality standards for receiving waters.
35. Where numeric water quality criteria have not been established, 40 Code of Federal Regulations section 122.44(d)(1)(vi) provides that WQBELs may be established using U.S. EPA criteria guidance under section 304(a) of the Clean Water Act, a proposed state criteria or policy interpreting narrative criteria supplemented with other relevant information, and/or an indicator parameter.
36. This General Permit requires Dischargers to implement BMPs when necessary, in order to support attainment of water quality standards. The use of BMPs to control or abate the discharge of pollutants is authorized by 40 Code of Federal Regulations section 122.44(k)(3) because numeric effluent limitations are infeasible and implementation of BMPs is reasonably necessary to achieve effluent limitations and water quality standards, and to

<http://www.waterboards.ca.gov/water_issues/programs/ocean/docs/2009_cop_adop_tedeffective_usepa.pdf>. [as of February 4, 2014].

State Water Resources Control Board. [Resolution 2012-0056](#).

<http://www.swrcb.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0056.pdf>. [as of February 4, 2014].

carry out the purposes and intent of the Clean Water Act. (40 C.F.R. § 122.44(k)(4).)

E. Receiving Water Limitations

37. This General Permit requires compliance with receiving water limitations based on water quality standards. The primary receiving water limitation requires that industrial storm water discharges and authorized NSWDS not cause or contribute to an exceedance of applicable water quality standards. Water quality standards apply to the quality of the receiving water, not the quality of the industrial storm water discharge. Therefore, compliance with the receiving water limitations generally cannot be determined solely by the effluent water quality characteristics. If any Discharger's storm water discharge causes or contributes to an exceedance of a water quality standard, that Discharger must implement additional BMPs or other control measures in order to attain compliance with the receiving water limitation. Compliance with water quality standards may, in some cases, require Dischargers to implement controls that are more protective than controls implemented solely to comply with the technology-based requirements in this General Permit.

F. Total Maximum Daily Loads (TMDLs)

38. TMDLs relate to the maximum amount of a pollutant that a water body can receive and still attain water quality standards. A TMDL is defined as the sum of the allowable loads of a single pollutant from all contributing point sources (the waste load allocations) and non-point sources (load allocations), the contribution from background sources, and the margin of safety. (40 C.F.R. § 130.2(i).) Discharges addressed by this General Permit are considered to be point source discharges, and therefore must comply with effluent limitations that are "consistent with the assumptions and requirements of any available waste load allocation for the discharge prepared by the state and approved by U.S. EPA pursuant to 40 Code of Federal Regulations section 130.7. (40 C.F.R. § 122.44 (d)(1)(vii).) In addition, Water Code section 13263, subdivision (a), requires that waste discharge requirements implement any relevant water quality control plans. Many TMDLs in water quality control plans include implementation requirements in addition to waste load allocations. Attachment E of this General Permit contains the TMDL-specific requirements for watersheds/water bodies with U.S. EPA-approved and U.S. EPA-established TMDLs for Dischargers covered by this General Permit.

39. The State Water Board recognizes the responsibility to develop TMDL-specific permit requirements derived from each TMDL's waste load allocation and implementation requirements, in order for Dischargers to implement and comply with the TMDL. The development of TMDL-specific permit requirements is subject to public noticing requirements and a corresponding public comment period. The amendment to implement TMDLs was a lengthy process due to the number and variety of Dischargers subject to a wide range of TMDLs, and the necessary development of TMDL-specific permit

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- requirements for each TMDL listed in Attachment E. To avoid severely delaying the 2014 reissuance of this General Permit, the State Water Board adopted a subsequent amendment to this General Permit to incorporate TMDLs. The majority of the TMDLs were established by the Regional Water Boards; additionally some of the waste load allocations and/or implementation requirements may be shared by multiple Dischargers. Therefore, the State Water Board development of TMDL-specific permit requirements was coordinated with the applicable Regional Water Boards.
40. State and Regional Water Board staff developed TMDL-specific permit requirements (including monitoring and reporting requirements) for each of the TMDLs listed in Attachment E. After conducting a 30-day public comment period, the Regional Water Boards submitted to the State Water Board the proposed TMDL-specific permit requirements for adoption by the State Water Board into this General Permit. The Regional Water Boards proposed TMDL-specific monitoring requirements for inclusion in this General Permit.
41. The Regional Water Boards submitted to the State Water Board the following information for each of the TMDLs listed in Attachment E:
- a. Proposed TMDL-specific permit, monitoring and reporting requirements applicable to industrial storm water discharges and NSWDS authorized under this General Permit, including compliance schedules and deliverables consistent with the TMDLs. TMDL-specific permit requirements are not limited by the BAT/BCT technology-based standards;
 - b. An explanation of how the proposed TMDL-specific permit requirements, compliance schedules, and deliverables were consistent with the assumptions and requirements of any applicable waste load allocation and implement each TMDL; and,
 - c. Where a BMP-based approach was proposed, an explanation of how the proposed BMPs would be sufficient to implement applicable waste load allocations.
42. Upon receipt of the information described in Finding 41, the State Water Board issued a public notice and conducted a public comment period for the reopening of this General Permit to amend Attachment E, the Fact Sheet, and other provisions as necessary for incorporation of TMDL-specific permit requirements into this General Permit.
43. Dischargers that are subject to TMDL-specific permit requirements are referred to as “Responsible Dischargers.”
44. TMDL-specific permit requirements do not apply to Dischargers with NEC coverage or meeting the NONA criteria.

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45. This General Permit's NALs found in Table 2 shall continue to apply to Responsible Dischargers in addition to applicable TMDL Numeric Action Levels (TNALs) and Numeric Effluent Limitations (NELs) in Attachment E Table E-2.
46. The State Water Board Executive Director has the authority to incorporate a reanalyzed Regional Water Board adopted Water Effect Ratio (WER) into this General Permit.
47. Responsible Dischargers shall refer to Section XII.A for the Exceedance Response Actions requirements upon a TNAL exceedance.
48. All TNALs established in Attachment E Table E-2 for TMDL implementation are applied as instantaneous maximum values as defined in Section XII.A.2 and Attachment C of this General Permit. There are no annual TNALs in this General Permit.
49. NELs established in Attachment E Table E-2 for TMDL implementation are applied as instantaneous maximum values as defined in Attachment C of this General Permit. There are no annual NELs in this General Permit.
50. The establishment of instantaneous maximum NELs for TMDL implementation does not change the implementation or definitions of NELs in Attachment F of this General Permit, which contains the 40 Code of Federal Regulations Chapter I Subchapter N (Subchapter N) effluent limitation guidelines approved by U.S. EPA for specific categories of industrial storm water discharges.
51. The State Water Board has added requirements to Attachment E and this General Permit, including this General Permit's Exceedance Response Actions (ERAs) provisions and Water Quality Based Corrective Actions provisions, implementing TMDLs through Permit-specific TMDL requirements. These are collectively referred to as the TMDL Requirements.

G. Compliance Options

52. The State Water Board allows Dischargers statewide to implement an optional Compliance Option in Attachment I, which is hereby incorporated into this Order, as a means of complying with Section V.A and being deemed in compliance with Section III.C (Discharge Prohibitions), Section V.C (Effluent Limitations), and Section VI (Receiving Water Limitations) of this General Permit. Dischargers implementing and in compliance with Attachment I Compliance Option requirements are also exempt from certain provisions of this General Permit as specified in Attachment I, including, but not limited to, Section XII (Exceedance Response Actions). A Discharger deemed in compliance with a provision is not required by this General Permit to take any further action to meet the requirements of that provision. Dischargers are still required to comply with applicable Subchapter N effluent limitations.

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53. The Compliance Options involve implementing BMPs with the effective capacity to capture and use, infiltrate, and/or evapotranspire authorized non-storm water sources defined in Section IV and storm water associated with industrial activities produced up to and during the 85th percentile 24-hour precipitation event based upon local, historical precipitation data and records.
54. The Compliance Options allow for the implementation of BMPs either on-site or off-site.
55. The State Water Board is confident that Dischargers implementing a Compliance Option will be in actual compliance with water quality standards in the receiving water as well as with General Permit-specific TMDL requirements; however, the Water Boards retain the authority to require Dischargers to take further action should implementation of a Compliance Option not result in actual compliance with water quality standards in the receiving water and/or to reevaluate the Compliance Option approach in future iterations of this General Permit.³
56. The On-Site Compliance Option includes requirements for the protection of groundwater. These requirements are included pursuant to the State Water Board's Porter-Cologne Water Quality Control Act authority in this General Permit (which is an NPDES permit) to avoid the necessity of adopting a separate waste discharge requirement (WDR). NPDES permits issued by the State Water Board also serve as WDRs and may include state-law based requirements. Because these groundwater protection requirements go beyond the scope of NPDES permitting, these requirements are enforceable in accordance with the Porter-Cologne Water Quality Control Act, not the federal Clean Water Act. Further, these groundwater protection requirements are CEQA-exempt; specifically, these requirements are "covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment," which applies "[w]here it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment[.]" (Cal. Code Regs., tit. 14, § 15061, subd. (b)(3).) There is no possibility that discharges made in accordance with these requirements will have a significant effect on the environment due to the requirement for Dischargers to protect discharges to groundwater by 1) ensuring all influent entering the infiltration BMPs meet applicable Maximum Contaminant Level (MCL) criteria or proving discharges to groundwater meet MCL criteria, 2) monitoring the BMP influent to verify compliance, and 3) verifying potential impacts and conducting applicable monitoring for a variety of contaminants of concern.

³ "Actual compliance" as used here refers to compliance with water quality standards in the receiving water and General Permit-specific TMDL requirements, rather than compliance through Attachment I's "deemed in compliance" provisions.

H. Discharges Subject to the California Ocean Plan

57. On October 16, 2012 the State Water Board amended the California Ocean Plan. The amended California Ocean Plan requires industrial storm water dischargers with outfalls discharging to ocean waters to comply with the California Ocean Plan's model monitoring provisions. These provisions require Dischargers to: (a) monitor runoff for specific parameters at all outfalls from two storm events per year, and collect at least one representative receiving water sample per year, (b) conduct specified toxicity monitoring at certain types of outfalls at a minimum of once per year, and (c) conduct marine sediment monitoring for toxicity under specific circumstances. The California Ocean Plan provides conditions under which some of the above monitoring provisions may be waived by the Water Boards.
58. This General Permit requires Dischargers with outfalls discharging to ocean waters that are subject to the model monitoring provisions of the California Ocean Plan to develop and implement a monitoring plan in compliance with those provisions and any additional monitoring requirements established pursuant to Water Code section 13383. Dischargers that have not developed and implemented a monitoring program in compliance with the California Ocean Plan's model monitoring provisions by July 1, 2015 (the effective date of this General Permit), or seven (7) days prior to commencing operations, whichever is later, are ineligible to obtain coverage under this General Permit.
59. The California Ocean Plan prohibits the direct discharge of waste to ASBS. ASBS are defined in California Ocean Plan as "those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable."
60. The California Ocean Plan authorizes the State Water Board to grant an exception to Ocean Plan provisions where the board determines that the exception will not compromise protection of ocean waters for beneficial uses and the public interest will be served.
61. On March 20, 2012, the State Water Board adopted Resolution 2012-0012 which contains exceptions to the California Ocean Plan for specific discharges of storm water and non-point sources. This resolution also contains the special protections that are to be implemented for those discharges to ASBS.
62. This General Permit requires Dischargers who have been granted an exception to the Ocean Plan authorizing the discharges to ASBS by the State Water Board to comply with the requirements contained in Section VIII.B of this General Permit.

I. Training

63. To improve compliance and maintain consistent implementation of this General Permit, Dischargers are required to designate a Qualified Industrial Storm Water Practitioner (QISP) for each facility the Discharger operates that has entered Level 1 status in the Exceedance Response Action (ERA) process as described in Section XII of this General Permit. A QISP may be assigned to more than one facility. In order to qualify as a QISP, a State Water Board-sponsored or approved training course must be completed. A competency exam may be required by the State Water Board to demonstrate sufficient knowledge of the QISP course material.
64. A QISP must assist the Discharger in completing the Level 1 status and Level 2 status ERA requirements as specified in Section XII of this General Permit. A QISP is also responsible for assisting New Dischargers that will be discharging to an impaired water body with a 303(d) listed impairment, demonstrate eligibility for coverage through preparing the data and/or information required in Section VII.B.
65. A Compliance Group Leader, as defined in Section XIV of this General Order must complete a State Water Board sponsored or approved training program for Compliance Group Leaders.
66. All engineering work subject to the Professional Engineers Act (Bus. & Prof. Code § 6700, et seq.) and required by this General Permit shall be performed by a California licensed professional engineer.
67. California licensed professional civil, industrial, chemical, and mechanical engineers and geologists have licenses that have professional overlap with the topics of this General Permit. The California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists (CBPELSG) provides the licensure and regulation of professional civil, industrial, chemical, and mechanical engineers and professional geologists in California. The State Water Board is developing a specialized self-guided State Water Board-sponsored registration and training program specifically for these CPBELSG licensed engineers and geologists in good standing with CBPELSG.

J. Storm Water Pollution Prevention Plan (SWPPP) Requirements

68. This General Permit requires the development of a site-specific SWPPP in accordance with Section X of this General Permit. The SWPPP must include the information needed to demonstrate compliance with the requirements of this General Permit. The SWPPP must be submitted electronically via SMARTS, and a copy be kept at the facility. SWPPP revisions shall be completed in accordance with Section X.B of this General Permit.

K. Sampling, Visual Observations, Reporting and Record Keeping

69. This General Permit complies with 40 Code of Federal Regulations section 122.44(i), which establishes monitoring requirements that must be included in storm water permits, including requiring the use of sufficiently sensitive U.S. EPA-approved methods, where they exist. Under this General Permit, Dischargers are required to: (a) conduct an Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation) to identify areas of the facility contributing pollutants to industrial storm water discharges, (b) evaluate whether measures to reduce or prevent industrial pollutant loads identified in the Discharger's SWPPP are adequate and properly implemented in accordance with the terms of this General Permit, and (c) determine whether additional control measures are needed.
70. This General Permit contains monitoring requirements that are necessary to determine whether pollutants are being discharged, and whether response actions are necessary. Data and information resulting from the monitoring will assist in Dischargers' evaluations of BMP effectiveness and compliance with this General Permit. Visual observations are one form of monitoring. This General Permit requires Dischargers to perform a variety of visual observations designed to identify pollutants in industrial storm water discharges and their sources. To comply with this General Permit Dischargers shall: (1) electronically self-report any violations via SMARTS, (2) comply with the Level 1 status and Level 2 status ERA requirements, when applicable, and (3) adequately address and respond to any Regional Water Board comments on the Discharger's compliance reports.
71. Dischargers that meet the requirements of the No Exposure Certification (NEC) Conditional Exclusion set forth in Section XVII of this General Permit are exempt from the SWPPP requirements, sampling requirements, and visual observation requirements in this General Permit.

L. Facilities Subject to Federal Storm Water Effluent Limitation Guidelines (ELGs)

72. U.S. EPA regulations at 40 Code of Federal Regulations Chapter I Subchapter N (Subchapter N) establish technology-based Effluent Limitation Guidelines and New Source Performance Standards (ELGs) for industrial storm water discharges from facilities in specific industrial categories. For these facilities, compliance with the BAT/BCT and ELG requirements constitutes compliance with technology-based requirements of this General Permit.
73. 40 Code of Federal Regulations section 122.44(i)(3) and (4) require storm water permits to require at least one Annual Evaluation and any monitoring requirements for applicable ELGs in Subchapter N. This General Permit requires Dischargers to comply with all applicable ELG requirements found in Subchapter N.

M. Sampling and Analysis Reduction

74. This General Permit reduces the number of qualifying sampling events required to be sampled each year when the Discharger demonstrates: (1) consistent compliance with this General Permit, (2) consistent effluent water quality sampling, and (3) analysis results that do not exceed numerical action levels.

N. Role of Numeric Action Levels (NALs), TMDL Numeric Action Levels (TNALs) and Exceedance Response Actions (ERAs)

75. This General Permit incorporates a multiple objective performance measurement system that includes NALs, new comprehensive training requirements, Level 1 ERA Reports, Level 2 ERA Technical Reports, and Level 2 ERA Action Plans. Two objectives of the performance measurement system are to inform Dischargers, the public and the Water Boards on: (1) the overall pollutant control performance at any given facility, and (2) the overall performance of the industrial statewide storm water program. Additionally, the State Water Board expects that this information and assessment process will provide information necessary to determine the feasibility of numeric effluent limitations for industrial dischargers in the next reissuance of this General Permit, consistent with the State Water Board Storm Water Panel of Experts' June 2006 Recommendations.⁴

76. This General Permit contains annual and instantaneous maximum NALs. The annual NALs are established as the 2008 MSGP benchmark values, and are applicable for all parameters listed in Table 2. The instantaneous maximum NALs are calculated from a Water Board dataset, and are only applicable for Total Suspended Solids (TSS), Oil and Grease (O&G), and pH. TNAL exceedances are all expressed as instantaneous maximums and are identified in Attachment E Table E-2. An NAL exceedance is determined as follows:

- a. For annual NALs, an exceedance occurs when the average of all analytical results from all samples taken at a facility during a reporting year for a given parameter exceeds an annual NAL value listed in Table 2 of this General Permit; or,
- b. For the instantaneous maximum NALs/TNALs, an exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the instantaneous maximum NAL/TNAL value, or are outside of the instantaneous maximum NAL range (for pH)

⁴ State Water Board Storm Water Panel of Experts, [The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities](http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf) (June 19, 2006)
<http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf> [as of February 4, 2014].

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listed in Table 2 of this General Permit. For the purposes of this General Permit, the reporting year is July 1 through June 30.

77. The NALs are not intended to serve as technology-based or water quality-based numeric effluent limitations. The NALs are not derived directly from either BAT/BCT requirements or receiving water objectives. The TNALs serve as BMP-based water quality-based effluent limitations. The NAL/TNAL exceedances defined in this General Permit are not, in and of themselves, violations of this General Permit. A Discharger that does not fully comply with the Level 1 status and/or Level 2 status ERA requirements, when required by the terms of this General Permit, is in violation of this General Permit.
78. ERAs are designed to assist Dischargers in complying with this General Permit. Dischargers subject to ERAs must evaluate the effectiveness of their BMPs being implemented to ensure they are adequate to achieve compliance with this General Permit.
79. U.S. EPA regulations at Subchapter N establish ELGs for storm water discharges from facilities in 11 industrial categories. Dischargers subject to these ELGs are required to comply with the applicable requirements.
80. Exceedances of the NALs/TNALs that are attributable solely to pollutants originating from non-industrial pollutant sources (such as run-on from adjacent facilities, non-industrial portions of the Discharger's property, or aerial deposition) are not a violation of this General Permit because the NALs/TNALs are designed to provide feedback on industrial sources of pollutants. Dischargers may submit a Non-Industrial Source Pollutant Demonstration as part of their Level 2 ERA Technical Report to demonstrate that the presence of a pollutant causing an NAL/TNAL exceedance is attributable solely to pollutants originating from non-industrial pollutant sources.
81. A Discharger who has designed, installed, and implemented BMPs to reduce or prevent pollutants in industrial storm water discharges in compliance with this General Permit may submit an Industrial Activity BMPs Demonstration, as part of their Level 2 ERA Technical Report.
82. This General Permit establishes design storm standards for all treatment control BMPs. These design standards are directly based on the standards in State Water Board Order 2000-0011 regarding Standard Urban Storm Water Mitigation Plans (SUSMPs). These design standards are generally expected to be consistent with BAT/BCT, to be protective of water quality, and to be effective for most pollutants. The standards are intended to eliminate the need for most Dischargers to further treat/control industrial storm water discharges that are unlikely to contain pollutant loadings that exceed the NALs set forth in this General Permit.

O. Compliance Groups

83. Compliance Groups are groups of Dischargers (Compliance Group Participants) that share common types of pollutant sources and industrial activity characteristics. Compliance Groups provide an opportunity for the Compliance Group Participants to combine resources and develop consolidated Level 1 ERA Reports for Level 1 NAL/TNAL exceedances and appropriate BMPs for implementation in response to Level 2 status ERA requirements that are representative of the entire Compliance Group. Compliance Groups also provide the Water Boards and the public with valuable information as to how industrial storm water discharges are affected by non-industrial background pollutant sources (including natural background) and geographic locations. When developing the next reissuance of this General Permit, the State Water Board expects to have a better understanding of the feasibility and benefits of sector-specific and watershed-based permitting alternatives, which may include technology- or water quality-based numeric effluent limitations. The effluent data, BMP performance data and other information provided from Compliance Groups' consolidated reporting will further assist the State Water Board in addressing sector-specific and watershed-based permitting alternatives.

Compliance Groups Participants who are Responsible Dischargers may participate in Compliance Groups with other Responsible Dischargers or Dischargers; however, the Compliance Group Leader is required to indicate which participants are Responsible Dischargers.

P. Conditional Exclusion – No Exposure Certification (NEC)

84. Pursuant to U.S. EPA Phase II regulations, all Dischargers subject to this General Permit may qualify for a conditional exclusion from specific requirements if they submit a NEC demonstrating that their facilities have no exposure of industrial activities and materials to storm water discharges.

85. This General Permit requires Dischargers who seek the NEC conditional exclusion to obtain coverage in accordance with Section XVII of this General Permit. Dischargers that meet the requirements of the NEC are exempt from the SWPPP, sampling requirements, and monitoring requirements in this General Permit.

86. Dischargers seeking NEC coverage are required to certify and submit the applicable permit registration documents. Annual inspections, re-certifications, and fees are required in subsequent years. Light industry facility Dischargers excluded from coverage under the previous permit (Order 97-03-DWQ) must obtain the appropriate coverage under this General Permit. Failure to comply with the Conditional Exclusion conditions listed in this General Permit may lead to enforcement for discharging without a permit pursuant to sections 13385 or 13399.25, et seq., of the Water Code. A Discharger with NEC coverage that anticipates a change (or changes) in

circumstances that would lead to exposure should register for permit coverage prior to the anticipated changes.

Q. Special Requirements for Facilities Handling Plastic Materials

87. Section 13367 of the Water Code requires facilities handling preproduction plastic to implement specific BMPs aimed at minimizing discharges of such materials. The definition of Plastic Materials for the purposes of this General Permit includes the following types of sources of Plastic Materials: virgin and recycled plastic resin pellets, powders, flakes, powdered additives, regrind, dust, and other types of preproduction plastics with the potential to discharge or migrate off-site.

R. Regional Water Board Authorities

88. Regional Water Boards are primarily responsible for enforcement of this General Permit. This General Permit recognizes that Regional Water Boards have the authority to protect the beneficial uses of receiving waters and prevent degradation of water quality in their region. As such, Regional Water Boards may modify monitoring requirements and review, comment, approve or disapprove certain Discharger submittals required under this General Permit.

IT IS HEREBY ORDERED that all Dischargers subject to this General Permit shall comply with the following conditions and requirements.⁵

II. RECEIVING GENERAL PERMIT COVERAGE

A. Certification

1. For Storm Water Multiple Application and Report Tracking System (SMARTS) electronic account management and security reasons, as well as enforceability of this General Permit, the Discharger's Legally Responsible Person (LRP) of an industrial facility seeking coverage under this General Permit shall certify and submit all Permit Registration Documents (PRDs) for Notice of Intent (NOI) or No Exposure Certification (NEC) coverage. All other documents shall be certified and submitted via SMARTS by the Discharger's (LRP) or by their Duly Authorized Representative in accordance with the Electronic Signature and Certification Requirements in Section XXI.K. All documents required by this General Permit that are certified and submitted via SMARTS shall be in accordance with Section XXI.K.
2. Hereinafter references to certifications and submittals by the Discharger refer to the Discharger's LRP and their Duly Authorized Representative.

B. Coverages

This General Permit includes requirements for two (2) types of permit coverage, NOI coverage and NEC coverage. State Water Board Order 97-03-DWQ (previous permit) remains in effect until July 1, 2015. When PRDs are certified and submitted and the annual fee is received, the State Water Board will assign the Discharger a Waste Discharger Identification (WDID) number.

1. General Permit Coverage (NOI Coverage)
 - a. Dischargers that discharge storm water associated with industrial activity to waters of the United States are required to meet all applicable requirements of this General Permit.

⁵ Dischargers may implement an optional Compliance Option, as specified in Attachment I, as a means of complying with Section V.A and being deemed in compliance with Section III.C (Discharge Prohibitions), Section V.C (Effluent Limitations), and Section VI (Receiving Water Limitations) of this Order. Dischargers implementing and in compliance with Attachment I Compliance Option requirements are also exempt from certain provisions of this General Permit as specified in Attachment I, including, but not limited to, Section XII (Exceedance Response Actions). Dischargers are still required to comply with applicable Subchapter N effluent limitations.

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- b. The Discharger shall register for coverage under this General Permit by certifying and submitting PRDs via [SMARTS](http://smarts.waterboards.ca.gov) (<http://smarts.waterboards.ca.gov>), which consist of:
 - i. A completed NOI and signed certification statement;
 - ii. A copy of a current Site Map from the Storm Water Pollution Prevention Plan (SWPPP) in Section X.E;
 - iii. A SWPPP (see Section X); and,
 - c. The Discharger shall pay the appropriate Annual Fee in accordance with California Code of Regulations, title 23, section 2200 et seq.⁶
2. General Permit Coverage (NEC Coverage)
- a. Dischargers that certify their facility has no exposure of industrial activities or materials to storm water in accordance with Section XVII qualify for NEC coverage and are not required to comply with the SWPPP or monitoring requirements of this General Permit.
 - b. Dischargers who qualify for NEC coverage shall conduct one Annual Facility Comprehensive Compliance Evaluation (Annual Evaluation) as described in Section XV, pay an annual fee, and certify annually that their facilities continue to meet the NEC requirements.
 - c. The Discharger shall submit the following PRDs on or before October 1, 2015 for NEC coverage via SMARTS:
 - i. A completed NEC Form (Section XVII.F.1) and signed certification statement (Section XVII.H);
 - ii. A completed NEC Checklist (Section XVII.F.2); and
 - iii. A current Site Map consistent with requirements in Section X.E.;
 - d. The Discharger shall pay the appropriate annual fee in accordance with California Code of Regulations, title 23, section 2200 et seq.⁷
3. General PRD Requirements
- a. Site Maps

Dischargers registering for NOI or NEC coverage shall prepare a site map(s) as part of their PRDs in accordance with Section X.E. A separate

⁶ Annual fees must be mailed or sent electronically using the State Water Boards' Electronic Funds Transfer (EFT) system in SMARTS.

⁷ See footnote 4.

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copy of the site map(s) is required to be in the SWPPP. If there is a significant change in the facility layout (e.g., new building, change in storage locations, boundary change, etc.) a revision to the site map is required and shall be certified and submitted via SMARTS.

- b. A Discharger shall submit a single set of PRDs for coverage under this General Permit for multiple industrial activities occurring at the same facility.
 - c. Any information provided to the Water Boards by the Discharger shall comply with the Homeland Security Act and other federal law that addresses security in the United States; any information that does not comply should not be submitted in the PRDs. The Discharger must provide justification to the Regional Water Board regarding redacted information within any submittal.
 - d. Dischargers may redact trade secrets from information that is submitted via SMARTS. Dischargers who certify and submit redacted information via SMARTS must include a general description of the redacted information and the basis for the redaction in the version that is submitted via SMARTS. Dischargers must submit complete and un-redacted versions of the information that are clearly labeled "CONFIDENTIAL" to the Regional Water Board within 30 days of the submittal of the redacted information. All information labeled "CONFIDENTIAL" will be maintained by the Water Boards in a separate, confidential file.
4. Schedule for Submitting PRDs - Existing Dischargers Under the Previous Permit.
- a. Existing Dischargers⁸ with coverage under the previous permit shall continue coverage under the previous permit until July 1, 2015. All waste discharge requirements and conditions of the previous permit are in effect until July 1, 2015.
 - b. Existing Dischargers with coverage under the previous permit shall register for NOI coverage by or on August 14, 2015 or for NEC coverage by or on October 1, 2015. The filing date for Existing Dischargers that register for NOI coverage by or on August 14, 2015 shall be deemed July 1, 2015. Existing Dischargers previously listed in Category 10 (Light Industry) of the previous permit, and continue to have no exposure to industrial activities and materials, have until October 1, 2015 to register for NEC coverage.

⁸ Existing Dischargers are Dischargers with an active Notice of Intent (permit coverage) under the previous permit (97-03-DWQ) prior to the effective date of this General Permit.

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- c. Existing Dischargers with coverage under the previous permit, that do not register for NOI coverage by or on August 14, 2015, may have their permit coverage administratively terminated as soon as August 14, 2015.
 - d. Existing Dischargers with coverage under the previous permit that are eligible for NEC coverage but do not register for NEC coverage by October 1, 2015 may have their permit coverage administratively terminated as soon as October 1, 2015.
 - e. Existing Dischargers shall continue to comply with the SWPPP requirements in State Water Board Order 97-03-DWQ up to, but no later than, June 30, 2015.
 - f. Existing Dischargers shall implement an updated SWPPP in accordance with Section X by July 1, 2015.
 - g. Existing Dischargers that submit a Notice of Termination (NOT) under the previous permit prior to July 1, 2015 and that receive NOT approval from the Regional Water Board are not subject to this General Permit unless they subsequently submitted new PRDs.
5. Schedule for Submitting PRDs - New Dischargers Obtaining Coverage On or After July 1, 2015
- a. New Dischargers registering for NOI coverage on or after July 1, 2015 shall certify and submit PRDs via SMARTS at least seven (7) days prior to commencement of industrial activities or on August 14, 2015, whichever comes later. The filing date for New Dischargers that register for NOI coverage by or on August 14, 2015 shall be deemed July 1, 2015 or seven (7) days prior to commencement of industrial activities, whichever comes later.
 - b. New Dischargers registering for NEC coverage shall electronically certify and submit PRDs via SMARTS by October 1, 2015, or at least seven (7) days prior to commencement of industrial activities, whichever is later.

C. Termination and Changes to General Permit Coverage

1. Dischargers with NOI or NEC coverage shall request termination of coverage under this General Permit when either (a) operation of the facility has been transferred to another entity, (b) the facility has ceased operations, completed closure activities, and removed all industrial related pollutants, or (c) the facility's operations have changed and are no longer subject to the General Permit. Dischargers shall certify and submit a Notice of Termination via SMARTS. Until a valid NOT is received, the Discharger remains responsible for compliance with this General Permit and payment of accrued annual fees.
2. Whenever there is a change to the facility location, the Discharger shall certify and submit new PRDs via SMARTS. When ownership changes, the prior

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Discharger (seller) must inform the new Discharger (buyer) of the General Permit applications and regulatory coverage requirements. The new Discharger must certify and submit new PRDs via SMARTS to obtain coverage under this General Permit.

3. Dischargers with NOI coverage where the facility qualifies for NEC coverage in accordance with Section XVII of this General Permit, may register for NEC coverage via SMARTS. Such Dischargers are not required to submit an NOT to cancel NOI coverage.
4. Dischargers with NEC coverage, where changes in the facility and/or facility operations occur, which result in NOI coverage instead of NEC coverage, shall register for NOI coverage via SMARTS. Such Dischargers are not required to submit an NOT to cancel NEC coverage.
5. Dischargers shall provide additional information supporting an NOT, or revise their PRDs via SMARTS, upon request by the Regional Water Board.
6. Dischargers that are denied approval of a submitted NOT or registration for NEC coverage by the Regional Water Board, shall continue compliance with this General Permit under their existing NOI coverage.
7. New Dischargers (Dischargers with no previous NOI or NEC coverage) shall register for NOI coverage if the Regional Water Board denies NEC coverage.

D. Preparation Requirements

1. The following documents shall be certified and submitted by the Discharger via SMARTS:
 - a. Annual Reports (Section XVI) and SWPPPs (Section X);
 - b. NOTs;
 - c. Sampling Frequency Reduction Certification (Section XI.C.7);
 - d. Level 1 ERA Reports (Section XII.C) prepared by a QISP;
 - e. Level 2 ERA Technical Reports and Level 2 ERA Action Plans (Sections XII.D.1-2) prepared by a QISP; and,
 - f. SWPPPs for inactive mining operations as described in Section XIII, signed (wet signature and license number) by a California licensed professional engineer.
2. The following documents shall be signed (wet signature and license number) by a California licensed professional engineer:
 - a. Calculations for Dischargers subject to Subchapter N in accordance with Section XI.D;

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- b. Notice of Non-Applicability (NONA) Technical Reports described in Section XX.C for facilities that are engineered and constructed to have contained the maximum historic precipitation event (or series of events) using the precipitation data collected from the National Oceanic and Atmospheric Agency's website;
- c. NONA Technical Reports described in Section XX.C for facilities located in basins or other physical locations that are not tributaries or hydrologically connected to waters of the United States; and,
- d. SWPPPs for inactive mines described in Section XIII.

III. DISCHARGE PROHIBITIONS

- A. All discharges of storm water to waters of the United States are prohibited except as specifically authorized by this General Permit or another NPDES permit.
- B. Except for non-storm water discharges (NSWDs) authorized in Section IV, discharges of liquids or materials other than storm water, either directly or indirectly to waters of the United States, are prohibited unless authorized by another NPDES permit. Unauthorized NSWDs must be either eliminated or authorized by a separate NPDES permit.
- C. Industrial storm water discharges and authorized NSWDs that contain pollutants that cause or threaten to cause pollution, contamination, or nuisance as defined in section 13050 of the Water Code, are prohibited.
- D. Discharges that violate any discharge prohibitions contained in applicable Regional Water Board Water Quality Control Plans (Basin Plans), or statewide water quality control plans and policies are prohibited.
- E. Discharges to ASBS are prohibited in accordance with the California Ocean Plan, unless granted an exception by the State Water Board and in compliance with the Special Protections contained in Resolution 2012-0012.
- F. Industrial storm water discharges and NSWDs authorized by this General Permit that contain hazardous substances equal to or in excess of a reportable quantity listed in 40 Code of Federal Regulations sections 110.6, 117.21, or 302.6 are prohibited.

IV. AUTHORIZED NON-STORM WATER DISCHARGES (NSWDS)

- A. The following NSWDS are authorized provided they meet the conditions of Section IV.B:
 - 1. Fire-hydrant and fire prevention or response system flushing;
 - 2. Potable water sources including potable water related to the operation, maintenance, or testing of potable water systems;

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3. Drinking fountain water and atmospheric condensate including refrigeration, air conditioning, and compressor condensate;
 4. Irrigation drainage and landscape watering provided all pesticides, herbicides and fertilizers have been applied in accordance with the manufacturer's label;
 5. Uncontaminated natural springs, groundwater, foundation drainage, footing drainage;
 6. Seawater infiltration where the seawater is discharged back into the source: and,
 7. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).
- B.** The NSWDs identified in Section IV.A are authorized by this General Permit if the following conditions are met:
1. The authorized NSWDs are not in violation of any Regional Water Board Water Quality Control Plans (Basin Plans) or other requirements, or statewide water quality control plans or policies requirement;
 2. The authorized NSWDs are not in violation of any municipal agency ordinance or requirements;
 3. BMPs are included in the SWPPP and implemented to:
 - a. Reduce or prevent the contact of authorized NSWDs with materials or equipment that are potential sources of pollutants;
 - b. Reduce, to the extent practicable, the flow or volume of authorized NSWDs;
 - c. Ensure that authorized NSWDs do not contain quantities of pollutants that cause or contribute to an exceedance of a water quality standards; and,
 - d. Reduce or prevent discharges of pollutants in authorized NSWDs in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.
 4. The Discharger conducts monthly visual observations (Section XI.A.1) of NSWDs and sources to ensure adequate BMP implementation and effectiveness; and,
 5. The Discharger reports and describes all authorized NSWDs in the Annual Report.
- C.** Firefighting related discharges are not subject to this General Permit and are not subject to the conditions of Section IV.B. These discharges, however, may be

subject to Regional Water Board enforcement actions under other sections of the Water Code. Firefighting related discharges that are contained and are later discharged may be subject to municipal agency ordinances and/or Regional Water Board requirements.

V. EFFLUENT LIMITATIONS

- A.** Dischargers shall implement BMPs that comply with the BAT/BCT requirements of this General Permit to reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.
- B.** Industrial storm water discharges from facilities subject to storm water ELGs in Subchapter N shall not exceed those storm water ELGs. The ELGs for industrial storm water discharges subject to Subchapter N are in Attachment F of this General Permit.
- C.** Dischargers located within a watershed for which a Total Maximum Daily Load (TMDL) has been approved by U.S. EPA, shall comply with any applicable TMDL-specific permit requirements that are set forth in Attachment E.
 - 1. **Numeric Effluent Limitations (NELs):** Responsible Dischargers shall compare all sampling and analytical results obtained from each distinct sampling location (where an individual or combined sample (as authorized by XI.C.5) is obtained from a discharge location(s) to the corresponding instantaneous maximum NEL values in the TMDL Compliance Table E-2. An instantaneous maximum NEL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceeds the instantaneous maximum NEL value. For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentration result per sampling location shall be calculated in accordance with the U.S. EPA's NPDES Storm Water Sampling Guidance Document. An exceedance of an NEL is a violation of this General Permit.
 - 2. **TMDL Numeric Action Levels (TNALs):** Responsible Dischargers shall compare all sampling and analytical results obtained from each distinct sampling location (where an individual or combined sample (as authorized by XI.C.5) is obtained from a discharge location(s)) to the corresponding instantaneous maximum TNAL values in the TMDL Compliance Table E-2. An instantaneous maximum TNAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceeds the instantaneous maximum TNAL value. For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentration result per sampling location shall be calculated in accordance with the U.S. EPA's NPDES Storm Water Sampling Guidance Document. An exceedance of a TNAL is not a violation of this General Permit, though it does require implementation of Exceedance Response Actions.

VI. RECEIVING WATER LIMITATIONS

- A.** Dischargers shall ensure that industrial storm water discharges and authorized NSWDS do not cause or contribute to an exceedance of any applicable water quality standards in any affected receiving water.
- B.** Dischargers shall ensure that industrial storm water discharges and authorized NSWDS do not adversely affect human health or the environment.
- C.** Dischargers shall ensure that industrial storm water discharges and authorized NSWDS do not contain pollutants in quantities that threaten to cause pollution or a public nuisance.

VII. TOTAL MAXIMUM DAILY LOADS (TMDLs)

A. Implementation

- 1. The State Water Board reopened and amended this General Permit, including Attachment E, the Fact Sheet and other applicable Permit provisions as necessary, in order to incorporate TMDL-specific permit requirements, as described in the Findings, Section I.F. Dischargers shall comply with the incorporated TMDL-specific requirements in accordance with any specified compliance schedule(s) starting on the Effective Date of the TMDL Requirements. TMDL-specific compliance dates that exceed the term of this General Permit may be included for reference, and are enforceable in the event that this General Permit is administratively extended or reissued.
- 2. The State Water Board has the discretion to reopen this General Permit to add TMDL-specific permit requirements to Attachment E, or to incorporate new TMDLs adopted during the term of this General Permit that include requirements applicable to Dischargers covered by this General Permit.
- 3. The TMDL-specific requirements are shown in the TMDL Compliance Table E-2, in Attachment E of this General Permit.

B. New Dischargers applying for NOI coverage under this General Permit that will be discharging to a water body with a 303(d) listed impairment are ineligible for coverage unless the Discharger submits data and/or information, prepared by a QISP, demonstrating that:

- 1. The Discharger has eliminated all exposure to storm water of the pollutant(s) for which the water body is impaired, has documented the procedures taken to prevent exposure onsite, and has retained such documentation with the SWPPP at the facility;
- 2. The pollutant for which the water body is impaired is not present at the Discharger's facility, and the Discharger has retained documentation of this finding with the SWPPP at the facility; or,

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3. The discharge of any listed pollutant will not cause or contribute to an exceedance of a water quality standard. This is demonstrated if: (1) the discharge complies with the water quality standard at the point of discharge, or (2) if the discharge is controlled at least as stringently as similar discharges subject to that TMDL.

C. TMDL Monitoring and Reporting

1. The Responsible Discharger is required to perform sampling, analysis, and reporting in accordance with the requirements of this General Permit, and additional monitoring required in the TMDL Compliance Table E-2 in Attachment E of this General Permit.
2. The Responsible Discharger shall compare all sampling and analytical results from each sample (individual or combined as authorized by Section XI.C.5) to the corresponding TNAL or NEL values in the TMDL Compliance Table E-2 in Attachment E of this General Permit.
3. The Responsible Discharger is required to calculate, track, and report applicable TNAL or NEL exceedances. The SWPPP is required to be amended with the TNAL or NEL exceedance information, and to be certified and submitted via SMARTS. SMARTS does not calculate a Responsible Discharger's Level status when a TNAL is exceeded.

D. Exceedance Response Actions

1. The Responsible Discharger is required to follow the Exceedance Response Action requirements in Section XII of this General Permit when its discharge exceeds a TNAL.
2. The Responsible Discharger retains the same ERA Level status until July 1 following the Effective Date of the TMDL Requirements.
3. The Responsible Discharger with Level 1 or Level 2 status due to a TNAL exceedance is required to incorporate exceedance-related information into its required ERA reports in accordance with Section XII of this General Permit.

E. Responsible Dischargers with an NEL exceedance are in violation of this General Permit and must comply with the Water Quality Based Corrective Actions, as defined in this General Permit in Section XX.B. Responsible Dischargers implementing Water Quality Based Corrective Actions are also required to continue complying with the NALs in this General Permit and perform ERAs as necessary for Table 2 exceedances.

F. Responsible Dischargers in compliance with an NEL for a TMDL in Attachment E are in compliance with the receiving water limitations for the water body-pollutant combination addressed by the NEL.

- G. Responsible Dischargers with discharges that do not exceed the level of a TNAL for a TMDL in Attachment E are in compliance with the receiving water limitations for the water body-pollutant combination addressed by the TNAL.

VIII. DISCHARGES SUBJECT TO THE CALIFORNIA OCEAN PLAN

A. Discharges to Ocean Waters

1. Dischargers with outfalls discharging to ocean waters that are subject to the model monitoring provisions of the California Ocean Plan shall develop and implement a monitoring plan in compliance with those provisions and any additional monitoring requirements established pursuant to Water Code section 13383. Dischargers who have not developed and implemented a monitoring program in compliance with the California Ocean Plan's model monitoring provisions by July 1, 2015, or seven (7) days prior to commencing of operations, whichever is later, are ineligible to obtain coverage under this General Permit.
2. Dischargers are ineligible for the methods and exceptions provided in Section XI.C of this General permit for any of the outfalls discharging to ocean waters subject to the model monitoring provisions of the California Ocean Plan.

B. Discharge Granted an Exceptions for Areas of Special Biological Significance (ASBS)

Dischargers who were granted an exception to the California Ocean Plan prohibition against direct discharges of waste to an ASBS pursuant to Resolution 2012-0012⁹ amended by Resolution 2012-0031¹⁰ shall comply with the conditions and requirements set forth in Attachment G of this General Permit. Any Discharger that applies for and is granted an exception to the California Ocean Plan prohibition after July 1, 2013 shall comply with the conditions and requirements set forth in the granted exception.

IX. TRAINING QUALIFICATIONS

A. General

1. A Qualified Industrial Storm Water Practitioner (QISP) is a person (either the Discharger or a person designated by the Discharger) who has completed a

⁹ State Water Resources Control Board. [Resolution 2012-0012](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0012.pdf). <http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0012.pdf>. [as of February 4, 2014].

¹⁰ State Water Resources Control Board. [Resolution 2012-0031](http://www.swrcb.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0031.pdf). <http://www.swrcb.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0031.pdf>. [as of February 4, 2014].

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State Water Board-sponsored or approved QISP training course¹¹, and has registered as a QISP via SMARTS. Upon completed registration the State Water Board will issue a QISP identification number.

2. The Executive Director of the State Water Board or an Executive Officer of a Regional Water Board may rescind any QISP's registration if it is found that the QISP has repeatedly demonstrated an inadequate level of performance in completing the QISP requirements in this General Permit. An individual whose QISP registration has been rescinded may request that the State Water Board review the rescission. Any request for review must be received by the State Water Board no later than 30 days of the date that the individual received written notice of the rescission.
3. Dischargers with Level 1 status shall:
 - a. Designate a person to be the facility's QISP and ensure that this person has attended and satisfactorily completed the State Water Board-sponsored or approved QISP training course.
 - b. Ensure that the facility's designated QISP provides sufficient training to the appropriate team members assigned to perform activities required by this General Permit.

X. Storm Water Pollution Prevention Plan (SWPPP)

A. SWPPP Elements

Dischargers shall develop and implement a site-specific SWPPP for each industrial facility covered by this General Permit that shall contain the following elements, as described further in this Section¹²:

1. Facility Name and Contact Information;
2. Site Map;
3. List of Industrial Materials;
4. Description of Potential Pollution Sources;
5. Assessment of Potential Pollutant Sources;

¹¹ A specialized self-guided State Water Board-sponsored registration and training program will be available as an option for CPBELSG licensed professional civil, mechanical, industrial, and chemical engineers and professional geologists by the effective date of this General Permit.

¹² Appendix 1 (SWPPP Checklist) of this General Permit is provided to assist the Discharger in including information required in the SWPPP. This checklist is not required to be used.

6. Minimum BMPs;
7. Advanced BMPs, if applicable;
8. Monitoring Implementation Plan;
9. Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation);
and,
10. Date that SWPPP was Initially Prepared and the Date of Each SWPPP
Amendment, if Applicable.

B. SWPPP Implementation and Revisions

All Dischargers are required to implement their SWPPP by July 1, 2015 or upon commencement of industrial activity. The Discharger shall:

1. Revise their on-site SWPPP whenever necessary;
2. Certify and submit via SMARTS their SWPPP within 30 days whenever the SWPPP contains significant revision(s); and,
3. With the exception of significant revisions, the Discharger is not required to certify and submit via SMARTS their SWPPP revisions more than once every three (3) months in the reporting year.

C. SWPPP Performance Standards

1. The Discharger shall ensure a SWPPP is prepared to:
 - a. Identify and evaluate all sources of pollutants that may affect the quality of industrial storm water discharges and authorized NSWDS;
 - b. Identify and describe the minimum BMPs (Section X.H.1) and any advanced BMPs (Section X.H.2) implemented to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDS. BMPs shall be selected to achieve compliance with this General Permit; and,
 - c. Identify and describe conditions or circumstances which may require future revisions to be made to the SWPPP.
2. The Discharger shall prepare a SWPPP in accordance with all applicable SWPPP requirements of this Section. A copy of the SWPPP shall be maintained at the facility.

D. Planning and Organization

1. Pollution Prevention Team

Each facility must have a Pollution Prevention Team established and responsible for assisting with the implementation of the requirements in this General Permit. The Discharger shall include in the SWPPP detailed information about its Pollution Prevention Team including:

- a. The positions within the facility organization (collectively, team members) who assist in implementing the SWPPP and conducting all monitoring requirements in this General Permit;
- b. The responsibilities, duties, and activities of each of the team members; and,
- c. The procedures to identify alternate team members to implement the SWPPP and conduct required monitoring when the regularly assigned team members are temporarily unavailable (due to vacation, illness, out of town business, or other absences).

2. Other Requirements and Existing Facility Plans

- a. The Discharger shall ensure its SWPPP is developed, implemented, and revised as necessary to be consistent with any applicable municipal, state, and federal requirements that pertain to the requirements in this General Permit.
- b. The Discharger may include in their SWPPP the specific elements of existing plans, procedures, or regulatory compliance documents that contain storm water-related BMPs or otherwise relate to the requirements of this General Permit.
- c. The Discharger shall properly reference the original sources for any elements of existing plans, procedures, or regulatory compliance documents included as part of their SWPPP and shall maintain a copy of the documents at the facility as part of the SWPPP.
- d. The Discharger shall document in their SWPPP the facility's scheduled operating hours as defined in Attachment C. Scheduled facility operating hours that would be considered irregular (temporary, intermittent, seasonal, weather dependent, etc.) shall also be documented in the SWPPP.

E. Site Map

- 1. The Discharger shall prepare a site map that includes notes, legends, a north arrow, and other data as appropriate to ensure the map is clear, legible and understandable.

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2. The Discharger may provide the required information on multiple site maps.
3. The Discharger shall include the following information on the site map:
 - a. The facility boundary, storm water drainage areas within the facility boundary, and portions of any drainage area impacted by discharges from surrounding areas. Include the flow direction of each drainage area, on-facility surface water bodies, areas of soil erosion, and location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.) or municipal storm drain inlets that may receive the facility's industrial storm water discharges and authorized NSWDS;
 - b. Locations of storm water collection and conveyance systems, associated discharge locations, and direction of flow. Include any sample locations if different than the identified discharge locations;
 - c. Locations and descriptions of structural control measures¹³ that affect industrial storm water discharges, authorized NSWDS, and/or run-on;
 - d. Identification of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures;
 - e. Locations where materials are directly exposed to precipitation and the locations where identified significant spills or leaks (Section X.G.1.d) have occurred; and
 - f. Areas of industrial activity subject to this General Permit. Identify all industrial storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and material reuse areas, and other areas of industrial activity that may have potential pollutant sources.

F. List of Industrial Materials

The Discharger shall ensure the SWPPP includes a list of industrial materials handled at the facility, and the locations where each material is stored, received, shipped, and handled, as well as the typical quantities and handling frequency.

G. Potential Pollutant Sources

1. Description of Potential Pollutant Sources
 - a. Industrial Processes

The Discharger shall ensure the SWPPP describes each industrial process including: manufacturing, cleaning, maintenance, recycling,

¹³ Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

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disposal, generation of by products (including, but not limited to, air particulate emissions), and any other activities related to the process. The type, characteristics, and approximate quantity of industrial materials used in or resulting from the process shall be included. Areas protected by containment structures and the corresponding containment capacity shall be identified and described.

b. Material Handling and Storage Areas

The Discharger shall ensure the SWPPP describes each material handling and storage area, including: the type, characteristics, and quantity of industrial materials handled or stored; the shipping, receiving, and loading procedures; the spill or leak prevention and response procedures; and the areas protected by containment structures and the corresponding containment capacity.

c. Dust and Particulate Generating Activities

The Discharger shall ensure the SWPPP describes all industrial activities that generate a significant amount of dust or particulate that may be deposited within the facility boundaries. The SWPPP shall describe such industrial activities, including the discharge locations, the source type, and the characteristics of the dust or particulate pollutant. The Discharger shall ensure the SWPPP identifies any industrial activities and areas that are associated with other regulations or regulated by other permits (including, but not limited to, air quality permits) with the potential to expose pollutants to storm water.

d. Significant Spills and Leaks

The Discharger shall:

- i. Evaluate the facility for areas where spills and leaks can likely occur;
- ii. Ensure the SWPPP includes:
 - a) A list of any industrial materials that have spilled or leaked in significant quantities and have discharged from the facility's storm water conveyance system within the previous five-year period;
 - b) A list of any toxic chemicals identified in 40 Code of Federal Regulations section 302 that have been discharged from the facilities' storm water conveyance system as reported on U.S. EPA Form R, as well as oil and hazardous substances in excess of reportable quantities (40 C.F.R. §§ 110, 117, and 302) that have discharged from the facility's storm water conveyance system within the previous five-year period;
 - c) A list of any industrial materials that have spilled or leaked in significant quantities and had the potential to be discharged from

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the facility's storm water conveyance system within the previous five-year period; and,

- iii. Ensure that for each discharge or potential discharge listed above the SWPPP includes the location, characteristics, and approximate quantity of the materials spilled or leaked; approximate quantity of the materials discharged from the facility's storm water conveyance system; the cleanup or remedial actions that have occurred or are planned; the approximate remaining quantity of materials that have the potential to be discharged; and the preventive measures taken to ensure spills or leaks of the material do not reoccur.

e. NSWDs

The Discharger shall:

- i. Ensure the SWPPP includes an evaluation of the facility that identifies all NSWDs, sources, and drainage areas;
- ii. Ensure the SWPPP includes an evaluation of all drains (inlets and outlets) that identifies connections to the storm water conveyance system;
- iii. Ensure the SWPPP includes a description of how all unauthorized NSWDs have been eliminated; and,
- iv. Ensure all NSWDs are described in the SWPPP. This description shall include the source, quantity, frequency, and characteristics of the NSWDs, associated drainage area, and whether it is an authorized or unauthorized NSWd in accordance with Section IV.

f. Erodible Surfaces

The Discharger shall ensure the SWPPP includes a description of the facility locations where soil erosion may be caused by industrial activity, contact with storm water, authorized and unauthorized NSWDs, or run-on from areas surrounding the facility.

2. Assessment of Potential Pollutant Sources

- a. The Discharger shall ensure that the SWPPP includes a narrative assessment of all areas of industrial activity with potential industrial pollutant sources. At a minimum, the assessment shall include:
 - i. The areas of the facility with likely sources of pollutants in industrial storm water discharges and authorized NSWDs;
 - ii. The pollutants likely to be present in industrial storm water discharges and authorized NSWDs;

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- iii. The approximate quantity, physical characteristics (e.g., liquid, powder, solid, etc.), and locations of each industrial material handled, produced, stored, recycled, or disposed;
 - iv. The degree to which the pollutants associated with those materials may be exposed to, and mobilized by contact with, storm water;
 - v. The direct and indirect pathways by which pollutants may be exposed to storm water or authorized NSWDS;
 - vi. All sampling, visual observation, and inspection records;
 - vii. The effectiveness of existing BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDS;
 - viii. The estimated effectiveness of implementing, to the extent feasible, minimum BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDS; and,
 - ix. The identification of the industrial pollutants related to the receiving waters with 303(d) listed impairments identified in Appendix 3 or approved TMDLs that may be causing or contributing to an exceedance of a water quality standard in the receiving waters.
- b. Based upon the assessment above, Dischargers shall identify in the SWPPP any areas of the facility where the minimum BMPs described in subsection H.1 below will not adequately reduce or prevent pollutants in storm water discharges in compliance with Section V.A. Dischargers shall identify any advanced BMPs, as described in subsection H.2 below, for those areas.
 - c. Based upon the assessment above, Dischargers shall identify any drainage areas with no exposure to industrial activities and materials in accordance with the definitions in Section XVII.
 - d. Based upon the assessment above, Dischargers shall identify any additional parameters, beyond the required parameters in Section XI.B.6 that indicate the presence of pollutants in industrial storm water discharges.

H. Best Management Practices (BMPs)

1. Minimum BMPs

The Discharger shall, to the extent feasible, implement and maintain all of the following minimum BMPs to reduce or prevent pollutants in industrial storm water discharges.¹⁴

a. Good Housekeeping

The Discharger shall:

- i. Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly;
- ii. Minimize or prevent material tracking;
- iii. Minimize dust generated from industrial materials or activities;
- iv. Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible;
- v. Cover all stored industrial materials that can be readily mobilized by contact with storm water;
- vi. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water;
- vii. Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system;
- viii. Minimize storm water discharges from non-industrial areas (e.g., storm water flows from employee parking area) that contact industrial areas of the facility; and,
- ix. Minimize authorized NSWDS from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the facility.

¹⁴ For the purposes of this General Permit, the requirement to implement BMPs “to the extent feasible” requires Dischargers to select, design, install and implement BMPs that reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

b. Preventive Maintenance

The Discharger shall:

- i. Identify all equipment and systems used outdoors that may spill or leak pollutants;
- ii. Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks;
- iii. Establish an appropriate schedule for maintenance of identified equipment and systems; and,
- iv. Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.

c. Spill and Leak Prevention and Response

The Discharger shall:

- i. Establish procedures and/or controls to minimize spills and leaks;
- ii. Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials shall be cleaned promptly and disposed of properly;
- iii. Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and,
- iv. Identify and train appropriate spill and leak response personnel.

d. Material Handling and Waste Management

The Discharger shall:

- i. Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event;
- ii. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water;
- iii. Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;
- iv. Divert run-on and storm water generated from within the facility away from all stockpiled materials;

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- v. Clean all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures (Section X.H.1.c); and,
 - vi. Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.
- e. Erosion and Sediment Controls

For each erodible surface facility location identified in the SWPPP (Section X.G.1.f), the Discharger shall:

- i. Implement effective wind erosion controls;
 - ii. Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event;
 - iii. Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site;
 - iv. Divert run-on and storm water generated from within the facility away from all erodible materials; and,
 - v. If sediment basins are implemented, ensure compliance with the design storm standards in Section X.H.6.
- f. Employee Training Program

The Discharger shall:

- i. Ensure that all team members implementing the various compliance activities of this General Permit are properly trained to implement the requirements of this General Permit, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP;
- ii. Prepare or acquire appropriate training manuals or training materials;
- iii. Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive;
- iv. Provide a training schedule; and,
- v. Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.

g. Quality Assurance and Record Keeping

The Discharger shall:

- i. Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan;
- ii. Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP; and
- iii. Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years (Section XXI.J.4).

2. Advanced BMPs

- a. In addition to the minimum BMPs described in Section X.H.1, the Discharger shall, to the extent feasible, implement and maintain any advanced BMPs identified in Section X.G.2.b, necessary to reduce or prevent discharges of pollutants in its storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

- b. Advanced BMPs may include one or more of the following BMPs:

- i. Exposure Minimization BMPs

These include storm resistant shelters (either permanent or temporary) that prevent the contact of storm water with the identified industrial materials or area(s) of industrial activity.

- ii. Storm Water Containment and Discharge Reduction BMPs

These include BMPs that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. Dischargers are encouraged to utilize BMPs that infiltrate or reuse storm water where feasible.

- iii. Treatment Control BMPs

This is the implementation of one or more mechanical, chemical, biologic, or any other treatment technology that will meet the treatment design standard.

- iv. Other Advanced BMPs

Any additional BMPs not described in subsections b.i through iii above that are necessary to meet the effluent limitations of this General Permit.

3. Temporary Suspension of Industrial Activities

For facilities that plan to temporarily suspend industrial activities for ten (10) or more consecutive calendar days during a reporting year, the Discharger may also suspend monitoring if it is infeasible to conduct monitoring while industrial activities are suspended (e.g., the facility is not staffed, or the facility is remote or inaccessible) and the facility has been stabilized. The Discharger shall include in the SWPPP the BMPs necessary to achieve compliance with this General Permit during the temporary suspension of the industrial activity. Once all necessary BMPs have been implemented to stabilize the facility, the Discharger is not required to:

- a. Perform monthly visual observations (Section XI.A.1.a.); or,
- b. Perform sampling and analysis (Section XI.B.) if it is infeasible to do so (e.g. facility is remotely located).

The Discharger shall upload via SMARTS (7) seven calendar days prior to the planned temporary suspension of industrial activities:

- a. SWPPP revisions specifically addressing the facility stabilization BMPs;
- b. The justification for why monitoring is infeasible at the facility during the period of temporary suspension of industrial activities;
- c. The date the facility is fully stabilized for temporary suspension of industrial activities; and,
- d. The projected date that industrial activities will resume at the facility.

Upon resumption of industrial activities at the facility, the Discharger shall, via SMARTS, confirm and/or update the date the facility's industrial activities have resumed. At this time, the Discharger is required to resume all compliance activities under this General Permit.

The Regional Water Boards may review the submitted information pertaining to the temporary suspension of industrial activities. Upon review, the Regional Water Board may request revisions or reject the Discharger's request to temporarily suspend monitoring.

4. BMP Descriptions

- a. The Discharger shall ensure that the SWPPP identifies each BMP being implemented at the facility, including:
 - i. The pollutant(s) that the BMP is designed to reduce or prevent in industrial storm water discharges;
 - ii. The frequency, time(s) of day, or conditions when the BMP is scheduled for implementation;

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- iii. The locations within each area of industrial activity or industrial pollutant source where the BMP shall be implemented;
 - iv. The individual and/or position responsible for implementing the BMP;
 - v. The procedures, including maintenance procedures, and/or instructions to implement the BMP effectively;
 - vi. The equipment and tools necessary to implement the BMP effectively; and,
 - vii. The BMPs that may require more frequent visual observations beyond the monthly visual observations as described in Section XI.A.1.
- b. The Discharger shall ensure that the SWPPP identifies and justifies each minimum BMP or applicable advanced BMP not being implemented at the facility because they do not reflect best industry practice considering technological availability and economic practicability and achievability.
 - c. The Discharger shall identify any BMPs described in subsection a above that are implemented in lieu of any of the minimum or applicable advanced BMPs.

5. BMP Summary Table

The Discharger shall prepare a table summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.

6. Design Storm Standards for Treatment Control BMPs

All new treatment control BMPs employed by the Discharger to comply with Section X.H.2 Advanced BMPs and new sediment basins installed after the effective date of this order shall be designed to comply with design storm standards in this Section, except as provided in an Industrial Activity BMP Demonstration (Section XII.D.2.a). A Factor of Safety shall be incorporated into the design of all treatment control BMPs to ensure that storm water is sufficiently treated throughout the life of the treatment control BMPs. The design storm standards for treatment control BMPs are as follows:

- a. Volume-based BMPs: The Discharger, at a minimum, shall calculate¹⁵ the volume to be treated using one of the following methods:
 - i. The volume of runoff produced from an 85th percentile 24-hour storm event, as determined from local, historical rainfall records;

¹⁵ All hydrologic calculations shall be certified by a California licensed professional engineer in accordance with the Professional Engineers Act (Bus. & Prof. Code § 6700, et seq).

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- ii. The volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice;¹⁶ or,
 - iii. The volume of annual runoff required to achieve 80% or more treatment, determined in accordance with the methodology set forth in the latest edition of California Stormwater Best Management Practices Handbook¹⁷, using local, historical rainfall records.
- b. Flow-based BMPs: The Discharger shall calculate the flow needed to be treated using one of the following methods:
- i. The maximum flow rate of runoff produced from a rainfall intensity of at least 0.2 inches per hour for each hour of a storm event;
 - ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or,
 - iii. The maximum flow rate of runoff, as determined using local historical rainfall records, that achieves approximately the same reduction in total pollutant loads as would be achieved by treatment of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

I. MONITORING IMPLEMENTATION PLAN

The Discharger shall prepare a Monitoring Implementation Plan in accordance with the requirements of this General Permit. The Monitoring Implementation Plan shall be included in the SWPPP and shall include the following items:

1. An identification of team members assigned to conduct the monitoring requirements;
2. A description of the following in accordance with Attachment H:
 - a. Discharge locations;
 - b. Visual observation procedures; and,

¹⁶ Water Environment Federation (WEF). Manual of Practice No. 23/ ASCE Manual of Practice No. 87, cited in chapter 5 (1998 Edition) and Cited in Chapter 3 (2012 Edition).

¹⁷ California Stormwater Quality Association. Stormwater Best Management Practice New Development and Redevelopment Handbook. <<http://www.casqa.org/>>. [as of July 3, 2013].

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- c. Visual observation response procedures related to monthly visual observations and sampling event visual observations.
3. Justifications for any of the following that are applicable to the facility:
 - a. Alternative discharge locations in accordance with Section XI.C.3;
 - b. Representative Sampling Reduction in accordance with Section XI.C.4; or,
 - c. Qualified Combined Samples in accordance with Section XI.C.5.
4. Procedures for field instrument calibration instructions, including calibration intervals specified by the manufacturer; and,
5. An example Chain of Custody form used when handling and shipping water quality samples to the lab.

XI. MONITORING

A. Visual Observations

1. Monthly Visual Observations
 - a. At least once per calendar month, the Discharger shall visually observe each drainage area for the following:
 - i. The presence or indications of prior, current, or potential unauthorized NSWDS and their sources;
 - ii. Authorized NSWDS, sources, and associated BMPs to ensure compliance with Section IV.B.3; and,
 - iii. Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants.
 - b. The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation.
 - c. The Discharger shall provide an explanation in the Annual Report for uncompleted monthly visual observations.

2. Sampling Event Visual Observations

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Discharger shall observe the discharge of storm water associated with industrial activity.

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- a. The Discharger shall ensure that visual observations of storm water discharged from containment sources (e.g. secondary containment or storage ponds) are conducted at the time that the discharge is sampled.
 - b. Any Discharger employing volume-based or flow-based treatment BMPs shall sample any bypass that occurs while the visual observations and sampling of storm water discharges are conducted.
 - c. The Discharger shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.
 - d. In the event that a discharge location is not visually observed during the sampling event, the Discharger shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location.
 - e. The Discharger shall provide an explanation in the Annual Report for uncompleted sampling event visual observations.
3. Visual Observation Records

The Discharger shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

4. The Discharger shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.

B. Sampling and Analysis

1. A Qualifying Storm Event (QSE) is a precipitation event that:
 - a. Produces a discharge for at least one drainage area; and,
 - b. Is preceded by 48 hours with no discharge from any drainage area.
2. The Discharger shall collect and analyze storm water samples from two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30).
3. Compliance Group Participants are only required to collect and analyze storm water samples from one (1) QSE within the first half of each reporting year (July 1 to December 31) and one (1) QSE within the second half of the reporting year (January 1 to June 30).

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4. Except as provided in Section XI.C.4 (Representative Sampling Reduction), samples shall be collected from each drainage area at all discharge locations. The samples must be:
 - a. Representative of storm water associated with industrial activities and any commingled authorized NSWDDs; or,
 - b. Associated with the discharge of contained storm water.
5. Samples from each discharge location shall be collected within four (4) hours of:
 - a. The start of the discharge; or,
 - b. The start of facility operations if the QSE occurs within the previous 12-hour period (e.g., for storms with discharges that begin during the night for facilities with day-time operating hours). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe in accordance with Section XI.C.6.a.ii.
6. The Discharger shall analyze all collected samples for the following parameters:
 - a. Total suspended solids (TSS) and oil and grease (O&G);
 - b. pH (see Section XI.C.2);
 - c. Additional parameters identified by the Discharger on a facility-specific basis that serve as indicators of the presence of all industrial pollutants identified in the pollutant source assessment (Section X.G). These additional parameters may be modified (added or removed) in accordance with any updated SWPPP pollutant source assessment;
 - d. Additional applicable parameters listed in Table 1 below. These parameters are dependent on the facility Standard Industrial Classification (SIC) code(s);
 - e. Additional applicable industrial parameters related to receiving waters with 303(d) listed impairments or approved TMDLs based on the assessment in Section X.G.2.a.ix. Test methods with lower detection limits may be necessary when discharging to receiving waters with 303(d) listed impairments or TMDLs;
 - f. Additional parameters required by the Regional Water Board. The Discharger shall contact its Regional Water Board to determine appropriate analytical test methods for parameters not listed in Table 2 below. These analytical test methods will be added to SMARTS; and
 - g. For discharges subject to Subchapter N, additional parameters specifically required by Subchapter N. If the discharge is subject to ELGs, the

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Dischargers shall contact the Regional Water Board to determine appropriate analytical methods for parameters not listed in Table 2 below.

7. The Discharger shall select corresponding NALs, analytical test methods,, and reporting units from the list provided in Table 2 below. SMARTS will be updated over time to add additional acceptable analytical test methods. Dischargers may propose an analytical test method for any parameter or pollutant that does not have an analytical test method specified in Table 2 or in SMARTS. Dischargers may also propose analytical test methods with substantially similar or more stringent method detection limits than existing approved analytical test methods. Upon approval, the analytical test method will be added to SMARTS.
8. The Discharger shall ensure that the collection, preservation and handling of all storm water samples are in accordance with Attachment H, Storm Water Sample Collection and Handling Instructions.
9. Samples from different discharge locations shall not be combined or composited except as allowed in Section XI.C.5 (Qualified Combined Samples).
10. The Discharger shall ensure that all laboratory analyses are performed according to sufficiently sensitive test procedures and conducted according to test procedures under 40 Code of Federal Regulations part 136, including the observation of holding times, unless other test procedures have been specified in this General Permit, by the Regional Water Board, or are required under 40 Code of Federal Regulations Chapter I Subchapter N.
11. Sampling Analysis Reporting
 - a. The Discharger shall submit all sampling and analytical results for all individual or Qualified Combined Samples via SMARTS within 30 days of obtaining all results for each sampling event.
 - b. The Discharger shall provide the method detection limit when an analytical result from samples taken is reported by the laboratory as a "non-detect" or less than the method detection limit. A value of zero shall not be reported.
 - c. The Discharger shall provide the analytical result from samples taken that is reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit.

Reported analytical results derived from sufficiently sensitive testing methods will be averaged automatically by SMARTS. For any calculations required by this General Permit, SMARTS will assign a value of zero (0) for all results less than the minimum level as reported by the laboratory after verifying the use of a sufficiently sensitive testing method (as evidenced by reported MDL and ML).

TABLE 1: Additional Analytical Parameters

SIC code	SIC code Description	Parameters*
102X	Copper Ores	COD; N+N
12XX	Coal Mines	Al; Fe
144X	Sand and Gravel	N+N
207X	Fats and Oils	BOD; COD; N+N
2421	Sawmills & Planning Mills	COD; Zn
2426	Hardwood Dimension	COD
2429	Special Product Sawmills	COD
243X	Millwork, Veneer, Plywood	COD
244X	Wood Containers	COD
245X	Wood Buildings & Mobile Homes	COD
2491	Wood Preserving	As; Cu
2493	Reconstituted Wood Products	COD
263X	Paperboard Mills	COD
281X	Industrial Inorganic Chemicals	Al; Fe; N+N
282X	Plastic Materials, Synthetics	Zn
284X	Soaps, Detergents, Cosmetics	N+N; Zn
287X	Fertilizers, Pesticides, etc.	Fe; N+N; Pb; Zn; P
301X	Tires, Inner Tubes	Zn
302X	Rubber and Plastic Footwear	Zn
305X	Rubber & Plastic Sealers & Hoses	Zn
306X	Misc. Fabricated Rubber Products	Zn
325X	Structural Clay Products	Al
326X	Pottery & Related Products	Al
3297	Non-Clay Refractories	Al
327X	Concrete, Gypsum, Plaster Products (Except 3274)	Fe
3295	Minerals & Earths	Fe
331X	Steel Works, Blast Furnaces, Rolling and Finishing Mills	Al; Zn
332X	Iron and Steel Foundries	Al; Cu; Fe; Zn
335X	Metal Rolling, Drawing, Extruding	Cu; Zn
336X	Nonferrous Foundries (Castings)	Cu; Zn
34XX	Fabricated Metal Products (Except 3479)	Zn; N+N; Fe; Al
3479	Coating and Engraving	Zn; N+N
4953	Hazardous Waste Facilities	NH ₃ ; Mg; COD; As; Cn; Pb; HG; Se; Ag
44XX	Water Transportation	Al; Fe; Pb; Zn
45XX	Air Transportation Facilities ¹⁸	BOD; COD; NH ₃

¹⁸ Only airports (SIC 4512-4581) where a single Discharger, or a combination of permitted facilities use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, are required to monitor

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SIC code	SIC code Description	Parameters*
4911	Steam Electric Power Generating Facilities	Fe
4953	Landfills and Land Application Facilities	Fe
5015	Dismantling or Wrecking Yards	Fe; Pb; Al
5093	Scrap and Waste Materials (not including source-separated recycling)	Fe; Pb; Al; Zn; COD

***Table 1 Parameter Reference**

Ag – Silver	Mg – Magnesium
Al – Aluminum	N+N - Nitrate & Nitrite Nitrogen
As – Arsenic	NH – Ammonia
BOD – Biochemical Oxygen Demand	Ni – Nickel
Cd - Cadmium	P – Phosphorus
Cn – Cyanide	Se – Selenium
COD – Chemical Oxygen Demand	TSS – Total Suspended Solids
Cu – Copper	Zn – Zinc
Fe – Iron	Pb – Lead
Hg – Mercury	

these parameters for those outfalls that collect runoff from areas where deicing activities occur.

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TABLE 2: Parameter NAL Values, Test Methods, and Reporting Units

PARAMETER	TEST METHOD	REPORTING UNITS	ANNUAL NAL	INSTANTANEOUS MAXIMUM NAL
pH*	See Section XI.C.2	pH units	N/A	Less than 6.0 Greater than 9.0
Suspended Solids (TSS)*, Total	SM 2540-D	mg/L	100	400
Oil & Grease (O&G)*, Total	EPA 1664A	mg/L	15	25
Zinc, Total (H)	EPA 200.8	mg/L	0.26**	n/a***
Copper, Total (H)	EPA 200.8	mg/L	0.0332**	n/a***
Cyanide, Total	SM 4500–CN C, D, or E	mg/L	0.022	n/a***
Lead, Total (H)	EPA 200.8	mg/L	0.262**	n/a***
Chemical Oxygen Demand (COD)	SM 5220C	mg/L	120	n/a***
Aluminum, Total	EPA 200.8	mg/L	0.75	n/a***
Iron, Total	EPA 200.7	mg/L	1.0	n/a***
Nitrate + Nitrite Nitrogen	SM 4500-NO3- E	mg/L as N	0.68	n/a***
Total Phosphorus	SM 4500-P B+E	mg/L as P	2.0	n/a***
Ammonia (as N)	SM 4500-NH3 B+ C or E	mg/L	2.14	n/a***
Magnesium, total	EPA 200.7	mg/L	0.064	n/a***
Arsenic, Total (c)	EPA 200.8	mg/L	0.15	n/a***
Cadmium, Total (H)	EPA 200.8	mg/L	0.0053**	n/a***
Nickel, Total (H)	EPA 200.8	mg/l	1.02**	n/a***
Mercury, Total	EPA 245.1	mg/L	0.0014	n/a***
Selenium, Total	EPA 200.8	mg/L	0.005	n/a***
Silver, Total (H)	EPA 200.8	mg/L	0.0183**	n/a***
Biochemical Oxygen Demand (BOD)	SM 5210B	mg/L	30	n/a***

SM – Standard Methods for the Examination of Water and Wastewater, 18th edition

EPA – U.S. EPA test methods

(H) – Hardness dependent

* Minimum parameters required by this General Permit

** The NAL is the highest value used by U.S. EPA based on their hardness table in the 2008 MSGP.

*** [Note: these cells were included for website accessibility reasons to create a complete table.]

C. Methods and Exceptions

1. The Discharger shall comply with the monitoring methods in this General Permit and Attachment H.
2. pH Methods
 - a. Dischargers that are not subject to Subchapter N ELGs mandating pH analysis related to acidic or alkaline sources and have never entered Level 1 status for pH, are eligible to screen for pH using wide range litmus pH paper or other equivalent pH test kits. The pH screen shall be performed as soon as practicable, but no later than 15 minutes after the sample is collected.
 - b. Dischargers subject to Subchapter N ELGs shall either analyze samples for pH using methods in accordance with 40 Code of Federal Regulations 136 for testing storm water or use a calibrated portable instrument for pH.
 - c. Dischargers that enter Level 1 status (see Section XII.C) for pH shall, in the subsequent reporting years, analyze for pH using methods in accordance with 40 Code of Federal Regulations 136 or use a calibrated portable instrument for pH.
 - d. Dischargers using a calibrated portable instrument for pH shall ensure that all field measurements are conducted in accordance with the accompanying manufacturer's instructions.
3. Alternative Discharge Locations
 - a. The Discharger is required to identify, when practicable, alternative discharge locations for any discharge locations identified in accordance with Section XI.B.4 if the facility's discharge locations are:
 - i. Affected by storm water run-on from surrounding areas that cannot be controlled; and/or,
 - ii. Difficult to observe or sample (e.g. submerged discharge outlets, dangerous discharge location accessibility).
 - b. The Discharger shall submit and certify via SMARTS any alternative discharge location or revisions to the alternative discharge locations in the Monitoring Implementation Plan.
4. Representative Sampling Reduction
 - a. The Discharger may reduce the number of locations to be sampled in each drainage area (e.g., roofs with multiple downspouts, loading/unloading areas with multiple storm drains) if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) of the drainage area for each location to be sampled are substantially

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similar to one another. To qualify for the Representative Sampling Reduction, the Discharger shall provide a Representative Sampling Reduction justification in the Monitoring Implementation Plan section of the SWPPP.

- b. The Representative Sampling Reduction justification shall include:
 - i. Identification and description of each drainage area and corresponding discharge location(s);
 - ii. A description of the industrial activities that occur throughout the drainage area;
 - iii. A description of the BMPs implemented in the drainage area;
 - iv. A description of the physical characteristics of the drainage area;
 - v. A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar; and,
 - vi. An identification of the discharge location(s) selected for representative sampling, and rationale demonstrating that the selected location(s) to be sampled are representative of the discharge from the entire drainage area.
 - c. A Discharger that satisfies the conditions of subsection 4.b.i through v above shall submit and certify via SMARTS the revisions to the Monitoring Implementation Plan that includes the Representative Sampling Reduction justification.
 - d. Upon submittal of the Representative Sampling Reduction justification, the Discharger may reduce the number of locations to be sampled in accordance with the Representative Sampling Reduction justification. The Regional Water Board may reject the Representative Sampling Reduction justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Representative Sampling Reduction until the Regional Water Board approves the Representative Sampling Reduction justification.
5. Qualified Combined Samples
- a. The Discharger may authorize an analytical laboratory to combine samples of equal volume from as many as four (4) discharge locations if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) within each of the drainage areas are substantially similar to one another.

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- b. The Qualified Combined Samples justification shall include:
 - i. Identification and description of each drainage area and corresponding discharge locations;
 - ii. A description of the BMPs implemented in the drainage area;
 - iii. A description of the industrial activities that occur throughout the drainage area;
 - iv. A description of the physical characteristics of the drainage area; and,
 - v. A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar.
 - c. A Discharger that satisfies the conditions of subsection 5.b.i through iv above shall submit and certify via SMARTS the revisions to the Monitoring Implementation Plan that includes the Qualified Combined Samples justification.
 - d. Upon submittal of the Qualified Combined Samples justification revisions in the Monitoring Implementation Plan, the Discharger may authorize the lab to combine samples of equal volume from as many as four (4) drainage areas. The Regional Water Board may reject the Qualified Combined Samples justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Qualified Combined Samples justification until the Regional Water Board approves the Qualified Combined Samples justification.
 - e. Regional Water Board approval is necessary to combine samples from more than four (4) discharge locations.
6. Sample Collection and Visual Observation Exceptions
- a. Sample collection and visual observations are not required under the following conditions:
 - i. During dangerous weather conditions such as flooding or electrical storms; or,
 - ii. Outside of scheduled facility operating hours. The Discharger is not precluded from collecting samples or conducting visual observations outside of scheduled facility operating hours.
 - b. In the event that samples are not collected, or visual observations are not conducted in accordance with Section XI.B.5 due to these exceptions, an explanation shall be included in the Annual Report.

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- c. Sample collection is not required for drainage areas with no exposure to industrial activities and materials in accordance with the definitions in Section XVII.
7. Sampling Frequency Reduction Certification
- a. Dischargers are eligible to reduce the number of QSEs sampled each reporting year in accordance with the following requirements:
 - i. Results from four (4) consecutive QSEs that were sampled (QSEs may be from different reporting years) did not exceed any NALs/TNALs/NELs as defined in Section XII.A and Section V.D; and
 - ii. The Discharger is in full compliance with the requirements of this General Permit and has updated, certified and submitted via SMARTS all documents, data, and reports required by this General Permit during the time period in which samples were collected.
 - b. The Regional Water Board may notify a Discharger that it may not reduce the number of QSEs sampled each reporting year if the Discharger is subject to an enforcement action.
 - c. An eligible Discharger shall certify via SMARTS that it meets the conditions in subsection 7.a above.
 - d. Upon Sampling Frequency Reduction certification, the Discharger shall collect and analyze samples from one (1) QSE within the first half of each reporting year (July 1 to December 31), and one (1) QSE within the second half of each reporting year (January 1 to June 30). All other monitoring, sampling, and reporting requirements remain in effect.
 - e. Dischargers who participate in a Compliance Group and certify a Sampling Frequency Reduction are only required to collect and analyze storm water samples from one (1) QSE within each reporting year.
 - f. A Discharger may reduce sampling per the Sampling Frequency Reduction certification unless notified by the Regional Water Board that: (1) the Sampling Frequency Reduction certification has been rejected or (2) additional supporting documentation must be submitted. In such instances, a Discharger is ineligible for the Sampling Frequency Reduction until the Regional Water Board provides Sampling Frequency Reduction certification approval. Revised Sampling Frequency Reduction certifications shall be certified and submitted via SMARTS by the Discharger.
 - g. A Discharger loses its Sampling Frequency Reduction certification if an NAL/TNAL/NEL exceedance occurs (Section XII.A and Section V.D.).

D. Facilities Subject to Federal Storm Water Effluent Limitation Guidelines (ELGs)

1. In addition to the other requirements in this General Permit, Dischargers with facilities subject to storm water ELGs in Subchapter N shall:
 - a. Collect and analyze samples from QSEs for each regulated pollutant specified in the appropriate category in Subchapter N as specified in Section XI.B;
 - b. For Dischargers with facilities subject to 40 Code of Federal Regulations parts 419¹⁹ and 443²⁰, estimate or calculate the volume of industrial storm water discharges from each drainage area subject to the ELGs and the mass of each regulated pollutant as defined in parts 419 and 443; and,
 - c. Ensure that the volume/mass estimates or calculations required in subsection b are completed by a California licensed professional engineer.
2. Dischargers subject to Subchapter N shall submit the information in Section XI.D.1.a through c in their Annual Report.
3. Dischargers with facilities subject to storm water ELGs in Subchapter N are ineligible for the Representative Sampling Reduction in Section XI.C.4.

XII. EXCEEDANCE RESPONSE ACTIONS (ERAs)

A. Exceedance of an NAL or TNAL

The Discharger shall perform sampling, analysis and reporting in accordance with the requirements of this General Permit and shall compare the results to the two types of NAL values in Table 2 to determine whether either type of NAL has been exceeded for each applicable parameter, and shall additionally compare the results to any applicable TNAL found in Attachment E Table E-2 to determine whether a TNAL has been exceeded for each applicable parameter.²¹ The two types of potential NAL exceedances are as follows:

1. Annual NAL exceedance: The Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data). The Discharger shall compare the average concentration for each parameter to the corresponding annual NAL values in Table 2. For

¹⁹ Part 419 - Petroleum refining point source category

²⁰ Part 443 - Effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources for the paving and roofing materials (tars and asphalt) point source category

²¹ TNALs are implemented as instantaneous maximum values. Annual exceedances are not applicable to TNALs.

Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA's NPDES Storm Water Sampling Guidance Document.²² An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for that parameter listed in Table 2; and,

2. Instantaneous maximum NAL/TNAL exceedance: The Discharger shall compare all sampling and analytical results from each distinct sample (individual or combined as authorized by XI.C.5) to the corresponding instantaneous maximum NAL values in Table 2 and TNAL values in Attachment E Table E-2. An instantaneous maximum NAL/TNAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL/TNAL value or are outside of the instantaneous maximum NAL range for pH.

B. Baseline Status

At the beginning of a Discharger's NOI Coverage, all Dischargers have Baseline status for all parameters. Upon the effective date of the TMDL Requirements, Responsible Dischargers have Baseline status for all applicable TNALs if 1) the industrial storm water has not previously been sampled for the parameter, or 2) if the Discharger has Baseline status for the NAL for the same parameter.²³

C. Level 1 Status

A Discharger's Baseline status for any given parameter shall change to Level 1 status if sampling results indicate an NAL/TNAL exceedance for that same parameter. Level 1 status will commence on July 1 following the reporting year during which the exceedance(s) occurred.²⁴ Upon the effective date of the TMDL Requirements, Responsible Dischargers have Level 1 status for any applicable TNAL if the Discharger has Level 1 status for the NAL for the same parameter.²⁵

²² U.S. EPA. [NPDES Storm Water Sampling Guidance Document](http://www.epa.gov/npdes/pubs/owm0093.pdf). <<http://www.epa.gov/npdes/pubs/owm0093.pdf>>. [as of February 4, 2014]

²³ Following this initial assignment, this General Permit's NALs and TNALs operate independently.

²⁴ For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status once those results have been reported.

²⁵ Following this initial assignment, this General Permit's NALs and TNALs operate independently.

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1. Level 1 ERA Evaluation

- a. By October 1 following commencement of Level 1 status for any parameter with sampling results indicating an NAL/TNAL exceedance, the Discharger shall:
- b. Complete an evaluation, with the assistance of a QISP, of the industrial pollutant sources at the facility that are or may be related to the NAL/TNAL exceedance(s); and,
- c. Identify in the evaluation the corresponding BMPs in the SWPPP and any additional BMPs and SWPPP revisions necessary to prevent future NAL/TNAL exceedances and to comply with the requirements of this General Permit. Although the evaluation may focus on the drainage areas where the NAL/TNAL exceedance(s) occurred, all drainage areas shall be evaluated.

2. Level 1 ERA Report

- a. Based upon the above evaluation, the Discharger shall, as soon as practicable but no later than January 1 following commencement of Level 1 status:
 - i. Revise the SWPPP as necessary and implement any additional BMPs identified in the evaluation;
 - ii. Certify and submit via SMARTS a Level 1 ERA Report prepared by a QISP that includes the following:
 - 1) A summary of the Level 1 ERA Evaluation required in subsection C.1 above; and,
 - 2) A detailed description of the SWPPP revisions and any additional BMPs for each parameter that exceeded an NAL/TNAL.
 - iii. Certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address).
- b. A Discharger's Level 1 status for a parameter will return to Baseline status once a Level 1 ERA report has been completed, all identified additional BMPs have been implemented, and results from four (4) consecutive QSEs that were sampled subsequent to BMP implementation indicate no additional NAL/TNAL exceedances for that parameter.

3. NAL/TNAL Exceedances Prior to Implementation of Level 1 Status BMPs.

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1, whichever comes first, sampling results for any parameter(s) being addressed by that additional BMP will not be included in

the calculations of annual average or instantaneous maximum NAL/TNAL exceedances in SMARTS.

D. Level 2 Status

A Discharger's Level 1 status for any given parameter shall change to Level 2 status if sampling results indicate an NAL/TNAL exceedance for that same parameter while the Discharger is in Level 1. Level 2 status will commence on July 1 following the reporting year during which the NAL/TNAL exceedance(s) occurred.²⁶ Upon the effective date of the TMDL Requirements, Responsible Dischargers have Level 2 status for any applicable TNAL if the Discharger has Level 2 status for the NAL for the same parameter.²⁷

1. Level 2 ERA Action Plan

- a. Dischargers with Level 2 status shall certify and submit via SMARTS a Level 2 ERA Action Plan prepared by a QISP that addresses each new Level 2 NAL/TNAL exceedance by January 1 following the reporting year during which the NAL/TNAL exceedance(s) occurred. For each new Level 2 NAL/TNAL exceedance, the Level 2 Action Plan will identify which of the demonstrations in subsection D.2.a through c the Discharger has selected to perform. A new Level 2 NAL/TNAL exceedance is any Level 2 NAL/TNAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.
- b. The Discharger shall certify and submit via SMARTS the QISP's identification number, name, and contact information (telephone number, e-mail address) if this information has changed since previous certifications.
- c. The Level 2 ERA Action Plan shall at a minimum address the drainage areas with corresponding Level 2 NAL/TNAL exceedances.
- d. All elements of the Level 2 ERA Action Plan shall be implemented as soon as practicable and completed no later than 1 year after submitting the Level 2 ERA Action Plan.
- e. The Level 2 ERA Action Plan shall include a schedule and a detailed description of the tasks required to complete the Discharger's selected demonstration(s) as described below in Section D.2.a through c.

²⁶ For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status upon the date those results have been reported into SMARTS.

²⁷ Following this initial assignment, this General Permit's NALs and TNALs operate independently.

2. Level 2 ERA Technical Report

On January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, a Discharger with Level 2 status shall certify and submit a Level 2 ERA Technical Report prepared by a QISP that includes one or more of the following demonstrations:

a. Industrial Activity BMPs Demonstration

This shall include the following requirements, as applicable:

- i. Shall include a description of the industrial pollutant sources and corresponding industrial pollutants that are or may be related to the NAL/TNAL exceedance(s);
- ii. Shall include an evaluation of all pollutant sources associated with industrial activity that are or may be related to the NAL/TNAL exceedance(s);
- iii. Where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this General Permit and are expected to eliminate future NAL/TNAL exceedance(s), the Discharger shall provide a description and analysis of all implemented BMPs;
- iv. In cases where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this General Permit but are not expected to eliminate future NAL/TNAL exceedance(s), the Discharger shall provide, in addition to a description and analysis of all implemented BMPs:
 - 1) An evaluation of any additional BMPs that would reduce or prevent NAL/TNAL exceedances;
 - 2) Estimated costs of the additional BMPs evaluated; and,
 - 3) An analysis describing the basis for the selection of BMPs implemented in lieu of the additional BMPs evaluated but not implemented.
- v. The description and analysis of BMPs required in subsection a.iii above shall specifically address the drainage areas where the NAL/TNAL exceedance(s) responsible for the Discharger's Level 2 status occurred, although any additional Level 2 ERA Action Plan BMPs may be implemented for all drainage areas; and,
- vi. If an alternative design storm standard for treatment control BMPs (in lieu of the design storm standard for treatment control BMPs in Section X.H.6 in this General Permit) will achieve compliance with the

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effluent limitations of this General Permit, the Discharger shall provide an analysis describing the basis for the selection of the alternative design storm standard.

b. Non-Industrial Pollutant Source Demonstration

This shall include:

- i. A statement that the Discharger has determined that the exceedance of the NAL/TNAL is attributable solely to the presence of non-industrial pollutant sources. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL/TNAL exceedance.) The sources shall be identified as either run-on from adjacent properties, aerial deposition from man-made sources, or as generated by on-site non-industrial sources;
- ii. A statement that the Discharger has identified and evaluated all potential pollutant sources that may have commingled with storm water associated with the Discharger's industrial activity and may be contributing to the NAL/TNAL exceedance;
- iii. A description of any on-site industrial pollutant sources and corresponding industrial pollutants that are contributing to the NAL/TNAL exceedance;
- iv. An assessment of the relative contributions of the pollutant from (1) storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition and (2) the storm water associated with the Discharger's industrial activity;
- v. A summary of all existing BMPs for that parameter; and,
- vi. An evaluation of all on-site/off-site analytical monitoring data demonstrating that the NAL/TNAL exceedances are caused by pollutants in storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition.

c. Natural Background Pollutant Source Demonstration

This shall include:

- i. A statement that the Discharger has determined that the NAL/TNAL exceedance is attributable solely to the presence of the pollutant in the natural background that has not been disturbed by industrial activities. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution

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from the industrial activities by itself does not result in an NAL/TNAL exceedance);

- ii. A summary of all data previously collected by the Discharger, or other identified data collectors, that describes the levels of natural background pollutants in the storm water discharge;
- iii. A summary of any research and published literature that relates the pollutants evaluated at the facility as part of the Natural Background Source Demonstration;
- iv. Map showing the reference site location in relation to facility along with available land cover information;
- v. Reference site and test site elevation;
- vi. Available geology and soil information for reference and test sites;
- vii. Photographs showing site vegetation;
- viii. Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures; and,
- ix. Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site.

3. Level 2 ERA Technical Report Submittal

- a. The Discharger shall certify and submit via SMARTS the Level 2 ERA Technical Report described in Section D.2 above.
- b. The State Water Board and Regional Boards (Water Boards) may review the submitted Level 2 ERA Technical Reports. Upon review of a Level 2 ERA Technical Report, the Water Boards may reject the Level 2 ERA Technical Report and direct the Discharger to take further action(s) to comply with this General Permit.
- c. Dischargers with Level 2 status who have submitted the Level 2 ERA Technical Report are only required to annually update the Level 2 ERA Technical Report based upon additional NAL/TNAL exceedances of the same parameter and same drainage area (if the original Level 2 ERA Technical Report contained an Industrial Activity BMP Demonstration and the implemented BMPs were expected to eliminate future NAL/TNAL exceedances in accordance with Section XII.D.2.a.ii), facility operational changes, pollutant source(s) changes, and/or information that becomes available via compliance activities (monthly visual observations, sampling results, annual evaluation, etc.). The Level 2 ERA Technical Report shall be prepared by a QISP and be certified and submitted via SMARTS by the Discharger with each Annual Report. If there are no changes prompting

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an update of the Level 2 ERA Technical Report, as specified above, the Discharger will provide this certification in the Annual Report that there have been no changes warranting re-submittal of the Level 2 ERA Technical Report.

- d. Dischargers are not precluded from submitting a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status if information is available to adequately prepare the report and perform the demonstrations described above. A Discharger who chooses to submit a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status will automatically be placed in Level 2 in accordance to the Level 2 ERA schedule.

4. Eligibility for Returning to Baseline Status

- a. Dischargers with Level 2 status who submit an Industrial Activity BMPs Demonstration in accordance with subsection 2.a.i through iii above and have implemented BMPs to prevent future NAL/TNAL exceedance(s) for the Level 2 parameter(s) shall return to baseline status for that parameter, if results from four (4) subsequent consecutive QSEs sampled indicate no additional NAL/TNAL exceedance(s) for that parameter(s). If future NAL/TNAL exceedances occur for the same parameter(s), the Discharger's Baseline status will return to Level 2 status on July 1 in the subsequent reporting year during which the NAL/TNAL exceedance(s) occurred. These Dischargers shall update the Level 2 ERA Technical Report as required above in Section D.3.c.
- b. Dischargers are ineligible to return to baseline status if they submit any of the following:
 - i. industrial activity BMP demonstration in accordance with subsection 2.a.iv above;
 - ii. An non-industrial pollutant source demonstration; or,
 - iii. A natural background pollutant source demonstration.

5. Level 2 ERA Implementation Extension

- a. Dischargers that need additional time to submit the Level 2 ERA Technical Report shall be automatically granted a single time extension for up to six (6) months upon submitting the following items into SMARTS, as applicable:
 - i. Reasons for the time extension;
 - ii. A revised Level 2 ERA Action Plan including a schedule and a detailed description of the necessary tasks still to be performed to complete the Level 2 ERA Technical Report; and

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- iii. A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed.
- b. The Regional Water Boards will review Level 2 ERA Implementation Extensions for completeness and adequacy. Requests for extensions that total more than six (6) months are not granted unless approved in writing by the Water Boards. The Water Boards may (1) reject or revise the time allowed to complete Level 2 ERA Implementation Extensions, (2) identify additional tasks necessary to complete the Level 2 ERA Technical Report, and/or (3) require the Discharger to implement additional temporary BMPs.

XIII. INACTIVE MINING OPERATION CERTIFICATION

- A.** Inactive mining operations are defined in Part 3 of Attachment A of this General Permit. The Discharger may, in lieu of complying with the General Permit requirements described in subsection B below, certify and submit via SMARTS that their inactive mining operation meets the following conditions:
 1. The Discharger has determined and justified in the SWPPP that it is impracticable to implement the monitoring requirements in this General Permit for the inactive mining operation;
 2. A SWPPP has been signed (wet signature and license number) by a California licensed professional engineer and is being implemented in accordance with the requirements of this General Permit; and,
 3. The facility is in compliance with this General Permit, except as provided in subsection B below.
- B.** The Discharger who has certified and submitted that they meet the conditions in subsection A above, are not subject to the following General Permit requirements:
 1. Monitoring Implementation Plan in Section X.I;
 2. Monitoring Requirements in Section XI;
 3. Exceedance Response Actions (ERAs) in Section XII; and,
 4. Annual Report Requirements in Section XVI.
- C.** Inactive Mining Operation Certification Submittal Schedule
 1. The Discharger shall certify and submit via SMARTS NOI coverage PRDs listed in Section II.B.1 and meet the conditions in subsection A above.
 2. The Discharger shall annually inspect the inactive mining site and certify via SMARTS no later than July 15th of each reporting year, that their inactive mining operation continues to meet the conditions in subsection A above.

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3. The Discharger shall have a California licensed professional engineer review and update the SWPPP if there are changes to their inactive mining operation or additional BMPs are needed to comply with this General Permit. Any significant updates to the SWPPP shall be signed (wet signature and license number) by a California license professional engineer.
4. The Discharger shall certify and submit via SMARTS any significantly revised SWPPP within 30 days of the revision(s).

XIV. COMPLIANCE GROUPS AND COMPLIANCE GROUP LEADERS

A. Compliance Group Qualification Requirements

1. Any group of Dischargers of the same industry type or any QISP representing Dischargers of the same industry type may form a Compliance Group. A Compliance Group shall consist of Dischargers that operate facilities with similar types of industrial activities, pollutant sources, and pollutant characteristics (e.g., scrap metals recyclers would join a different group than paper recyclers, truck vehicle maintenance facilities would join a different group than airplane vehicle maintenance facilities, etc.). A Discharger participating in a Compliance Group is termed a Compliance Group Participant. Participation in a Compliance Group is not required. Compliance Groups may be formed at any time.
2. Each Compliance Group shall have a Compliance Group Leader.
3. To establish a Compliance Group, the Compliance Group Leader shall register as a Compliance Group Leader via SMARTS. The registration shall include documentation demonstrating compliance with the Compliance Group qualification requirements above and a list of the Compliance Group Participants.
4. Each Compliance Group Participant shall register as a member of an established Compliance Group via SMARTS.
5. The Executive Director of the State Water Board may review Compliance Group registrations and/or activities for compliance with the requirements of this General Permit. The Executive Director may reject the Compliance Group, the Compliance Group Leader, or individual Compliance Group Participants within the Compliance Group.

B. Compliance Group Leader Responsibilities

1. A Compliance Group Leader must complete a State Water Board sponsored or approved training program for Compliance Group Leaders.
2. The Compliance Group Leader shall assist Compliance Group Participants with all compliance activities required by this General Permit.

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3. A Compliance Group Leader shall prepare a Consolidated Level 1 ERA Report for all Compliance Group Participants with Level 1 status for the same parameter. Compliance Group Participants who certify and submit these Consolidated Level 1 ERA Reports are subject to the same provisions as individual Dischargers with Level 1 status, as described in Section XII.C. A Consolidated Level 1 ERA Report is equivalent to a Level 1 ERA Report.
4. The Compliance Group Leader shall update the Consolidated Level 1 ERA Report as needed to address additional Compliance Group Participants with ERA Level 1 status.
5. A Compliance Group Leader shall prepare a Level 2 ERA Action Plan specific to each Compliance Group Participant with Level 2 status. Compliance Group Participants who certify and submit these Level 2 ERA Action Plans are subject to the same provisions as individual Dischargers with Level 2 status, as described in Section XII.D.
6. A Compliance Group Leader shall prepare a Level 2 ERA Technical Report specific to each Compliance Group Participant with Level 2 status. Compliance Group Participants who certify and submit these Level 2 ERA Technical Reports are subject to the same provisions as individual Dischargers with Level 2 status, as described in Section XII.D.
7. The Compliance Group Leader shall inspect all the facilities of the Compliance Group Participants that have entered Level 2 status prior to preparing the individual Level 2 ERA Technical Report.
8. The Compliance Group Leader shall revise the Consolidated Level 1 ERA Report, individual Level 2 ERA Action Plans, or individual Level 2 Technical Reports in accordance with any comments received from the Water Boards.
9. The Compliance Group Leader shall inspect all the facilities of the Compliance Group Participants at a minimum of once per reporting year (July 1 to June 30).

C. Compliance Group Participant Responsibilities

1. Each Compliance Group Participant is responsible for permit compliance for the Compliance Group Participant's facility and for ensuring that the Compliance Group Leader's activities related to the Compliance Group Participant's facility comply with this General Permit.
2. Compliance Group Participants with Level 1 status shall certify and submit via SMARTS the Consolidated Level 1 ERA Report. The Compliance Group Participants shall certify that they have reviewed the Consolidated Level 1 ERA Report and have implemented any required additional BMPs. Alternatively, the Compliance Group Participant may submit an individual Level 1 ERA Report in accordance with the provisions in Section XII.C.2.

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3. Compliance Group Participants with Level 2 status shall certify and submit via SMARTS their individual Level 2 ERA Action Plan and Technical Report prepared by their Compliance Group Leader. Each Compliance Group Participant shall certify that they have reviewed the Level 2 ERA Action Plan and Technical Report and will implement any required additional BMPs.
4. Compliance Group Participants can at any time discontinue their participation in their associated Compliance Group via SMARTS. Upon discontinuation, the former Compliance Group Participant is immediately subject to the sampling and analysis requirements described in Section XI.B.2.

XV. ANNUAL COMPREHENSIVE FACILITY COMPLIANCE EVALUATION (ANNUAL EVALUATION)

The Discharger shall conduct one Annual Evaluation for each reporting year (July 1 to June 30). If the Discharger conducts an Annual Evaluation fewer than eight (8) months, or more than sixteen (16) months, after it conducts the previous Annual Evaluation, it shall document the justification for doing so. The Discharger shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the Annual Evaluation. At a minimum, Annual Evaluations shall consist of:

- A. A review of all sampling, visual observation, and inspection records conducted during the previous reporting year;
- B. An inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system;
- C. An inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section XVII;
- D. An inspection of equipment needed to implement the BMPs;
- E. An inspection of any BMPs;
- F. A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDS; and,
- G. An assessment of any other factors needed to comply with the requirements in Section XVI.B.

XVI. ANNUAL REPORT

- A. The Discharger shall certify and submit via SMARTS an Annual Report no later than July 15th following each reporting year using the standardized format and checklists in SMARTS.

B. The Discharger shall include in the Annual Report:

1. A Compliance Checklist that indicates whether a Discharger complies with, and has addressed all applicable requirements of this General Permit;
2. An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist;
3. An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year; and,
4. The date(s) of the Annual Evaluation.

XVII. CONDITIONAL EXCLUSION - NO EXPOSURE CERTIFICATION (NEC)

A. Discharges composed entirely of storm water that has not been exposed to industrial activity are not industrial storm water discharges. Dischargers are conditionally excluded from complying with the SWPPP and monitoring requirements of this General Permit if all of the following conditions are met:

1. There is no exposure of Industrial Materials and Activities to rain, snow, snowmelt, and/or runoff;
2. All unauthorized NSWDs have been eliminated and all authorized NSWDs meet the conditions of Section IV;
3. The Discharger has certified and submitted via SMARTS PRDs for NEC coverage pursuant to the instructions in Section II.B.2; and,
4. The Discharger has satisfied all other requirements of this Section.

B. NEC Specific Definitions

1. No Exposure - all Industrial Materials and Activities are protected by a Storm-Resistant Shelter to prevent all exposure to rain, snow, snowmelt, and/or runoff.
2. Industrial Materials and Activities - includes, but is not limited to, industrial material handling activities or equipment, machinery, raw materials, intermediate products, by-products, final products, and waste products.
3. Material Handling Activities - includes the storage, loading and unloading, transportation, or conveyance of any industrial raw material, intermediate product, final product, or waste product.
4. Sealed - banded or otherwise secured, and without operational taps or valves.
5. Storm-Resistant Shelters - includes completely roofed and walled buildings or structures. Also includes structures with only a top cover supported by

permanent supports but with no side coverings, provided material within the structure is not subject to wind dispersion (sawdust, powders, etc.), or track-out, and there is no storm water discharged from within the structure that comes into contact with any materials.

C. NEC Qualifications

To qualify for an NEC, a Discharger shall:

1. Except as provided in subsection D below, provide a Storm-Resistant Shelter to protect Industrial Materials and Activities from exposure to rain, snow, snowmelt, run-on, and runoff;
2. Inspect and evaluate the facility annually to determine that storm water exposed to industrial materials or equipment has not and will not be discharged to waters of the United States. Evaluation records shall be maintained for five (5) years in accordance with Section XXI.J.4;
3. Register for NEC coverage by certifying that there are no discharges of storm water contaminated by exposure to Industrial Materials and Activities from areas of the facility subject to this General Permit, and certify that all unauthorized NSWDS have been eliminated and all authorized NSWDS meet the conditions of Section IV (Authorized NSWDS). NEC coverage and annual renewal requires payment of an annual fee in accordance with California Code of Regulations, title 23, section 2200 et seq.; and,
4. Submit PRDs for NEC coverage shall be prepared and submitted in accordance with the:
 - a. Certification requirements in Section XXI.K; and,
 - b. Submittal schedule in accordance with Section II.B.2.

D. NEC Industrial Materials and Activities - Storm-Resistant Shelter Not Required

To qualify for NEC coverage, a Storm-Resistant Shelter is not required for the following:

1. Drums, barrels, tanks, and similar containers that are tightly Sealed, provided those containers are not deteriorated, do not contain residual industrial materials on the outside surfaces, and do not leak;
2. Adequately maintained vehicles used in material handling;
3. Final products, other than products that would be mobilized in storm water discharge (e.g., rock salt);

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4. Any Industrial Materials and Activities that are protected by a temporary shelter for a period of no more than ninety (90) days due to facility construction or remodeling; and,
5. Any Industrial Materials and Activities that are protected within a secondary containment structure that will not discharge storm water to waters of the United States.

E. NEC Limitations

1. NEC coverage is available on a facility-wide basis only, not for individual outfalls. If a facility has industrial storm water discharges from one or more drainage areas that require NOI coverage, Dischargers shall register for NOI coverage for the entire facility through SMARTS in accordance with Section II.B.2. Any drainage areas on that facility that would otherwise qualify for NEC coverage may be specially addressed in the facility SWPPP by including an NEC Checklist and a certification statement demonstrating that those drainage areas of the facility have been evaluated; and that none of the Industrial Materials or Activities listed in subsection C above are, or will be in the foreseeable future, exposed to precipitation.
2. If circumstances change and Industrial Materials and Activities become exposed to rain, snow, snowmelt, and/or runoff, the conditions for this exclusion shall no longer apply. In such cases, the Discharger may be subject to enforcement for discharging without a permit. A Discharger with NEC coverage that anticipates changes in circumstances should register for NOI coverage at least seven (7) days before anticipated exposure.
3. The Regional Water Board may deny NEC coverage and require NOI coverage upon determining that:
 - a. Storm water is exposed to Industrial Materials and Activities; and/or
 - b. The discharge has a reasonable potential to cause or contribute to an exceedance of an applicable water quality standards.

F. NEC Permit Registration Documents Required for Initial NEC Coverage

A Discharger shall submit via SMARTS the following PRDs for NEC coverage to document the applicability of the conditional exclusion:

1. The NEC form, which includes:
 - a. The legal name, postal address, telephone number, and e-mail address of the Discharger;
 - b. The facility business name and physical mailing address, the county name, and a description of the facility location if the facility does not have a physical mailing address; and,

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- c. Certification by the Discharger that all PRDs submitted are correct and true and the conditions of no exposure have been met.
2. An NEC Checklist prepared by the Discharger demonstrating that the facility has been evaluated; and that none of the following industrial materials or activities are, or will be in the foreseeable future, exposed to precipitation:
 - a. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed;
 - b. Materials or residuals on the ground or in storm water inlets from spills/leaks;
 - c. Materials or products from past industrial activity;
 - d. Material handling equipment (except adequately maintained vehicles);
 - e. Materials or products during loading/unloading or transporting activities;
 - f. Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutants);
 - g. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
 - h. Materials or products handled/stored on roads or railways owned or maintained by the Discharger;
 - i. Waste material (except waste in covered, non-leaking containers, e.g., dumpsters);
 - j. Application or disposal of processed wastewater (unless already covered by an NPDES permit); and,
 - k. Particulate matter or visible deposits of residuals from roof stacks/vents evident in the storm water outflow.
3. Site Map (see Section X.E).

G. Requirements for Annual NEC Coverage Recertification

By October 1 of each reporting year beginning in 2015, any Discharger who has previously registered for NEC coverage shall either submit and certify an NEC demonstrating that the facility has been evaluated, and that none of the Industrial Materials or Activities listed above are, or will be in the foreseeable future, exposed to precipitation, or apply for NOI coverage.

H. NEC Certification Statement

All NEC certifications and re-certifications shall include the following certification statement:

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of 'no exposure' and obtaining an exclusion from NPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed in subsection C above). I understand that I am obligated to submit a no exposure certification form annually to the State Water Board and, if requested, to the operator of the local Municipal Separate Storm Sewer System (MS4) into which this facility discharges (where applicable). I understand that I must allow the Water Board staff, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of storm water from the facility. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

XVIII.SPECIAL REQUIREMENTS - PLASTIC MATERIALS

A. Facilities covered under this General Permit that handle Plastic Materials are required to implement BMPs to eliminate discharges of plastic in storm water in addition to the other requirements of this General Permit that are applicable to all other Industrial Materials and Activities. Plastic Materials are virgin and recycled plastic resin pellets, powders, flakes, powdered additives, regrind, dust, and other similar types of preproduction plastics with the potential to discharge or migrate off-site. Any Dischargers' facility handling Plastic Materials will be referred to as Plastics Facilities in this General Permit. Any Plastics Facility covered under this General Permit that manufactures, transports, stores, or consumes these materials shall submit information to the State Water Board in their PRDs, including the type and form of plastics, and which BMPs are implemented at the facility to prevent illicit discharges. Pursuant to Water Code section 13367, Plastics Facilities are subject to mandatory, minimum BMPs.

1. At a minimum, Plastics Facilities shall implement and include in the SWPPP:
 - a. Containment systems at each on-site storm drain discharge location down gradient of areas containing plastic material. The containment system

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shall be designed to trap all particles retained by a 1mm mesh screen, with a treatment capacity of no less than the peak flow rate from a one-year, one-hour storm.

- b. When a containment system is infeasible, or poses the potential to cause an illicit discharge, the facility may propose a technically feasible alternative BMP or suite of BMPs. The alternative BMPs shall be designed to achieve the same or better performance standard as a 1mm mesh screen with a treatment capacity of the peak flow rate from a one-year, one-hour storm. Alternative BMPs shall be submitted to the Regional Water Board for approval.
 - c. Plastics Facilities shall use durable sealed containers designed not to rupture under typical loading and unloading activities at all points of plastic transfer and storage.
 - d. Plastics Facilities shall use capture devices as a form of secondary containment during transfers, loading, or unloading Plastic Materials. Examples of capture devices for secondary containment include, but are not limited to catch pans, tarps, berms or any other device that collects errant material.
 - e. Plastics Facilities shall have a vacuum or vacuum-type system for quick cleanup of fugitive plastic material available for employees.
 - f. Pursuant to Water Code section 13367(e)(1), Plastics Facilities that handle Plastic Materials smaller than 1mm in size shall develop a containment system designed to trap the smallest plastic material handled at the facility with a treatment capacity of at least the peak flow rate from a one-year, one-hour storm, or develop a feasible alternative BMP or suite of BMPs that are designed to achieve a similar or better performance standard that shall be submitted to the Regional Water Board for approval.
2. Plastics Facilities are exempt from the Water Code requirement to install a containment system under section 13367 of the Water Code if they meet one of the following requirements that are determined to be equal to, or exceed the performance requirements of a containment system:
- a. The Discharger has certified and submitted via SMARTS a valid No Exposure Certification (NEC) in accordance with Section XVII; or
 - b. Plastics Facilities are exempt from installing a containment system, if the following suite of eight (8) BMPs is implemented. This combination of BMPs is considered to reduce or prevent the discharge of plastics at a performance level equivalent to or better than the 1mm mesh and flow standard in Water Code section 13367(e)(1).
 - i. Plastics Facilities shall annually train employees handling Plastic Materials. Training shall include environmental hazards of plastic

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discharges, employee responsibility for corrective actions to prevent errant Plastic Materials, and standard procedures for containing, cleaning, and disposing of errant Plastic Materials.

- ii. Plastics Facilities shall immediately fix any Plastic Materials containers that are punctured or leaking and shall clean up any errant material in a timely manner.
- iii. Plastics Facilities shall manage outdoor waste disposal of Plastic Materials in a manner that prevents the materials from leaking from waste disposal containers or during waste hauling.
- iv. Plastics Facilities that operate outdoor conveyance systems for Plastic Materials shall maintain the system in good operating condition. The system shall be sealed or filtered in such a way as to prevent the escape of materials when in operation. When not in operation, all connection points shall be sealed, capped, or filtered so as to not allow material to escape. Employees operating the conveyance system shall be trained how to operate in a manner that prevents the loss of materials such as secondary containment, immediate spill response, and checks to ensure the system is empty during connection changes.
- v. Plastics Facilities that maintain outdoor storage of Plastic Materials shall do so in a durable, permanent structure that prevents exposure to weather that could cause the material to migrate or discharge in storm water.
- vi. Plastics Facilities shall maintain a schedule for regular housekeeping and routine inspection for errant Plastic Materials. The Plastics Facility shall ensure that their employees follow the schedule.
- vii. PRDs shall include the housekeeping and routine inspection schedule, spill response and prevention procedures, and employee training materials regarding plastic material handling.
- viii. Plastics Facilities shall correct any deficiencies in the employment of the above BMPs that result in errant Plastic Materials that may discharge or migrate off-site in a timely manner. Any Plastic Materials that are discharged or that migrate off-site constitute an illicit discharge in violation of this General Permit.

XIX. REGIONAL WATER BOARD AUTHORITIES

- A. The Regional Water Boards may review a Discharger's PRDs for NOI or NEC coverage and administratively reject General Permit coverage if the PRDs are deemed incomplete. The Regional Water Boards may take actions that include rescinding General Permit coverage, requiring a Discharger to revise and re-submit their PRDs (certified and submitted by the Discharger) within a

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specified time period, requiring the Discharger to apply for different General Permit coverage or a different individual or general permit, or taking no action.

- B.** The Regional Water Boards have the authority to enforce the provisions and requirements of this General Permit. This includes, but is not limited to, reviewing SWPPPs, Monitoring Implementation Plans, ERA Reports, and Annual Reports, conducting compliance inspections, and taking enforcement actions.
- C.** As appropriate, the Regional Water Boards may issue NPDES storm water general or individual permits to a Discharger, categories of Dischargers, or Dischargers within a watershed or geographic area. Upon issuance of such NPDES permits, this General Permit shall no longer regulate the affected Discharger(s).
- D.** The Regional Water Boards may require a Discharger to revise its SWPPP, ERA Reports, or monitoring programs to achieve compliance with this General Permit. In this case, the Discharger shall implement these revisions in accordance with a schedule provided by the Regional Water Board.
- E.** The Regional Water Boards may approve requests from a Discharger to include co-located, but discontinuous, industrial activities within the same facility under a single NOI or NEC coverage.
- F.** Consistent with 40 Code of Federal Regulations section 122.26(a)(9)(i)(D), the Regional Water Boards may require any discharge that is not regulated by this General Permit, that is determined to contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States, to be covered under this General Permit as appropriate. Upon designation, the Discharger responsible for the discharge shall obtain coverage under this General Permit.
- G.** The Regional Water Boards may review a Discharger's Inactive Mining Operation Certification and reject it at any time if the Regional Water Board determines that access to the facility for monitoring purposes is practicable or that the facility is not in compliance with the applicable requirements of this General Permit.
- H.** The Regional Water Boards may require a Discharger to implement additional measures including, but not limited to, assigning a QISP to re-evaluate the facility's pollutant source assessment to ensure compliance with TMDL-related requirements in this General Permit.
- I.** All Regional Water Board actions that modify a Discharger's obligations under this General Permit must be in writing and should also be submitted in SMARTS.

XX. SPECIAL CONDITIONS

A. Reopener Clause

This General Permit may be reopened and amended to incorporate TMDL-related provisions. This General Permit may also be modified, revoked and

reissued, or terminated for cause due to promulgation of amended regulations, water quality control plans or water quality control policies, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 Code of Federal Regulations sections 122.62, 122.63, 122.64, and 124.5.

B. Water Quality Based Corrective Actions

1. Upon determination by the Discharger or written notification by the Regional Water Board that industrial storm water discharges and/or authorized NSWDDs contain pollutants that are in violation of Receiving Water Limitations (Section VI) or in the event that a Responsible Discharger's industrial storm water discharge exceeds an NEL in Attachment E, the Discharger shall:
 - a. Conduct a facility evaluation to identify pollutant source(s) within the facility that are associated with industrial activity and whether the BMPs described in the SWPPP have been properly implemented;
 - b. Assess the facility's SWPPP and its implementation to determine whether additional BMPs or SWPPP implementation measures are necessary to reduce or prevent pollutants in industrial storm water discharges to meet the Receiving Water Limitations (Section VI); and,
 - c. Certify and submit via SMARTS documentation based upon the above facility evaluation and assessment that:
 - i. Additional BMPs and/or SWPPP implementation measures have been identified and included in the SWPPP to meet the Receiving Water Limitations (Section VI) or applicable NELs (Attachment E); or
 - ii. No additional BMPs or SWPPP implementation measures are required to reduce or prevent pollutants in industrial storm water discharges to meet the Receiving Water Limitations (Section VI) or applicable NELs (Attachment E).
2. The Regional Water Board may reject the Dischargers water quality based corrective actions and/or request additional supporting documentation.

C. Requirements for Dischargers Claiming "No Discharge" through the Notice of Non-Applicability (NONA)

1. For the purpose of the NONA, the Entity (Entities) is referring to the person(s) defined in section 13399.30 of the Water Code.
2. Entities who are claiming "No Discharge" through the NONA shall meet the following eligibility requirements:
 - a. The facility is engineered and constructed to have contained the maximum historic precipitation event (or series of events) using the precipitation data collected from the National Oceanic and Atmospheric Agency's website (or other nearby precipitation data available from other government

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agencies) so that there will be no discharge of industrial storm water to waters of the United States; or,

- b. The facility is located in basins or other physical locations that are not hydrologically connected to waters of the United States.
3. When claiming the “No Discharge” option, Entities shall submit and certify via SMARTS both the NONA and a No Discharge Technical Report. The No Discharge Technical Report shall demonstrate the facility meets the eligibility requirements described above.
4. The No Discharge Technical Report shall be signed (wet signature and license number) by a California licensed professional engineer.

XXI. STANDARD CONDITIONS

A. Duty to Comply

Dischargers shall comply with all standard conditions in this General Permit. Permit noncompliance constitutes a violation of the Clean Water Act and the Water Code and is grounds for enforcement action and/or removal from General Permit coverage.

Dischargers shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions.

B. Duty to Reapply

Dischargers that wish to continue an activity regulated under this General Permit after the expiration date of this General Permit shall apply for and obtain authorization from the Water Boards as required by the new general permit once it is issued.

C. General Permit Actions

1. This General Permit may be modified, revoked and reissued, or terminated for cause. Submittal of a request by the Discharger for General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not annul any General Permit condition.
2. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge, and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.

D. Need to Halt or Reduce Activity Not a Defense

In an enforcement action, it shall not be a defense for a Discharger that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

E. Duty to Mitigate

Dischargers shall take all responsible steps to reduce or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

F. Proper Operation and Maintenance

Dischargers shall at all times properly operate and maintain any facilities and systems of treatment and control (and related equipment and apparatuses) which are installed or used by the Discharger to achieve compliance with the conditions of this General Permit. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by a Discharger when necessary to achieve compliance with the conditions of this General Permit.

G. Property Rights

This General Permit does not convey any property rights of any sort or any exclusive privileges. It also does not authorize any injury to private property or any invasion of personal rights, nor does it authorize any infringement of federal, state, or local laws and regulations.

H. Duty to Provide Information

Upon request by the relevant agency, Dischargers shall provide information to determine compliance with this General Permit to the Water Boards, U.S. EPA, or local Municipal Separate Storm Sewer System (MS4) within a reasonable time. Dischargers shall also furnish, upon request by the relevant agency, copies of records that are required to be kept by this General Permit.

I. Inspection and Entry

Dischargers shall allow the Water Boards, U.S. EPA, and local MS4 (including any authorized contractor acting as their representative), to:

1. Enter upon the premises at reasonable times where a regulated industrial activity is being conducted or where records are kept under the conditions of this General Permit;
2. Access and copy at reasonable times any records that must be kept under the conditions of this General Permit;

3. Inspect the facility at reasonable times; and,
4. Sample or monitor at reasonable times for the purpose of ensuring General Permit compliance.

J. Monitoring and Records

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. If Dischargers monitor any pollutant more frequently than required, the results of such monitoring shall be included in the calculation and reporting of the data submitted.
3. Records of monitoring information shall include:
 - a. The date, exact location, and time of sampling or measurement;
 - b. The date(s) analyses were performed;
 - c. The individual(s) that performed the analyses;
 - d. The analytical techniques or methods used; and,
 - e. The results of such analyses.
4. Dischargers shall retain, for a period of at least five (5) years, either a paper or electronic copy of all storm water monitoring information, records, data, and reports required by this General Permit. Copies shall be available for review by the Water Board's staff at the facility during scheduled facility operating hours.
5. Upon written request by U.S. EPA or the local MS4, Dischargers shall provide paper or electronic copies of Annual Reports or other requested records to the Water Boards, U.S. EPA, or local MS4 within ten (10) days from receipt of the request.

K. Electronic Signature and Certification Requirements

1. All Permit Registration Documents (PRDs) for NOI and NEC coverage shall be certified and submitted via SMARTS by the Discharger's Legally Responsible Person (LRP). All other documents may be certified and submitted via SMARTS by the LRP or by their designated Duly Authorized Representative.
2. When a new LRP or Duly Authorized Representative is designated, the Discharger shall ensure that the appropriate revisions are made via SMARTS. In unexpected or emergency situations, it may be necessary for the Discharger to directly contact the State Water Board's Storm Water Section to register for SMARTS account access in order to designate a new LRP.

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3. Documents certified and submitted via SMARTS by an unauthorized or ineligible LRP or Duly Authorized Representative are invalid.
4. LRP eligibility is as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i. A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function; or
 - ii. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively;
 - c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. This includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).
5. Duly Authorized Representative eligibility is as follows:
 - a. The Discharger must authorize via SMARTS any person designated as a Duly Authorized Representative;
 - b. The authorization shall specify that a person designated as a Duly Authorized Representative has responsibility for the overall operation of the regulated facility or activity, such as a person that is a manager, operator, superintendent, or another position of equivalent responsibility, or is an individual who has overall responsibility for environmental matters for the company; and,
 - c. The authorization must be current (it has been updated to reflect a different individual or position) prior to any report submittals, certifications, or records certified by the Duly Authorized Representative.

L. Certification

Any person signing, certifying, and submitting documents under Section XXI.K above shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons that manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

M. Anticipated Noncompliance

Dischargers shall give advance notice to the Regional Water Board and local MS4 of any planned changes in the industrial activity that may result in noncompliance with this General Permit.

N. Penalties for Falsification of Reports

Clean Water Act section 309(c)(4) provides that any person that knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years or by both.

O. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the initiation of any legal action or relieve the Discharger from any responsibilities, liabilities, or penalties to which the Discharger is or may be subject to under section 311 of the Clean Water Act.

P. Severability

The provisions of this General Permit are severable; if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

Q. Penalties for Violations of Permit Conditions

1. Clean Water Act section 309 provides significant penalties for any person that violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act or any permit condition or limitation

Industrial General Permit Order

implementing any such section in a permit issued under section 402. Any person that violates any permit condition of this General Permit is subject to a civil penalty not to exceed \$37,500²⁸ per calendar day of such violation, as well as any other appropriate sanction provided by section 309 of the Clean Water Act.

2. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties, which may be greater than penalties under the Clean Water Act.

R. Transfers

Coverage under this General Permit is non-transferrable. When operation of the facility has been transferred to another entity, or a facility is relocated, new PRDs for NOI and NEC coverage must be certified and submitted via SMARTS prior to the transfer, or at least seven (7) days prior to the first day of operations for a relocated facility.

S. Continuation of Expired General Permit

If this General Permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 40 Code of Federal Regulations 122.6 and remain in full force and effect.

²⁸ May be further adjusted in accordance with the Federal Civil Penalties Inflation Adjustment Act.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FACT SHEET FOR
STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
NPDES NO. CAS000001**

Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 2018-0028-DWQ

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**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT
FACT SHEET FOR STORM WATER DISCHARGES ASSOCIATED WITH
INDUSTRIAL ACTIVITIES NPDES NO. CAS000001 I**

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I. BACKGROUND

A. Purpose

The purpose of this Fact Sheet is to explain the legal requirements and technical rationale that serve as the basis for the requirements of this Order 2014-0057-DWQ (General Permit), adopted by the State Water Resources Control Board (State Water Board) on April 1, 2014. This General Permit regulates operators of facilities subject to storm water permitting (Dischargers), that discharge storm water associated with industrial activity (industrial storm water discharges). This General Permit replaces Water Quality Order 97-03-DWQ. This Fact Sheet does not contain any independently-enforceable requirements; the General Permit contains all of the actual requirements applicable to Dischargers. In case of any conflict between the Fact Sheet and the General Permit, the terms of the General Permit govern.

B. History

The Federal Clean Water Act (CWA)¹ prohibits discharges from point sources to waters of the United States, unless the discharges are in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. (CWA § 301(a).) In 1987, the CWA was amended to establish a framework for regulating municipal storm water discharges and discharges of storm water associated with industrial activity (industrial storm water discharges) under the NPDES program. (CWA § 402(p).) In 1990, the United States Environmental Protection Agency (U.S. EPA) promulgated regulations, commonly known as Phase I, establishing application requirements for storm water permits for specified categories of industries. (40 C.F.R. § 122.26.) In 1992, U.S. EPA revised the monitoring requirements for industrial storm water discharges. (40 C.F.R. § 122.44(i)(2), (4), (5).) In 1999, U.S. EPA adopted additional storm water regulations, known as Phase II. (64 Fed. Reg. 68722.) The Phase II regulations provide for, among other things, a conditional exclusion from NPDES permitting requirements for industrial activities that have no exposure to storm water.

Industrial storm water discharges are regulated pursuant to CWA section 402(p)(3)(A). This provision requires NPDES permits for industrial storm water discharges to implement CWA section 301, which includes requirements for Dischargers to comply with technology-based effluent limitations, and any more stringent water quality-based limitations necessary to meet water quality standards. Technology-based effluent limitations applicable to industrial activities are based on best conventional pollutant control technology (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. (CWA § 301(b)(1)(A) and (2)(A).) To ensure compliance with water quality standards, NPDES

¹ Federal Water Pollution Control Act of 1970 (also referred to as the Clean Water Act or CWA), 33 U.S.C. § 1201 et seq. All further statutory references herein are to the CWA unless otherwise indicated.

permits may also require a Discharger to implement best management practices (BMPs). 40 Code of Federal Regulations section 122.44(k)(4) requires the use of BMPs to control or abate the discharge of pollutants when numeric effluent limitations (NELs) are infeasible. The State Water Board has concluded that it is infeasible to establish NELs for storm water discharges associated with industrial activity due to insufficient information at the time of adoption of this General Permit.

On April 17, 1997, the State Water Board issued NPDES General Permit for Industrial Storm Water Discharges, Excluding Construction Activities, Water Quality Order 97 03 DWQ (previous permit). This General Permit, Order 2014-0057-DWQ rescinds the previous permit and serves as the statewide general permit for industrial storm water discharges. The State Water Board concludes that significant revisions to the previous permit requirements are necessary for implementation, consistency and objective enforcement. As discussed in this Fact Sheet, this General Permit requires Dischargers to:

- Eliminate unauthorized non-storm water discharges (NSWDs);
- Develop and implement storm water pollution prevention plans (SWPPPs) that include best management practices (BMPs);
- Implement minimum BMPs, and advanced BMPs as necessary, to achieve compliance with the effluent and receiving water limitations of this General Permit;
- Conduct monitoring, including visual observations and analytical storm water monitoring for indicator parameters;
- Compare monitoring results for monitored parameters to applicable numeric action levels (NALs) derived from the U.S. EPA 2008 Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (2008 MSGP) and other industrial storm water discharge monitoring data collected in California;
- Perform the appropriate Exceedance Response Actions (ERAs) when there are exceedances of the NALs; and,
- Certify and submit all permit-related compliance documents via the Storm Water Multiple Application and Report Tracking System (SMARTS). Dischargers shall certify and submit these documents which include, but are not limited to, Permit Registration Documents (PRDs) including Notices of Intent (NOIs), No Exposure Certifications (NECs), and Storm Water Pollution Prevention Plans (SWPPPs), as well as Annual Reports, Notices of Termination (NOTs), Level 1 ERA Reports, and Level 2 ERA Technical Reports.

C. Blue Ribbon Panel of Experts (Panel)

In 2005 and 2006, the State Water Board convened a Blue Ribbon Panel of Experts (Panel) to address the feasibility of NELs in California's storm water permits. Specifically, the Panel was charged with answering the following questions:

Is it technically feasible to establish numeric effluent limitations, or some other quantifiable limit, for inclusion in storm water permits?

How would such limitations or criteria be established, and what information and data would be required?²

The Panel was directed to answer these questions for industrial storm water discharge general permits, construction storm water discharge general permits, and area-wide municipal storm water discharge permits. The Panel was also directed to address both technology-based and water quality based limitations and criteria.

In evaluating the establishment of numeric limitations and criteria, the Panel was directed to consider all of the following:

- The ability of the State Water Board to establish appropriate objective limitations or criteria;
- How compliance is to be determined;
- The ability of Dischargers and inspectors to monitor for compliance; and
- The technical and financial ability of Dischargers to comply with the limitations or criteria.

Following an opportunity for public comment, the Panel identified several water quality concerns, public process and program effectiveness issues. A summary of the Panel's recommendations regarding industrial storm water discharges follows:³

- Current data are inadequate; accordingly, the State Water Board should improve monitoring requirements to collect useful data for establishing NALs and NELs.
- Required parameters for further monitoring should be consistent with the type of industrial activity (i.e., monitor for heavy metals when there is a reasonable

² State Water Board Storm Water Panel of Experts, [The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_inal_report.pdf) (June 19, 2006). <http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_inal_report.pdf>. [as of February 4, 2014].

³ See footnote 2.

expectation that the industrial activity will contribute to increased heavy metals concentrations in storm water).

- Insofar as possible, the use of California data (or national data applicable to California) is preferred when setting NELs and NALs.
- Industrial facilities that do not discharge to Municipal Separate Storm Sewer Systems (MS4s) should implement BMPs for their non-industrial exposure (e.g., parking lots, roof runoff) similar to BMPs implemented by commercial facilities in MS4 jurisdictions.
- In all cases, Dischargers should implement a suite of minimum BMPs, including, but not limited to, good housekeeping practices, employee training, and preventing exposure of materials to rain.
- Standard Industrial Classification (SIC) code categories are not a satisfactory way of identifying industrial activities at any given site. The State Water Board should develop an improved method of characterizing industrial activities that will improve water quality in storm water.
- Recognizing that implementing the Panel's suggested changes is a large task, the State Water Board should set priorities for implementation of the Panel's suggested approach in order to achieve the greatest reduction of pollutants statewide.
- Recognizing that an increasing number of industries have moved industrial activities indoors to prevent storm water pollution, such facilities should be granted regulatory relief from NALs and/or NELs, but should still be required to comply with any applicable MS4 permit requirements.
- Recognizing the need for improved monitoring and reduction of pollutants in industrial storm water discharges, the State Water Board should consider the total economic impact of its requirements to not economically penalize California industries when compared to industries outside of California.

With regard to the industrial activities component of its charge, the Panel limited its focus to the question of whether sampling data can be used to derive technology-based NELs. The Panel did not address other factors or approaches that may relate to the task of determining technology- and water quality-based NELs consistent with the regulations and law. Examples of these other factors are discussed in more detail in this Fact Sheet. Additionally, in its final report the Panel did not clearly differentiate between the role of numeric and non-numeric effluent limitations, nor did it consider U.S. EPA procedures used to promulgate effluent limitation guidelines (ELGs) in 40 Code of Federal Regulations, Chapter I, Subchapter N (Subchapter N).

D. Summary of Significant Changes in this General Permit

The previous permit issued by the State Water Board on April 17, 1997, had been administratively extended since 2002 until the adoption of this General Permit. Significant revisions to the previous permit were necessary to update permit requirements consistent with recent regulatory changes pertaining to industrial storm water under the CWA. This General Permit differs from the previous permit in the following areas:

1. Minimum Best Management Practices (BMPs)

This General Permit requires Dischargers to implement a set of minimum BMPs. Implementation of the minimum BMPs, in combination with any advanced BMPs (BMPs, collectively,) necessary to reduce or prevent pollutants in industrial storm water discharges, serve as the basis for compliance with this General Permit's technology-based effluent limitations and water quality based receiving water limitations. Although there is great variation in industrial activities and pollutant sources between industrial sectors and, in some cases between operations within the same industrial sector, the minimum BMPs specified in this General Permit represent common practices that can be implemented by most facilities.

The previous permit did not require a minimum set of BMPs but rather allowed Dischargers to consider which non-structural BMPs should be implemented and which structural BMPs should be considered for implementation when non-structural BMPs are ineffective.

This General Permit requires Dischargers to implement minimum BMPs (which are mostly non-structural BMPs), and advanced BMPs (which are mostly structural BMPs) when implementation of the minimum BMPs do not meet the requirements of the General Permit. Advanced BMPs consists of treatment control BMPs, exposure reduction BMPs, and storm water containment and discharge reduction BMPs. BMPs that exceed the performance expectation of minimum BMPs are considered advanced BMPs. Dischargers are encouraged to utilize advanced BMPs that infiltrate or reuse storm water where feasible.

The minimum and advanced BMPs required in this General Permit are consistent with U.S. EPA's 2008 Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (2008 MSGP), guidance developed by the California Stormwater Quality Association, and recommendations by Regional Water Quality Control Board (Regional Water Board) inspectors. Dischargers are required to evaluate BMPs being implemented and determine an appropriate interval for the implementation and inspection of these BMPs.

2. Conditional Exclusion - No Exposure Certification (NEC)

This General Permit applies U.S. EPA Phase II regulations regarding a conditional exclusion for facilities that have no exposure of industrial activities and materials to storm water. (40 C.F.R. § 122.26(g).) (The previous permit required light industries to obtain coverage only if their activities were exposed to storm water.) This General Permit implements current U.S. EPA rules allowing any type of industry to claim a conditional exclusion. The NEC requires enrollment for coverage prior to conditionally excluding a Discharger from a majority of this General Permit's requirements.

3. Electronic Reporting Requirements

This General Permit requires Dischargers to submit and certify all reports electronically via SMARTS. The previous permit used a paper reporting process with electronic reporting as an option.

4. Training Expectations and Roles

This General Permit requires that Dischargers arrange to have appropriately trained personnel implementing this General Permit's requirements at each facility. In addition, if a Discharger's facility enters Level 1 status, the Level 1 ERA Report must be prepared by a Qualified Industrial Storm Water Practitioner (QISP). All Action Plans and Technical Reports required in Level 2 status must also be prepared by a QISP.

Dischargers may appoint a staff person to complete the QISP training or may contract with an outside QISP. QISP training is tailored to persons with a high degree of technical knowledge and environmental experience. Although QISPs do not need to be California licensed professional engineers, it may be necessary to involve a California licensed professional engineer to perform certain aspects of the Technical Reports.

5. Numeric Action Levels (NALs), TMDL-Numeric Action Levels (TNALs)⁴ and NAL/TNAL Exceedances

This General Permit contains two types of NAL exceedances (instantaneous maximum and annual), and one type of TNAL exceedance (instantaneous maximum). An annual NAL exceedance occurs when the average of all sampling results within a reporting year for a single parameter (except pH) exceeds the applicable annual NAL. The annual NALs are derived from, and function similarly to,

⁴ The acronym TNAL is used for TMDL-specific numeric action levels rather than the acronym NAL to differentiate TMDL-specific requirements from the generally applicable requirements set forth in Table 2 of this General Permit's Order. TNALs are applicable only to Responsible Dischargers.

the benchmark values provided in the 2008 MSGP. Instantaneous maximum NALs target hot spots or episodic discharges of pollutants. An instantaneous maximum NAL/TNAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the applicable instantaneous maximum NAL/TNAL value. Instantaneous maximum NALs for Total Suspended Solids (TSS) and Oil and Grease (O&G) are based on previously gathered California industrial storm water discharge monitoring data. The instantaneous maximum NAL for pH is derived from the benchmark value provided in the 2008 MSGP. The TMDL-specific TNALs are in Attachment E TMDL Table E-2 and were derived from the TMDL-specific WLA translations.

6. Exceedance Response Actions (ERA)

This General Permit requires Dischargers to develop and implement ERAs, when an annual NAL or instantaneous maximum NAL/TNAL exceedance occurs during a reporting year. The first time an annual NAL or instantaneous maximum NAL/TNAL exceedance occurs for any one parameter, a Discharger's status is changed from Baseline to Level 1 status, and the Discharger is required to evaluate and revise, as necessary, its BMPs (with the assistance of a QISP) and submit a report prepared by a QISP. The second time an annual NAL or instantaneous maximum NAL/TNAL exceedance occurs for the same parameter in a subsequent reporting year, the Discharger's status is changed from Level 1 to Level 2 status, and Dischargers are required to submit a Level 2 ERA Action Plan and a Level 2 ERA Technical Report. Unless the demonstration is not accepted by the State Water Board or a Regional Water Board, the Discharger is not required to perform additional ERA requirements for the parameter(s) involved if the Discharger demonstrates that:

- a. Additional BMPs required to eliminate NAL/TNAL exceedances are not technologically available or economically practicable and achievable; or,
- b. NAL/TNAL exceedances are solely caused by non-industrial pollutant sources; or,
- c. NAL/TNAL exceedances are solely attributable to pollutants from natural background sources.

Information supporting the above demonstrations must be included in QISP-prepared Level 2 ERA Technical Reports.

7. CWA section 303(d) Impairment

This General Permit requires a Discharger to monitor additional parameters if the discharge(s) from its facility contributes pollutants to receiving waters that are listed as impaired for those pollutants (CWA section 303(d) listings). This General Permit lists the receiving waters that are 303(d) listed as impaired for pollutants that are likely to be associated with industrial storm water in Appendix 3. For example, if a Discharger discharges to a water body that is listed as impaired for copper, and the

discharge(s) from its facility has the potential sources of copper, the Discharger must add copper to the list of parameters to monitor in its storm water discharge.

8. Design Storm Standards for Treatment Control BMPs

This General Permit includes design storm standards for Dischargers implementing treatment control BMPs. The design storm standards include both volume- and flow-based criteria. Dischargers are not required to retrofit existing treatment control BMPs unless required to meet the technology-based effluent limitations and receiving water limitations in this General Permit.

9. Qualifying Storm Event (QSE)

This General Permit defines a QSE as a precipitation event that:

- a. Produces a discharge for at least one drainage area; and,
- b. Is preceded by 48 hours with no discharge from any drainage area.

The definition above differs from the definition in the previous permit, resulting in an increase number of QSEs eligible for sample collection. Therefore, most Dischargers will be able to collect the required number of samples, regardless of their facility location.

10. Sampling Protocols

This General Permit requires Dischargers to collect samples during scheduled facility operating hours from each drainage location within four hours of: (1) the start of the discharge from a QSE occurring during scheduled facility operating hours, or (2) the start of scheduled facility operating hours if the QSE occurred in the previous twelve (12) hours. The benefits of this sampling protocol: (a) allows a more reasonable amount of time to collect samples, (b) increases the likelihood for samples collected at discharge locations to be representative of the drainage area discharge characteristics, (c) increases the number of QSEs eligible for sample collection, and, (d) reduces the likelihood of Dischargers collecting samples with short-term concentration spikes.

The previous permit required that Dischargers collect grab samples during the first hour of discharge that commenced during scheduled facility operating hours. These sample collection requirements were widely considered to be too rigid and out of step with other states' sample collection requirements. Since many storm events begin in the evening or early morning hours, numerous opportunities to collect samples were lost because Dischargers could not obtain samples during the first hour of discharge. Dischargers with facilities that have multiple discharge locations had difficulties collecting samples within such a short timeframe therefore affecting data quality.

11. Sampling Frequency

This General Permit increases the sampling frequency by requiring the Discharger to collect and analyze storm water samples from each discharge location for two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30). The increased sampling, compared to the previous permit's two samples during the wet season, is consistent with the 2008 MSGP and other states' permit requirements and will improve compliance determination with this General Permit. The State Water Board expects that the elimination of the wet season sampling requirements will increase the number of possible QSEs eligible for monitoring.

12. Compliance Groups

To allow industrial facilities to efficiently share knowledge, skills and resources towards achieving General Permit compliance, this General Permit allows the formation of Compliance Groups and Compliance Group Leaders. Dischargers participating in a Compliance Group (Compliance Group Participants) are collectively required to sample twice a year. Compliance Group Leaders are required to be approved through the State Water Board-approved training program process, inspect each facility once within each reporting year, and prepare Level 1 and Level 2 ERA reports as necessary. The Compliance Group option is described in more detail in General Permit section XIV and in this Fact Sheet in the Section titled "Compliance Groups."

13. Discharges to Ocean Waters

This General Permit requires Dischargers with ocean-discharging outfalls subject to model monitoring provisions of the California Ocean Plan to develop and implement a monitoring plan in compliance with those provisions and any additional monitoring requirements established pursuant to Water Code section 13383. Dischargers who have not developed and implemented a monitoring program in compliance with the California Ocean Plan model monitoring provisions by July 1, 2015 or seven (7) days prior to commencing operations, whichever is later, are ineligible to obtain coverage under this General Permit.

14. Amendment to Incorporate TMDL-related Requirements, Update Analytical Testing Requirements, and Provide Compliance Options

Through Order 2018-0028-DWQ, the State Water Board amended this General Permit. The amendment includes: (1) The addition of TMDL-related permit requirements (Attachment E), (2) incorporation of new U.S. EPA sufficiently sensitive methods (SSM) analytical testing requirements, and (3) addition of two compliance options available to Dischargers statewide (see Attachment I).

II. TECHNICAL RATIONALE FOR REQUIREMENTS IN THIS GENERAL PERMIT

A. Receiving General Permit Coverage

1. This General Permit provides regulatory coverage for new and existing industrial storm water discharges and authorized NSWDS from:
 - a. Facilities required by federal regulations to obtain an NPDES permit;
 - b. Facilities designated by the Regional Water Boards to obtain an NPDES permit; and,
 - c. Facilities directed by the Regional Water Boards to obtain coverage specifically under this General Permit. The Regional Water Board typically directs a Discharger to change General Permit coverage under two circumstances:
 - (1) switch from an individual NPDES permit to this General Permit, or
 - (2) switch from the NPDES General Permit for Storm Water Discharges Associated with Construction And Land Disturbance Activities, (Order 2009-0009-DWQ, NPDES No CAS000002 (to this General Permit for long-term construction related activities that are similar to industrial activities (e.g. concrete batch plants).

40 Code of Federal Regulations section 122.26(b)(14) defines "storm water discharge associated with industrial activity" and describes the types of facilities subject to permitting (primarily by Standard Industrial Classification (SIC) code). This General Permit provides regulatory coverage for all facilities with industrial activities described in Attachment A where the covered industrial activity is the Discharger's primary industrial activity. In some instances, a Discharger may have more than one primary industrial activity occurring at a facility.

The 1987 SIC manual uses the term "establishment" to determine the primary economic activity of a facility. The manual instructs that where distinct and separate economic activities are performed at a single location, each activity should be treated as a separate establishment (and, therefore, separate primary activity). For example, the United States Navy (primary SIC code 9711) may conduct industrial activities subject to permitting under this General Permit, such as landfill operations (SIC code 4953), ship and boat building and repair (SIC code 3731, and flying field operations (SIC code 4581).

The SIC manual also discusses "auxiliary" functions of establishments. Auxiliary functions provide management or support services to the establishment. Examples of auxiliary functions are warehouses and storage facilities for the establishment's own materials, maintenance and repair shops of the establishment's own machinery, automotive repair shops or storage garages of the establishment's own vehicles,

administrative offices, research, development, field engineering support, and testing conducted for the establishment. When auxiliary functions are performed at physically separate facilities from the establishment they serve, they generally are not subject to General Permit coverage. If auxiliary functions are performed at the same physical location as the establishment, then they are subject to General Permit coverage if they are associated with industrial activities.

This clarification does not change the scope of which facilities are subject to permitting relative to the 1997 IGP. The 1997 IGP Fact Sheet had used the term “auxiliary” to describe a facility’s separate primary activities, which has caused confusion.

In 1997, the North American Industrial Classification System (NAICS) was published, replacing the SIC code system. The U.S. EPA has indicated that it intends to incorporate the NAICS codes into the federal storm water regulations but has not done so yet. The State Water Board recognizes that many Dischargers in newer industries were not included in the 1987 SIC code manual and may have difficulty determining their SIC code information. To address this transition, SMARTS has been modified to accept both SIC codes and NAICS codes, and NAICS codes are automatically translated into SIC codes. There may be instances of conflict between SIC and NAICS codes. The use of NAICS codes shall not expand or reduce the types of industries subject to this General Permit as compared to the SIC codes listed in the General Permit. State Water Board staff will work closely with the applicant to resolve these conflicts in SMARTS as they are identified. Dischargers should be aware that the use of an NAICS code which results in failure to submit any of the required PRDs under this General Permit remains a violation of the terms of this General Permit.

The facilities included in category one of Attachment A (facilities subject to Subchapter N) are subject to storm water ELGs that are incorporated into the requirements of this General Permit. Dischargers whose facilities are included in this category must examine the appropriate federal ELGs to determine the applicability of those guidelines. This General Permit contains additional requirements (Section XI.D) that apply only to facilities with storm water ELGs.

2. Types of Discharges Not Covered by this General Permit

- a. Discharges from construction and land disturbance activities that are subject to the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit).
- b. Discharges covered by an individual or general storm water NPDES permit. Some industrial storm water discharges may be regulated by other individual or general NPDES permits issued by the State Water Board or the Regional Water Boards (Water Boards, collectively,). This General Permit shall not regulate these

discharges. When the individual or general NPDES permits for such discharges expire, the Water Boards may authorize coverage under this General Permit or another general NPDES permit, or may issue a new individual NPDES permit consistent with the federal and state storm water regulations. Interested parties may request that the State Water Board or appropriate Regional Water Board issue individual or general NPDES permits for specific discharges that, in their view are not properly regulated through this General Permit. General permits may be issued for a particular industrial group or watershed area which would supersede this General Permit. To date, two Regional Water Board have issued such permits:

- i. The Lahontan Regional Water Board has adopted an NPDES permit and general Waste Discharge Requirements to regulate discharges from marinas and maintenance dredging (Regional Water Board Order R6T-2005-0015 - NPDES Permit No. CAG616003) in the Lake Tahoe Hydrologic Unit.
 - ii. The Santa Ana Regional Water Board adopted the Sector Specific General Permit for Stormwater Runoff Associated with Industrial Activities from Scrap Metal Recycling Facilities within the Santa Ana Region, Order R8-2012-0012, NPDES Permit No. CAG 618001 (Scrap Metal Recycling Permit). The Scrap Metal Recycling Permit is applicable to facilities within the Santa Ana Region that are listed under Standard Industrial Classification (SIC) Code 5093 and engaged in the following types of activities: (1) automotive wrecking for scrap-wholesale (this category does not include facilities engaged in automobile dismantling for the primary purpose of selling second hand parts); (2) iron and steel scrap - wholesale; (3) junk and scrap metal - wholesale; (4) metal waste and scrap - wholesale; and (5) non-ferrous metals scrap - wholesale. Other types of facilities listed under SIC Code 5093 and engaged in waste recycling are not required to get coverage under the Scrap Metal Recycling Permit. A list of covered facilities as of February 8, 2011 was included in Attachment A of the Scrap Metal Recycling Permit.
- c. Discharges that the Regional Water Boards determine to be ineligible for coverage under this General Permit. In such cases, a Regional Water Board will require the discharges be covered by another individual or general NPDES permit. The applicability of this General Permit to such discharges is terminated when the discharge is subject to another individual or general NPDES permit.
- d. Discharges that do not enter waters of the United States. These include:
- i. Discharges to municipal separate sanitary sewer systems;
 - ii. Discharges to evaporation ponds, discharges to percolation ponds, and/or any other methods used to retain and prevent industrial storm water discharges from entering waters of the United States;

- iii. Discharges to combined sewer systems. In California, the only major combined sewer systems are located in San Francisco and downtown Sacramento. Dischargers who believe they discharge into a combined sewer system should contact the local Regional Water Board to verify discharge location; and,
 - iv. Dischargers Claiming the “No Discharge” Option in the Notice of Non-Applicability (NONA) (Fact Sheet Section II.S).
 - e. Discharges from mining operations or oil and gas facilities composed entirely of flows that are from conveyances or systems of conveyances used for collecting and conveying precipitation runoff and do not come into contact with any overburden, raw materials, intermediate products, finished products, by-products, or waste products located at the facility. (33 U.S.C. § 1342(l)(2).)
 - f. Discharges from facilities on Tribal Lands regulated by U.S. EPA.
3. Obtaining General Permit Coverage (Section II of this General Permit)

The State Water Board has developed the SMARTS online database system to handle registration and reporting under this General Permit.

[More information regarding SMARTS and access to the database](https://smarts.waterboards.ca.gov) is available online at <https://smarts.waterboards.ca.gov>. The State Water Board has determined that all documents related to general storm water enrollment and compliance must be certified and submitted via SMARTS by Dischargers.

This General Permit requires all Dischargers to electronically certify and submit PRDs via SMARTS to obtain: (1) regulatory coverage, or (2) to certify that there are no industrial activities exposed to storm water at the facility and obtain regulatory coverage under the NEC provision of this General Permit. Facilities that were eligible to self-certify no exposure under the previous permit (see category 10 in Attachment 1 of the previous permit) are required to certify and submit via SMARTS PRDs for NOI coverage under this General Permit by August 14, 2015 or for NEC coverage by October 1, 2015. The Water Board is estimating that 10,000 – 30,000 Dischargers may be registering for NOI or NEC coverage under this General Permit. Separate registration deadlines, one for NOI coverage and one for NEC coverage, provides Dischargers better assistance from Storm Water Helpdesk and staff.

Dischargers shall electronically certify and submit the PRDs via SMARTS for each individual facility. This requirement is intended to establish a clear accounting of the name, address, and contact information for each Discharger, as well as a description of each Discharger’s facility.

The Water Boards recognize that certain information pertaining to an industrial facility may be confidential. Many Stakeholders were asking for clarification on the process the Water Boards would use to manage confidential information or the process

Dischargers could use to redact such information. Dischargers may redact trade secrets information from required submittals (Section II.B.3.d). Dischargers are required to include a general description of the redacted information and the basis for the redaction. Dischargers are still required to submit complete and un-redacted versions of the information to the Water Boards within 30 days, however these versions should be clearly labeled "CONFIDENTIAL" so that the confidentiality of these documents is clear to Regional Water Board staff, even when there is a change in staff. This General Permit requires that all information provided to the Water Boards by the Discharger comply with the Homeland Security Act and other federal law that addresses security in the United States.

All Existing Dischargers who previously obtained regulatory coverage under Order 97-03-DWQ shall comply with the provisions in this General Permit by July 1, 2015. All Existing Dischargers who previously obtained regulatory coverage under Order 97-03-DWQ are required to certify and submit PRDs via SMARTS for NOI coverage on or before* August 14, 2015 or for NEC coverage on or before* October 1, 2015. All Dischargers who did not previously obtain regulatory coverage under Order 97-03-DWQ who certify and submit PRDs via SMARTS for NOI coverage on or after July 1, 2015 shall immediately comply with the provisions in this General Permit.

* [Note: The version of the Fact Sheet as adopted by the Board incorrectly said "after" rather than "before." The Fact Sheet has been corrected to accurately reflect the Permit terms.]

4. General Permit Coverage for Landfills

This General Permit covers storm water discharges from landfills, land application sites, and open dumps that receive or have received industrial waste from any facility covered by this General Permit. Industrial storm water discharges from these facilities must be covered by this General Permit unless (1) they are already covered by another NPDES permit, or (2) the Regional Water Board has determined that an NPDES permit is not required because the site has been stabilized or required closure activities have been completed.

In most cases, it is appropriate for new landfill construction or final closure to be covered by the Construction General Permit, rather than this General Permit. Questions have arisen as to what constitutes new landfill construction at an existing landfill versus the normal planned expansion of a landfill. Similarly, questions have arisen about the type of closure activities that may be subject to the Construction General Permit versus the normal closure of "cells" that occurs during continued landfill operations and are not subject to the Construction General Permit. Other questions such as whether temporary or permanent newly graded/paved roads disturbing greater than one acre at a landfill are subject to the Construction General Permit. Landfill Dischargers have asked for clarity regarding these questions.

The previous permit required Dischargers to contact the Regional Water Boards to determine permit appropriateness. Site specific circumstances continue to require Dischargers to contact Regional Water Boards for final determinations.

Based upon the State Water Board's storm water program history, there are only a handful of instances where an operating landfill has been simultaneously subject to both the construction and industrial permitting requirements. Typically a landfill is subject to the construction permitting requirements during the time the landfill is initially constructed and prior to operation. A landfill is subject to the industrial permitting requirements during landfill operations, and subject to the construction permitting requirements during final landfill closure activities.

Once a landfill begins operations, continued expansion or closure of incremental landfill cells is authorized under the industrial permitting requirements since these are normal aspects of landfill operations. These expansion/closure activities occur within a limited timeframe (often taking less than 90 days from beginning to end) and are not separately subject to additional local approval (e.g., a new building permit). Any construction or demolition of temporary non-impervious roads directly related to landfill operations are subject to the industrial permitting requirements.

Construction or closure of a separate section of the landfill that is either subject to additional permitting by the local authorities and/or lasts more than 90 days requires coverage under the Construction General Permit. Construction of permanent facility structures such as buildings and impervious parking lots or roads that disturb greater than one acre are also subject to the Construction General Permit. (Permanent facility structures are defined as any structural improvements designed to remain until the landfill is closed.)

Site specific circumstances such as proximity to nearby waterways, extent of activities, pollutants of concern, and other considerations can impact any decision as to whether a particular activity is to be regulated under this General Permit or the Construction General Permit. Regional Water Boards will continue to exercise their discretion as necessary to protect the beneficial uses of the receiving water(s).

5. General Permit Coverage for Small Municipal Separate Storm Sewer Systems (MS4s)

Section 1068 of the Intermodal Surface Transportation Efficiency Act of 1991 exempted municipal agencies serving populations of less than 100,000 from Phase I permit requirements other than sanitary landfills, power plants, and airports facilities. U.S. EPA's Phase II regulations eliminated the above exemption as of March 10, 2003. All facilities in Attachment A of this General Permit that are operated by a small municipal agency are subject to NPDES storm water permitting requirements and this General Permit.

6. Changes to General Permit Coverage

Dischargers who no longer operate a facility required to be covered under this General Permit (either NOI or NEC coverage) are required to electronically certify and submit via SMARTS a Notice of Termination (NOT). An NOT is required when there is a change in ownership of the industrial activities subject to permitting or when industrial activities subject to permitting are permanently discontinued by the Discharger at the site. When terminating NOI coverage, Dischargers may only submit an NOT once all exposure of industrial materials and equipment have been eliminated. Dischargers may not submit NOTs for temporary or seasonal facility closures. The General Permit requires Dischargers to implement appropriate BMPs to reduce or prevent pollutants in storm water discharges during the temporary facility closure.

This General Permit allows Dischargers to change General Permit coverage, as appropriate, from NOI coverage to NEC coverage or from NEC coverage to NOI coverage.

B. Discharge Prohibitions

This General Permit covers industrial storm water discharges and authorized NSWDs from industrial facilities and prohibits any discharge of materials other than storm water and authorized NSWDs (Section III and Section IV of this General Permit). It is a violation of this General Permit to discharge hazardous substances in storm water in excess of the reportable quantities established in 40 Code of Federal Regulations sections 117.3 and 302.4.

The State Water Board is authorized, under Water Code section 13377, to issue NPDES permits which apply and ensure compliance with all applicable provisions of the CWA, and any more stringent limitations necessary to implement water quality control plans, protect beneficial uses, and prevent nuisance.

C. Non-Storm Water Discharges (NSWDs)

Unauthorized NSWDs can be generated from various pollutant sources. Depending upon their quantity and location where generated, unauthorized NSWDs can discharge to the storm drain system during dry weather as well as during a storm event (commingled with storm water discharge). These NSWDs can consist of, but are not limited to; (1) waters generated by the rinsing or washing of vehicles, equipment, buildings, or pavement, or (2) fluid, particulate or solid materials that have spilled, leaked, or been disposed of improperly.

Some NSWDs are not directly related to industrial activities and normally discharge minimal pollutants when properly managed. Section IV of this General Permit provides a limited list of NSWDs that are authorized if Dischargers implement BMPs to prevent contact with industrial materials prior to discharge. The list in Section IV is similar to the

Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 2018-0028-DWQ

list provided in the 2008 MSGP but does not include pavement and external building surfaces washing without detergents. These two items are not included because the Discharger is responsible to reduce or prevent pollutants in storm water discharges from paved areas and buildings associated with industrial activities. Since industrial materials and non-industrial material likely co-exist, the washing of paved areas and external building surfaces may result in discharges of pollutants associated with industrial activities. In addition, washing activities generally occur during dry-weather periods when receiving water flows are lower than wet-weather periods. Wash waters are likely to discharge in higher concentrations than would occur if these pollutants were naturally discharged during a storm event. The discharge of high concentration wash water during a time of dry-weather flows is inconsistent with the goal of protecting receiving waters. These discharges are, therefore, considered unauthorized NSWDS. Similar to the 2008 MSGP, firefighting related discharges are not subject to this General Permit.

A major required element of the SWPPP is the identification and measures for elimination of unauthorized NSWDS. Unauthorized NSWDS can contribute a significant pollutant load to receiving waters. Measures to control spills, leakage, and dumping can often be addressed through BMPs. This General Permit's BMP requirements for NSWDS remain essentially unchanged from the previous permit other than the increased frequency of required visual observations from quarterly to monthly. See Section XI.A.1 of this General Permit.

D. Effluent Limitations

1. Technology-Based and Water Quality-Based Effluent Limitations

CWA Section 301(b)(1)(A) requires that discharges from existing facilities must, at a minimum, comply with technology-based effluent limitations based on the technological capability of Dischargers to control pollutants in their discharges. Discharges must also comply with any more stringent water quality-based limitations necessary to meet water quality standards in accordance with CWA Section 301(b)(1)(C). Water quality-based limitations are discussed in Section E of this Fact Sheet titled "Receiving Water Limitations." Both technology-based effluent limitations and water quality-based limitations are implemented through NPDES permits. (CWA sections 301(a) and (b).)

2. Types of Technology-Based Effluent Limitations

All NPDES permits are required to contain technology-based effluent limitations (TBELs). (40 C.F.R. §§122.44(a)(1) and 125.3.) TBELs may consist of effluent limitations guidelines (ELGs) established by U.S. EPA through regulation, or may be developed using best professional judgment on a case-by-case basis. The CWA sets forth standards for TBELs based on the type of pollutant or the type of facility/source involved. The CWA establishes two levels of pollution control for existing sources. For the first level, existing sources that discharge pollutants directly to receiving

waters were initially subject to effluent limitations based on the “best practicable control technology currently available” (BPT). (33 U.S.C. § 1314(b)(1)(B).) BPT applies to all pollutants. For the second level, existing sources that discharge conventional pollutants are subject to effluent limitations based on the “best conventional pollutant control technology” (BCT). (33 U.S.C. §1314(b)(4)(A); see also 40 C.F.R. §401.16 (list of conventional pollutants).) Also for the second level, other existing sources that discharge toxic pollutants or “nonconventional” pollutants (“nonconventional” pollutants are pollutants that are neither “toxic” nor “conventional”) are subject to effluent limitations based on “best available technology economically achievable” (BAT). (33 U.S.C. §1311(b)(2)(A); see also 40 C.F.R. §401.15 (list of toxic pollutants).) The factors to be considered in establishing the levels of these control technologies are specified in section 304(b) of the CWA and in U.S. EPA’s regulations at 40 C.F.R. §125.3.

When establishing ELGs for an industrial category, U.S. EPA evaluates a wide variety of technical factors to determine BPT, BCT, and BAT. U.S. EPA considers the specific factors of an industry such as pollutant sources, industrial processes, and the size and scale of operations. U.S. EPA evaluates the specific treatment, structural, and operational source control BMPs available to reduce or prevent pollutants in the discharges. The costs of implementing BMPs to address these factors are weighed against their effectiveness and ability to protect water quality. Factors such as industry economic viability, economies of scale, and retrofit costs are also considered.

To date, U.S. EPA has: (1) not promulgated storm water ELGs for most industrial categories, (2) not established NELs within all ELGs that have been promulgated, and (3) exempted certain types of facilities within an industrial category from complying with established ELGs. The feedlot category (40 Code of Federal Regulations part 412) provides an example of several of these points. In that instance, U.S. EPA did not establish numeric effluent limitations but instead: (1) established a narrative effluent limitation requiring retention of all feedlot-related runoff from a 25-year, 24-hour storm, and (2) limited application of the ELG to feedlots with a minimum number of animals. U.S. EPA also recently promulgated ELGs for the "Construction and Development (C&D)" industry, which included, among many other limitations, conditional numeric effluent limitations. Though the NELs in these ELGs were later stayed by U.S. EPA, the ELGs exempted construction sites of less than 30 acres from complying with the established numeric effluent limitations.

40 Code of Federal Regulations, Chapter I, Subchapter N (“Subchapter N”), includes over 40 separate industrial categories where the U.S. EPA has established ELGs for new and existing industrial wastewater discharges to surface waters, discharges to publicly owned treatment works (pre-treatment standards), and storm water discharges to surface waters. Generally, U.S. EPA has focused its efforts on the development of ELGs for larger industries and those industries with the greatest

potential to pollute. In total, the 40 categories for which ELGs have been established (not including construction) represent less than 10 percent of the types of facilities subject to this General Permit. Additionally, most ELGs focus on industrial process wastewater discharges and pre-treatment standards, and only 11 of the 40 categories establish numeric or narrative ELGs for industrial storm water discharges. Those that do include ELGs for industrial storm water discharges generally address storm water discharges that are generated from direct contact with primary pollutant sources at the subject facilities, and not the totality of the industrial storm water discharge from the facility, as the term “storm water discharge associated with industrial activity” for this General Order is defined in the CWA. (40 C.F.R. § 122.26(b)(14).) Where U.S. EPA has not issued effluent limitation guidelines for an industry, the State Water Board is required to establish effluent limitations for NPDES permits on a case-by-case basis based on best professional judgment (BPJ). (33 U.S.C. § 1342(a)(1); 40 C.F.R. § 125.3(c)(2).) In this General Permit, most of the TBELs are based on BPJ decision-making because no ELG applies.

The TBELs in this General Permit represent the BPT (for conventional, toxic, and non-conventional pollutants), BCT (for conventional pollutants), and BAT (for toxic pollutants and non-conventional pollutants) levels of control for the applicable pollutants. If U.S. EPA has not promulgated ELGs for an industry, or if a Discharger is discharging a pollutant not covered by the otherwise applicable ELG, the State Water Board is required to establish effluent limitations in NPDES permit limitations based on best professional judgment. (33 U.S.C. § 1342(a)(1); 40 C.F.R. 125.3(c).) This General Permit includes TBELs established on best professional judgment and limitations based on storm water-specific ELGs listed in Attachment F of this General Permit, where applicable.

3. Authority to Include Non-Numeric Technology-Based Limits in NPDES Permits

TBELs in this General Permit are based on best professional judgment and are non-numeric (“narrative”) technology-based effluent limitations expressed as requirements for implementation of effective BMPs. Federal regulations provide that permits must include BMPs to control or abate the discharge of pollutants when where “[n]umeric effluent limitations are infeasible.” 40 C.F.R. 122.44(k)(3).

Since 1977, courts have recognized that there are circumstances when numeric effluent limitations are infeasible and have held that EPA may issue permits with conditions (e.g., BMPs) designed to reduce the level of effluent discharges to acceptable levels. *Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C.Cir.1977).

U.S. EPA has also interpreted the CWA to allow BMPs to take the place of numeric effluent limitations under certain circumstances. 40 C.F.R. §122.44(k), titled “Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs ...),” provides that permits may include BMPs to control or abate

the discharge of pollutants when: (1) “[a]uthorized under section 402(p) of the CWA for the control of stormwater discharges”; or (2) “[n]umeric effluent limitations are infeasible.” 40 C.F.R. § 122.44(k).

In 2006, The U.S. Court of Appeals for the Sixth Circuit held that the CWA does not require U.S. EPA to set numeric limits where such limits are infeasible. (*Citizens Coal Council v. United States Environmental Protection Agency*, 447 F.3d 879, 895-96 (6th Cir. 2006)). The *Citizens Coal* court cited to the statement in *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 502 (2d Cir. 2005) that “site-specific BMPs are effluent limitations under the CWA” in concluding that “the EPA’s inclusion of numeric and non-numeric limitations in the guideline for the coal remining subcategory was a reasonable exercise of its authority under the CWA.” (447 F.3d at 896.) Additionally, the *Citizen’s Coal* court cited to *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C.Cir.1982) noting that “section 502(11) [of the CWA] defines ‘effluent limitation’ as ‘any restriction’ on the amounts of pollutants discharged, not just a numerical restriction.” NPDES permit writers have substantial discretion to impose non-quantitative permit requirements pursuant to section 402(a)(1)), especially when the use of numeric limits is infeasible. (*NRDC v. EPA*, 822 F.2d 104, 122-24 (D.C. Cir. 1987); 40 C.F.R. 122.44(k)(3).)

4. Decision to Include Non-Numeric Technology-Based Effluent Limits in This General Permit

It is infeasible for the State Water Board to develop numeric effluent limitations using the best professional judgment approach due to lack of sufficient information. Previous versions of this General Permit required Dischargers to sample their industrial storm water discharges and report the results to the Regional Water Boards. Dischargers were not required to submit this data online into a statewide database; as a result, much of this data is not available for analysis. Moreover, much of the data that are available for analysis are not of sufficient quality to make conclusions or perform basic statistical tests.

The Blue Ribbon Panel of Experts, State Water Board staff, and many stakeholders evaluated the available storm water data set and concluded that the information provides limited value due to the limited pool of industrial facilities submitting data, poor overall data quality, and extreme variance within the dataset, as described below.

The poor quality of the existing data set is attributable a number of factors. For example, the previous permits have required Dischargers to sample during the first hour of discharge from two storm events a year. This sampling schedule was designed to catch what was considered to represent the higher end of storm water discharge concentrations for most parameters. The results from this type of sampling were thought to be an indicator of whether or not additional BMPs would be necessary. The sampling schedule was not designed, however, to estimate pollutant

discharge loading, or to characterize the impact of the discharge on the receiving water. Doing so would normally require the use of more advanced sampling protocols such as flow meters, continuous automatic sampling devices, certified/trained sampling personnel, and other facility-specific considerations.

Furthermore, there is currently no data which details the relationship between the BMPs implemented at each facility and the facility's sampling results. The SWPPPs required by the previous permits were not submitted to the Water Boards, but were kept onsite by Dischargers. Due to the limited availability of quality sampling data and "level of effort" information contained in SWPPPs, the State Water Board is unable to exercise best professional judgment to make the connection between effluent quality (sampling results) and the level of effort, costs, and performance of the various technologies that is needed in order to express the TBELs in this General Permit numerically, as NELs.

Some stakeholders have suggested that separating the data sets by industry type would lead to more reliable data with which to develop NELs. Advocates of this approach suggest that the variability of the data may be caused in part by the mixing of data from different industrial categories. The State Water Board believes that the variation is primarily due to storm intensity, duration, time of year, soil saturation or some other factors. It is necessary to collect information related to those factors and BMPs implemented in order to evaluate the variability attributable to those factors. There is currently too large of an information gap to begin the process of developing NELs for all industrial sectors not currently subject to ELGs.

The State Water Board has proposed NELs in past drafts of this General Permit. In comments, many stakeholders have highlighted the difficulty of developing statewide NELs that are applicable to all industry sectors, or even NELs that cover any specific industry sectors. For example, stakeholders have commented that:

- a. Background/ambient conditions in some hydrogeologic zones may contribute pollutant loadings that would significantly contribute to, if not exceed, the NEL values;
- b. Some advanced treatment technologies have flow/volume limitations as well as economy of scale issues for smaller facilities;
- c. Treatment technologies that require that sheet flows be captured and conveyed via discrete channels or basins may not only result in significant retrofit costs, but may conflict with local ordinances that prohibit such practices, as they can cause damage or erosion to down gradient property owners, or cause other environmental problems;
- d. There is insufficient regulatory guidance and procedures to allow permit writers to properly specify monitoring frequency and sampling protocols (e.g., instantaneous

maximum, 1-day average, 3-day average, etc.), and for Dischargers to obtain representative samples to compare to NELs for the purpose of strict compliance; and,

- e. NELs must be developed with consideration of what is economically achievable for each industrial sector. These stakeholders point out that the U.S. EPA goes to great lengths evaluating the various BMP technologies available for a particular pollutant, the costs and efficiency of each BMP, and the applicability of the BMPs to the industry as a whole or to a limited number of industrial sites based upon the size of the facility, the quantity of material, and other considerations.

The State Water Board does not have the information (including monitoring data, industry specific information, BMP performance analyses, water quality information, monitoring guidelines, and information on costs and overall effectiveness of control technologies) necessary to promulgate NELs at the time of adoption of this General Permit. Therefore, it is infeasible to include NELs in this statewide General Permit.

Many of the new requirements in this General Permit have been designed to address the shortcomings of previous permits and the existing storm water data set. Under this General Permit, sampling results must be certified and submitted into SMARTS by Dischargers, along with SWPPPs which outline the technologies and BMPs used to control pollutants at each facility. The ERA process will also collect information on costs and the engineering aspects of the various control technologies employed by each facility. Previous permit versions did not have a mechanism for receiving this site specific information electronically, and only a small percentage of Dischargers submitted their Annual Reports via SMARTS. This General Permit will make this information more accessible, allowing the Water Boards to evaluate the relationship between BMPs and the ability of facilities to meet the NALs set forth in this General Permit. Finally, the new Qualified Industrial Storm Water Practitioner (QISP) training requirements of this General Permit have been designed in part to improve the quality of the data submitted.

5. Narrative Technology-Based Effluent Limitations (TBELs) and Best Management Practices (BMPs)

The primary TBEL in this General Permit requires Dischargers to “implement BMPs that comply with the BAT/BCT requirements of this General Permit to reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.” (Section V.A of this General Permit). This TBEL is a restatement of the BAT/BCT standard, as articulated by U.S. EPA in the 2008 MSGP and accompanying Fact Sheet. In order to comply with this TBEL, Dischargers must implement BMPs that meet or exceed the BAT/BCT technology-based standard. The requirement to “reduce or prevent” is equivalent to the requirement in the federal

regulations that BMPs be used in lieu of NELs to “control or abate” the discharge of pollutants. (40 C.F.R. § 122.44(k).)

BMPs are defined as the “scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to reduce or prevent the discharge of pollutants... includ[ing] treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.” (40 C.F.R. § 122.2.)

This General Permit (Sections X.H.1 and X.H.2) requires all Dischargers to implement minimum BMPs, as well as any advanced BMPs that are necessary to adequately reduce or prevent pollutants in discharges consistent with the TBELs. The minimum BMPs specified in this General Permit represent common practices that can be implemented by most facilities. This General Permit generally does not mandate the specific mode of design, installation or implementation for the minimum BMPs at a Discharger’s facility. It is up to the Discharger, in the first instance, to determine what must be done to meet the applicable effluent limits. For example, Section X.H.1.a.vi of this General Permit requires Dischargers to contain all stored non-solid industrial materials that can be transported or dispersed via wind or contact with storm water. How this is achieved will vary by facility: for some facilities, all activities may be moved indoors, while for others this will not be feasible. However, even for the latter, many activities may be moved indoors, others may be contained using tarps or a containment system, while still other activities may be limited to times when exposure to precipitation is not likely. Each of these control measures is acceptable and appropriate depending upon the facility-specific circumstances.

BMPs can be actions (including processes, procedures, schedules of activities, prohibitions on practices and other management practices), or structural or installed devices to reduce or prevent water pollution. (40 C.F.R. § 122.2.) They can be just about anything that is effective at preventing pollutants from entering the environment, and for meeting applicable limits of this General Permit. In this General Permit, Dischargers are required to select, design, install, and implement facility-specific control measures to meet these limits. Many industrial facilities already have such control measures in place for product loss prevention, accident and fire prevention, worker health and safety or to comply with other environmental regulations. Dischargers must tailor the BMPs detailed in this General Permit to their facilities, as well as improve upon them as necessary to meet permit limits. The examples detailed in this Fact Sheet emphasize prevention over treatment. However, sometimes more traditional end-of-pipe treatment may be necessary, particularly where a facility might otherwise cause or contribute to an exceedance of water quality standards.

This General Permit requires Dischargers to implement BMPs “to the extent feasible.” Consistent with the control level requirements of the CWA, for the purposes of this General Permit, the requirement to implement BMPs “to the extent feasible” means to

reduce and/or prevent discharges of pollutants using BMPs that represent BAT and BPT in light of best industry practice⁵. In other words, Dischargers are required to select, design, install and implement BMPs that reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering their technological availability and economic practicability and achievability.

To determine technological availability and economic practicability and achievability, Dischargers need to consider what control measures are considered “best” for their industry, and then select and design control measures for their site that are viable in terms of cost and technology. The State Water Board believes that for many facilities minimization of pollutants in storm water discharges can be achieved without using highly engineered, complex treatment systems. The BMPs included in this General Permit emphasize effective “low-tech” controls, such as regular cleaning of outdoor areas where industrial activities may take place, proper maintenance of equipment, diversion of storm water around areas where pollutants may be picked up, and effective advanced planning and training (e.g., for spill prevention and response).

E. Receiving Water Limitations and Water Quality Standards

1. Pursuant to CWA section 301(b)(1)(C) and Water Code section 13377, this General Permit requires compliance with receiving water limitations based on water quality standards. The primary receiving water limitation requires that industrial storm water discharges not cause or contribute to an exceedance of applicable water quality standards. Implementation of the BMPs as required by the technology-based effluent limitation in Section V of this General Permit will typically result in compliance with the receiving water limitations. The discussion of BMPs in this General Permit generally focuses on requiring implementation of BMPs to the extent necessary to achieve compliance with the technology-based effluent limitations, because the technology-based limitations apply similarly to all facilities. In addition, however, this General Permit also makes it clear that, if any individual facility's storm water discharge causes or contributes to an exceedance of a water quality standard, that Discharger must implement additional BMPs or other control measures that are tailored to that facility in order to attain compliance with the receiving water limitation. A Discharger that is notified by a Regional Water Board or who determines the discharge is causing or

⁵ Because toxic and nonconventional pollutants are controlled in the first step by BPT and in the second step by BAT, and the second level of control is “increasingly stringent” (EPA v. National Crushed Stone, 449 U.S. 64, 69 (1980)), for simplicity of discussion, the rest of this discussion will focus on BAT. Similarly, because the BAT levels of control in this General Permit are expressed as BMPs and pollution prevention measures, they will also control conventional pollutants. Therefore this discussion will focus on BAT rather than BCT or BPT for conventional pollutants.

contributing to an exceedance of a water quality standard must comply with the Water Quality Based Corrective Actions found in Section XX.B of this General Permit.

Water Quality Based Corrective Actions are different from the Level 1 and Level 2 ERAs that result from effluent-based monitoring. It is possible for a Discharger to be engaged in Level 1 or Level 2 ERAs for one or more pollutants and simultaneously be required to perform Water Quality Based Corrective Actions for one or more other pollutants.

Failure to comply with these additional Water Quality Based Corrective Action requirements is a violation of this General Permit. If additional operational source control measures do not adequately reduce the pollutants, Dischargers must implement additional measures such as the construction of treatment systems and/or overhead coverage. Overhead coverage is any structure or temporary shelter that prevents the vertical contact of precipitation with industrial materials or activities. If the Regional Water Board determines that the Discharger's selected BMPs are inadequate, the Regional Water Board may require implementation of additional BMPs and/or may take enforcement against Dischargers for failure to comply with this General Permit.

2. Compliance Options

a. Background

Existing landscapes have altered the hydrologic characteristics of coastal and non-coastal waters through the impervious nature of buildings, parking lots, roads, and sidewalks which carry pollutants quickly (increased flow peaks that are unnatural) to the receiving waters and raise temperatures of the landscape, which in turn could cause degradation of water resources. Hydromodification can cause excessive erosion and/or sedimentation rates, causing excessive turbidity, channel aggradation and/or degradation⁶. The State Water Board is providing the Compliance Options in this General Permit to incentivize storm water capture and use in a concerted effort to retrofit the existing "impervious" urban landscape with green infrastructure to restore storm water infiltration capacity previously lost in developed areas. Storm water infiltration operations in developed areas provides multiple benefits, including: (1) improved groundwater recharge from treated

⁶ [Statewide Storm Water Construction General Permit 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ CGP. Hydromodification definition in Appendix 5.](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_app_5.pdf) <http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_app_5.pdf>. [as of September 15, 2017].

industrial storm water, (2) restoration of lost watershed processes such as base flow to creeks, and (3) reduced pollutant loads discharged to surface waters.⁷

This General Permit incorporates ambitious, rigorous, and transparent Compliance Options (See Attachment I) providing Dischargers optional methods of compliance that:

- Implement watershed-based approaches, addressing multiple contaminants and reducing the amount of pollutants entering surface waters.
- Demonstrate the State Water Board's intent to encourage the use of green infrastructure and low impact development to manage storm water and enhance the health of the watershed.
- Further support multi-benefit regional projects that capture, infiltrate, and reuse storm water and support a sustainable local water supply.

The Off-Site Compliance Option in this General Permit allows for collaboration between industrial facility owners and local jurisdictions for implementation of watershed-based BMPs in accordance with a Regional Water Board-approved watershed management plan and affiliated approved time schedules.

The On-Site and Off-Site Compliance Options require concrete and detailed structural and non-structural storm water controls that capture storm water from the 85th percentile 24-hour storm event. If a Discharger selects to comply with this General Permit through one of the Compliance Options, the Discharger is required to monitor the results and continue to ensure BMP performance for protection of the receiving surface and ground water(s). Dischargers are required to comply with the Compliance Options requirements unless the Regional Water Board states otherwise. Dischargers are required to submit the required BMP information in Attachment I for the On-Site BMP design and the Off-Site agreements. Dischargers are required to comply with applicable local requirements for the On-Site BMPs and although the Water Boards may review the BMP information submitted by the Discharger, this does not equate to pre-approval or approval in lieu of applicable local approvals required for the BMP(s).

Compliance with the requirements of either Compliance Option in Attachment I: (1) is compliance with Section V.A of this General Permit, and (2) deems the Discharger in compliance with Sections III.C, V.C, and VI of this General Permit.

⁷ State Water Resources Control Board. [STORMS Strategy](http://www.waterboards.ca.gov/water_issues/programs/stormwater/storms/obj1_proj1c.shtm). <http://www.waterboards.ca.gov/water_issues/programs/stormwater/storms/obj1_proj1c.shtm>. [as of September 15, 2017].

The specific General Permit provisions listed in Attachment I, Section II.I and III.G are not required if the Discharger is complying with either Compliance Option.

Compliance with a Compliance Option does not necessarily constitute compliance with water quality standards and other water quality-based requirements for all time, regardless of actual results. The State Water Board anticipates that implementation of either Compliance Option will bring drainage areas most and, in many cases, all the way to achievement of water quality standards. Where there is still a gap in required water quality improvement, we expect the appropriate Regional Water Board or its designee to require appropriate actions, consistent with the provisions of this General Permit, to close that gap with additional control measures in order for the Discharger to be considered in compliance with the water quality standards and other water quality-based requirements. In some instances, it may be appropriate for the appropriate Regional Water Board to issue a time schedule order governing the implementation of further control measures.

b. Authority

The Clean Water Act requires NPDES permits to include technology-based effluent limitations and any more stringent limitations necessary to meet water quality standards. Industrial storm water NPDES permits must: (1) require compliance with technology-based standards, (2) prohibit unauthorized NSWDs, (3) require reduction of pollutants in the storm water discharge to the standard of BPT/BAT/BCT in all cases, and (4) include additional limitations necessary to meet water quality standards.

Under the Porter-Cologne Act, waste discharge requirements must implement applicable water quality control plans, which include the beneficial uses to be protected for a given water body and the water quality objectives reasonably required for that protection. The Porter-Cologne Act anticipates that all storm water waste discharge requirements will implement the water quality control plans. When implementing requirements under the Porter-Cologne Act that are not compelled by federal law, the State Water Resources Control Board and Regional Water Quality Control Boards (collectively, "Water Boards") have some flexibility to consider other factors, such as economics, when establishing the appropriate requirements.

The 2015 MSGP requires Dischargers to implement and document corrective actions (Part 4.1 and 4.4 of the 2015 MSGP) when it is determined a discharge is not meeting applicable water quality standards. This General Permit's effluent limitations are based upon the U.S. EPA's MSGP and allows a Discharger to complete Exceedance Response Actions when NALs are not met and Water Quality Based corrective actions when a discharge does not meet applicable water quality standards. This iterative process provides a pathway to comply with

receiving water limitations, but does not provide a safe harbor for industrial discharges.⁸

The State Water Board is providing Dischargers an optional monitoring and assessment program for compliance with TMDLs and receiving water limitations to: (1) evaluate progress toward attaining water quality standards from storm water sources, (2) evaluate the ability to adapt compliance strategies over time in subsequent General Permit reissuances, and (3) measures the effectiveness of these Compliance Options. The Compliance Options in this General Permit require the Discharger to:

- Sample, monitor, and report (in SMARTS)⁹ all BMPs discharge when implementing the On-Site Compliance Option in Attachment I;
- Comply with Section II.D.5 and IV of Attachment I for infiltrated industrial storm water and sources of authorized non-storm water (listed in Section IV of this General Permit); and/or,
- Enter into agreements with local jurisdictions to utilize off-site BMPs for compliance with specific General Permit requirements described in Attachment I.

c. Enforcement

This General Permit requires compliance with receiving water limitations. Dischargers may be deemed in compliance with those limitations through compliance with the On-Site Compliance Option or the Off-Site Compliance Option. The Off-Site Compliance Option requires that the Discharger enter into an agreement with the local jurisdiction, and receive the appropriate approvals from the applicable Regional Water Board.

Discharge monitoring results and information required in the On-Site Compliance Option are not to be used to determine compliance with this General Permit and applicable receiving water limitations because compliance is achieved through implementation of the On-Site Compliance Option. The Water Boards will use the discharge monitoring results and information to evaluate whether this Compliance Option is adequate to protect beneficial uses and to assist the State Water Board in making decisions regarding future reissuances of this General Permit. Additionally, the Regional Water Boards may use this information to prioritize the

⁸ U.S. EPA. [NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity \(MSGP\), PDF Pg. 26](https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf). <https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf> [as of September 15, 2017].

⁹ This information is not to be used for enforcement of WQS or permit compliance but to provide feedback on the effectiveness of this compliance option to the Water Boards.

verification of a Discharger's compliance with the On-Site Compliance Option provisions, but are not to consider discharges as General Permit violations once the BMPs are operational.

d. Compliance Schedules

The applicable Regional Water Board may issue a Time Schedule Order to a Discharger selecting to proceed with the On-Site Compliance Option, with a time schedule for compliance with permit requirements.

Under the On-Site Compliance Option, the State Water Board authorizes Dischargers to install on-site control measures (BMPs) and provides an implementation schedule in Attachment I.

Under the Off-Site Compliance Option, the State Water Board authorizes Dischargers to participate in agreements with local jurisdictions for watershed-based BMP projects.

Many of the state-adopted and the U.S. EPA-established TMDLs do not contain an implementation plan or complete schedule for achievement of the waste load allocations sourced from industrial storm water discharges. This General Permit imposes requirements implementing these waste load allocations as of the Effective Date of the TMDL Requirements.

If a Responsible Discharger chooses to comply with applicable TMDLs through implementing the requirements in Attachment E rather than through implementation of a Compliance Option in Attachment I, the applicable compliance schedules have been included in the TMDL Compliance Table in Attachment E (Table E-2). TMDLs with final implementation dates that have already passed shall be in effect and require compliance upon the effective date of the TMDL Requirements.

3. Time Schedule Orders

Where a Discharger believes that additional time to comply with the final water quality-based effluent limitations and/or receiving water limitations in a TMDL is necessary, a Discharger may request a time schedule order pursuant to California Water Code section 13300 for the Regional Water Board's consideration.

4. Anti-Backsliding

The Compliance Options in this General Permit are designed to achieve the same level, and at times a reduced level, of pollutant discharge to the receiving waters compared to the traditional permit compliance route. The compliance options, however, are distinctly different approaches to compliance with the receiving water

limitations, and therefore not easily comparable for purposes of regulatory anti-backsliding requirements in federal law.

The TMDL-specific requirements within this General Permit impose either the same General Permit requirements, or more stringent General Permit requirements through numeric effluent limitations or more stringent TMDL-related numeric action levels. Therefore, implementation of TMDL-related requirements does not pose any backsliding within this General Permit.

5. Anti-Degradation

The inclusion of TMDL-related requirements in this General Permit will not cause additional degradation of waters of the state. This General Permit requires compliance with water quality standards through implementation of best practicable treatment or control in the form of BPT/BAT/BCT; this General Permit does not authorize an increase in waste discharges to waters of the state from the previous permit.

Attachment I of this General Permit authorizes discharges to groundwater in some circumstances. Among other requirements, discharges to groundwater are not permitted to cause or contribute to the exceedance of a water quality objective in the groundwater. Additionally, implementation of the On-Site Compliance Option requires either that all influent entering an infiltration BMP meet applicable MCLs for pollutants associated with industrial activities or that monitoring devices are used to ensure that discharges to groundwater comply with those MCLs. To the extent that a discharge to groundwater is in compliance with Attachment I and applicable MCLs causes degradation of groundwater quality, it is consistent with State Water Board Resolution No. 68-16 (the state antidegradation policy)¹⁰. The discharges authorized in Attachment I will not result in water quality less than that prescribed in the relevant water quality control policies, ensuring that a pollution or nuisance will not occur. The discharge will maintain water quality consistent with the maximum benefit to the people of California by maintaining water quality suitable for use as drinking water while also recharging depleted groundwater storage. Where groundwater quality is higher than that prescribed in the relevant water quality control policies, dilution of discharges that meet MCLs will ensure that the water, although degraded, remains higher quality than those policies require. Lastly, the requirements constitute the best practicable treatment or control necessary to achieve these ends, and requiring treatment beyond MCLs for these discharges is unwarranted.

¹⁰ State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Waters in California.

6. On-Site Compliance Option - Compliance Storm Standards

Discharge reduction/volume based BMPs have multiple benefits such as groundwater recharge, flood control, or supporting the local water supply system through the use of storm water instead of potable water for certain processes (e.g., irrigation). Modeling results for the On-Site Compliance Option in this General Permit align with the “requirements and assumptions” of the TMDLs for industrial storm water. This General Permit provides options for compliance with all applicable receiving water limitations statewide, not solely for TMDL-related permit requirements.

Although not specifically stated in the TMDLs, volume-based BMPs sized appropriately remove a significant portion of pollutants from discharging to the receiving waters. This General Permit sets a compliance storm standard (statewide at the daily volume of the 85th percentile 24-hour storm event as defined in Attachment I Section II.D) for industrial storm water discharges and authorized NSWDS. The compliance storm standard further formalizes the design storm standard in Section X.H for new flow or volume-based treatment BMPs, but sets a more stringent storm-sizing standard. This compliance storm standard requirement to capture, infiltrate, and/or use storm water for a specific daily storm volume instead of discharging provides an incentive (Compliance with Section II of Attachment I) for timely implementation of effective control measures because compliance with the Section II of Attachment I (On-Site Compliance Option) equates to compliance with Section V.A of this General Permit and deems the Discharger in compliance with Sections III.C, V.C, and VI of this General Permit. Implementation also excuses Dischargers from implementing a range of General Permit requirements specified in Attachment I.

Industrial facilities complying with the On-Site Compliance Option are also required to comply with this General Permit, other than the sections outlined in Section II of Attachment I. The State Water Board has defined a timeline to the installation of the BMP(s) for Dischargers opting to pursue the On-Site Compliance Option.

Dischargers have traditionally implemented BMPs to comply with the effluent limitations of this General Permit. BMPs will be used for the implementation of TMDLs, regardless of the effluent standard even if the On-Site or Off-Site Compliance Options are not selected by the Discharger for TMDL compliance. This means that if a Discharger chooses not to use the Compliance Options as a method of compliance with this General Permit and instead implements BMP(s) to aid in meeting applicable NALS, TNALS, or NELs, the BMP(s) will not be required to meet the design and performance standards defined in Attachment I.

7. On-Site Compliance Option Modeling

Capture of industrial storm water is anticipated to be an effective path to water quality improvement. In addition to preventing pollutants from reaching the receiving water

except during high precipitation events (which also generally results in significant dilution in the receiving water), the storm water capture approach provides beneficial recharge of groundwater, increased water supply, reduced hydromodification effects, and creation of additional green space to support recreation and habitat.¹¹¹²

This General Permit sets a statewide compliance storm standard at the 85th percentile 24-hour storm event (daily volume) for Dischargers that choose to implement the On-Site Compliance Option. Discharges from BMP(s) implemented for the purposes of compliance with the On-Site Compliance Option smaller or equal to the 85th percentile 24-hour storm event (daily volume) are prohibited and a violation of this General Permit.

To arrive at this compliance storm standard, the State Water Board used a continuous simulation model (model)¹³ to evaluate the pollutant removal efficiency associated with the use of the 85th percentile 24-hour storm event for BMP sizing for the Los Angeles River and Tributaries Metals TMDLs (Los Angeles River Metals TMDLs)¹⁴. The analysis focused on the Los Angeles River because it has established stringent wet-weather¹⁵ mass-based WLAs for metals (specifically, cadmium, copper, lead, and zinc) and is the receiving water for a significant number of industrial dischargers under this General Permit.

FIGURE E.1: Los Angeles River Total Recoverable Metal TMDL WLAs

**Individual General Construction or Industrial Permittees WLAs
(total recoverable metals):**

Metal	Waste Load Allocation (g/day/acre)
Cadmium	$WER^1 \times 7.6 \times 10^{-12} \times \text{daily volume (L)} - 4.8 \times 10^{-6}$
Copper	$WER^2 \times 4.2 \times 10^{-11} \times \text{daily volume (L)} - 2.6 \times 10^{-5}$

¹¹ State Water Resources Control Board. [Order WQ 2015-0075. Pg. 42.](http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/la_ms4/2015/SWRCB_wqo2015_0075.pdf)
<http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/la_ms4/2015/SWRCB_wqo2015_0075.pdf>. [as of September 15, 2017].

¹² Los Angeles Regional Water Quality Control Board. [Los Angeles River Metals TMDL.](https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2005-006/05_0831/05_0831_FinalStaffReport.pdf)
June 2005.
<https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2005-006/05_0831/05_0831_FinalStaffReport.pdf>. (Los Angeles River Metals TMDL Staff Report). [as of July 17, 2017].

¹³ TMDL Alternative Model [Microsoft Excel Spreadsheet], GSI Environmental (March 31, 2017).

¹⁴ Los Angeles River Metals TMDL Staff Report

¹⁵ The wet-weather condition is defined to be any day when the maximum daily flow measured at the Wardlow station is equal to or greater than 500 cubic feet per second or 1.2×10^9 liters per day which is equivalent to 0.1 inch rain intensity based on the regression analysis identified in the Total Maximum Daily Loads for Metals Los Angeles River and Tributaries.

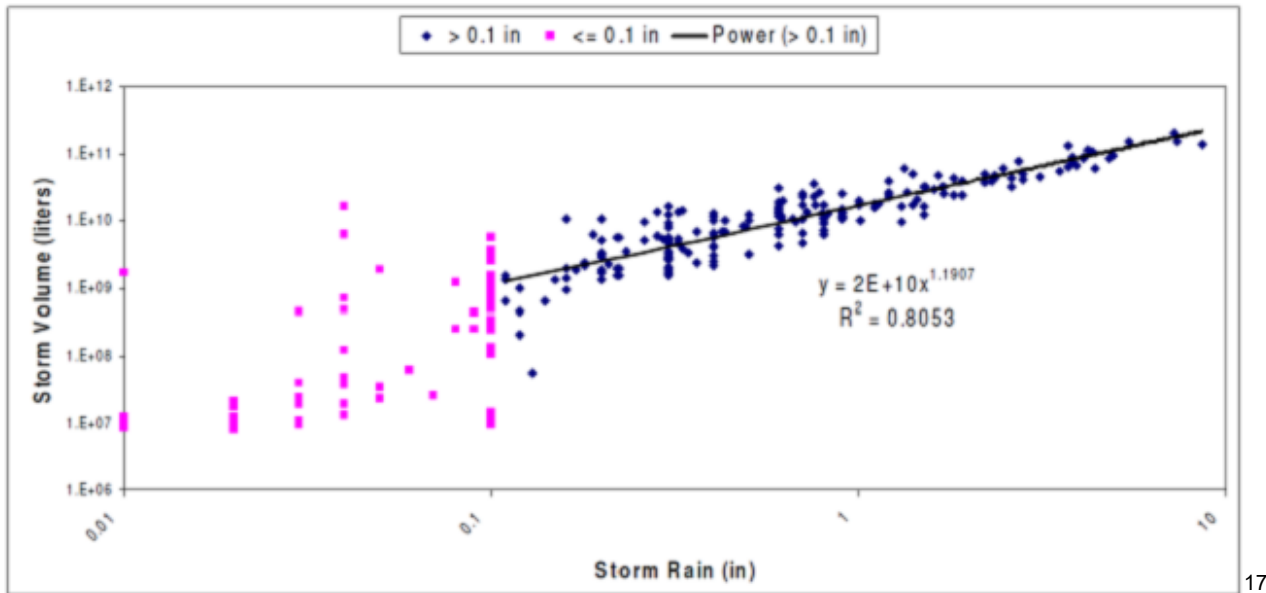
Lead	$WER^1 \times 2.3 \times 10^{-10} \times \text{daily volume (L)}$ -8.7×10^{-5}
Zinc	$WER^1 \times 3.9 \times 10^{-10} \times \text{daily volume (L)}$ -2.2×10^{-4}

¹ WER(s) have a default value of 1.0 unless site-specific WER(s) are approved.

² The WER for this constituent is 3.97.

The mass-based WLA for total zinc listed in the Los Angeles River Metals TMDLs was the focus of the model because it is a common pollutant in industrial areas and is often a challenging parameter for compliance with the IGP NALs due to the varied effectiveness of treatment on removing zinc. Zinc does not sorb readily to soil particles and large fractions may be in the dissolved state (non-particulate). Dissolved zinc is difficult to treat and some of the most effective BMP(s) are volume reduction or zinc-specific filtration¹⁶. The daily storm volume was estimated using the regression analysis of storm flows versus rainfall for LA River identified in the Los Angeles River Metals TMDLs (Figure E 2).

FIGURE E.2: Regression Analysis of Storm Flows vs Rainfall



The model simulates a range of daily rainfall intensities (0.1 to 2.8 inches) from 1996 to 2017, obtained from a local rain gauging station (AL314 LA River at Wardlow) to calculate mass loading of metals from industrial dischargers. The calculated mass loading was compared with mass-based WLAs in applicable TMDLs. The analysis assumed a hypothetical site implementing a BMP with a capacity to capture and use, infiltrate, and/or evapotranspire runoff volumes generated by an 85th percentile

¹⁶ Summarized from: McWayne, Eric. Stormwater Pollutant Chemistry, Monitoring, and BMP Effectiveness. UC Davis Extension. September 2016 course.

¹⁷ California Regional Water Quality Control Board Los Angeles Region, Total Maximum Daily Loads for Metals Los Angeles River and Tributaries - Staff Report (June 2, 2005).

24-hour storm event (0.87 inch at Wardlow). The analysis also assumed that the BMP will completely dewater and its capacity be fully available within 24 hours should back-to-back rainfall events occur. The model calculated the total zinc mass loading for each rain event where the volume of total runoff exceeds the runoff volume capacity of the BMP resulting in discharge. The model calculated the runoff volumes using Rational Method assuming a conservative runoff coefficient for impervious surface conditions of 0.90¹⁸.

The total zinc mass loading calculation used the BMP discharge runoff volume and the geometric mean of concentration in storm water sample results for industrial Dischargers within the Los Angeles Regional Water Quality Control Board (Los Angeles Regional Water Board) boundary. Outliers were excluded in the calculation of the geometric mean concentration which represents under 1% of the storm water sample results. The use of geometric mean concentration throughout the entire storm event is conservative because in most cases pollutant concentrations in storm water will likely be reduced at the tail end of larger rain events that exceed the 85th percentile 24-hour storm event as a result of pollutant wash-off. This same process was used to calculate the geometric mean for cadmium, copper, and lead.

TABLE E.1: Los Angeles River Metals TMDL Modeled Compliance Rate

Los Angeles River Metals TMDL			
Parameter Wet-Weather Concentrations and Mass-Based Compliance Rate			
Parameter	Industrial Geomean (ug/L) (2015-2017 SMARTS data for Los Angeles Regional Water Board)	Modeled Mass-Based Compliance Rate (historical storm record at Wardlow Station)	Concentration Limit TMDL (ug/L)
Cadmium	1.4	100%	3.1
Copper	24.6	100%	67.49
Lead	8	100%	94
Zinc	223	96%	159

The model demonstrated that the mass-based WLA for total zinc was not exceeded for any 24-hour historical rain event equal to or less than 1.46 inches. Only 4% of the historical rain events exceeded 1.46 inches (11 out of 311 rain events over 0.1 inches) at Wardlow station. This indicates that use of the 85th percentile 24-hour storm event for BMP sizing will result in TMDL compliance for up to 96% of the historical rainfall record and higher than 96% in a given reporting year since during some reporting years a discharge may not occur at the industrial facility. The same modeling methodology was repeated to evaluate pollutant removal efficiency of the BMP for

¹⁸ Gupta, R. S. Hydrology and Hydraulic Systems. 2nd ed. Long Grove, IL: Waveland, 2001. Print.

cadmium, copper, and lead. The model demonstrated no mass-based WLA exceedances for these three metals in this TMDL.¹⁹

The State Water Board recognizes that not all sites have infiltration rates that allow for completely dewatering within a 24-hour period. Sites with lower infiltration rates can achieve similar reductions in loads through increasing the size of the infiltration system and/or increasing the volume of storage prior to infiltration. Storage devices such as underground tanks, aboveground vertical tanks and cisterns may be utilized for sites where infiltration is not viable.

This model used equations specific to the Los Angeles River Metals TMDLs to calculate the mass-based WLA, so the model is not directly repeatable for each TMDL listed in Attachment E. However, some aspects are applicable statewide including other TMDL watersheds. Below is the justification for applying the model findings and this compliance standard beyond Los Angeles:

- The State Water Board recognizes that storm sizes vary between locations (the 85th percentile storm sizes below range from 0.61 to 1.16 inch throughout the state) and capture, use, and infiltration BMPs should be sized accordingly.²⁰ The BMP may have a different sizing and cost depending on the location in California and the corresponding 85th percentile storm size. However, the pollutant volume/load reduction modeling estimates done for Los Angeles River are proportionate to a BMP at any industrial facility location statewide.

TABLE E.2: 85th Percentile 24-Hour Storms

Region	Rain Gauge Location	85th Percentile 24-hour Storm Intensity (I ≥ 0.1 inch/day)
1	Santa Rosa	1.16
2	San Jose	0.61
3	Salinas	0.66
4	Los Angeles	.87 or 1.11 ¹⁸
5F	Fresno	0.67
5R	Redding	1.06
5S	Sacramento	0.80
6A	Victorville	0.65
6B	Truckee	1.05
7	Indio	0.64

¹⁹ The maximum total mass loadings were 49%, 39%, and 9% lower than the mass-based WLAs for cadmium, copper, and lead, respectively.

²⁰ This depends on the station used. The two stations (1256Z South Gate Transfer Station and Wardlow) looked at for the 85th percentile storm in Los Angeles had 1.1 and .87 respectively.

Region	Rain Gauge Location	85th Percentile 24-hour Storm Intensity (I >= 0.1 inch/day)
8	Ontario	0.94
9	San Diego	0.78

- The Los Angeles Regional Water Board has a significant number of industrial facilities across all SIC codes, sizes, and located in urban and non-urban areas etc. This appropriately represents the variability of industry and industrial pollutants statewide.
- This General Permit already set the design storm standard for new treatment controls at the 85th percentile or another similar standard, setting precedent for this approach, however it did not include an incentive for reducing discharge for an industrial facility, nor did it explicitly require no discharge of the 85th percentile daily storm volume. This approach provides a more stringent standard with an incentive for reducing runoff and the installation of multi-benefit BMPs.

Area-weighted Concentrations

The State Water Board ran the model described above using area-weighted average concentrations of storm water samples (i.e., effluent samples from qualifying storm events) and industrial activity areas for a group of facilities with specific SIC codes representing the largest percentage of facilities with Notice of Intent General Permit coverage within the Los Angeles River Watershed sampling for zinc and copper. The SIC codes used in the copper concentration calculations were 5093 – Scrap and Waste Materials, 5015 – Used Motor Vehicle Parts, and 3471 – Electroplating, Plating, Polishing, Anodizing, and Coloring. For zinc, the concentration calculations included the SIC codes 5093, 3471, and 3499 – Fabricated Metal Products. These SIC codes represent over 40% of the total number of facilities sampling for copper or zinc within the Los Angeles River Watershed. The calculated area-weighted average concentrations were 164.88 ug/L for copper and 406.09 ug/L for zinc. The model demonstrated that the mass-based WLAs for both zinc and copper were not exceeded for any 24-hour historical rain event equal to or less than 1.1 inches at Wardlow Station (25 out of 311 rain events were over 0.1 inches). The results indicate TMDL compliance for up to 92% of the historical rainfall record.

Storm Water Management Model (SWMM) Analysis by Geosyntec

The State Water Board assessed the results of a long-term continuous simulation model²¹ to evaluate various compliance scenarios with the 2005 Los Angeles River Metals TMDL²² for copper, including both the concentration-based numeric target and the mass-based WLAs, for a hypothetical 20-acre industrial site. The 2005 Los Angeles River Metal TMDL for copper uses a lower Water-Effect Ratio (WER) compared to the 2015 Los Angeles River Metal TMDL WER (1.0 vs. 3.97).

$$\begin{aligned} \text{Wet - weather Numeric Target for Copper} &= 17 \text{ ug/L} \\ \text{Wet - Weather WLA for Copper} \\ &= 4.2 \times 10^{-11} \times \text{daily storm volume (L)} - 2.6 \times 10^{-5} \end{aligned}$$

The long-term continuous simulation model was developed using the U.S. EPA Storm Water Management Model (SWMM) and historical (from 2005 to 2017) precipitation data from the Burbank Airport rain gauge. The model focused on compliance scenarios using different methods in calculating the 85th percentile 24-hour runoff volume (compliance storm standard) and different drawdown times²³ (i.e., 24 hours and 48 hours). The BMP volume calculation methods include determining the maximized capture runoff volume for the industrial site using the formula recommended in the Water Environment Federation's Manual of Practice (WEF)²⁴ and setting the BMP volume to exactly the 85th percentile 24-hour storm runoff volume (Straight Calc). The Straight Calc method resulted in a larger BMP than the WEF method. The Straight Calc method reflects the compliance storm standard runoff volume calculation method described in Attachment I.

The analysis used copper to compare the compliance rates based on the different compliance scenarios. The total copper concentration used is 28.5 ug/L, which is the geometric mean of storm water samples within the Los Angeles River watershed²⁵. The analysis compared the geometric mean concentration for total copper with the TMDL numeric target, so that every discharge was conservatively

²¹ Continuous simulation modeling of rainfall-runoff hydrology (including dynamic soil moisture tracking), Geosyntec (March 2, 2018).

²² Los Angeles River Metals TMDL Staff Report

²³ The time to drain from full to empty when no inflows are occurring, and calculated as the maximum water depth divided by the drain rate (e.g., measured percolation rate or allowed sewer discharge rate).

²⁴ Water Environment Federation (WEF). Manual of Practice No. 23/ ASCE Manual of Practice No. 87, cited in chapter 5 (1998 Edition) and Cited in Chapter 3 (2012 Edition).

²⁵ The total copper concentration geometric mean value was obtained by Geosyntec from GSI, Inc.

counted as an exceedance. The analysis also compared the discharge loading with the copper WLA. The analysis resulted in 83% to 95% of historical wet days meeting the numeric target and 93% to 99% of historical wet days meeting the copper WLA. The BMP sized using the Straight Calc method with a drawdown time of 24 hours resulted in more frequent compliance (i.e., 95% for TMDL numeric target and 96% for WLA) than the other compliance scenarios.

A similar BMP sized to the 95th percentile 24-hour storm (using Straight Calc) draining in 24 hours resulted in 100% of historical wet days meeting both the numeric target and copper WLA. However, the 95th percentile-based sizing resulted in almost twice (1.8 times) the 85th percentile-based sizing. The same modeling methodology was repeated to evaluate compliance percentages of other TMDL metals for the BMP sized to the 85th percentile 24-hour storm (using Straight Calc) draining in 24 hours. The geometric means were calculated for cadmium, lead, and zinc concentrations using storm water samples from industrial dischargers within the Los Angeles Region. The analysis resulted in over 99% of historical wet days meeting the WLAs and over 100% of historical wet days meeting the numeric targets for cadmium, lead, and zinc.

TABLE E.3: Los Angeles River Metal Geometric Means

Los Angeles River Metal	Los Angeles Region Geometric Mean Concentration (ug/L)
Cadmium	2.50
Lead	10.1
Zinc	142

TABLE E.4: Los Angeles River Metal Wet-Weather Industrial WLA

Metal	Wet Weather Numeric Target (ug/L)	Wet-Weather WLA for Industrial Permittee (g/day/acre)
Cadmium	3.1	$7.6 \times 10^{-12} \times \text{daily storm volume (L)}$ - 4.8×10^{-6}
Lead	62	$1.5 \times 10^{-10} \times \text{daily storm volume (L)}$ - 1.04×10^{-5}
Zinc	159	$3.9 \times 10^{-10} \times \text{daily storm volume (L)}$ - 2.2×10^{-4}

8. Protection of Groundwater and Source Waters; Infiltration BMPs

Infiltration of storm water is encouraged to reverse some of the impacts of hydromodification and to restore watershed processes. Infiltration such as rain gardens and tree trenches provides additional benefits to air quality, carbon sequestration, habitat, and an increased aesthetic value. Soil provides natural storm water treatment.

Storm water from industrial facilities and areas already infiltrates into the soil/vadose zone and then sometimes into the groundwater, however, this General Permit is setting new general groundwater protection standards for infiltration BMPs if installed for the Compliance Options described in Attachment I Section IV and specific requirements for On-Site BMPs in Attachment I Section II. Storm water traveling

across an industrial facility into an infiltration BMP can pick up various pollutants and deliver them to the subsurface. The fate and transport of these pollutants into soil, the vadose zone and then possibly the groundwater depends on the type and amount of pollutant present, the volume of infiltration, the type of infiltration BMP, and subsurface conditions.²⁶ A concern with the infiltration of raw industrial storm water runoff is the potential of transporting pollutants through soil and into the groundwater which could have beneficial uses, such as Municipal and Domestic Supply (MUN) for drinking water supply. Many pollutants are attenuated in storm water BMPs, in soil or the vadose zone, or in groundwater but some pollutants are poorly attenuated. State Water Board staff developed a list of high-priority constituents found in storm water that present a potential threat to groundwater's attainment of beneficial uses.²⁷ The Discharger pursuing a Compliance Option is required to certify in the SWPPP the presence or absence of these additional constituents when there is an identified potential threat to groundwater's attainment of beneficial use(s). Dischargers must consider monitoring for additional constituents when identified, as specified in Attachment I Section IV and Table B. Constituents in Table B are known to impact drinking water supplies and although they may not be an industrial pollutant source at the facility, they may be ubiquitous in the environment where the facility is located and therefore have the potential of being present in storm water entering infiltration BMPs.

In general, particulate pollutants such as sediment and pollutants that primarily bind to particulates (such as metals) are easily removed by the filtration process within the infiltration BMPs. Soluble contaminants have a greater potential to be carried for some distance and may eventually reach the groundwater table. The greatest concern are mobile toxic organics (e.g., gasoline or solvents), highly concentrated nitrates, viruses (larger sized organisms), and salts. Whenever feasible, these contaminants should be removed from the storm water prior to infiltration. To accomplish this, an appropriate pretreatment technique is needed and this General Permit sets pretreatment requirements prior to the infiltration of industrial storm water and authorized non-storm water (explained below). Any runoff containing toxic materials that will not bind to soils, be easily removed, or are in excess that cannot infiltrate, should be diverted away from the infiltration BMP(s) to another treatment

²⁶ State of Minnesota. [Minnesota Stormwater Manual, Pollutant fate and transport in stormwater infiltration](https://stormwater.pca.state.mn.us/index.php?title=Pollutant_fate_and_transport_in_stormwater_infiltration).

<https://stormwater.pca.state.mn.us/index.php?title=Pollutant_fate_and_transport_in_stormwater_infiltration_systems>. (Minnesota Stormwater Manual). [as of June 5, 2018].

²⁷ Some of the resources used include the [California State Water Resources Control Board's AB 2222 Final January 2013 Report to the Legislature: Communities That Rely on a Contaminated Groundwater Source for Drinking Water](https://www.waterboards.ca.gov/gama/ab2222/docs/ab2222.pdf)

<<https://www.waterboards.ca.gov/gama/ab2222/docs/ab2222.pdf>>. [as of May 29, 2018] and

the [California State Water Resources Control Board's 2013 Recycled Water Policy](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2013/rs2013_0003.pdf).

<https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2013/rs2013_0003.pdf>. [as of May 29, 2018].

device.²⁸ This General Permit requires the installation of a “shutoff mechanism” prior to the On-Site BMP(s) operation and located to divert spills, process water, wastewater, materials in toxic concentrations, unauthorized non-storm water etc. from entering the infiltration BMP(s). If the BMP design or drainage makes the implementation of a “shutoff mechanism” infeasible, the Discharger is required to implement appropriate spill prevention and training to prevent unauthorized discharges into the BMP(s).

This General Permit requires minimum source control BMPs and the Discharger to implement appropriate pretreatment controls to meet MCLs as determined by a California licensed professional engineer prior to installing and operating infiltration BMPs for compliance with the On-Site Compliance Option in Attachment I. Pretreatment should be designed to protect the natural function of the soil to treat the storm water before it reaches the groundwater, ensure the life of the infiltration BMP (e.g., prevent/reduce biofouling or siltation), and prevent the addition or migration of pollutants in groundwater that cause or contribute to the exceedance of a water quality objective.

Dischargers may also decide to implement groundwater/soil monitoring instead of evaluating and implementing pretreatment controls to meet MCLs for infiltration BMP(s) other than storm water capture and infiltration dry wells. Dischargers would be required to install monitoring devices to evaluate the pollutant concentrations from the infiltration of industrial storm water and authorized NSWDS into soil/groundwater. This data shall be provided to the Water Boards via SMARTS. The Regional Water Boards Executive Officer or the State Water Board’s Executive Director may authorize the discontinuation of this monitoring if it is determined the BMP(s) pose no threat to groundwater.

A Discharger implementing a storm water capture and infiltration dry well is required to meet certain pretreatment criteria in Table A of Attachment I for primary MCLs²⁹ and specific secondary MCLs.

Storm water capture and infiltration dry wells for storm water discharges and authorized non-storm water listed in General Permit Section IV.³⁰ The U.S. EPA states that Class V wells are wells used to inject non-hazardous fluids into or above

²⁸ Minnesota Stormwater Manual

²⁹ State Water Resources Control Board. [Maximum Contaminant Levels and Regulatory Dates for Drinking Water U.S. EPA vs California](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/MCLsEPAsDWP-2014-07-01.pdf) Last Updated July 2014. <https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/dwdocuments/MCLsEPAsDWP-2014-07-01.pdf>. [as of September 15, 2017].

³⁰ U.S. EPA. [Class V Wells for Injection of Non-Hazardous Fluids into or Above Underground Sources of Drinking Water](https://www.epa.gov/uic/class-v-wells-injection-non-hazardous-fluids-or-above-underground-sources-drinking-water). <https://www.epa.gov/uic/class-v-wells-injection-non-hazardous-fluids-or-above-underground-sources-drinking-water>. [as of September 15, 2017].

underground sources of drinking water. Storm water capture and infiltration dry wells (storm water drainage wells) are considered Class V wells. The Discharger must register under the U.S. EPA Underground Injection Control Program as operating a Class V well if storm water is disposed of via storm water capture and infiltration dry wells or another BMP with a direct discharge to groundwater.³¹

9. Reporting Requirements

The reporting requirements for the implementation of a Compliance Option, as provided in this General Permit, will provide the Water Boards with information regarding BMP performance, groundwater quality protection, and further potential requirements to consider during future reissuances of this General Permit. Electronic reporting for the Compliance Options include information regarding BMP performance, monitoring and sampling results, and pretreatment controls, and is compatible with the compliance reporting requirements adopted in 2014 for this General Permit.

10. Future Reissuances of This General Permit

This General Permit requires the monitoring and reporting of BMP discharges that occur during storm events greater than the 85th percentile 24-hour compliance storm. The Water Boards will evaluate this information and data submitted by the Dischargers to develop and consider further storm water management and capture requirements in future reissuances of this General Permit.³²

11. Off-Site Compliance Option

Multi-benefit projects are crucial and viable solutions in many cases to achieving water quality standards, compliance with this General Permit, and watershed health restoration. Phase I and II MS4 NPDES permits set statewide post-construction standards (many aimed at the 85th percentile 24-hour event) and alternative compliance pathways to meet receiving water limitations that allow for multi-benefit projects³³ to fix water quality issues in a watershed. Including these options for

³¹ More registration information can be found here: [Inventory of Injection Wells](http://www.epa.gov/sites/production/files/2015-10/documents/7520-16_508c.pdf).
http://www.epa.gov/sites/production/files/2015-10/documents/7520-16_508c.pdf.

³² State Water Resources Control Board. [Order WQ 2015-0075, PDF Pg. 44-45](http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/la_ms4/2015/SWRCB_wqp2015_0075.pdf).
<http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/la_ms4/2015/SWRCB_wqp2015_0075.pdf>. [as of September 15, 2017].

³³ Multi-benefit storm water management projects which may include, but shall not be limited to, green infrastructure, rainwater and storm water capture projects and storm water treatment facilities. State Water Resources Control Board. [Storm Water Grant Program \(SWGPP\); Prop 1](http://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/). <http://www.waterboards.ca.gov/water_issues/programs/grants_loans/swgp/prop1/>. (Prop 1 Multi-benefit storm water management projects). [as of September 15, 2017].

effluent limitation compliance in this General Permit allows Dischargers to collaborate with other regulated permittees meet these limitations.

By passing Proposition 1 (Assembly Bill 1471, Rendon), the State of California recognized the need for funding and collaboration for restoring the supply and health of California's water system. Proposition 1 authorized \$7.545 billion in general obligation bonds (including groundwater management and storm water) to assist with this effort and \$200 million of the bonds were granted towards multi-benefit projects (which include storm water) and implemented through the Water Code section 79747.³⁴

Attachment I of this General Permit includes the option for Dischargers to enter into agreements with local jurisdictions to design, implement, and operate off-site BMP(s) for compliance with Sections V.A and deemed compliance with Sections III.C, V.C, and VI of this General Permit. Compliance with these General Permit provisions will only be deemed after the BMP(s) have been implemented and are operational per the requirements in Section III of Attachment I. The agreements with the local jurisdictions are required to be approved by the applicable Regional Water Board.

12. Participation in the Off-Site Compliance Option

The State Water Board expects that these local agreements will outline the requirements on-site for the industrial facility prior to approving any agreement involving the industrial facility. Agreements with industrial Dischargers for off-site BMPs are expected to be well-defined, transparent, and be as stringent as the effluent limitations and receiving water standards in this General Permit. An industrial Discharger willing to pursue significant undertakings beyond the iterative BAT/BCT process in this General Permit for compliance by entering into agreements for the implementation and operation of Off-Site BMPs meeting the requirements in Attachment I, shall be deemed in compliance once the BMP is implemented and operational. The expectation is to have agreements include an agreement date, location of off-site BMPs, monitoring and implementation agreements, funding, and a process for termination of the agreement.

Industrial facilities participating in the Off-Site Compliance Option are also required to comply with this General Permit (such as the implementation of minimum BMPs), other than the sections outlined in Section III.E of Attachment I. If at any time the participation in the agreement is terminated, the Discharger is required to comply with Sections III.C, V.A, V.C, VI of this General Permit. Off-Site Compliance Option agreements with the local jurisdictions may also require Dischargers to implement provisions from which Dischargers are otherwise exempt pursuant to Attachment I Section III.G.

³⁴ Prop 1 Multi-benefit storm water management projects.

This General Permit also allows Dischargers to enter into agreements with one another when approved by the appropriate Regional Water Board and the conditions in Attachment I Section III.E are met. The intent of the State Water Board in allowing these agreements is to provide flexibility and collaboration between regulated entities who can provide the proper oversight of a shared BMP located Off-Site. If at any time the participation in the agreement is terminated or it is determined to be out of compliance with Attachment I of this General Permit, the Discharger(s) are required to comply with Sections III.C, V.A, V.C, VI of this General Permit.

13. Reporting Requirements

Dischargers are required to report information to the Water Boards about their participation in a local agreement using SMARTS. These requirements are in Section III.I of Attachment I. The information provided is to verify: 1) current participation in the agreement, 2) schedule of actions in the agreement, and 3) progress towards achieving compliance with receiving water limitations.

F. Total Maximum Daily Loads

1. Introduction

Total Maximum Daily Loads (TMDLs) are regulatory tools that provide the maximum amount of a pollutant from potential sources in the watershed that a water body can receive while attaining water quality standards. A TMDL is defined as the sum of the allowable loads of a single pollutant from all contributing point sources (the waste load allocations [WLA]) and non-point sources (load allocations), plus the contribution from background sources. (40 C.F.R. § 130.2, subd. (i).) Discharges covered by this General Permit are considered to be point source discharges, and therefore must comply with effluent limitations that are “consistent with the assumptions and requirements of any available waste load allocation for the discharge prepared by the State and approved by EPA pursuant to 40 Code of Federal Regulations section 130.7.” (40 C.F.R. § 122.44, subd. (d)(1)(vii).) In addition, Water Code section 13263, subdivision (a), requires that waste discharge requirements implement relevant water quality control plans. Many TMDLs in existing water quality control plans include both WLA and implementation requirements. Attachment E of this General Permit lists the watersheds with U.S. EPA-approved and U.S. EPA-established TMDLs that include TMDL requirements for Dischargers covered by this General Permit.

2. Public Process for Incorporation

The State Water Board adopted this General Permit on April 1, 2014, and it became effective on July 1, 2015. The 2014 reissued General Permit contained Attachment E, which listed TMDLs adopted by the Regional Water Boards and U.S. EPA that identified industrial storm water as a source. The State Water Board did not adopt any TMDL implementation requirements into the April 1, 2014 adopted General Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 2018-0028-DWQ

Permit. Attachment E of this General Permit lists thirty six (36) TMDLs for impaired water bodies within the San Francisco Bay, Los Angeles, Santa Ana, and San Diego Regional Water Boards to be addressed in this General Permit.

The State Water Board amended Order 2014-0057-DWQ by adopting Order 2018-0028-DWQ on November 6, 2018, to incorporate TMDL-specific permit requirements for the TMDLs listed in Attachment E.

Regional Water Board staff, with the assistance of State Water Board staff, developed and submitted the proposed TMDL-specific permit requirements for each of the TMDLs listed in Attachment E. After conducting a 30-day public comment period during March and April 2016, the Regional Water Boards provided proposed TMDL-specific permit requirements to the State Water Board for adoption into this General Permit, but the Regional Water Boards did not take any adoption action regarding the proposed TMDL-specific permit requirements for this General Permit.

The Regional Water Boards submitted to the State Water Board the following information for each of the TMDLs listed in Attachment E:

- Proposed TMDL-specific permit requirements, including:
 - Applicable effluent limitations;
 - Implementation timelines;
 - Additional monitoring and reporting requirements; and,
 - Compliance determination language regarding compliance with numeric action levels, TMDL-specific effluent limitations and reporting requirements consistent with the applicable TMDL(s).
- Information regarding the proposed TMDL-specific permit requirements, timelines, and deliverables consistency with the assumptions and requirements of applicable WLA(s) to implement the TMDL(s);
- Information regarding the proposed implementation of BMPs (as applicable) to comply with applicable WLAs; and,
- Where concentration-based monitoring is required, information regarding the required determination of compliance for numeric effluent limitations through concentration-based compliance monitoring, corresponding calculation methodology, and reporting. The State Water Board used the above information from the Regional Water Boards to complete the amendment to this General Permit and used the following process to further evaluate and translate each TMDL in Attachment E:

- Step 1: Determined whether the TMDL applies to industrial storm water discharges and authorized NSWDS regulated by this General Permit (discharges regulated by this General Permit);
- Step 2: Identified the specific TMDL requirements that are applicable to discharges regulated by this General Permit;
- Step 3: Translated the TMDL requirements into TMDL-specific numeric action levels or numeric effluent limitations;
- Step 4: Determined a compliance schedule that corresponds with the compliance date of the TMDL;
- Step 5: Developed monitoring and reporting requirements to determine compliance with waste load allocations;
- Step 6: Identified the existing permit requirements applicable to each constituent identified in the TMDLs, and evaluated if additional TMDL-specific requirements were required to implement the TMDL for discharges regulated by this General Permit; and,
- Step 7: Provided explanation regarding how the State Water Board translated the TMDL into specific requirements.

A draft of these TMDL Requirements was released for public review and comment on December 15, 2017. Many of the comments received in response to the draft encouraged the State Water Board to review specific TMDL WLAs and reconsider the requirements proposed for inclusion in this General Permit to implement those WLAs. Other comments called for a general reevaluation of the TMDL WLAs to ensure that the requirements proposed for inclusion in this General Permit are consistent with the requirements and assumptions of the WLAs. Following review of the public comments, further consideration of the TMDLs, and, in some cases, discussions with the appropriate regional water boards, some of the proposed TMDL implementation requirements were changed.

3. Applicability

Responsible Dischargers are Dischargers with Notice of Intent (NOI) coverage under this General Permit who discharge storm water associated with industrial activities and Authorized NSWDS either directly or through a municipal separate storm sewer system (MS4) directly to impaired water bodies identified in a U.S. EPA approved TMDL with an assigned waste load allocation (WLA) to industrial storm water sources.

To comply with the TMDL-specific permit requirements, Responsible Dischargers must either: 1) comply with applicable TMDL-specific permit requirements in Attachment E, as well as all other applicable provisions of this General Permit, or,

Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 2018-0028-DWQ

2) comply with one of the Compliance Options set forth in Attachment I, as well as all other applicable provisions of this General Permit.

Each TMDL-specific permit requirement listed in Attachment E (Table E-2 for TMDL-related Permit Requirements), provides the specific translation and required actions for Responsible Dischargers as discussed in Section 6 below. In Section 6 and the Table E-2, the specified watershed, water body, or water body and additional tributaries are clearly stated to ensure Responsible Dischargers know which Table E-2 TMDL requirement applies depending on the receiving water body to which they discharge.

This General Permit's NALs, found in Table 2, shall continue to apply in addition to the TMDL-specific permit requirements in Table E-2. The measurement of compliance with the TMDL-specific requirements, whether TNALs or NELs, differs from the measurement of compliance with most of this General Permit's NALs. The TNALs and NELs are assigned as instantaneous maximums rather than the annual averages assigned to most NALs. As such, the TNAL and NEL values of a pollutant cannot be directly compared to the NAL value for the same pollutant. Storm water discharges are intermittent in nature and many of the Attachment E TMDL WLAs are translated to instantaneous maximum TNALs or NELs for protection against acute impacts to beneficial uses in the receiving waters.

The following are examples to assist Responsible Dischargers in determining which water bodies are subject to the TMDLs in Table E-2:

- Watershed example: If the "Impaired Water Body/ Watershed" column states "Napa River Watershed," the TMDL and its requirements are applicable to Dischargers discharging directly or through an MS4 discharging directly into water bodies within the Napa River Watershed.
- River and tributaries example: If the "Impaired Water Body/ Watershed" column states "Los Angeles River and Tributaries," this TMDL and its requirements are applicable to the Dischargers discharging directly or through an MS4 discharging directly into the Los Angeles River or into a tributary of the Los Angeles River.
- Lagoon example: If the "Impaired Water Body/ Watershed" column states "Colorado Lagoon," this TMDL and its requirements are applicable to Dischargers discharging directly or through an MS4 discharging directly into the Colorado Lagoon.

TMDL-specific permit requirements do not apply to Dischargers with No-Exposure Certification (NEC) coverage or a facility that is complying with the Notice of Non-Applicability (NONA) criteria.

4. General Permit Summary

The following requirements, applicable to Dischargers enrolled under this General Permit, were considered in determining the necessity of additional TMDL-specific permit implementation for applicable to Responsible Dischargers:

- *Storm Water Pollution Prevention Plan (SWPPP): This General Permit requires Dischargers to identify and list all the industrial materials handled at the facility (Section X.F.), list all potential sources of pollutants that could be discharged from their industrial facility (Section X.G), and describe the Best Management Practices (BMPs) that will be implemented to control their discharges (Section X.H). This General Permit requires Responsible Dischargers to revise their SWPPP whenever a significant change in monitoring or sampling (Section X.B.) occurs.*
- *Non-Storm Water Discharges (NSWDs): The only NSWDs authorized by this General Permit are listed in Section IV. NSWDs not listed in Section IV are considered unauthorized, and the discharge is prohibited (Section I.C.27) unless regulated by a separate NPDES permit.*
- *Visual Observations: Monthly visual observations shall be conducted in accordance with Section XI.A of this General Permit. Dischargers are required to conduct monthly visual observations which include: 1) monitoring of authorized NSWDs, 2) identification and elimination of unauthorized NSWDs, 3) identification of potential industrial pollutant sources, and 4) necessary BMP maintenance and implementation.*
- *Sampling and Analysis: Dischargers must sample for all industrial pollutants (with the potential to discharge to a waters of the United States) identified in their SWPPP in accordance with Section XI.B of this General Permit. Dischargers are required to collect and analyze storm water samples from two Qualified Storm Event (QSEs) within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30) per discharge location. The Discharger shall perform sampling analysis and reporting in accordance with the requirements of this General Permit and shall compare the sampling results to the applicable limits set forth in Table 2.*

When this General Permit's requirements are not sufficient to implement the TMDL, additional monitoring and sampling requirements are set forth in Attachment E's TMDL Compliance Table (Table E-2).

5. TMDL General Applicability

This section contains additional supporting information that is applicable to all thirty-six (36) TMDLs listed in Attachment E for implementation.

a. Waste Load Allocation Translation

NPDES-regulated storm water discharges (which include industrial storm water) must be addressed by WLAs in TMDLs. (40 C.F.R. § 130.2(h).) NPDES permits must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in TMDLs. (40 C.F.R. § 122.44(d)(1)(vii)(B).) In addition, Water Code section 13263 requires that waste discharge requirements implement any relevant Water Quality Control Plans. (Wat. Code, § 13263, subd. (a).) The existing WLAs were analyzed and translated into BMP-based or numeric water quality-based effluent limitations. TMDL-specific WLA interpretations are necessary due to the wide variation of requirements in the TMDLs approved by the U.S. EPA.

When this General Permit was developed for adoption in 2014, the State Water Board was unable to appropriately incorporate TMDL WLAs as effluent limitations without substantially delaying the adoption of this General Permit. The TMDL WLAs vary greatly in form and substance, and significant investments of staff time and resources were required to appropriately translate these WLAs into effluent limitations and other requirements. As stated in the 2014 version of this General Permit's Fact Sheet, "an analysis of each TMDL applicable to industrial storm water discharges must . . . be performed to determine if it is appropriate to translate the waste load allocation into a numeric effluent limit, or if the effluent limit is to be expressed narratively using a BMP approach." The State Water Board recognized the problems posed by the variability in storm water discharge frequency and duration, and it committed to "carefully analyz[ing]" the TMDL WLAs to "determine the appropriate effluent limitations." To do this, the State Water Board deferred setting effluent limitations per 40 Code of Federal Regulations section 122.44(d)(1). The State and Regional Water Board staff worked together and with stakeholders to develop the amendment to this General Permit which translated the requirements of each TMDL in Attachment E to corresponding General Permit effluent limitations and other requirements in a way that was consistent with the requirements and assumptions of each TMDL's WLA.

There are three general categories of translations for the thirty-six (36) TMDLs addressed in this General Permit:

i. Compliance with this General Permit

Compliance with the existing requirements that apply to all Discharges regulated by this General Permit is consistent with the requirements and assumptions of the WLA and any other TMDL requirements if the applicable TMDL:

1. Does not assign a WLA specific to industrial storm water discharges,

2. Specifies trash control measures to comply with the WLA that are implementable through this General Permit, or
3. Contains dry-weight sediment discharge requirements.

This General Permit contains instantaneous maximum and annual NALs that require the implementation of BMPs to control discharges of sediment. Compliance with these NALs will keep sediment discharge levels well below the levels needed to obtain sampling results for the constituents addressed by the WLAs focused on dry-weight sediment concentrations. This is explained in more detail in section II.F.6.f.

ii. TMDL Numeric Actions Levels (TNALs)

Compliance with TNALs is consistent with the requirements and assumptions of the WLA and any other TMDL requirements if the applicable TMDL contains:

1. Currently effective interim WLAs,

An interim WLA is incorporated as a TNAL in Table E-2 where a final NEL is assigned but the compliance date has not passed. The interim WLA will no longer apply upon the compliance date of the final NEL.

2. Final WLAs with compliance dates that have not passed, but no interim WLAs, or;

A final WLA that is not yet effective is assigned as a TNAL when there is no interim WLA in the TMDL. The requirements in Table E-2 for the TMDL may change upon the final WLA's compliance date.

3. Concentration-based WLAs with a compliance location established in the receiving water body (rather than at the point of discharge from the industrial facility).

A concentration-based WLA that is collectively assigned to multiple Responsible Dischargers to be met at the receiving water body is translated into a TNAL because this General Permit's monitoring requirements are designed to evaluate facility-specific discharges, rather than to assess the contributions of all industrial dischargers as a whole. Dischargers permitted under this General Permit are not required to assess, and it would be infeasible to assess, the receiving water body for compliance with a WLA with which multiple dischargers must comply. Waste load allocations assigned to the receiving water allow for variable levels of pollutant contributions from Responsible Dischargers. A TNAL appropriately accounts for this by not defining a TNAL exceedance as a per se violation of this General Permit, though Responsible Dischargers are still required to

comply with this General Permit's ERAs and prohibition on causing or contributing to an exceedance of water quality standards in the receiving water.

iii. Numeric Effluent Limitations (NELs)

Compliance with NELs is consistent with the requirements and assumptions of the WLA and any other TMDL requirements if the applicable TMDL contains:

1. Concentration-based WLAs specifically assigned to industrial storm water discharges at the point of discharge, or
2. Mass-based WLAs with concentration-based numeric targets.

This General Permit aims to regulate industrial storm water discharges efficiently throughout the State. Direct application of the mass-based WLAs applicable to industrial storm water discharges would require facility-specific calculations for each storm event to determine the target value of each applicable TMDL constituent, resulting in a unique and floating target. Such requirements would be impractical, costly, and not aligned with the existing monitoring requirements in this General Permit.

The State Water Board has determined that the monitoring requirements in this General Permit are sufficient to determine compliance with TMDL-related discharge requirements. This General Permit requires sampling of four (4) qualified storm events (QSE) a year per discharge location. The use of this General Permit's instantaneous maximum exceedance approach, which defines an exceedance as 2 (two) or more measurements of sample values within a Reporting Year above the levels set in Attachment E, and the option of using composite or flow-weighted measurements per discharge location, will mitigate concerns that the inherent variability of storm water discharges will result in sampling unrepresentative of a facility's discharge.

b. Regional Water Board Authority

The Regional Water Boards may require further TMDL-specific compliance monitoring in addition to the requirements in this General Permit, or may issue an order pursuant to Water Code section 13267 or section 13383 requiring the Responsible Discharger to conduct and report TMDL-specific monitoring results.

The Regional Water Boards may require Responsible Dischargers to implement additional actions to reduce the discharge of industrial pollutants related to the TMDLs, based on but not limited to, monitoring data, visual observations, information provided by the Responsible Discharger, or site-specific inspections and/or investigations.

Regional Water Boards have the authority to determine whether Responsible Dischargers are in full compliance with the TMDL-specific requirements of this General Permit based on submitted SWPPPs and sampling information submitted via SMARTS. The Regional Water Board may require the Responsible Discharger to obtain a QISP to evaluate a Responsible Discharger's facility and SWPPP if a Responsible Discharger is identified as non-compliant with the TMDL-specific requirements in this General Permit.

c. Water Effect Ratio

A Water Effect Ratio (WER) is a factor that is used in federal regulations for Water Quality Criteria (WQC) to adjust the federal aquatic life criteria to site-specific water column conditions. The WER will convert the WQC for a pollutant into a site-specific objective based on the observed toxicity of the receiving water. The WER is used to derive site-specific criteria that maintain the level of protection of aquatic life intended by the "Guidelines for deriving numerical national WQC" (U.S. EPA 1985). The site-specific acute and chronic U.S. EPA criteria are calculated by multiplying the U.S. EPA's ambient WQC values by a pollutant-specific and water body-specific WER.³⁵ A default WER of 1 is used for all WQC as it is the most protective assumption that the toxicity in the dilution water used in toxicity tests is the same as the toxicity in dilution water of the receiving waters. If the WER exceeds 1, the receiving water toxic effects of the pollutant being tested is reduced. Conversely, if the WER is less than 1, then the toxic effects of the pollutant in the receiving water increases. A site-specific WER provides more accuracy to the toxicity of the subject pollutant in the ambient receiving waters. A Regional Water Board may apply a site-specific WER to adjust water quality criterion through an NPDES permitting action. The State Water Board Executive Director has the authority to incorporate a reanalyzed Regional Water Board-adopted WER into this General Permit.

d. Exceedance Response Actions (ERAs) Implementation for TMDL Numeric Action Levels (TNALs)

Exceedance Response Action (ERA) requirements are applicable to TNAL exceedances, as specified in Section XII in this General Permit. A TNAL exceedance is not a violation of this General Permit.

³⁵ Los Angeles Regional Water Quality Control Board. [Los Angeles River Copper Water-Effect Ration \(WER\) Study](http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/77_New/Attachment%20A%20-%20FINAL%20LA%20River%20Cu%20WER%20Report%20-%2006-3-08.pdf). June 2008. Pg. 1. <http://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/77_New/Attachment%20A%20-%20FINAL%20LA%20River%20Cu%20WER%20Report%20-%2006-3-08.pdf>. [as of June 5, 2018].

Section XII. Exceedance Response Actions of this General Permit contains specific requirements for Responsible Dischargers that have exceeded their TNAL and have triggered the ERA process. The requirements are the same as those applicable to NAL exceedances. Section XII also provides that, on the effective date of the TMDL Requirements, Responsible Dischargers that have Baseline, Level 1, or Level 2 status for an NAL shall have the same status for any applicable TNAL addressing the same pollutant as the NAL. Responsible Dischargers shall update their Level 1 ERA Reports or the Level 2 Action Plans and the Level 2 ERA Technical Reports as necessary to implement address applicable TNALs. Following this initial pairing of TNAL and NAL statuses, the TNALs and NALs will operate separately.

e. Numeric Effluent Limitation (NEL) Implementation

An NEL exceedance is an instantaneous maximum exceedance, as defined in Attachment C. In the instance where NEL exceedances occur, Section XX.B. Water Quality Based Corrective Actions, as defined in this General Permit, apply to Responsible Dischargers. NELs are effluent limitations as defined by Water Code section 13385.1, subdivision (d). As a result, mandatory minimum penalties may apply following NEL exceedances, as defined in this General Permit. The circumstances in which mandatory minimum penalties are required to be assessed are detailed in Water Code section 13385, subdivisions (h) and (i), while the circumstances in which mandatory minimum penalties are not required to be assessed are detailed in subdivisions (j), (k), and (l) of that section.

If a Responsible Discharger is required to conduct both ERAs for NAL exceedances and Water Quality Based Corrective Actions for NEL exceedances, the Responsible Discharger, where possible, may conduct a site assessment or submit documentation that satisfies both requirements. If a Responsible Discharger is submitting one document that meets the requirements of Water Quality Based Corrective Actions and Exceedance Response Actions, the document should expressly state that it is meant to fulfill both requirements.

f. Discharges to Water Bodies with a Clean Water Act Section 303(d) Impairment

This General Permit (Section X.G.2.a.ix) requires a Discharger to identify any additional industrial pollutants or parameters that may be discharged to a surface water body with a Clean Water Act (CWA) section 303(d) impairment identified in Appendix 3 that is likely to be associated with industrial storm water. Dischargers may need to implement additional monitoring for any applicable pollutants/parameters (Section XI.B.6.e). Appendix 3 of this General Permit lists the CWA section 303(d) impaired water bodies per the State Water Board 2010 Integrated CWA Section 303(d) List / Section 305(b) Report, and corresponding TMDLs for impairment-pollutants potentially associated with industrial storm water in black font, and for impairment-pollutants not typically associated with industrial

storm water in red font. This determination is based on best professional judgement regarding pollutants typically found on industrial sites and in industrial storm water discharges. The list of water bodies is from the Water Boards statewide 2010 Integrated Report.

Some of the TMDLs for impaired water bodies listed in Appendix 3 of this General Permit are not applicable to Dischargers covered under this General Permit. Appendix 3 indicates the TMDLs that are not applicable, and the TMDL-specific pollutants that Responsible Dischargers are not required to include in their pollutant source assessment (unless directed to do so by the Regional Water Board).

New Dischargers (as defined in Attachment C) applying for NOI coverage under this General Permit that will be discharging to an impaired water body with a 303(d) listed impairment are ineligible for coverage unless the Discharger submits data and/or information, prepared by a QISP, demonstrating that the facility will not cause or contribute to the impairment. Section VII.B of this General Permit describes the three different options New Dischargers have for making this determination. This General Permit requires a QISP to assist the New Discharger with this determination because individuals making this determination will need expertise in industrial storm water pollutant sources, BMPs, and a thorough understanding of complying with U.S. EPA's storm water regulations, and requirements of this General Permit. The requirement to have a QISP prepare site demonstrations and determinations minimizes costly retrofits, permit violation penalties, or closure of a new facility whose discharges are not causing or contributing to a receiving water impairment.

6. TMDL-Specific Requirements

Table E-2 contains TMDL-specific requirements for each TMDL. Since many of the TMDLs translate the same pollutants in the same manner, this Fact Sheet addresses TMDLs by pollutant. However, Table E-2 is organized by Regional Water Board jurisdiction and watershed, allowing the Responsible Dischargers to easily identify their applicable requirements.

a. Chloride TMDLs

The Santa Clara River Chloride TMDL is the only chloride TMDL applicable to Responsible Dischargers. Exceeding levels of chloride can impair a water body's beneficial uses associated with agricultural uses for irrigation of chloride-sensitive crops and groundwater recharge.

i. Santa Clara River Chloride TMDL³⁶

The U.S. EPA adopted the Santa Clara River Chloride TMDL on June 18, 2003, to address the chloride impairment of Santa Clara River, Reach 3.

- Source Analysis

The Santa Clara River Chloride TMDL identifies permitted storm water dischargers as point sources. The U.S. EPA's analysis of available flow and loading data concludes that chloride concentrations in Reach 3 were higher during periods of lower flows. The critical low-flow period identified in the Santa Clara River Chloride TMDL is the summer of 1991, when drought conditions were present.

The Santa Clara River Chloride TMDL identifies two major point sources that discharge to Reach 3: 1) the Fillmore Water Reclamation Plant and 2) the Santa Paula Water Reclamation Plant, which jointly contribute approximately 80 percent of the chloride load under low-flow conditions. Minor discharge sources (which include industrial storm water discharges) represent an estimated 6 percent of chloride loads under low-flow conditions and the estimated chloride concentrations for the minor discharge sources was less than 80 mg/L.³⁷

- WLA Translation

The Santa Clara River Chloride TMDL assigns a concentration-based WLA to Responsible Dischargers at the facility's industrial discharge location(s) for dry-weather discharges into Santa Clara River Reach 3. NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges are assumed to not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on NSWDs if deemed necessary per a site-specific analysis.

³⁶ U.S. EPA. [Total Maximum Daily Load for Chloride in the Santa Clara River, Reach 3 \(June 2003\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Santa%20Clara%20River%20Reach%203%20Chloride%20TMDL/final%20SCR%20R3%20CI%20TMDL.pdf)

<http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Santa%20Clara%20River%20Reach%203%20Chloride%20TMDL/final%20SCR%20R3%20CI%20TMDL.pdf> [as of June 5, 2018].

³⁷ Total Maximum Daily Load for Chloride in the Santa Clara River, Reach 3, p. 12-13.

- Compliance Actions and Schedule

Compliance with this General Permit equates to compliance with this TMDL and no additional requirements are incorporated into this General Permit to implement the Santa Clara River Chloride TMDL unless the Responsible Discharger is required to implement additional requirements by the Los Angeles Regional Water Board.

b. Nutrient TMDLs

Five nutrient TMDLs apply to industrial storm water discharges. Excessive nutrient loads (including ammonia) and phosphorus can cause eutrophic effects and lead to algae blooms and algal biomass impacting beneficial uses including recreation and wildlife. Eutrophication occurs when the algal growth decays and causes fluctuations in dissolved oxygen and pH.

i. Rainbow Creek Watershed TMDL³⁸

The Rainbow Creek Watershed TMDL addresses the impairment of Rainbow Creek due to nitrogen and phosphorus. This TMDL does not identify industrial storm water discharges as a source of the impairment. Therefore, TMDL-related requirements for the Rainbow Creek Watershed TMDL are not applicable to Dischargers enrolled under this General Permit.³⁹ There are no additional requirements and Dischargers shall comply with this General Permit.

ii. Los Angeles Area Lakes TMDL⁴⁰

The U.S EPA adopted the Los Angeles Area Lakes TMDL on March 26, 2012, to address the impairment of Peck Road Park Lake, Echo Park, Legg Lakes, and Puddingstone Reservoir due to nitrogen and phosphorus. Peck Road Park Lake, Echo Park Lake, and Legg Lakes are located in the Los Angeles River

³⁸ San Diego Regional Water Quality Control Board, [Total Maximum Daily Loads \(TMDLs\) for Total Nitrogen and Total Phosphorus in the Rainbow Creek Watershed \(February 2005\)](http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/rainbowcreek/final_docs/rctmdlfinalbpa032206.pdf) <http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/rainbowcreek/final_docs/rctmdlfinalbpa032206.pdf> [as of June 5, 2018].

³⁹ Total Maximum Daily Loads (TMDLs) for Total Nitrogen and Total Phosphorus in the Rainbow Creek Watershed, p. 26.

⁴⁰ Los Angeles Regional Water Quality Control Board, [Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs \(March 2012\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Lakes/LALakesTMDLsEntireDocument.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Lakes/LALakesTMDLsEntireDocument.pdf>. [as of June 5, 2018].

watershed and Puddingstone Reservoir is located in the San Gabriel River watershed.

- Source Analysis

Nutrient loads into Peck Road Park Lake, Echo Park, Legg Lakes, and Puddingstone Reservoir originate from a variety of sources, including discharges from storm drain outlets containing industrial storm water from facilities within the watershed.

- WLA Translation

The Los Angeles Area Lakes TMDL assigns concentration-based WLAs for nitrogen and phosphorus to Responsible Dischargers at the facility’s industrial discharge location(s) for discharges into Peck Road Park Lake, Echo Park, Legg Lakes, and Puddingstone Reservoir.⁴¹ The WLA for nitrogen and phosphorus differ depending on the receiving waters. The WLAs assigned to Responsible Dischargers for nitrogen and phosphorus are translated to instantaneous maximum NELs as shown in Table F.1-F.4 below.

TABLE F.1: Peck Road Park Lake Nutrients WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Phosphorus	0.37	0.37
Nitrogen	3.61	3.61

TABLE F.2: Echo Park Lake Nutrients WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Phosphorus	0.16	0.16
Nitrogen	1.33	1.33

⁴¹ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, pp. 4-18, 9-18, 10-17.

TABLE F.3: Legg Lakes Nutrients WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Phosphorus	0.64	0.64
Nitrogen	1.8	1.8

TABLE F.4: Puddingstone Reservoir Nutrients WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Phosphorus	0.40	0.40
Nitrogen	2.0	2.0

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NELs listed in Table E-2.

The Los Angeles Regional Water Board has not adopted an Implementation Plan or a compliance schedule for the Los Angeles Area Lakes TMDL. Therefore, Responsible Dischargers are required to comply with the Los Angeles Area Lakes TMDL-related requirements for nitrogen and phosphorus in this General Permit upon the Effective Date of the TMDL Requirements.

iii. Los Angeles River Nitrogen TMDL⁴²

The Los Angeles Regional Water Board adopted the Los Angeles River Nitrogen TMDL on December 6, 2012, to address impairment of the Los Angeles River due to nitrogen compounds (ammonia, nitrite, and nitrate) and related effects (algae, pH, odor, and scum).

⁴² Los Angeles Regional Water Quality Control Board, [Los Angeles River Nitrogen Compounds and Related Effects TMDL \(August 2014\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R12-010_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R12-010_RB_BPA.pdf> [as June 5, 2018] (Los Angeles River Nitrogen Compounds and Related Effects TMDL).

- Source Analysis

The Los Angeles River Nitrogen TMDL lists urban runoff as a point source which includes storm water runoff from industrial sites and other urban runoff sources such as construction, municipal and the California Department of Transportation⁴³.

- WLA Translations

The Los Angeles River Nitrogen TMDL assigns a concentration-based WLA for ammonia to Responsible Dischargers as one-hour averages and thirty-day averages to be met at the facility’s industrial discharge location(s) for discharges into the Los Angeles River above LA-Glendale Water Reclamation Plant, Los Angeles River below LA-Glendale Water Reclamation Plant, or to tributaries discharging into the Los Angeles River above or below the LA-Glendale Water Reclamation Plant.⁴⁴ Because storm water is an intermittent discharge, only the acute one-hour average is appropriate to apply to Responsible Dischargers. One-hour average WLAs are applied to three different reaches of the Los Angeles River and are translated to instantaneous maximum NELs shown in Tables F.5-F.7 below.

TABLE F.5: Los Angeles River above LA-Glendale WRP WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Ammonia	4.7	4.7

TABLE F.6: Los Angeles River below LA-Glendale WRP WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Ammonia	8.7	8.7

⁴³ Los Angeles River Nitrogen Compounds and Related Effects TMDL, p. 1.

⁴⁴ Los Angeles River Nitrogen Compounds and Related Effects TMDL, pp. 3-7.

TABLE F.7: Los Angeles River Tributaries WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Ammonia	10.1	10.1

The Los Angeles River Nitrogen TMDL assigns a concentration-based WLA for nitrate-nitrogen, nitrite-nitrogen, and nitrate-nitrogen plus nitrite-nitrogen as thirty-day averages to Responsible Dischargers for discharges into all reaches and tributaries of the Los Angeles River. The WLAs are translated to instantaneous maximum NELs as shown below:

- Nitrate-nitrogen Instantaneous Maximum NEL: 8.0 mg/L
 - Nitrite-nitrogen Instantaneous Maximum NEL: 1.0 mg/L
 - Nitrate-nitrogen plus nitrite-nitrogen Instantaneous Maximum NEL: 8.0 mg/L
- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NELs listed in Table E-2.

The Los Angeles River Nitrogen TMDL’s final compliance deadline for NEL compliance was March 23, 2004. Since this compliance deadline has passed, the WLAs shall be met upon the Effective Date of the TMDL Requirements.

iv. Santa Clara River Nitrogen TMDL⁴⁵

The Los Angeles Regional Water Board adopted the Santa Clara River Nutrients TMDL on August 7, 2003, to address the Nitrogen Compound (total ammonia as nitrogen, nitrate+nitrite as nitrogen) impairment of Santa Clara River Reach 3 and Reach 7.

⁴⁵ [Los Angeles Regional Water Quality Control Board, Santa Clara River Nitrogen Compounds Total Maximum Daily Load \(August 2003\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/2003-011_RB_BPA.pdf)

<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/2003-011_RB_BPA.pdf> [as of June 5, 2018] (Santa Clara River Nitrogen Compounds TMDL).

- Source Analysis

Storm water sources are a point source of ammonia, nitrite, and nitrate to the Santa Clara River relative to publicly owned wastewater treatment facilities.⁴⁶

- WLA Translations

The Santa Clara River Nitrogen TMDL assigns a concentration-based WLA for Nitrogen Compounds to Responsible Dischargers at the facility’s industrial discharge location(s) for discharges into Santa Clara River Reach 3 and Reach 7.⁴⁷ Ammonia as nitrogen WLAs are established to address both acute effects (one-hour average concentration) and chronic effects (30-day average concentration) on aquatic life for both Reaches 3 and 7. Only the acute ammonia as nitrogen WLAs will be translated since acute effects are more relevant to storm water discharges than chronic. The ammonia as nitrogen (one-hour average) is assigned to Responsible Dischargers and translated to instantaneous maximum NELs as shown in Tables F.8 and F.9 below.

TABLE F.8: Santa Clara River Reach 3 WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Ammonia as nitrogen (one-hour average)	4.2	4.2

TABLE F.9: Santa Clara River Reach 7 WLA Translation

Pollutant	WLA (mg/L)	Total Instantaneous Maximum NEL (mg/L)
Ammonia as nitrogen (one-hour average)	5.2	5.2

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s

⁴⁶ Santa Clara River Nitrogen Compounds TMDL, p. 2.

⁴⁷ Santa Clara River Nitrogen Compounds TMDL, pp. 3-4.

industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NELS listed in Table E-2.

The Santa Clara River Nutrients TMDL applies the WLAs to Responsible Dischargers upon the effective date of the TMDL. Since this compliance deadline has passed, the WLAs shall be met upon the Effective Date of the TMDL Requirements.

v. Machado Lake Nutrient TMDL⁴⁸

The Los Angeles Regional Water Board adopted the Machado Lake Nutrient TMDL on May 1, 2008, to address the impairment of Machado Lake due to eutrophication, algae, ammonia, and odors.

- Source Analysis

Storm Water discharges from the MS4, the California Department of Transportation, and the general construction and industrial permittees have been identified as the point sources.⁴⁹

- WLA Translations

The Machado Lake Nutrient TMDL assigns a concentration-based WLA to Responsible Dischargers for total phosphorus and total nitrogen at the facility’s industrial discharge location(s) for discharges into Machado Lake.⁵⁰ The WLAs are translated to instantaneous maximum NELS as shown in Table F.10 below.

TABLE F.10: Machado Lake Nutrient WLAs

Pollutant	WLA (mg/L) Monthly Average	Instantaneous Maximum NEL (mg/L)
Total Phosphorus	0.1	0.1
Total Nitrogen	1.0	1.0

⁴⁸ Los Angeles Regional Water Quality Control Board, [Total Maximum Daily Load \(TMDL\) for Eutrophic, Algae, Ammonia, and Odors \(Nutrient\) in Machado Lake \(May 2008\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/2008-006_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/2008-006_RB_BPA.pdf> [as of June 5, 2018] (Machado Lake Nutrients TMDL).

⁴⁹ Machado Lake Nutrients TMDL, p. 3.

⁵⁰ Machado Lake Nutrients TMDL, pp. 3-5.

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NELs listed in Table E-2.

The Machado Lake Nutrient TMDL's compliance deadline for NEL compliance was September 11, 2018. Since this compliance deadline has passed, the WLAs shall be met upon the Effective Date of the TMDL Requirements.

c. Trash TMDLs

Two trash TMDLs are translated for this General Permit. Trash and plastic pellets are harmful and contain chemicals that are toxic to wildlife. Plastic pellets in waterways can inhibit the growth of aquatic vegetation, decreasing spawning areas and habitats for fish and other organisms. Trash impairments from intentional and unintentional litter causes water quality problems including loss of habitat, direct harm to wildlife, and health impacts to people. The requirements set forth in these TMDLs apply to industrial storm water discharges into the watersheds of these water bodies as defined in Section II.F.3 above.

i. Santa Monica Bay Debris TMDL⁵¹

The Los Angeles Regional Water Board adopted the Santa Monica Bay Debris TMDL on November 4, 2010, to address the impairment of Santa Monica Bay due to plastic pellets and trash.

- Source Analysis

The majority of the land-based debris is discharged to the marine environment through storm drains. Debris discharged from storm drains typically include litter, garbage transportation, commercial establishment and public venue debris, and construction debris. The main source of plastic

⁵¹ Los Angeles Regional Water Quality Control Board, [Santa Monica Bay Nearshore and Offshore Debris TMDL \(November 2010\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R10-010_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R10-010_RB_BPA.pdf> [as of June 5, 2018] (Santa Monica Bay Nearshore and Offshore Debris TMDL).

pellets are accidental spills from industry that import, manufacture, process, transport, store, recycle, or otherwise handle plastic pellets.⁵²

- WLA Translation

The Santa Monica Bay Debris TMDL assigns a WLA of zero plastic pellets to Responsible Dischargers at the facility's industrial discharge location(s) for discharges into Santa Monica Bay.⁵³ Foreseeable methods of compliance with the plastic pellet WLA includes implementation of BMPs such as appropriate containment systems, sealed containers, vacuum devices for cleaning, and inspection and cleaning at the operational areas and outlets of water discharge.⁵⁴ A debris WLA was not assigned to Responsible Dischargers.

This General Permit currently has requirements in Section XVIII. Special Requirements – Plastic Materials, containing implementation procedures and BMP requirements for facilities that handle plastic materials, including plastic pellets.

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall implement Section XVIII of this General Permit if such facility claims to handle Plastic Materials as defined by this General Permit.

ii. Los Angeles Area Lakes TMDL for Trash⁵⁵

The U.S. EPA adopted Los Angeles Area Lakes TMDL for Trash on March 26, 2012, to address the trash impairment of two of the nine assessed lakes, Peck Road Park Lake and Echo Park Lake.

- Source Analysis

Industrial facilities north of Peck Road Park are separated from the lake with a chain link fence. A buildup of plastic bags, tires, and industrial scrap were

⁵² Santa Monica Bay Nearshore and Offshore Debris TMDL, pp. 3-4.

⁵³ Santa Monica Bay Nearshore and Offshore Debris TMDL, pp. 6-7.

⁵⁴ Santa Monica Bay Nearshore and Offshore Debris TMDL, p. 53.

⁵⁵ Los Angeles Regional Water Quality Control Board , [Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Lakes/LALakesTMDLsEntireDocument.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Lakes/LALakesTMDLsEntireDocument.pdf> [as of June 5, 2018] (Los Angeles Area Lakes TMDLs for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs).

observed and appeared to have not been cleaned up for a long period of time due to the steepness of the area.

The major sources of trash discharged into Echo Park Lake are from storm drains, wind action, and direct disposal. Storm drains carry trash throughout the watershed and deposit it into different sections of the lake.⁵⁶

- WLA Translation

The Los Angeles Area Lakes TMDL for Trash assigned a WLA of zero trash to Responsible Dischargers at the facility's industrial discharge location(s) for discharges into Peck Road Park Lake and Echo Park Lake.⁵⁷ The TMDL states that the WLA may be complied with via full capture systems, partial capture systems, nonstructural BMPs, or any other lawful method which meets the target of zero trash in or on the water and on the shoreline.⁵⁸

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall additionally implement any minimum or advanced BMPs, including the BMPs referenced by the TMDL to comply with the Trash WLA.

d. Sediment

Three sediment TMDLs are translated for this General Permit. Sediment is particulate organic and inorganic matter that is mobilized by erosion due to wind, precipitation, or anthropogenic causes and is carried by water. Sediment in varying concentrations naturally occurs in runoff from all locations in the watershed. Human activities result in concentrated flow, with intensified velocities or volumes, which has the capability to magnify erosion rates resulting in rill erosion, gully erosion, and channel incision. Reducing erosion by utilizing BMPs that stabilize loose soil sources and/or retaining storm water onsite will decrease the sediment discharges. The requirements set forth in these TMDLs apply to industrial storm water discharges into the watersheds of these water bodies as defined in Section II.F.3 above.

⁵⁶ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, pp. 4-76, 6-56.

⁵⁷ Los Angeles Area Lakes TMDLs for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs pp. 4-80, 6-59.

⁵⁸ Los Angeles Area Lakes TMDLs for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 4-84

i. Los Peñasquitos Lagoon Sediment TMDL⁵⁹

The San Diego Regional Water Quality Control Board (San Diego Regional Water Board) adopted the Los Peñasquitos Lagoon Sediment TMDL on June 13, 2012, to address the impairment of Los Peñasquitos Lagoon due to sediment.

- Source Analysis

The watershed sources of sediment consist of point and non-point source discharges in the watershed draining into Los Peñasquitos Lagoon. The watershed sources of sediment are due to past historical activities that have resulted in an accumulation of sediment. The Los Peñasquitos Lagoon Sediment TMDL identifies industrial storm water discharges as contributing to sediment supply to the Lagoon.⁶⁰ According to the Los Peñasquitos Lagoon TMDL staff report, the potential contribution of pollutant loadings from industrial and construction storm water is low because non-storm water discharges are prohibited or authorized under strict permit circumstances.⁶¹

- WLA Translations

The Los Peñasquitos Lagoon TMDL assigns a WLA of 2,580 tons/year to the combined responsible parties (Resolution No. R9-2012-033) for discharges into the Los Peñasquitos Lagoon Watershed.⁶² Responsible parties include: Phase I Municipal Separate Storm Sewer Systems (MS4s) co-permittees (the County of San Diego, City of San Diego, City of Del Mar, and City of Poway), Phase II MS4 permittees, the California Department of Transportation, general construction and industrial storm water NPDES permittees.

The Phase I MS4 co-permittees and the California Department of Transportation are responsible for assuming the lead role in coordinating and carrying out the necessary actions, compliance monitoring requirements, and successful implementation of the adaptive management framework required as part of this TMDL. Responsible Dischargers shall

⁵⁹ San Diego Regional Water Quality Control Board, [Total Maximum Daily Load For Sedimentation in Los Peñasquitos Lagoon \(June 2012\)](http://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2012/R9-2012-0033_Attach_A.pdf) <http://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2012/R9-2012-0033_Attach_A.pdf> [as of June 5, 2018] (Los Peñasquitos Sediment TMDL).

⁶⁰ Los Peñasquitos Sediment TMDL, p. 4.

⁶¹ Los Peñasquitos Sediment TMDL, p. 38.

⁶² Los Peñasquitos Sediment TMDL. p. 5.

cooperate with all responsible parties to reduce their collective sediment load.

Responsible Dischargers are required to monitor sediment discharges from their facilities to demonstrate progress towards compliance with final WLAs.⁶³ Monitoring flow rates for industrial storm water discharges is not required for all Dischargers in this General Permit and is specific to Responsible Dischargers located in the Los Peñasquitos Lagoon Watershed to assess the correlation between flow and sediment deposition in this water body.

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit and are required to provide an estimate of a representative flow rate from their industrial facility for one Qualifying Storm Event (QSE) each reporting year. Monitoring flow rate values should be consistent with the monitoring, calculation and reporting methods and framework used by the Phase I MS4 co-permittees. The Responsible Discharger shall submit the representative flow estimate as a PDF attachment to the Annual Report required under section X.V.I of this General Permit.

Compliance actions will be required upon the Effective Date of the TMDL Requirements. The final compliance deadline for the Los Peñasquitos Lagoon TMDL is July 14, 2034. Future reissuances of this General Permit may incorporate additional or revised compliance requirements or interim targets to progress towards the required final compliance by July 14, 2034.

ii. Napa River Sediment TMDL⁶⁴

The San Francisco Regional Water Quality Control Board (San Francisco Regional Water Board) adopted the Napa River Sediment TMDL on September 15, 2009, to address the sediment impairment of the Napa River Watershed.

The Napa River TMDL does not assign Responsible Dischargers a percent reduction of sediment loads into the Napa River Watershed. The Napa River TMDL and Habitat Enhancement Plan implementation actions require Responsible Dischargers to comply with this General Permit. Therefore,

⁶³ Los Peñasquitos Sediment TMDL, pp. A-8, A-9.

⁶⁴ San Francisco Bay Regional Water Quality Control Board. [Napa River Sediment Total Maximum Daily Load and Habitat Enhancement Plan \(September 2009\)](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napasediment/NapaSedBPA090909.pdf) <http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napasediment/NapaSedBPA090909.pdf>.. [as of June 5, 2018].

compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Napa River Sediment TMDL.

iii. Sonoma Creek Sediment TMDL⁶⁵

The San Francisco Regional Water Board adopted the Sonoma Creek Sediment TMDL on December 12, 2012, to address the sediment impairment of the Sonoma Creek Watershed.

The Sonoma Creek Sediment TMDL does not assign Responsible Dischargers a percent reduction of sediment loads into the Sonoma Creek Watershed. The Sonoma Creek Sediment TMDL requires Responsible Dischargers to comply with this General Permit. Therefore, compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Sonoma Creek Sediment TMDL.

e. Salts TMDLs

The Calleguas Creek Salts TMDL is the only salt (boron, chloride, sulfate, and/or total dissolved solids [TDS]) TMDL applicable to Responsible Dischargers. Salt discharges impact beneficial uses mostly in dry-weather where high concentrations of salts in agriculture supply water can damage crops, affect plant growth, degrade drinking water, and damage industrial equipment. Most salts do not naturally degrade, and can accumulate in groundwater for decades.

i. Calleguas Creek Salt TMDL⁶⁶

The Los Angeles Regional Water Board adopted the Calleguas Creek Salt TMDL to address the impairment of the Calleguas Creek Watershed, which includes eleven (11) reaches, due to boron, chloride, sulfate, and total dissolved solids (salts). The eleven reaches comprising the Calleguas Creek Watershed

⁶⁵ San Francisco Bay Regional Water Quality Control Board, [Total Maximum Daily Load for Sediment in Sonoma Creek \(December 2008\)](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napasediment/NapaSedBPA090909.pdf) <http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/napasediment/NapaSedBPA090909.pdf> [as of June 5, 2018].

⁶⁶ Los Angeles Regional Water Quality Control Board, [Total Maximum Daily Load for Boron, Chloride, Sulfate, and DS \(Salts\) in the Calleguas Creek Watershed \(October 2007\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/2007-016_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/2007-016_RB_BPA.pdf> [as of June 5, 2018] (Calleguas Creek Salts TMDL).

include: Reach 3, Reach 4, Reach 6, Reach 7, Reach 8, Reach 9 A and 9B, Reach 10, Reach 11, Reach 12, and Reach 13.

- Source Analysis

Sources of salts in the watershed include water supply, water softeners that discharge to publicly owned treatment work (POTWs), POTW treatment chemicals, pesticides and fertilizers, and indoor water use (chemicals, cleansers, food, etc.). Dry weather discharges of salts are sourced from groundwater pumping, groundwater exfiltration, POTWs, dry weather urban and agricultural runoff. The Calleguas Creek Salts TMDL does not include wet-weather WLAs because wet weather flows transport a large mass of salts at low concentrations.⁶⁷

- WLA Translation

The Calleguas Creek Salts TMDL assigns a WLA for dry-weather discharges to Responsible Dischargers at the facility's industrial discharge location(s) for discharges into the Calleguas Creek.⁶⁸ NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges do not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on authorized NSWDs if deemed necessary per a site-specific analysis.

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Calleguas Creek Salts TMDL unless the Responsible Discharger is required to implement additional requirements by the Los Angeles Regional Water Board.

f. Organochlorine Pesticide, Polycyclic aromatic hydrocarbon (PAH), PCB, and Metals TMDLs

Six organochlorine (OC) pesticides (OC pesticides), PAHs, and PCB TMDLs in Attachment E are applicable to Responsible Dischargers. Each TMDL below

⁶⁷ Calleguas Creek Salts TMDL, pp. 3-4.

⁶⁸ Calleguas Creek Salts TMDL, pp. 7-8.

identifies the specific grouping of OC pesticides associated with that TMDL, which can contain any of the following pollutants: DDT, diazinon, dieldrin, chlordane, toxaphene. The use of these pollutants has been banned for many years because of potential human health and environmental harm, however, the physio-chemical properties of the pollutants allow them to persist in the environment, bioaccumulate through the food web, and pose risks to aquatic life, wildlife, and human health.

OC pesticides, PAHs, PCBs, and metals have an affinity for organic matter and will partition from water and sorb to organic substances such as sediment, and easily transport via storm water and authorized NSWDS to settle in the receiving water bed.

Most of the TMDLs addressed in this section have receiving water sediment numeric targets translated to dry-weight sediment concentration WLAs to be met by Responsible Dischargers at the discharge point.

The sediment targets address receiving water bed toxicity. Because these TMDLs associate receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and metals bound to sediment particulates, these TMDLs are addressed by implementing sediment control measures so that sediment-bound particulates do not leave an industrial facility's property and settle in the receiving water bed via storm water discharges and authorized NSWDS.

This General Permit limits the discharge of sediment with annual and instantaneous maximum NALS for TSS in Table 2 of this General Permit. The samples that would be needed to determine whether a facility's discharge was in compliance with the pollutant concentrations and loads assigned in the TMDL would require significantly more sediment volume than the current NAL allows. For the pollutant concentrations to be measured, a sufficient volume of storm water must be collected to obtain suitable quantities of Total Suspended Solids (TSS) to analyze the filtered bulk sediment. These methods require from 30 grams (30,000 milligrams) of suspended solids or up to 100 grams (100,000 milligrams) to accommodate for potential re-analysis or for quality control.⁶⁹ A Monitoring and Reporting Plan reviewed a number of studies that directly measured the concentration of contaminants associated with suspended solids and found that there are no standardized procedures for quantifying pollutant load associated with suspended sediment.⁷⁰ The quantity of bulk sediment required is well above the

⁶⁹ E-mail from Debby Wilson, TestAmerica Laboratories, to Rebecca Greenwood, State Water Resources Control Board (April 25, 2018) [conveying information from Director of Technical Services Eric Redman, TestAmerica Laboratories].

⁷⁰ County of Los Angeles Department of Public Works. [Machado Lake Multipollutant TMDL Monitoring and Reporting Program \(MRP\) for the Unincorporated Areas of Los Angeles County Within the Machado Lake Watershed \(September 12, 2011\)](#)

100 mg/L annual NAL and the 400 mg/L instantaneous maximum NAL. Since these WLAs are assigned to be met in the receiving water and are intended to control sediment pollutant loading into the impaired water, compliance with this General Permit's TSS annual and instantaneous maximum NAL is sufficient for compliance with the WLAs. This General Permit requires reducing the discharge of sediment by complying with the minimum BMP requirements and any advanced BMPs as required. BMPs that prevent erosion and sedimentation can be particularly effective since the OC pesticides, PAHs, and PCBs addressed by the following TMDLs preferentially bind to sediment. Therefore, BMPs that eliminate exposure of sediment to storm water discharges and authorized NSWDS to pollutant sources, retain storm water onsite, and/or treat storm water prior to discharge from the industrial facility can be used to control these pollutants.

State Water Board staff analyzed the 2015 to 2018 TSS storm water effluent sample data submitted into SMARTS by industrial facilities with NOI coverage resulting from QSEs for the following Los Angeles Regional Water Board TMDL Watersheds:

1. Ballona Creek Estuary Toxics
2. Marina del Rey
3. LA/LB Harbor (Dominguez Channel Estuary, Consolidated Slip, and Fish Harbor)
4. Colorado Lagoon
5. LA Lakes
6. Machado Lakes
7. Oxnard Drain 3
8. Santa Monica Bay DDTs

None of these TSS sample results analyzed by State Water Board staff were reported in high enough quantities (at least 30,000 mg) to measure the receiving water sediment numeric targets translated to dry-weight sediment concentrations WLAs specified for the TMDLs addressed in this section.

<https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/64_New/Monitoring%20&%20Reporting%20Program%20Plan/County%20of%20Los%20Angeles_final%20MRP.pdf> [as of June 5, 2018].

Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 2018-0028-DWQ

TABLE F.11: Facility Exceedance Counts per Reporting Year

Reporting Year	No. of Facilities with Annual TSS NAL Exceedance ⁷¹	No. of Facilities with Instantaneous TSS NAL Exceedance ⁷²	No. of Facilities with TSS Sampling Data
2015 – 2016	53	11	278
2016 – 2017	28	5	312
2017 – 2018	22	2	195

TABLE F.12: Facilities with Annual TSS NAL Exceedances

Reporting Year	No. of Facilities with TSS Concentration from 100 to 200 mg/L	No. of Facilities with TSS Concentration from 200 to 500 mg/L	No. of Facilities with TSS Concentration >500 mg/L (highest detected measurement in mg/L)
2015 – 2016	28	18	7 (6210)
2016 – 2017	17	9	2 (1468)
2017 – 2018	14	6	2 (2448)

TABLE F.13: TSS Samples with Instantaneous Maximum NAL Exceedances

Reporting Year	Number of Samples with TSS Concentration \geq 400 mg/L (highest detected measurement in mg/L)	Total Number of Samples
2015 – 2016	47 (12,000)	1240
2016 – 2017	21 (8,350)	1604
2017 – 2018	12 (5,910)	669
Total	80	3513

⁷¹ Annual Exceedance – the average TSS sampling concentration is greater than or equal to 100 mg/L per reporting year.

⁷² Instantaneous Exceedance – at least two TSS sampling concentrations are greater than or equal to 400 mg/L per reporting year.

TABLE F.14: Summary of TSS Sample Concentrations

Reporting Year	No. of Samples with TSS Concentration from 400 to 500 mg/L	No. of Samples with TSS Concentration from 500 to 1000 mg/L	No. of Samples with TSS Concentration > 1000 mg/L
2015 – 2016	12	24	11
2016 – 2017	7	11	3
2017 – 2018	4	5	3

TABLE F.15: 2015-2018 Industrial Facility⁷³ TSS Monitoring Results Over 1,000 mg/L

Reporting Year	Total Suspended Solids (TSS) Result	Units	Analytical Method	Method Detection Limit	Reporting Limit
2015-2016	12000	mg/L	A2540D	50	100
2015-2016	4270	mg/L	A2540D	16.7	33.3
2015-2016	1900	mg/L	A2540D	5	5
2015-2016	1880	mg/L	A2540D	0.829	10
2015-2016	1450	mg/L	A2540D	10	
2015-2016	1380	mg/L	A2540D	2.5	100
2015-2016	1200	mg/L	A2540D	0.1	0.1
2015-2016	1200	mg/L	A2540D	10	20
2015-2016	1120	mg/L	A2540D	0.5	
2015-2016	1060	mg/L	A2540D	8.3	
2015-2016	1020	mg/L	A2540D	0.829	1
2016-2017	8350	mg/L	A2540D	50	100
2016-2017	3700	mg/L	A2540D	5	5
2016-2017	2320	mg/L	A2540D	25	50
2017-2018	5910	mg/L	A2540D	2.5	208
2017-2018	3440	mg/L	A2540D	2.5	125
2017-2018	1560	mg/L	A2540D	2.5	192

i. Chollas Creek Diazinon TMDL⁷⁴

The San Diego Regional Water Board adopted the Chollas Creek Diazinon TMDL on August 14, 2002, to address the impairment of the Chollas Creek Watershed due to diazinon. The Chollas Creek Diazinon TMDL identifies urban

⁷³ The seventeen (17) results in Table F.15 are from 9 different industrial facilities located within the eight (8) Los Angeles Regional Water Board TMDL watersheds listed above.

⁷⁴ San Diego Regional Water Quality Control Board, [Chollas Creek Diazinon Total Maximum Daily Load \(August 2002\)](https://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/chollascreekdiazinon/2002_0123atta081402.pdf) <https://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/chollascreekdiazinon/2002_0123atta081402.pdf> [as of June 13, 2018].

storm water flows as a significant source of diazinon. This analysis did not include a separate WLA assigned to industrial storm water discharges.

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Chollas Creek Diazinon TMDL.

- ii. Santa Monica Bay Dichlorodiphenyltrichloroethane (DDTs) and Polychlorinated Biphenyls (PCBs) TMDL⁷⁵

The U.S. EPA adopted the Santa Monica Bay DDTs and PCBs TMDL on March 26, 2012, to address the impairment for Santa Monica Bay due to DDTs and PCBs. Santa Monica Bay, as defined in this TMDL, is Point Dume to Point Vicente and the Palos Verdes shelf from Point Vicente to Point Fermin.

- Source Analysis

DDTs are organochlorine insecticides widely used in the past on agricultural crops and to control disease-carrying insects. The United States banned the use of DDTs in 1972, except for public health emergencies involving insect diseases and control of body lice. PCBs are mixtures of up to 209 individual chlorinated compounds (known as congeners). In 1976, the manufacturing of PCBs was prohibited because of evidence that they build up in the environment and can cause harmful health effects.⁷⁶

- WLA Translation

The Santa Monica Bay DDTs and PCBs TMDL assigns mass-based WLAs of 0.01 g/yr for DDT and 0.04 g/yr for PCBs to be met at the facility's industrial discharge location(s) for discharges into Santa Monica Bay.⁷⁷ The WLA is based on the aggregate area represented by individual permittees covered under this General Permit, which is 0.00025% of the total area.

Directly implementing the DDT and PCBs WLAs would be impractical, costly, and not aligned with the monitoring requirements in this General

⁷⁵ Los Angeles Regional Water Quality Control Board, [Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs \(March 2012\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/SantaMonica/FinalSantaMonicaBayDDTPCBsTMDL.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/SantaMonica/FinalSantaMonicaBayDDTPCBsTMDL.pdf> [as of June 5, 2018].

⁷⁶ Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs, p. 25.

⁷⁷ Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs, pp. 25, 51.

Permit. Responsible Dischargers would normally have been assigned to meet the concentration-based sediment numeric targets of the Santa Monica Bay DDTs and PCBs TMDL. However, as mentioned in the introduction of this section, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit’s Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

TABLE F.16: Santa Monica (Point Vicente to Point Dume) WLA

Pollutant	WLA g/yr
Total DDT	0.01
Total PCBs	0.04

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL’s WLA(s). No additional requirements are incorporated into this General Permit to implement the Santa Monica Bay DDTs and PCBs TMDL.

iii. Oxnard Drain 3 TMDL⁷⁸

The U.S. EPA adopted the Oxnard Drain 3 TMDL on October 6, 2001, to address the impairment of the Oxnard Drain 3 due to bifenthrin, chlorpyrifos, OC pesticides (chlordane, DDT, dieldrin, and toxaphene), PCBs, and sediment toxicity (OC pesticides, PCBs, and sediment toxicity).⁷⁹

- Source Analysis

The Oxnard Drain 3 TMDL identifies many historic and current loadings of pollutants into Oxnard Drain 3 including facilities that would be covered under this General Permit. The U.S. EPA has cancelled the manufacturing

⁷⁸ Los Angeles Regional Water Quality Control Board, [Total Maximum Daily Load for Pesticides, PCBs, and Sediment Toxicity in Oxnard Drain 3 \(October 2011\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Oxnard%20Drain%20No.%203%20Pesticides%20PCBs%20and%20Sediment%20Toxicity%20TMDL/oxnard-drain-3-tmdl-10-2011.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Oxnard%20Drain%20No.%203%20Pesticides%20PCBs%20and%20Sediment%20Toxicity%20TMDL/oxnard-drain-3-tmdl-10-2011.pdf> [as of June 5, 2018].

⁷⁹ Oxnard Drain 3 is located near Oxnard, CA in the Calleguas Creek watershed. Oxnard Drain 3 has also been called Rio de Santa Clara, Arnold Road Drain, L Street Drain, and occasionally confused with Oxnard Drain 1. Almost all of Oxnard Drain 3 lies within the Point Mugu Naval Air Base.

or use of all the pollutants considered OC pesticides and PCBs that are listed as causes of impairment in Oxnard Drain 3. However, the past use of these chemicals was so widespread and unrestricted loads of these chemicals are still present from waste and storage facilities and old equipment that used or contained the contaminants.⁸⁰ The sources of OC pesticides are historical sediments that are currently in Oxnard Drain 3 or could potentially be transported there from other sediments in the watershed. Bifenthrin and chlorpyrifos are currently being applied to urban structures, landscaping, and agricultural crops discharged via storm water and irrigation runoff.⁸¹

- WLA Translation

The Oxnard Drain 3 TMDL assigns a concentration-based WLA to industrial storm water discharges for 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, bifenthrin, chlorpyrifos, dieldrin, total chlordane, total PCBs, total suspended sediments, and toxaphene expressed as water, bed sediment and suspended sediment concentrations in ug/kg to be met at the facility's industrial discharge location(s) for discharges into the Oxnard Drain 3.⁸² OC pesticides and PCBs have an affinity for organic matter and will partition from water to organic substances such as sediment, benthic organisms, and fish⁸³, so the sediment allocations are applied.

Directly implementing the WLAs are impractical, costly, and not aligned with the monitoring requirements in this General Permit. As mentioned in the introduction of this section, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

⁸⁰ Total Maximum Daily Loads for Pesticides, PCBs, and Sediment Toxicity in Oxnard Drain 3, p. 26

⁸¹ Total Maximum Daily Loads for Pesticides, PCBs, and Sediment Toxicity in Oxnard Drain 3, p. 29.

⁸² Total Maximum Daily Loads for Pesticides, PCBs, and Sediment Toxicity in Oxnard Drain 3, p. 40.

⁸³ Total Maximum Daily Loads for Pesticides, PCBs, and Sediment Toxicity in Oxnard Drain 3, p. 12.

TABLE F.17: Oxnard Drain 3 WLA

Pollutant	WLA of Suspended Sediment-Associated Contaminants ug/kg dry weight
4,4'-DDD	2.0
4,4'-DDE	2.2
4,4'-DDT	0.3
Bifenthrin	-
Chlordane, Total	3.3
Chlorpyrifos	-
Dieldrin	4.3
PCBs, Total	180
Sediment Toxicity	-
Toxaphene	360

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Oxnard Drain 3 TMDL.

iv. Colorado Lagoon TMDL⁸⁴

The Los Angeles Regional Water Board adopted the Colorado Lagoon TMDL on October 1, 2009, to address the impairment of Colorado Lagoon due to lead and zinc, OC pesticides (chlordane, DDT, and dieldrin), PAHs, PCBs, and sediment toxicity.

- Source Analysis

The Colorado Lagoon watershed is approximately 1,172 acres and divided into five sub-basins that discharge storm water and urban dry weather runoff to the Colorado Lagoon. Contaminated sediments accumulate in the lagoon and in aquatic organisms that are exposed to these toxic pollutants. The TMDL identified many historic and current loadings of pollutants into

⁸⁴ [Total Maximum Daily Load for Organochlorine \(OC\) Pesticides, Polychlorinated Biphenyls \(PCBs\), Sediment Toxicity, Polycyclic Aromatic Hydrocarbons \(PAHs\), and Metals for Colorado Lagoon \(October 2009\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R09-005_RB_BPA.pdf)

<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R09-005_RB_BPA.pdf> [as of June 5, 2018] (Colorado Lagoon Toxics TMDL).

Colorado Lagoon including facilities that would be covered under this General Permit.⁸⁵

- WLA Translation

The Colorado Lagoon TMDL assigns concentration-based WLAs for lead, zinc, OC pesticides, PAHs, PCBs, and sediment toxicity to be met at the facility’s industrial discharge location(s) for discharges into the Colorado Lagoon.⁸⁶

Directly implementing the WLAs would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. As mentioned in the introduction of this section, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit’s Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

TABLE F.18: Colorado Lagoon WLA

Pollutant	WLA Suspended Sediment- Associated Contaminants ug/kg dry weight
Chlordane	0.5
DDTs*	1.58
Dieldrin	0.02
Lead	46,700.00
PAHs**	4,022.00
PCBs	22.70
Zinc	150,000.00

* Measured as the sum of DDT, DDE, and DDD.

** Sum of acenaphthylene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, fluorene, indeno(1,2,3-c,d)pyrene, phenanthrene, and pyrene

⁸⁵ Colorado Lagoon Toxics TMDL, p. 3

⁸⁶ Colorado Lagoon Toxics TMDL, p. 5.

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Colorado Lagoon TMDL.

v. Los Angeles Area Lakes TMDL⁸⁷

The U.S. EPA adopted the Los Angeles Area Lakes TMDL on March 26, 2012, to address the impairment in three of the nine assessed lakes in the Los Angeles Region due to OC pesticides (chlordane, dieldrin, DDT) and PCB. The three identified lakes for OC pesticides and PCBs impairments are Peck Road Park Lake, Echo Park Lake, and Puddingstone Reservoir. Peck Road Park Lake and Echo Park Lake are located in the Los Angeles River watershed. Puddingstone Reservoir is located in the San Gabriel River watershed.

- Source Analysis

The manufacturing and use of OC pesticides and PCBs are currently banned and no additional allowances for new sources of discharges are expected in the Los Angeles Area Lakes TMDL.⁸⁸ Source control BMPs and pollutant removal are the most suitable courses of action to reduce OC pesticides and PCBs. The TMDL identified many historic and current loadings of pollutants into Peck Road Park Lake, Echo Park Lake, and Puddingstone Reservoir including facilities that would be covered under this General Permit.

- WLA Translation

The Los Angeles Area Lakes TMDL assigns a concentration-based WLA for suspended sediment for OC pesticides and PCBs to be met at the facility's industrial discharge location(s) for discharges into Peck Road Park Lake, Echo Park Lake, and Puddingstone Reservoir.⁸⁹

⁸⁷ U.S. EPA, [Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, EPA Region IX, \(March 2012\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Lakes/LALakesTMDLsEntireDocument.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Lakes/LALakesTMDLsEntireDocument.pdf>. [as of June 5, 2018].

⁸⁸ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 10-84.

⁸⁹ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. ES-2.

Directly implementing the WLAs would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. As mentioned in the introduction of this section this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit’s Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

TABLE F.19: Peck Road Park Lake Toxics WLA

Pollutant	WLA Suspended Sediment-Associated Contaminants ug/kg dry weight
Chlordane	1.73
Dieldrin	0.43
Total DDTs	5.28
Total PCBs	1.29

TABLE F.20: Echo Park Lake Toxics WLA

Pollutant	WLA Suspended Sediment-Associated Contaminants ug/kg dry weight
Chlordane	2.10
Dieldrin	0.80
Total PCBs	1.77

TABLE F.21: Puddingstone Reservoir Toxics WLA

Pollutant	WLA Suspended Sediment-Associated Contaminants ug/kg dry weight
Chlordane	0.75
Dieldrin	0.22
Total DDTs	3.94
Total PCBs	0.59

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL’s WLA(s). No additional requirements are incorporated into this General Permit to implement the Los Angeles Lakes TMDL.

vi. Machado Lake Toxics TMDL⁹⁰

The Los Angeles Regional Water Board adopted the Machado Lake Toxics TMDL on September 2, 2010, to address the impairment of Machado Lake due to chemical group A (Chem A), OC pesticides (chlordane, DDT, dieldrin) and PCBs.

- Source Analysis

The TMDL identified many historic and current loadings of pollutants into Machado Lake including facilities that would be covered under this General Permit. The point sources of OC pesticides and PCBs into Machado Lake are storm water and urban runoff discharges from the municipal separate storm sewer system (MS4), the California Department of Transportation, and general construction and industrial dischargers. Storm water and urban runoff discharges to Machado Lake occur through the Wilmington Drain, Project 77, and Project 510 subdrainage systems.

OC pesticides are no longer legally sold or used, but remain ubiquitous in the environment, bound to fine-grained particles. The chemicals are transported to new locations when these particles become waterborne. The more recent small discharges of OC pesticides and PCBs to Machado Lake most likely come from the erosion of pollutant-laden sediment further up in the watershed. Urban runoff and rainfall higher in the watershed mobilize the particles, which are then washed into storm drains and channels that discharge to the lake. The estimated contributions of OC pesticides and PCBs from point sources is much smaller than the estimated contribution from internal lake sediments. However, a WLA is assigned to ongoing point source discharges to the lake.⁹¹

- WLA Translation

The Machado Lake Toxics TMDL assigns a suspended sediment concentration-based WLA for OC pesticides and PCBs to be met at the facility's industrial discharge location(s) for discharges into Machado Lake.⁹²

Directly implementing the WLAs would be impractical, costly, and not aligned with the monitoring requirements in this General Permit.

⁹⁰ [Total Maximum Daily Load for Pesticides and PCBs for Machado Lake \(September 2010\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R10-008_RB_RSL.pdf) < https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R10-008_RB_RSL.pdf f> [as of June 14, 2018] (Machado Lake Toxics TMDL).

⁹¹ Machado Lake Toxics TMDL, p. 3

⁹² Machado Lake Toxics TMDL, pp. 3-4.

As mentioned in the introduction of this section, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit’s Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

TABLE F.22: Machado Lake Toxics WLA

Pollutant	WLA of Suspended Sediment-Associated Contaminants ug/kg dry weight
Chlordane	3.24
DDD (all congeners)	4.88
DDE (all congeners)	3.16
DDT (all congeners)	4.16
Dieldrin	1.9
Total DDTs	5.28
Total PCBs	59.8

- Compliance Actions and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL’s WLA(s). No additional requirements are incorporated into this General Permit to implement the Los Angeles Lakes TMDL.

g. Bacteria TMDLs

Eight Indicator Bacteria TMDLs are translated for this General Permit. Each TMDL addresses one or more of the following bacteria pollutants: Enterococcus, Escherichia coli (E. Coli), Fecal Coliform, and Total Coliform. These pollutants are referred to as Indicator Bacteria for the purposes of this Fact Sheet.

The following sampling time-periods were set forth in all Indicator Bacteria TMDLs:

- Summer dry-weather (April 1 to October 31),
- Winter dry-weather (November 1 to March 31), and
- Wet-weather days (defined as days of 0.1 inch of rain or more plus three days following the rain event)

The summer dry-weather and winter dry-weather sampling periods defined the TMDL do not apply to Responsible Dischargers, because sampling in this General Permit is required during storm events, regardless of whether the storm events occur in summer or winter. Section F.4. General Permit Summary of the Fact Sheet summarizes the sampling and analysis requirements of this General Permit and defines when storm water samples are to be collected as referenced from Section XI.B of this General Permit. Therefore, Responsible Dischargers, like all Dischargers covered under this General Permit shall conduct sampling during the defined sampling period in this General Permit.

- i. Baby Beach in Dana Point Harbor and Shelter Island Shoreline Park TMDL,⁹³ and Project 1 - Twenty Beaches and Creeks Indicator Bacteria in the San Diego Region⁹⁴

The TMDLs for Baby Beach in Dana Point Harbor and Shelter Island Shoreline Park in San Diego Bay (Baby Beach and Shelter Island Indicator Bacteria TMDL) and Project I – Twenty Beaches and Creeks in the San Diego Region (Twenty Beaches and Creeks Bacteria TMDL) were listed as impaired due to Indicator Bacteria. However, neither TMDL assigned Indicator Bacteria WLAs to Responsible Dischargers. Compliance with this General Permit equates to compliance with these TMDLs. No additional requirements are incorporated into this General Permit to implement the Baby Beach and Shelter Island Indicator Bacteria TMDL and the Twenty Beaches and Creeks Bacteria TMDL.

⁹³ San Diego Regional Water Quality Control Board, [Total Maximum Daily Loads for Indicator Bacteria, Baby Beach in Dana Point Harbor and Shelter Island Shoreline Park in San Diego Bay \(June 2008\)](http://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2008/R9-2008-0027.pdf)

<http://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2008/R9-2008-0027.pdf> [as of June 13, 2018].

⁹⁴ San Diego Regional Water Quality Control Board, [Total Maximum Daily Loads for Indicator Bacteria, Project I – Twenty Beaches and Creeks in the San Diego Region \(including Tecolote Creek\) \(February 2010\)](http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/bacteria/updates_022410/2010-0210_Bactil_Resolution&BPA_FINAL.pdf)

<http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/bacteria/updates_022410/2010-0210_Bactil_Resolution&BPA_FINAL.pdf> [as of June 13, 2018].

- ii. Harbor Beaches of Ventura County TMDL,⁹⁵ Santa Clara River TMDL,⁹⁶ Long Beach City Beaches and the Los Angeles River Estuary TMDL,⁹⁷ Ballona Creek, Ballona Estuary, and Sepulveda Channel TMDL,⁹⁸ Marina del Rey Harbor Mothers' Beach and Back Basins TMDL,⁹⁹ and Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel) TMDL¹⁰⁰.

The indicator bacteria TMDLs described in this section all have indicator bacteria WLAs assigned to regulate industrial storm water discharges or discharges from the industrial and transportation land uses. The TMDLs expressly state that these sources are not expected to be a significant source

⁹⁵ Los Angeles Regional Water Quality Control Board, [Harbor Beaches of Ventura County \(Kiddie Beach and Hobie Beach\) Bacteria TMDL \(October 2007\)](https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2007-017/07_1023/03%20Revised%20Staff%20Report%20HBVC%2023Oct07.pdf) <https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2007-017/07_1023/03%20Revised%20Staff%20Report%20HBVC%2023Oct07.pdf> [as of June 13, 2018].

⁹⁶ Los Angeles Regional Water Quality Control Board, [TMDL for Indicator Bacteria in the Santa Clara River Estuary and Reaches 3, 5, 6, and 7 \(October 2011\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R10-006_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R10-006_RB_BPA.pdf> [as of June 13, 2018].

⁹⁷ U.S. EPA, [Long Beach City Beaches and Los Angeles River Estuary Total Maximum Daily Loads for Indicator Bacteria \(March 2012\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Longbeach/finalTMDLs-LongBeachCityBeaches-LARiverEstuaryBacteria.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Longbeach/finalTMDLs-LongBeachCityBeaches-LARiverEstuaryBacteria.pdf> [as of June 13, 2018].

⁹⁸ Los Angeles Regional Water Quality Control Board, [Total Maximum Daily Load for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel \(June 2012\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R12-008_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R12-008_RB_BPA.pdf> [as of June 13, 2018].

⁹⁹ Los Angeles Regional Water Quality Control Board, [Marina del Rey Harbor Mothers' Beach and Back Basin Bacteria TMDL \(April 2006\)](https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2003-012/03_0609/MdR%20TMDL%20Staff%20Report%20060903.pdf) <https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2003-012/03_0609/MdR%20TMDL%20Staff%20Report%20060903.pdf> [as of June 13, 2018].

¹⁰⁰ Los Angeles Regional Water Quality Control Board, [Los Angeles Harbor Bacteria TMDL \(Inner Cabrillo Beach and Main Ship Channel \(July 2004\)\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R12-007_RB_BPA3.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R12-007_RB_BPA3.pdf> [as of June 5, 2018].

of bacteria to the impaired water bodies.¹⁰¹¹⁰²¹⁰³¹⁰⁴¹⁰⁵ The WLAs were translated to instantaneous maximum TNALs since Responsible Dischargers were generally described to be an insignificant source of the Indicator Bacteria loading.

- WLA Translation

The Indicator Bacteria TMDLs define the WLA in two different ways:

- 1.) The TMDLs for the Harbor Beaches of Ventura County, Santa Clara River, the Long Beach City Beaches, and Los Angeles River Estuary assigned a WLA of zero (0) allowable exceedance days of the Bacteria water quality objectives (WQO) for all three time periods listed above in Section II.F.2;¹⁰⁶ and,
- 2.) The TMDLs for the Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria, Marina del Rey Harbor Mother's Beach and Back Basins, and the Los Angeles Harbor (including Inner Cabrillo Beach and Main Ship Channel) assigned a WLA to industrial storm water dischargers equal to the Bacteria WQOs.

The two WLA definitions will be translated similarly and require Responsible Dischargers to meet and not exceed the Bacteria WQOs.

This General Permit defines TNAL exceedances instantaneous maximum when two or more single samples are exceeded within a reporting year. The Bacteria WQOs are assigned as either a single sample limit or a rolling 30-day geometric mean limit. The Indicator Bacteria WLA of "to meet and not exceed the Bacteria WQOs" gives discretion to assign the single sample limit or the rolling 30-day geometric mean limit from the WLA.

¹⁰¹ Los Angeles Harbor Bacteria TMDL (Inner Cabrillo Beach and Main Ship Channel), p. 5.

¹⁰² Marina del Rey Harbor Mothers' Beach and Back Basin Bacteria TMDL, p. 5.

¹⁰³ Total Maximum Daily Load for Bacterial Indicator Densities in Ballona Creek, Ballona Estuary, and Sepulveda Channel, p. 6.

¹⁰⁴ Long Beach City Beaches and Los Angeles River Estuary Total Maximum Daily Loads for Indicator Bacteria. (2012), p. 28.

¹⁰⁵ Harbor Beaches of Ventura County (Kiddie Beach and Hobie Beach) Bacteria TMDL, p. 3.

¹⁰⁶ The TMDLs that use the exceedance day structure assigned less exceedance days to categories of dischargers that were expected to exceed the TMDL standard the least. By assigning zero (0) allowable exceedance days to industrial dischargers, the TMDL is indicating that industrial dischargers are not major sources of the impairment.

Single sample limits of the Bacteria WQOs are selected to be the target because compliance with the 30-day geometric mean is currently beyond the scope of the monitoring and sampling requirements of this General Permit. Because storm water is an episodic discharge, industries are not expected to be a significant source of Indicator Bacteria, and the compliance location for the WLAs for each Indicator Bacteria TMDL is the beach adjacent to the receiving water rather than the facility's industrial discharge location(s), the single sample limits of the Bacteria WQOs are translated to an instantaneous maximum TNAL and attainment is required at the Responsible Discharger's industrial discharge location(s).

Below are the assigned single sample instantaneous maximum limits for each Respective TMDL:

- Harbor Beaches of Ventura County: Enterococcus density of 104/100mL, fecal coliform density of 400/100 mL, and total coliform density of 10,000/100 mL or 1,000/100 mL (if the ratio of fecal-to-total coliform exceeds 0.1) assigned to Kiddie and Hobie Beaches.
- Santa Clara River: Enterococcus density of 104/100mL, fecal coliform density of 400/100 mL, and total coliform density of 10,000/100 mL assigned to Santa Clara River Estuary. E. coli density of 235/100 mL assigned to Santa Clara River Reaches 3, 4, 5, 6, and 7.
- The Long Beach City Beaches and Los Angeles River Estuary: Enterococcus density of 104/100mL, fecal coliform density of 400/100 mL, and total coliform density of 10,000/100 mL or 1,000/100 mL (if the ratio of fecal-to-total coliform exceeds 0.1) assigned to Long Beach City Beaches or Los Angeles River Estuary.
- Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria: Fecal coliform density of 4000/100 mL assigned to Ballona Creek Reach 1 and E. coli density of 576/100 mL assigned to Ballona Creek Reach 2. Enterococcus density of 104/100 mL, Fecal coliform density of 400/100 mL, and total coliform density of 10,000/100 mL or 1,000/100 mL (if the ratio of fecal-to-total coliform exceeds 0.1) assigned to Ballona Estuary. E. coli density of 235/100 mL assigned to Sepulveda Channel.
- Marina del Rey Harbor Mother's Beach and Back Basins: Enterococcus density of 104/100mL, fecal coliform density of 400/100 mL, and total coliform density of 10,000/100 mL or 1,000/100 mL (if the ratio of fecal-to-total coliform exceeds 0.1)

assigned to Marina del Rey Harbor Mothers' Beach or back basins (Bains D, E, and F).

- Los Angeles Harbor (including Inner Cabrillo Beach and Main Ship Channel): Enterococcus density of 104/100mL, fecal coliform density of 400/100 mL, and total coliform density of 10,000/100 mL or 1,000/100 mL (if the ratio of fecal-to-total coliform exceeds 0.1) assigned to Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel).

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum TNAL(s) listed in Table E-2.

Responsible Dischargers are required to comply with the Santa Clara River, the Long Beach City Beaches and Los Angeles River Estuary, Marina del Rey Harbor Mother's Beach and Back Basins, and the Los Angeles Harbor Indicator Bacteria TMDL requirements upon the Effective Date of the TMDL Requirements.

Responsible Dischargers are required to comply with the Harbor Beaches of Ventura County Bacteria TMDL by December 18, 2018 and Ballona Creek, Ballona Estuary and the Sepulveda Channel Bacteria TMDL by July 15, 2021. There are no interim targets for either of this TMDLs assigned to Responsible Dischargers..

h. Metals TMDLs

Twelve (12) metals TMDLs are translated for this General Permit. Each metals TMDL addresses water body impairments due to specific type(s) of metal(s). The applicable WLAs for Responsible Dischargers were assigned in one of the following ways:

- A fixed concentration-based WLA as a solution of effluent, where a concentration-based WLA is assigned directly to Responsible Dischargers at the point of discharge;
- A fixed concentration-based WLA as dry-weight sediment, where a concentration-based WLA is assigned directly to Responsible Dischargers at the point of discharge;

- A hardness-based floating concentration WLA, where the WLA is hardness dependent on receiving water;
- A WLA that assigned both a mass-based WLA and a concentration-based WLA; or,
- A mass-based WLA appointed to Responsible Dischargers.

i. Walker Creek Mercury TMDL¹⁰⁷

The San Francisco Bay Regional Water Quality Control Board designated Walker Creek and Soulajule Reservoir as impaired due to discharges of mercury from the inactive Gambonini Mine. The U.S. EPA designated the Gambonini Mine a Superfund site¹⁰⁸ and the cleanup efforts of the Gambonini Mine site was overseen by the U.S. EPA and the San Francisco Bay Regional Water Quality Control Board.

The San Francisco Bay Regional Water Quality Control Board adopted Resolution R2-2012-0040 declaring that the Gambonini Mine was cleaned up.¹⁰⁹ The U.S. EPA completed a review of Resolution R2-2012-0040 on July 3, 2012, and declared the TMDL complete and no further action was required.¹¹⁰

No additional requirements are incorporated into this General Permit to implement the Walker Creek Mercury TMDL.

¹⁰⁷ San Francisco Bay Regional Water Quality Control Board, [Total Maximum Daily Load and Implementation Plan for Mercury in the Walker Creek Watershed \(January 2007\)](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/walkermercury/r2-2007-0010.pdf) <http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/walkermercury/r2-2007-0010.pdf> [as of June 14, 2018].

¹⁰⁸ U.S. EPA, [Superfund Site: Gambonini Mercury Mine](https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0905389) <<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0905389>> [as of June 14, 2018].

¹⁰⁹ San Francisco Bay Regional Water Quality Control Board, [A Total Maximum Daily Load and An Implementation Plan for Mercury in Tomales Bay, Exhibit A, p. 1 \(May 2012\)](https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2012/R2-2012-0040.pdf) <https://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2012/R2-2012-0040.pdf> [as of June 14, 2018].

¹¹⁰ [Letter from Water Division Acting Director Nancy Woo, U.S. EPA, to Bruce H. Wolfe \(July 3, 2012\)](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/TB_Mercury/USEPA_Tomales_Bay_TMDL_Apprvl_Ltr_070312.pdf), at <http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/TB_Mercury/USEPA_Tomales_Bay_TMDL_Apprvl_Ltr_070312.pdf> [as of June 5, 2018].

ii. Shelter Island Yacht Basin Copper TMDL

The San Diego Regional Water Board adopted the Shelter Island Yacht Basin (SIYB) Copper TMDL (SIYB Copper TMDL) to address the impairment of the SIYB due to dissolved copper.

- Source Analysis

There are ten (10) recreational marinas and yacht clubs with facilities in the SIYB that are potential sources of the copper loads. These facilities include the anchorage, fuel dock, various boat maintenance activities (i.e. painting), and other industrial activities that involve storage or use of materials containing copper. The primary source of dissolved copper in the SIYB are anti-fouling paints present on the hulls of boats moored in the SIYB marina and hull maintenance activities. Insignificant copper contributions from urban runoff into the SIYB include brake pads, tires, water pipe leaching, architectural structures, and other industrial sources and activities.^{111,112}

- WLA Translation

The SIYB Copper TMDL identified the following responsible parties for point source discharges of copper into the SIYB: Municipal Separate Storm Sewer System (MS4s), industrial facilities regulated by this General Permit (SIYB marina owners and operators), owners of boats moored in the SIYB, and SIYB underwater hull cleaners.

Responsible Dischargers (which includes SIYB marina owners and operators) were not directly assigned a WLA since the TMDL defined them as a part of urban runoff, which contributes to 1% of the load. The SIYB Copper TMDL does not require a reduction in current copper loads from urban runoff because urban runoff is a relatively insignificant source of copper contributing to the impairment.¹¹³ The municipality has the responsibility of addressing urban runoff in its MS4 permit. No additional requirements are to be incorporated into this General Permit.

¹¹¹ San Diego Regional Water Quality Control Board. [Total Maximum Daily Load for Dissolved Copper in Shelter Island Yacht Basin, San Diego Bay \(February 2005\) Finding 7](https://www.waterboards.ca.gov/sandiego/water_issues/programs/watershed/docs/swu/shelter_island/techrpt020905.pdf) <https://www.waterboards.ca.gov/sandiego/water_issues/programs/watershed/docs/swu/shelter_island/techrpt020905.pdf> [as of June 5, 2018].

¹¹² Total Maximum Daily Load for Dissolved Copper in Shelter Island Yacht Basin, San Diego Bay, pp. A-3. 22.

¹¹³ Total Maximum Daily Load for Dissolved Copper in Shelter Island Yacht Basin, San Diego Bay, Table 4-12, p. 4.

- Compliance Actions and Schedule

No additional requirements are incorporated into this General Permit to implement the SIYB Copper TMDL.

iii. Los Angeles Area Lakes TMDL

The U.S. EPA adopted Los Angeles Area Lakes TMDL on March 26, 2012, to address the impairment of Puddingstone Reservoir due to mercury.¹¹⁴

- Source Analysis

The majority of mercury and methylmercury loading is attributed to atmospheric deposition of pollutants to the lake surface. The point sources of mercury into Puddingstone Reservoir are storm water and urban runoff discharges, including discharges from industrial facilities in the northern subwatershed. Upland areas deliver pollutant loads in the water column or the sediment via tributaries and storm drains. Irrigation of the surrounding parklands may also contribute to the pollutant load.¹¹⁵ Table 10-11 of the Los Angeles Area Lakes TMDL summarizes the existing total annual mercury load from industrial facility discharges as 2.41 g/year; which is 3.38 percent of the total load.¹¹⁶

- WLA Translation

The Los Angeles Area Lakes TMDL assigns concentration-based WLAs for total mercury of 4.0 ng/L to be met at the facility's industrial discharge location(s) for discharges into Puddingstone Reservoir. In addition, an in-lake water column dissolved methylmercury target of 0.081 ng/L to be met in the receiving water.¹¹⁷

The WLA assigned to Responsible Dischargers for mercury and methylmercury is translated to an instantaneous maximum NEL because the

¹¹⁴ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 10-1.

¹¹⁵ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 10-24.

¹¹⁶ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 10-25.

¹¹⁷ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 10-29.

TMDL specifies compliance at the point of discharge.¹¹⁸ Both WLAs are converted to mg/L to be consistent with the units in this General Permit as shown in Table F.23.

TABLE F.23: Puddingstone Reservoir Mercury WLA Translation

Pollutant	WLA (ng/L)	Instantaneous Maximum NEL (mg/L)
Total Mercury	4.0	4 X 10 ⁻⁶
Dissolved Methylmercury	0.081	0.081 X 10 ⁻⁸

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NELS listed in Table E-2.

The Los Angeles Regional Water Board has not yet developed an Implementation Plan or schedule in their Basin Plan for the Los Angeles Area Lakes TMDL. Therefore, Responsible Dischargers are required to comply with the TMDL upon the Effective Date the TMDL Requirements.

iv. Los Angeles and Long Beach Harbors Waters TMDL¹¹⁹

The Los Angeles Regional Water Board adopted the Los Angeles and Long Beach Harbor Waters TMDL on September 2, 2010, to address the impairment and affected benthic communities of the Dominguez Channel, Greater Los Angeles, and Long Beach Harbor Waters due to cadmium, certain PAH compounds, chlordane, chromium, copper, DDT, dieldrin, lead, mercury, PCBs, toxaphene, toxicity, and zinc.¹²⁰

¹¹⁸ Los Angeles Area Lakes Total Maximum Daily Loads for Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs, p. 10-29.

¹¹⁹ Los Angeles Regional Water Quality Control Board. [Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters \(May 2011\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R11-008_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R11-008_RB_BPA.pdf> [as of June 5, 2018] (Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters Toxics TMDL).

¹²⁰ Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters Toxics TMDL, p. 2.

The introduction to Section II.F.6.f. of this Fact Sheet explains the nature of OC pesticides and how these pollutants interact in the environment.

- Source Analysis

Chromium, copper, lead, mercury, PAHs, and zinc are currently deposited into the watershed via urban runoff and then washed into storm drains and channels that discharge to the Dominguez Channel and Greater Harbor Waters. OC pesticides (Chlordane, DDT, dieldrin) and PCBs are legacy pollutants and remain present in the environment. Urban runoff and rainfall mobilize OC pesticides and PCBs bound to fine-grained particles, which are then washed into storm drains and channels that discharge to the Dominguez Channel and Greater Harbor Waters. Storm water runoff from manufacturing, military facilities, fish processing plants, wastewater treatment plants, oil production facilities in the watershed, and shipbuilding or repair yards in both the Port of Los Angeles and Port of Long Beach (Ports) have historically discharged untreated or partially treated wastes into the Greater Harbor Waters. In addition, storm water runoff from the Ports, commercial vessels (ocean going vessels and harbor craft), recreational vessels, and the re-suspension of contaminated sediments via natural processes and/or anthropogenic activities (including (ship) propeller wash within the Ports) also contributes to transport of pollutants within the Greater Harbor Waters.¹²¹

- WLA Translation

- 1.) Dominguez Channel and Torrance Lateral Interim Allocations

The Los Angeles and Long Beach Harbor Waters TMDL assigns an interim concentration-based WLA for copper, lead, and zinc to Responsible Dischargers to be met at the facility's industrial discharge location(s) for discharges into the Dominguez Channel or Torrance Lateral. The interim concentration-based WLA will be translated to an instantaneous maximum TNAL as an interim target for Responsible Dischargers until the final WLAs apply. The compliance deadline of the interim WLAs are upon effective date of the TMDL and therefore, apply at this time. The Interim TNALs are shown in Table F.24 below.

¹²¹ Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters Toxics TMDL, p. 6.

TABLE F.24: Dominguez Channel and Torrance Lateral Interim WLA Translations

Pollutant	WLA (ug/L)	Total Instantaneous Maximum TNAL (mg/L)
Copper	207.51	0.20751
Lead	122.88	0.12288
Zinc	898.87	0.89887

2.) Dominguez Channel and Torrance Lateral Final Allocations

The Los Angeles and Long Beach Harbor Waters TMDL assigns a concentration-based final WLA of copper, lead, and zinc to Responsible Dischargers to be met at the point of discharge for all discharges into the Dominguez Channel (above Vermont Avenue).¹²² The final WLA assigned are listed in Table F.25 below.

Exxon Mobil Torrance Refinery and “all other dischargers” are assigned a concentration-based WLA of copper, lead, and zinc equal to the sediment targets to be met at the facility’s industrial discharge location(s) for discharges into the Torrance Lateral. It is assumed that Responsible Dischargers are included in the “all other dischargers” definition.

The concentration-based WLA will be translated to an instantaneous maximum NEL. However, the NEL is not immediately effective because the compliance deadline for attaining the WLA for dischargers into Dominguez Channel and Torrance Lateral is outside of this General Permit’s term. The instantaneous maximum NELs for discharges into the Dominguez Channel and the Torrance Lateral are shown in Table F.25 below.

TABLE F.25: Dominguez Channel and Torrance Lateral Final WLA Translations

Pollutant	WLA (ug/L)	Total Instantaneous Maximum NEL (mg/L)
Copper	9.7*	0.0097
Lead	42.7*	0.0427
Zinc	69.7*	0.697

*Hardness used = 50 mg/L. Recalculated concentration-based allocations using ambient hardness at the time of sampling are

¹²² Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters Toxics TMDL, pp. 11-12.

considered consistent with the assumptions and requirements of these WLAs. In addition to the waste load allocations above, samples collected during flow conditions less than the 90th percentile of annual flow rates must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the CTR are achieved.

3.) Dominguez Channel Estuary and Greater Harbor Waters Interim Allocation

Interim sediment allocations are assigned to Responsible Dischargers for discharges into the Dominguez Channel Estuary and Greater Harbor Waters.

Directly implementing the interim sediment targets would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. Responsible Dischargers would normally have been assigned to meet the concentration-based sediment numeric targets of the Los Angeles and Long Beach Harbors Waters TMDL. However, as mentioned in the introduction of this section, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL interim allocation for discharges into Dominguez Channel Estuary and Greater Harbor Waters is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

4.) Dominguez Channel Estuary and Greater Harbor Waters Final Allocations

The Los Angeles and Long Beach Harbor Waters TMDL assigns a concentration-based final WLA of a grouping of metals and organics (identified in Table F.26 and F.27 below) to be met in the water column for discharges to Dominguez Channel Estuary and the Greater Harbor Waters.¹²³ Greater Harbor Waters include Inner and Outer Harbor, Main Channel, Consolidated Slip, Southwest Slip, Fish Harbor, Cabrillo Marina, Inner Cabrillo Beach, Los Angeles River Estuary, and San Pedro Bay. The concentration-based WLAs are translated to instantaneous maximum TNALs because the WLAs are assigned to be met at the receiving waters and not at the point of discharge. The assigned WLAs of copper, lead, and zinc are based on the Criteria Chronic Concentration, and is inappropriate to assign to storm water discharges. Therefore, the

¹²³ Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters Toxics TMDL, p. 13.

California Toxics Rule (CTR) Criterion Maximum (acute) Concentration is applied to Responsible Dischargers. The units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. However, the TNAL is not immediately effective because the compliance deadline for attaining the WLA for dischargers into Dominguez Channel Estuary and Greater Harbor Waters is outside of this General Permit's term. The instantaneous maximum TNALs assigned to Responsible Dischargers are shown in Table F.26 and F.27 below.

TABLE F.26: Dominguez Channel Estuary Final WLA Translations

Pollutant	WLA (ug/L)	Dissolved Salt Water Criterion Maximum Concentration (ug/L)	Total Salt Water Criterion Maximum Concentration (ug/L)	Total Instantaneous Maximum TNAL (mg/L)
4,4' DDT	0.00059			5.9 X10 ⁻⁷
Chlordane	0.00059			5.9 X10 ⁻⁷
Dieldrin	0.00014			1.4 X10 ⁻⁷
Copper	3.73	4.8	5.8**	0.0058
Lead	8.53	210	221**	0.221
PAHs*	0.049 ¹²⁴			0.000049
PCBs	0.00017			1.7 X10 ⁻⁷
Zinc	85.6	90	95**	0.095

* CTR human health criteria were not established for total PAHs. Therefore, the CTR criterion for individual PAHs of 0.049 µg/L is applied individually to benzo(a)anthracene, benzo(a)pyrene, and chrysene. The CTR criterion for Pyrene of 11,000 µg/L is assigned as an individual WLA to Pyrene. Other PAH compounds in the CTR shall be screened as part of the TMDL monitoring.

**Values were rounded to match Criterion significant figures.

¹²⁴ CTR human health criteria were not established for total PAHs. Therefore, the CTR criterion for individual PAHs of 0.049 µg/L is applied individually to benzo(a)anthracene, benzo(a)pyrene, and chrysene. The CTR criterion for Pyrene of 11,000 µg/L is assigned as an individual WLA to Pyrene. Other PAH compounds in the CTR shall be screened as part of the TMDL monitoring.

TABLE F.27: Greater Harbor Water Final WLA Translations

Pollutant	WLA (ug/L)	Dissolved Salt Water Criterion Maximum Concentration (ug/L)	Total Salt Water Criterion Maximum Concentration (ug/L)	Instantaneous Maximum TNAL (mg/L)
4,4' DDT	0.00059			5.9 X10 ⁻⁷
Copper	3.73	4.8	5.8**	0.0058
Lead	8.53	210	221**	0.221
PCBs	0.00017			1.7 X10 ⁻⁷
Zinc	85.6	90	95**	0.095

**Values were rounded to match Criterion significant figures

5.) Dominguez Channel Estuary, Consolidated Slip and Fish Harbor Allocation

The Los Angeles and Long Beach Harbor Waters TMDL assigns a concentration-based final WLA of cadmium, chromium, and mercury to be met at the point of discharge for mercury discharges into Consolidated Slip and Fish Harbor, cadmium discharges into Dominguez Channel Estuary and Consolidated Slip, and chromium discharges into Consolidated Slip.¹²⁵ These requirements are in addition to the interim and final WLAs assigned to Dominguez Channel Estuary and Greater Harbor Waters.

Directly implementing the WLAs in Table F.28 below would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. As mentioned in the introduction of Section II.F.6.f. of this Fact Sheet, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed. Compliance with this General Permit is consistent with the requirements and assumptions of this portion of the TMDL's WLA(s) related to discharges into Dominguez Channel Estuary, Consolidated Slip and Fish Harbor.

¹²⁵ Dominguez Channel and Greater Los Angeles and Los Beach Harbor Waters Toxics TMDL, p. 17.

TABLE F.28: Dominguez Channel Estuary, Consolidated Slip and Fish Harbor WLA

Pollutant	WLA Suspended Sediment-Associated Contaminants (mg/kg)
Cadmium*	1.2
Chromium**	81
Mercury***	0.15

- * Applies to Dominguez Channel Estuary and Consolidated Slip
- ** Applies to Consolidated Slip
- *** Applies to Consolidated Slip and Fish Harbor

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum TNAL(s) or NELs listed in Compliance Table E-2.

The TMDL’s final compliance deadline is May 5, 2032. Therefore, the Dominguez Channel and Torrance Lateral Interim Allocation, Dominguez Channel Estuary and Greater Harbor Water Interim Allocations, and Dominguez Channel Estuary, Consolidated Slip and Fish Harbor Allocations are applied at this time. Allocations with a May 5, 2032 compliance deadline are not applied at this time. Future reissuances of this General Permit may incorporate additional or revised compliance requirements or interim targets to progress towards the required final compliance, when an instantaneous maximum NEL applies.

v. San Gabriel River Metals and Selenium TMDL¹²⁶

The U.S. EPA adopted the San Gabriel River Metals and Selenium TMDL on March 26, 2007, to address the impairment of the San Gabriel River, estuary, and tributaries due to copper, lead, selenium, and zinc. A TMDL was not developed for the elevated levels of selenium in Reach 6 during dry weather conditions because the sources of selenium appear to be related to natural levels of selenium in the soils.

¹²⁶ U.S. EPA, [Total Maximum Daily Loads for Metals and Selenium San Gabriel River and Impaired Tributaries \(March 2007\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/San%20Gabriel%20River%20Metals%20TMDL/final_sangabriel_metalstmdl_3-27-07.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/San%20Gabriel%20River%20Metals%20TMDL/final_sangabriel_metalstmdl_3-27-07.pdf> [as of June 5, 2018] (San Gabriel River Metals and Selenium TMDL).

- Source Analysis

The U.S. EPA adopted this TMDL in 2007 and there were 804 industrial storm water dischargers enrolled under this General Permit within the San Gabriel River Watershed (596 within the jurisdiction of the Los Angeles Regional Water Board and 208 within the jurisdiction of the Santa Ana Regional Water Quality Control Board [Santa Ana Regional Water Board]). The U.S. EPA determined that industrial discharges were a source of metals to the impaired water bodies. The potential for metal loading via storm water runoff from these sites is high, especially at metal plating, transit, and recycling facilities. Industrial sites typically have greater than 70 percent impervious cover and on-site sources of metals, which may explain the higher pollutant loadings observed in the study. In addition, industrial land use areas were found to contribute substantially higher fluxes of Total Suspended Solids (TSS) relative to many other land uses. During dry weather, the potential contribution of metal loadings from Responsible Dischargers is low.¹²⁷

- WLA Translations

The San Gabriel River Metals and Selenium TMDL assigns a mass-based WLA for copper, lead, and zinc in kg/d to be met at the facility's industrial discharge location(s) for discharges into the San Gabriel River Reach 2 or its tributaries, or Coyote Creek or its tributaries.¹²⁸

Directly implementing the copper, lead, and zinc WLAs would result in a unique mass load for each Responsible Discharger dependent on the sampling event. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. The San Gabriel River Metals and Selenium TMDL requires the WLAs be incorporated into this General Permit as wet-weather permit limitations expressed as event mean concentrations. "Permit limitations" are defined as "a water-quality based effluent limitation or a receiving water limitation."¹²⁹ Therefore, it is consistent with the requirements and assumption of the

¹²⁷ San Gabriel River Metals and Selenium TMDL, p. 20.

¹²⁸ San Gabriel River Metals and Selenium TMDL, p. 37.

¹²⁹ Los Angeles Regional Water Quality Control Board, [San Gabriel River TMDL Implementation Plan, \(June 2013\) pp. 3-4](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R13-004_RB_BPA.pdf)
<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R13-004_RB_BPA.pdf> [as of June 5, 2018].

WLAs to apply the San Gabriel River Metals and Selenium TMDL Numeric Targets as concentration-based effluent limitations.

The units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. The assigned instantaneous maximum NELs are shown in Table F.29 and F.30 below.

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

TABLE F.29: San Gabriel River Reach 2 WLA Translation

Pollutant	WLA (kg/d)	Numeric Targets (ug/L)	Total Instantaneous Maximum NELs (mg/L)
Lead	2.3	166	0.166

TABLE F.30: Coyote Creek WLA Translation

Pollutant	WLA (kg/d)	Numeric Targets (ug/L)	Total Instantaneous Maximum NELs (mg/L)
Copper	0.356	27	0.027
Lead	1.40	106	0.106
Zinc	2.1	158	0.158

Responsible Dischargers are assigned a concentration-based WLA for dry-weather discharges. NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges are assumed to not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on authorized NSWDs if deemed necessary per a site-specific analysis.

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NEL(s) listed in Table E-2.

The TMDL's final compliance deadline was September 30, 2017. Since this compliance deadline has passed, the WLAs shall be met upon the Effective Date of the TMDL Requirements.

vi. Los Cerritos Channel TMDL¹³⁰

The U.S. EPA adopted the Los Cerritos Metals TMDL on March 17, 2010, to address the impairment of Los Cerritos Channel due to copper, lead, and zinc.

- Source Analysis

About 9.1 percent of the watershed is identified as industrial land use. The U.S. EPA adopted this TMDL in 2010 and there were thirty-three (33) industrial storm water dischargers enrolled under this General Permit in the Los Cerritos Channel Watershed. Industrial sites typically have greater than 70 percent impervious cover and on-site sources of metals, which may explain the higher pollutant loadings observed in the study. In addition, industrial land use sites were found to contribute substantially higher fluxes of Total Suspended Solids (TSS) relative to many other land uses. The highest flux levels of lead were associated with agriculture, high density residential, and recreational land use sites. The highest EMCs for lead were associated with high density residential and industrial land use sites. Car brake pads are identified as a potential source for half of the copper loads deposited into the watershed via urban storm water runoff.¹³¹

- WLA Translation

The Los Cerritos Channel TMDL assigns a mass-based WLA for copper in dry weather and copper, lead, and zinc in wet weather per acre of the industrial facility in grams/day/acre to be met at the facility's industrial

¹³⁰ Los Angeles Regional Water Quality Control Board, [Los Cerritos Channel Total Maximum Daily Loads for Metals \(March 2010\)](http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Los%20Cerritos%20Channel%20Metals%20TMDL/03-18-10LosCerritosChannel-metalsTMDLs.pdf) <http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Los%20Cerritos%20Channel%20Metals%20TMDL/03-18-10LosCerritosChannel-metalsTMDLs.pdf> [as of June 5, 2018] (Los Cerritos Channel Metals TMDL).

¹³¹ Los Cerritos Channel Metals TMDL, pp. 4, 6, and 18.

discharge location(s) for discharges into Los Cerritos Channel¹³². Daily storm volume flows are required to calculate the WLA for each metal.

Directly implementing the copper, lead, and zinc WLAs would result in a unique mass load for each Responsible Discharger dependent on the daily storm water flows and the facility's industrial acreage. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. The Los Cerritos Channel TMDL requires the WLAs be incorporated into this General Permit as wet-weather permit limitations expressed as event mean concentrations.

"Permit limitations" are defined as "a water-quality based effluent limitation or a receiving water limitation."¹³³ Therefore, it is consistent with the requirements and assumption of the WLAs to apply the Los Cerritos Channel TMDL Numeric Targets as concentration-based effluent limitations.

The units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. The assigned instantaneous maximum NELs are and shown in Table F.31 below.

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

¹³² Los Cerritos Metals TMDL, p. 34.

¹³³ Los Angeles Regional Water Quality Control Board, [Los Cerritos Channel TMDL Implementation Plan, pp. 3-4.](#)

<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R13-004_RB_BPA.pdf> [as of June 5, 2018].

TABLE F.31: Los Cerritos Channel WLA Translation

Pollutant	WLA¹³⁴ (grams/day/acre)	Numeric Targets (ug/L)	Total Instantaneous Maximum NELs (mg/L)
Copper	$0.497 \times 10^{-3} \times$ daily volume (L)	9.8	0.0098
Lead	$.835 \times 10^{-3} \times$ daily volume (L)	55.8	0.0558
Zinc	4.860×10^{-3} daily volume(L)	95.6	0.0956

Responsible Dischargers are assigned a copper concentration-based WLA for dry-weather discharges. NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges are assumed to not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on authorized NSWDs if deemed necessary per a site-specific analysis.

- Compliance Actions and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NEL(s) listed in Table E-2.

The TMDL’s final compliance deadline was September 30, 2017. Since this compliance deadline has passed, the WLAs shall be met upon the Effective Date of the TMDL Requirements.

¹³⁴ There is a typo in Table 6-9 of the TMDL that has been addressed here. The WLA value for each pollutant should be divided by a factor of one million. ([Letter from NPDES Permits Section Manager David Smith, United States Environmental Protection Agency, to Jeanine Townsend \(Feb. 13, 2018\), at p. 2.](https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/comments_igp_amend_20180214/david_smith.pdf) at <https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/comments_igp_amend_20180214/david_smith.pdf>. [as of June 5, 2018].)

vii. Los Angeles River Metals TMDL¹³⁵

The Los Angeles Regional Water Board adopted the Los Angeles River Metals TMDL on April 9, 2015, to address the impairment of the Los Angeles River and all upstream reaches and tributaries due to cadmium, copper, lead, selenium, and zinc.

- Source Analysis

Dry weather loading from storm drains contribute a large percentage of the loading because of low flows but high concentration of dissolved metals. During wet weather most metals loadings are in the particulate form where storm water flows contribute a large percentage of cadmium, copper, lead, and zinc loading. At the time the TMDL was adopted, selenium levels were being assessed to determine if current levels are natural in this watershed.¹³⁶

- WLA Translation

The Los Angeles River Metals TMDL assigns a mass-based WLA for cadmium, copper, lead, and zinc based on the acreage of the facility in grams/day/acre to be met at the facility's industrial discharge location(s) for discharges into the Los Angeles River or tributaries (Los Angeles River Watershed).¹³⁷ In addition, daily storm volume flows are required to calculate the WLA for each metal.

Directly implementing the copper, lead, and zinc WLAs would result in a unique mass load for each Responsible Discharger dependent on the daily storm water flows and the facility's industrial acreage. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. The Los Angeles River Metals TMDL Staff Report allows for compliance to be assessed based on concertation. Additionally, the TMDL Staff Report states, "The wet-weather mass-based waste load allocation for the general construction and industrial storm water permittees (Table 6-12) will be incorporated into watershed specific general

¹³⁵ Los Angeles Regional Water Quality Control Board, [Los Angeles Rivers and Tributaries Metals TMDL \(April 2015\)](https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/112_new/LARMetals2015Revision_Ch7BPA_adoptedbyRBon040915_clean.pdf) <https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/112_new/LARMetals2015Revision_Ch7BPA_adoptedbyRBon040915_clean.pdf> [as of June 5, 2018] (Los Angeles River Metals TMDL).

¹³⁶ Los Angeles River Metals TMDL, p. 4.

¹³⁷ Los Angeles River Metals TMDL, p. 13.

permits. Concentration based permit conditions may be set to achieve the mass-based waste load allocations. These concentration-based conditions would be equal to the concentration-based waste load allocations assigned to the other NPDES permits.”¹³⁸ Therefore, it is consistent with the requirements and assumptions of the WLA to apply the Los Angeles River Metals TMDL Numeric Targets as concentration-based effluent limitations.¹³⁹

The numeric targets are translated to instantaneous maximum NELs because it is consistent with the requirements and assumptions of the Los Angeles River Metals TMDL to apply the Numeric Targets as permit limitation. The units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. The assigned instantaneous maximum NELs are shown in Table F.32 below and the WER of 3.97 is used for copper.

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

¹³⁸ Los Angeles Regional Water Quality Control Board. [Los Angeles River and Tributaries Metals Staff Report \(June 2005\)](#), p. 61.

<https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2005-006/05_0831/05_0831_FinalStaffReport.pdf> [as of June 5, 2018].

¹³⁹ The concentration-based WLA assigned to other NPDES permits are the Numeric Targets.

TABLE F.32: Los Angeles River WLA Translation

Pollutant	WLA (grams/day/acre)	Numeric Targets (ug/L)	Total Instantaneous Maximum NELs (mg/L)
Cadmium	WER x (7.6×10^{-12}) x daily volume (L) – (4.8×10^{-6})	WER X 3.1	0.0031
Copper	WER x (4.2×10^{-11}) x daily volume (L) – (2.6×10^{-5})	WER* X 17	0.06749
Lead	WER x (2.3×10^{-10}) x daily volume (L) – (8.7×10^{-5})	WER X 94	0.094
Zinc	WER x (3.9×10^{-10}) x daily volume (L) – (2.2×10^{-4})	WER X 159	0.159

* The WER for this constituent is 3.97

Responsible Dischargers are assigned a concentration-based WLA for dry-weather discharges. NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges are assumed to not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on NSWDs if deemed necessary per a site-specific analysis.

- **Compliance Actions and Schedule**

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility’s industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NEL(s) listed in Table E-2.

The TMDL’s final compliance deadline was January 11, 2016. Since this compliance deadline has passed, the WLAs shall be met upon the Effective Date of the TMDL Requirements.

viii. Calleguas Creek Metals and Selenium TMDL¹⁴⁰

The Los Angeles Regional Water Board adopted the Calleguas Creek Watershed Metals and Selenium TMDL on October 13, 2016, to address the impairment of Calleguas Creek, Mugu Lagoon, and Revolon Slough due to copper, mercury, nickel, and selenium.

- Source Analysis

Metals and selenium are deposited into the watershed via urban runoff, agricultural runoff, groundwater seepage, and POTW effluent. Higher loads were deposited during wet weather for all constituents due to the association between metals and particulate matter. The source analysis indicates that naturally occurring metals and selenium are all a contributing source of loading. Calleguas Creek Watershed Metals and Selenium TMDL identifies special studies to be performed to assess the extent of naturally occurring metals and selenium that exist in the soil.¹⁴¹

- WLA Translation

- 1.) Calleguas Creek Watershed Interim Allocation

Calleguas Creek Watershed Metals and Selenium TMDL assigns an interim concentration-based WLA for copper to “Permitted Stormwater Dischargers (PSDs)” to be met at the facility’s industrial discharge location(s) for discharges into Calleguas Creek and Revolon Slough. Responsible Dischargers are identified as a PSD as clarified in the Implementation Plan section of the TMDL and in footnote 2 in the Implementation Schedule. The interim wet daily maximum concentration-based WLA will be translated to an instantaneous maximum TNAL as an interim target for Responsible Dischargers until the final WLAs apply. The compliance deadline of the interim WLAs are upon effective date of the TMDL. The Interim TNALs are shown in Table F.33 and F.34 below.

¹⁴⁰ Los Angeles Regional Water Quality Control Board, [Total Maximum Daily Load for Metals and Selenium in the Calleguas Creek, its Tributaries, and Mugu Lagoon \(October 2016\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R16-007_RB_BPA.pdf) <https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R16-007_RB_BPA.pdf> [as of June 5, 2018] (Calleguas Creek Metals and Selenium TMDL).

¹⁴¹ Calleguas Creek Metals and Selenium TMDL, p. 4.

TABLE F.33: Calleguas and Conejo Creek Interim WLA Translations

Pollutant	WLA (ug/L)	Total Instantaneous Maximum TNALs (mg/L)
Copper	204	0.204

TABLE F.34: Revolon Slough Interim WLA Translations

Pollutant	WLA (ug/L)	Total Instantaneous Maximum TNALs (mg/L)
Copper	204	0.204

2.) Calleguas Creek Watershed Final Allocation

Calleguas Creek Watershed Metals and Selenium TMDL assigns a final mass-based WLA for copper, nickel, and selenium in pounds per day to “Permitted Stormwater Dischargers (PSDs)” to be met in the water column of Calleguas Creek or Revolon Slough.¹⁴² Responsible Dischargers are identified as a PSD as clarified in the Implementation Plan section of the TMDL and in footnote 2 in the Implementation Schedule. The WLAs for each metal are shown in Table F.35 and F.36 below.

TABLE F.35: Calleguas Creek WLA

Pollutant	WLA (lbs/d)
Copper*	$(0.00054*Q^2 + 0.032*Q - 0.17)*WER - 0.06$
Nickel**	$0.014*Q^2 + 0.82*Q$
Selenium**	(a)

*The approved site-specific WER of 1.51 for Mugu Lagoon is used to calculate the assigned WLAs for discharges to Calleguas and Conejo Creek to ensure the downstream standard is achieved. Permitted storm water dischargers may apply a WER of up to 3.69 for discharges to upstream reaches, with the exception of Reaches 4 and 5, to calculate the assigned WLAs. If a WER of greater than 1.51 is applied, permitted storm water dischargers shall be required to provide detailed quantitative analysis to demonstrate that the WLAs as modified by the WER are protective of downstream reaches. No site specific WER for Revolon Slough was approved so default WER value of 1 is applied. Regardless of the final WERs, total copper loading shall not exceed current loading.

**Current loads do not exceed loading capacity during wet weather. Sum of all loads cannot exceed loads presented in the

¹⁴² Calleguas Creek Metals and Selenium TMDL, pp. 7, 8, and 18.

table Q: Daily storm volume (cfs). (a) Selenium allocations have not been developed for this reach as it is not on the 303(d) list.

TABLE F.36: Revolon Slough WLA

Pollutant	WLA (lbs/d)
Copper*	$(0.0002*Q^2+0.0005*Q)*WER$
Nickel**	$0.027*Q^2+0.47*Q$
Selenium**	$0.027*Q^2+0.47*Q$

*The approved site specific WER of 1.51 for Mugu Lagoon is used to calculate the assigned WLAs for discharges to Calleguas and Conejo Creek to ensure the downstream standard is achieved. Permitted storm water dischargers may apply a WER of up to 3.69 for discharges to upstream reaches, with the exception of Reaches 4 and 5, to calculate the assigned WLAs. If a WER of greater than 1.51 is applied, permitted storm water dischargers shall be required to provide detailed quantitative analysis to demonstrate that the WLAs as modified by the WER are protective of downstream reaches. No site specific WER for Revolon Slough was approved so default WER value of 1 is applied. Regardless of the final WERs, total copper loading shall not exceed current loading.

**Current loads do not exceed loading capacity during wet weather. Sum of all loads cannot exceed loads presented in the table Q: Daily storm volume (cfs).

Directly implementing the copper, nickel, and selenium WLAs would result in a unique mass load for each Responsible Discharger dependent on the sampling events and daily storm water flows from the facility’s industrial areas. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. The Calleguas Creek Metals and Selenium TMDL allows for compliance to be assessed as a concentration in the form of a group concentration-based WLA.¹⁴³ The Staff Report states, “a group concentration-based WLA has been developed for all permitted stormwater discharges, including municipal separate storm sewer systems (MS4s), Caltrans, general industrial and construction stormwater permits, and Naval Air Weapons Station Point Mugu.”¹⁴⁴ “USEPA regulation allows allocations for NPDES regulated stormwater discharges from multiple point sources to be expressed as a single categorical WLA when the data and information are insufficient to assign

¹⁴³ Calleguas Creek Metals and Selenium TMDL, p. 17.

¹⁴⁴ Calleguas Creek Metals and Selenium TMDL, p. 17.

each source or outfall individual WLAs (40 CFR 130). The grouped allocation will apply to all NPDES-regulated municipal stormwater discharges in the CCW.”¹⁴⁵ Therefore, it is consistent with the requirements and assumption of the WLA to apply the Calleguas Creek Metals and Selenium TMDL Numeric Targets as concentration-based effluent limitations.

Responsible Dischargers shall comply with the concentration-based numeric targets of the Calleguas Creek Watershed Metals and Selenium TMDL, which includes discharges into Reach 1, Reach 2, Reach 3, Reach 4, Reach 5, Reach 6, Reach 7, Reach 8, Reach 9A and 9B, Reach 10, Reach 11, Reach 12, and Reach 13. The WER of 1.51 is applied to copper for dischargers into Mugo Lagoon (Reach 1) and a WER of 3.69 is applied to copper for dischargers into Calleguas Creek, below Potrero Road (Reach 2). The wet-weather numeric targets of the Calleguas Creek Watershed Metals and Selenium TMDL are shown in Table F.37 below.

¹⁴⁵ [The Calleguas Creek Metals and Selenium TMDL Draft Final Technical Report \(March 2006\), p. 174](#)

<https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2006-012/06%20TMDL%20Technical%20%20Report%2003%2029%2006.pdf> [as of June 18, 2018].

TABLE F.37: Calleguas Creek Numeric Targets

Reach	Total Copper (ug/L)	Total Nickel (ug/L)	Total Selenium* (ug/L)
Mugu Lagoon (Reach 1)	8.76	74	--
Calleguas Creek, below Potrero Rd. (Reach 2)	21.4	74	--
Calleguas Creek, between Potrero Rd. and Somis Rd. (Reach 3)	27.4	859	--
Revolon Slough (Reach 4) and Beardsley Wash (Reach 5)	5.8	75	290
Arroyo Las Posas (Reach 6), Arroyo Simi (Reach 7), and Tapo Canyon Creek (Reach 8)	31.0	958	--
Conejo Creek (Reaches 9A & 9B), Arroyo Conejo (Reach 10), Arroyo Santa Rosa (Reach 11), North Fork Arroyo Conejo (Reach 12), and South Fork Arroyo Conejo (Reach 13)	43.3	1296	--

*The selenium WLA equivalents are only applicable to Industrial Storm Water General Permittees whose authorized non-storm water discharges and/or storm water discharges associated with industrial activities discharge to Revolon Slough or Beardsley Wash either directly, via a municipal separate storm sewer system (MS4), or into an upstream reach or tributary.

The units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. The assigned instantaneous maximum NELs are show in Table F.38 below.

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

TABLE F.38: Calleguas Creek WLA Translation

Reach	Total Copper Instantaneous Maximum NEL (mg/L)	Total Nickel Instantaneous Maximum NEL (mg/L)	Total Selenium^a Instantaneous Maximum NEL (mg/L)
Mugu Lagoon (Reach 1)	0.00876	0.074	--
Calleguas Creek, below Potrero Rd. (Reach 2)	0.0214	0.074	--
Calleguas Creek, between Potrero Rd. and Somis Rd. (Reach 3)	0.0274	0.859	--
Revolon Slough (Reach 4) and Beardsley Wash (Reach 5)	0.0058	0.075	0.290
Arroyo Las Posas (Reach 6), Arroyo Simi (Reach 7), and Tapo Canyon Creek (Reach 8)	0.031	0.958	--
Conejo Creek (Reaches 9A & 9B), Arroyo Conejo (Reach 10), Arroyo Santa Rosa (Reach 11), North Fork Arroyo Conejo (Reach 12), and South Fork Arroyo Conejo (Reach 13)	0.0433	1.29	--

Calleguas Creek Watershed Metals and Selenium TMDL assigns a mass-based WLA for mercury in suspended sediment (lbs/year) to Responsible Dischargers to be met in Calleguas Creek and in Revolon Slough. The WLA for mercury is shown in Table F.39 below.

TABLE F.39: Calleguas Creek and Revolon Slough Mercury WLA

Flow Range	Calleguas Creek Mercury WLA Interim (lb/yr)	Calleguas Creek Mercury WLA Final (lb/yr)	Revolon Slough Mercury WLA Interim (lb/yr)	Revolon Slough Mercury WLA Final (lb/yr)
0-15,000 MGY	3.3	0.4	1.7	0.1
15,000-25,000 MGY	10.5	1.6	4	0.7
Above 25,000 MGY	64.6	9.3	10.2	1.8

The mass-based mercury WLA is assigned at the receiving waters and is dependent on receiving water flow. Directly implementing the mercury WLAs would result in a unique mass load for each Responsible Discharger that would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. As mentioned in the introduction of Section II.F.6.f of this Fact Sheet, this TMDL associates

receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates, as such, a suspended sediment load is assigned. This TMDL is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed. Compliance with this General Permit is consistent with the requirements and assumptions of this portion of the TMDL's WLAs related to discharges into Calleguas Creek and/or Revolon Slough.

Responsible Dischargers are assigned a concentration-based WLA for dry-weather discharges. NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges are assumed to not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on NSWDs if deemed necessary per a site-specific analysis.

- Compliance Action and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum interim TNAL(s) listed in Table E-2.

The TMDL's final compliance deadline is March 27, 2022. Since interim WLAs have been assigned, these interim WLAs shall be expressed as TNALs and shall apply in the interim until the final WLAs apply as NELs. Future reissuances of this General Permit may incorporate additional or revised compliance requirements or interim targets to progress towards the required final compliance, when an instantaneous maximum NEL applies.

ix. Marina del Rey Harbor Toxics TMDL¹⁴⁶

The Los Angeles Regional Water Board adopted the Marina del Rey Harbor Toxics TMDL on February 6, 2014, to address the impairment of Marina del Rey

¹⁴⁶ Los Angeles Regional Water Quality Control Board, [Marina del Rey Harbor Toxic Pollutants TMDL \(February 2014\)](#)

Harbor due to chlordane, copper, DDT, dieldrin, fish consumption advisory, lead, PCBs, sediment toxicity, and zinc. During the development of this TMDL, data review indicated that 1) dieldrin is no longer a cause of impairment and 2) there is a dissolved copper impairment in the water column and sediment.

Section F.6.f explains the nature of OC pesticides and how these pollutants interact in the environment.

- Source Analysis

Urban storm water has been recognized as a substantial source of metals. Metals are typically associated with fine particles in storm water runoff and have the potential to accumulate in sediments and become toxic. Copper-based anti-fouling paints are recognized as substantial sources of dissolved copper to the water column. The contribution from passive leaching to the water column impairments was modeled and shown to contribute 94 percent of the copper loading from anti-fouling hull paint and the remaining 6 percent of the impaired results from hull cleaning activities. The majority of organic constituents in storm water are also associated with particulates. Direct deposition of airborne particles to the water surface may be a minor source responsible for contributing metals and organic pollutants to the Marina del Rey Harbor¹⁴⁷.

- WLA Translation

The Marina del Rey Harbor Toxics TMDL assigns a mass-based WLA for chlordane, copper, total DDTs, Dichlorodiphenyldichloroethylene (p,p'DDE), lead, total PCBs, and zinc based on the acreage of the facility's industrial area in grams/year/acre or mg/yr/acre to be met at the facility's industrial discharge location(s) for discharges into the Marina del Rey Harbor.

Directly implementing the chlordane, copper, p,p'DDE, lead, total DDTs, total PCBs, and zinc WLAs would result in a unique mass load for each Responsible Discharger dependent on the facility's industrial acreage. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. Responsible Dischargers would normally have been assigned to meet the concentration-based numeric targets of the Marina del Rey Harbor Toxics TMDL. However, as mentioned in the introduction of Section II.F.6.f of this Fact Sheet, this TMDL associates receiving water bed toxicity targets to discharges of OC

<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/R14-004_RB_BPA.pdf> [as of June 5, 2018].

¹⁴⁷ Marina del Rey Harbor Toxic Pollutants TMDL, pp. 3-4.

pesticides, PAHs, PCBs, and/or metals bound to sediment particulates, as such, a suspended sediment load is assigned. This TMDL is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

100 percent of the copper loadings into the Marina del Rey Harbor comes from the leaching of antifouling hull paint and from hull cleaning operations. Therefore, the copper numeric target will not be assigned to Responsible Dischargers and compliance with this WLA shall be through compliance with this General Permit and the existing copper NAL for facilities with industrial sources of copper with the potential to discharge to waters of the United States.

TABLE F.40: Marina del Rey Harbor Metal WLA

Pollutant	WLA (g/yr/ac)
Copper	1.9
Lead	2.6
Zinc	8.5

TABLE F.41: Marina del Rey Harbor OC Pesticides WLA

Pollutant	WLA (mg/yr/ac)
Chlordane	0.03
p,p' - DDE	0.12
Total DDTs	0.09
Total PCBs	1.3

- Compliance Action and Schedule:

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Marina del Rey Harbor Toxics TMDL.

x. Ballona Creek Estuary Toxics TMDL¹⁴⁸

The Los Angeles Regional Water Board adopted the Ballona Creek Estuary Toxics TMDL on July 7, 2005, to address the impairment of the Ballona Creek and Ballona Creek Estuary (Ballona Watershed) due to cadmium, chlordane,

¹⁴⁸ Los Angeles Regional Water Quality Control Board, [Ballona Creek Estuary Toxic Pollutants TMDL \(December 2013\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/Ballona%20Toxics/R13-010T_RB_BPA.pdf)

<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/Ballona%20Toxics/R13-010T_RB_BPA.pdf> [as of June 5, 2018].

copper, DDT, lead, PCBs, PAHs, silver, toxicity in sediment, and zinc. The Ballona Creek Estuary Toxics TMDL does not include a PAH TMDL because recent data does not show PAH levels exceeding the numeric targets.¹⁴⁹

Section F.6.f explains the nature of OC pesticides and how these pollutants interact in the environment.

- Source Analysis

The Ballona Creek Estuary Toxics TMDL identifies urban storm water as a significant source of metals and the most prevalent metals in urban storm water are consistently associated with suspended solids¹⁵⁰.

- WLA Translations

Ballona Creek Estuary Toxics TMDL assigns a mass-based WLA for cadmium, copper, lead, silver, and zinc in sediment in g/yr/acre to be met at the facility's industrial discharge location(s) for discharges into the Ballona Watershed.^{151,152} The WLAs for each metal are shown in Table F.42 below.

Directly implementing the cadmium, copper, lead, silver, and zinc WLAs would result in a unique mass load for each Responsible Discharger dependent on the facility's industrial acreage. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. Responsible Dischargers would normally have been assigned to meet the concentration-based numeric targets of the Ballona Creek Estuary Toxics TMDL. However, as mentioned in the introduction of this section, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

¹⁴⁹ Ballona Creek Estuary Toxic Pollutants TMDL, p. 2.

¹⁵⁰ Ballona Creek Estuary Toxic Pollutants TMDL, p. 3.

¹⁵¹ Ballona Creek Estuary Toxic Pollutants TMDL, p. 7.

¹⁵² Ballona Creek Estuary Toxic Pollutants TMDL, p. 5.

TABLE F.42: Ballona Creek Metal WLA

Pollutant	WLA (g/yr/ac)
Cadmium	0.1
Copper	3
Lead	4
Silver	0.1
Zinc	13

TABLE F.43: Ballona Creek Organic WLA

Pollutant	WLA (mg/yr/ac)
Chlordane	0.1
DDTs	3
Total PCBs	4

The Ballona Creek Estuary Toxics TMDL assigns a mass-based WLA for chlordane, DDTs, and total PCBs in mg/yr/ac at the facility’s industrial discharge location(s) for discharges into the Ballona Watershed.¹⁵³

Directly implementing the DDT and PCB WLAs would result in a unique mass load for each Responsible Discharger dependent on the facility’s industrial acreage. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. Responsible Dischargers would normally have been assigned to meet the concentration-based numeric targets of the Ballona Creek Estuary Toxics TMDL. However, as mentioned in the introduction of Section II.F.6.f of this Fact Sheet, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment particulates. Therefore, this TMDL is addressed by complying with this General Permit’s Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

¹⁵³ Ballona Creek Estuary Toxic Pollutants TMDL, pp. 5-6.

- Compliance Action and Schedule

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the Ballona Creek Estuary Toxics TMDL.

xi. Ballona Creek Metals TMDL¹⁵⁴

The Los Angeles Regional Water Board adopted the Ballona Creek Metals TMDL on December 5, 2013, to address the impairment of Ballona Creek and Sepulveda Canyon Channel due to copper, lead, selenium, toxicity, and zinc. The Ballona Metals TMDL does not include a selenium TMDL because recent data did not show selenium levels exceeding the numeric targets.¹⁵⁵

- Source Analyses

Storm drains convey a large percentage of dissolved metal loadings during dry weather. During wet weather, most of the metal loadings in Ballona Creek are in particulate form and are associated with storm water flows.¹⁵⁶

- WLA Translation

The Ballona Creek Metals TMDL assigns a mass-based WLA for copper, lead, and zinc based on the acreage of the facility in grams/day/acre to be met at the facility's industrial discharge location(s) for discharges into Ballona Creek or Sepulveda Channel. In addition, daily storm volume flows are required to calculate the WLA for each metal. The WLAs for each metal are shown in Table F.44 below¹⁵⁷.

Directly implementing the copper, lead, and zinc WLAs would result in a unique mass load for each Responsible Discharger dependent on the daily storm water flows and the facility's industrial acreage. Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. The Ballona Creek Metals TMDL

¹⁵⁴ Los Angeles Regional Water Quality Control Board, [Ballona Creek Metals TMDL \(December 2013\)](https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/Ballona%20Metals/R13-010M_RB_BPA.pdf)

<https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/docs/Ballona%20Metals/R13-010M_RB_BPA.pdf> [as of June 5, 2018].

¹⁵⁵ Ballona Creek Metals TMDL, p. 2.

¹⁵⁶ Ballona Creek Metals TMDL, pp. 3-4.

¹⁵⁷ Ballona Creek Metals TMDL, p. 4.

allows for compliance to be assessed based on concentration and/or load allocation.¹⁵⁸ Additionally, the TMDL Staff Report states, “The wet-weather mass-based waste load allocations for the general construction and industrial storm water permittees (Table 6-12) will be incorporated into watershed specific general permits. Concentration-based permit conditions may be set to achieve the mass-based waste load allocations. These concentration-based conditions would be equal to the concentration-based waste load allocations assigned to the other NPDES permits as described in Section 6.4.3 and Table 3-3.”¹⁵⁹ Therefore, it is consistent with the requirements and assumption of the WLA to apply the Ballona Creek Metals and Selenium TMDL Numeric Targets as concentration-based effluent limitations.¹⁶⁰

The units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. The assigned instantaneous maximum NELs are shown in Table F.44 below.

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

¹⁵⁸ Ballona Creek Metals TMDL, p. 12.

¹⁵⁹ Los Angeles Regional Water Quality Control Board, [Ballona Creek Metals TMDL Staff Report \(July 2005\)](https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2005-007/05_0831/StaffReport.pdf) <https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/2005-007/05_0831/StaffReport.pdf> [as of June 5, 2018].

¹⁶⁰ The concentration-based WLA assigned to other NPDES permits are the Numeric Targets.

TABLE F.44: Ballona Creek and Sepulveda Channel WLA Translation

Pollutant	WLA (g/day/acre)	Numeric Target (ug/L)	Total Instantaneous Maximum NEL (mg/L)
Copper	1.673 x 10 ⁻¹⁰ x Daily storm volume (L)	13.70	0.0137
Lead	9.369x 10 ⁻¹⁰ x Daily storm volume (L)	76.75	0.07675
Zinc	1.279 x 10 ⁻⁹ x Daily storm volume (L)	104.77	0.10477

Responsible Dischargers are assigned a concentration-based WLA for dry-weather discharges. NSWDs are only authorized in this General Permit if Section IV conditions are met to control the discharge of pollutants from the facility. Section III.B prohibits all NSWDs not authorized under Section IV; therefore, all unauthorized NSWDs must be either eliminated or have regulatory coverage under a separate NPDES permit. Authorized NSWDs, as defined in this General Permit, are authorized because these discharges are assumed to not commingle with storm water associated with industrial activity. The Los Angeles Regional Water Board may impose additional requirements on NSWDs if deemed necessary per a site-specific analysis.

- Compliance Action and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NEL(s) listed in Table E-2.

The TMDL's final compliance deadline was January 11, 2016. Since this compliance deadline has passed, the WLAs shall be met by the upon the Effective Date of the TMDL Requirements.

xii. San Diego Creek and Newport Bay Toxics TMDL¹⁶¹

The U.S. EPA adopted the San Diego Creek and Newport Bay Toxics TMDL on June 14, 2002, to address the impairments of San Diego Creek and Newport

¹⁶¹ U.S. EPA, [Total Maximum Daily Loads For Toxic Pollutants San Diego Creek and Newport Bay \(June 2002\)](#)

Bay due to cadmium, chlordane, chlorpyrifos, chromium, copper, DDT, diazinon, dieldrin, lead, mercury, PCBs, selenium, toxaphene, and zinc.¹⁶²

Section F.6.f explains the nature of OC pesticides and how these pollutants interact in the environment.

- Source Analysis:

Urban road runoff is the largest contributor due to cadmium from tires, copper from brakes and tires, lead from brakes, tires, fuels, and oils, and zinc from tires, brakes, and auto frames.¹⁶³ Secondary contributions come from contaminated sediments, atmospheric deposition from unknown sources, and antifouling paints from recreational boats.¹⁶⁴ The largest sources of most dissolved metals (except copper) for the Upper and Lower Newport Bay are estimated to be freshwater-borne loads from San Diego Creek.¹⁶⁵ The most significant estimated source for dissolved copper in Lower Bay, Rhine Channel and, to some extent, Upper Bay is sourced from copper anti-fouling paint leaching from recreational boats and underwater hull cleaning.¹⁶⁶

The mercury and chromium contaminated sediments in the Rhine Channel are likely associated with historic discharges from industrial facilities around the channel.¹⁶⁷

- WLA Translation

The San Diego Creek and Newport Bay Toxics TMDL assigns a WLA for cadmium, chromium, copper, lead, mercury, and zinc to Responsible Dischargers to be met at the facility's industrial discharge location(s) for discharges into Newport Bay or the San Diego Creek and its tributaries.

<http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/sd_crk_nb_toxic_tmdl/summary0602.pdf> (San Diego Creek and Newport Bay Toxics TMDL) [as of June 5, 2018].

¹⁶² San Diego Creek and Newport Bay Toxics TMDL, p. 3.

¹⁶³ San Diego Creek and Newport Bay Toxics TMDL, p. 13.

¹⁶⁴ San Diego Creek and Newport Bay Toxics TMDL, p. 13.

¹⁶⁵ San Diego Creek and Newport Bay Toxics TMDL, p. 44.

¹⁶⁶ San Diego Creek and Newport Bay Toxics TMDL, p. 44.

¹⁶⁷ San Diego Creek and Newport Bay Toxics TMDL, p. 65.

The following list shows the water body and the associated pollutants with assigned WLAs:¹⁶⁸

- 1.) San Diego Creek: cadmium, copper, lead, and zinc
- 2.) Upper Newport Bay: cadmium, copper, lead, and zinc
- 3.) Lower Newport Bay: copper, lead, and zinc
- 4.) Rhine Channel area of Lower Newport Bay: chromium, copper, lead, mercury, and zinc

- San Diego Creek WLA Translation

The San Diego Toxics TMDL assigns WLAs for cadmium, copper, lead, and zinc to the category “Other NPDES permittees” which includes Responsible Dischargers in addition to seven other NPDES permits.¹⁶⁹ The WLAs are assigned to Responsible Dischargers to be met at the facility’s industrial discharge location(s) for discharges into San Diego Creek and its tributaries including the Santa Ana-Delhi Channel, Big Canyon Channel, East Costa Mesa Channel, and other tributaries into San Diego Creek (San Diego Creek Watershed).¹⁷⁰ The WLA is hardness dependent, meaning the receiving water body hardness must be known to calculate the WLA.

Receiving water body hardness is dependent on receiving water body flow. The U.S. EPA calculated the hardness-dependent criteria for cadmium, copper, lead, and zinc as shown in Table 5-2 of the San Diego Toxics TMDL¹⁷¹ with the following CTR equation:

$$CMC = WER \times (Acute\ Conversion\ Factor) \times (exp\{mA[\ln(hardness)]+bA\})$$

Hardness is defined as the concentration of calcium carbonate (CaCO₃) in the water column and has the units of milligram per liter (mg/L). Freshwater aquatic life criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can reduce or increase the toxicity of some metals. The site-specific hardness is used to calculate the metal numeric targets.

¹⁶⁸ San Diego Creek and Newport Bay Toxics TMDL, p. 4.

¹⁶⁹ San Diego Creek and Newport Bay Toxics TMDL, p. 18.

¹⁷⁰ San Diego Creek and Newport Bay Toxics TMDL, p. 47.

¹⁷¹ San Diego Creek and Newport Bay Toxics TMDL, p. 42.

Only one hardness value is selected to be representative of the receiving water body instead of requiring Responsible Dischargers to sample for receiving water body hardness in concurrence with taking a discharge sample to calculate the metal criteria. This is consistent with the approach taken in many hardness-dependent TMDLs of assigning a hardness value based on existing data. The U.S. EPA and the Santa Ana Regional Water Board staff evaluated daily flow records of the San Diego Creek for 19 years.¹⁷² The San Diego Creek and Newport Bay TMDL developed multiple receiving water hardness values based on flow, and did not assign one hardness value to be representative of the San Diego Creek water body. Therefore, a hardness of 197 is the average hardness calculated for large flows and is selected as the typical hardness value associated with a storm event flow at San Diego Creek. Table 5-2 of the San Diego Toxics TMDL shows how the California Toxics Rule (CTR) equation was used to calculate the acute concentration criteria at a hardness of 197 mg/L.

TABLE F.45: San Diego Creek Watershed WLA Translation

Parameter	CTR equation	Total Criteria in ug/L based on a hardness of 197 mg/L	Total Criteria in mg/L	Total Instantaneous Maximum mg/L NEL
Cd	$(EXP(1.128 * LN(Hardness) - 3.6867))$	9.706092742	0.0097	0.0097
Cu	$(EXP(0.9422 * LN(Hardness) - 1.7))$	26.5182865	0.027	0.027
Pb	$(EXP(1.273 * LN(Hardness) - 1.460))$	193.5466070	0.194	0.194
Zn	$(EXP(0.8473 * LN(Hardness) + 0.884))$	212.8225073	0.21	0.21

*values are rounded to reflect the significant figures of each respective pollutant found in Table 2 of this General Permit

An average hardness of San Diego Creek was selected to calculate the criteria for translating each pollutant into a NEL in the San Diego Toxics TMDL because it is not feasible or practical to require Responsible Dischargers to collect the ambient hardness of the receiving water body in concurrence with each monitoring sample. Therefore, Responsible Dischargers are assigned an instantaneous maximum NEL for cadmium, copper, lead, and zinc for discharges to the San Diego Creek Watershed.

¹⁷² San Diego Creek and Newport Bay Toxics TMDL, pp. 3-4.

The monitoring requirements of this General Permit are at each facility's individual industrial discharge location(s).

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

- Upper Newport Bay, Lower Newport Bay and Bay Segments, and Rhine Channel WLA Translation

The mass-based WLAs for dissolved cadmium, copper, lead, and zinc are assigned to be met in the receiving water of Upper Newport Bay. The mass-based WLAs for dissolved copper, lead, and zinc are assigned to be met in the receiving water of Lower Newport Bay and the Rhine Channel.

Responsible Dischargers are assigned concentration-based WLAs for copper, lead, and zinc for discharges into Upper Newport Bay, Lower Newport Bay and Bay Segments (e.g. Costa Mesa Channel and Santa Ana Delhi Channel), and the Rhine Channel. A concentration-based WLA for cadmium is assigned to Responsible Dischargers for discharges into Upper Newport Bay.¹⁷³ The acute concentration values are assigned instead of the mass-based WLAs because they are more applicable due to the variable frequency and intensity of storm water events and flows and because the concentration WLAs are applied to direct discharges into Upper Newport Bay, Lower Newport Bay and Bay Segments, and the Rhine Channel.

The dissolved metals concentration-based WLAs are translated into total concentrations and the units are converted from ug/L to mg/L to be consistent with the reporting units in Table 2 of this General Permit. The concentration-based WLAs are translated into an instantaneous maximum NEL for cadmium, copper, lead, and zinc because the WLAs are directly assigned to Responsible Dischargers. The NELs are shown in Table F.46 below.

¹⁷³ San Diego Creek and Newport Bay Toxics TMDL, p. 49.

TABLE F.46: Upper Newport Bay*, Lower Newport Bay and Bay Segments, and Rhine Channel WLA Translation

Parameter	Dissolved saltwater acute TMDLs and allocations (ug/L)	CTR Conversion Factor for salt water acute criteria	Total saltwater acute TMDLs and allocations (mg/L) NEL
Cadmium*	42	0.994	0.042**
Copper	4.8	0.83	0.00578**
Lead	210	0.951	0.221**
Zinc	90	0.946	0.095**

*applies to Upper Newport Bay only

**values are rounded to reflect the significant figures of each respective pollutant found in Table 2 of this General Permit

A WLA of 0 (zero) lbs/year was assigned to boatyards.¹⁷⁴ At the time the San Diego Creek and Newport Bay TMDL was adopted, there was a permit that covered boatyards. It has since sunsetted. As a result, the boatyards are now covered by this General Permit. All boatyards identified as Responsible Dischargers in the San Diego Creek and Newport Bay TMDL assigned an instantaneous maximum NEL of 0 lbs/year for discharges of dissolved cadmium, copper, lead, and zinc into Upper Newport Bay, Lower Newport Bay and Bay Segments and the Rhine Channel.

- Rhine Channel area of Lower Newport Bay WLA Translation

Mass-based WLAs for mercury and chromium are assigned to Responsible Dischargers for discharges to the Rhine Channel area of Lower Newport Bay. The San Diego Creek and Newport Bay Toxics TMDL identifies the sources of the mercury impairment of the Rhine Channel area of Lower Newport Bay to likely be the existing sediments in the receiving water bed, and the probable sources of chromium to be heavily contaminated sediments existing in the Rhine channel.

Requiring Responsible Dischargers to calculate the facility specific mass load of a pollutant(s) would be impractical, costly, and not aligned with the monitoring requirements in this General Permit. Responsible Dischargers would normally have been assigned to meet the concentration-based sediment numeric targets of the San Diego Creek and Newport Bay Toxics TMDL. However, as mentioned in the introduction of Section II.F.6.f of this Fact Sheet, this TMDL associates receiving water bed toxicity targets to discharges of OC pesticides, PAHs, PCBs, and/or metals bound to sediment

¹⁷⁴ San Diego Creek and Newport Bay Toxics TMDL, Table 5-7a, p. 49.

particulates. Therefore, this TMDL is addressed by complying with this General Permit's Table 2 TSS NAL requirements by implementing sediment control measures to prevent sediment-bound particulates from settling into the receiving water bed.

- Compliance Actions and Schedule

- 1) Compliance with San Diego Creek Watershed, Upper Newport Bay, Lower Newport Bay and Bay Segments, and Rhine Channel:

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective NELs listed in Table E-2.

The Santa Ana Regional Water Board has not adopted an Implementation Plan for the San Diego Creek and Newport Bay Toxics TMDL. Therefore, Responsible Dischargers are required to comply with instantaneous maximum NELs for discharges into San Diego Creek Watershed, Upper Newport Bay, Lower Newport Bay and Bay Segments, and the Rhine channel upon the Effective Date of the TMDL Requirements.

- 2) Compliance with Rhine Channel area of Lower Newport Bay:

Compliance with this General Permit is consistent with the requirements and assumptions of this TMDL's WLA(s). No additional requirements are incorporated into this General Permit to implement the San Diego Creek and Newport Bay Toxics TMDL.

xiii. Chollas Creek Metals TMDL¹⁷⁵

The San Diego Regional Water Board adopted the Chollas Creek Metals TMDL on June 13, 2007, to address the impairment of Chollas Creek due to dissolved copper, lead, and zinc.

¹⁷⁵ San Diego Regional Water Quality Control Board, [Total Maximum Daily Loads for Dissolved Copper, Lead, and Zinc in Chollas Creek, Tributary to San Diego Bay \(May 2007\)](http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/chollascreekmetals/update060407/appndx_a.pdf) <http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/chollascreekmetals/update060407/appndx_a.pdf> [as of June 5, 2018].

- Source Analysis

The major urban runoff contributors of copper, lead, and zinc into Chollas Creek include freeways, commercial, and industrial land uses.¹⁷⁶ The Chollas Creek Metals TMDL technical report identifies industries as a significant source of metals.¹⁷⁷

- WLA Translation

The Chollas Creek Metals TMDL assigns a WLAs for dissolved copper, lead, and zinc to Responsible Dischargers to be met at the facility’s industrial discharge location(s) for all discharges into Chollas Creek.

The WLAs for dissolved copper, lead, and zinc are concentration-based and set equal to 90 percent of the numeric targets, which is the CTR acute criteria. The CTR acute criteria calculation requires receiving water body hardness, which results in a floating target that would differ at each discharge sample because the receiving water body hardness is dependent on receiving water body flow.

TABLE F.47: Chollas Creek Metals WLAs

Metal	90 Percent of Total Metal Concentration (µg/l) Numeric Targets
Dissolved Copper	$(0.90) \times (0.96) \times e^{[0.9422 \times \ln(\text{hardness}) - 1.700]} \times \text{WER}^a$
Dissolved Lead	$(0.90) \times [1.46203 - 0.145712 \times \ln(\text{hardness})] \times e^{[1.273 \times \ln(\text{hardness}) - 1.460]} \times \text{WER}$
Dissolved Zinc	$(0.90) \times (0.978) \times e^{[0.8473 \times \ln(\text{hardness}) + 0.884]} \times \text{WER}^a$

^a Site-specific WER for dissolved copper is 6.998 and for dissolved zinc is 1.711

Hardness is defined as the concentration of calcium carbonate (CaCO₃) in the water column and has the units of milligram per liter (mg/L). Freshwater aquatic life criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can reduce or increase the toxicities of some metals.

Known site-specific hardness data is used to calculate the WLA instead of requiring Responsible Dischargers to calculate their metal limit by sampling the receiving water body hardness in concurrence with taking a discharge

¹⁷⁶ Total Maximum Daily Loads for Dissolved Copper, Lead, and Zinc in Chollas Creek, Tributary to San Diego Bay, p. 3.

¹⁷⁷ [Total Maximum Daily Loads for Dissolved Copper, Lead, and Zinc in Chollas Creek, Tributary to San Diego Bay Technical Report](#), p. 33

<http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/docs/chollascreekm etals/update011509/Technical_Report.pdf> [as of June 5, 2018].

sample. This is consistent with the approach taken in many hardness-dependent TMDLs of assigning a hardness value based on existing data. Hardness data for Chollas Creek was obtained by Regional Board TMDL staff from California Integrated Water Quality System (CIWQS). Data analysis was conducted on hardness results from wet-weather sampling events from the Chollas Creek TMDL watershed with sample dates ranging from 1994 to 2017. All results obtained were marked as a part of the Chollas Creek TMDL project, however not all stations had specific location information. Statistics run on the data set produced a geomean of 94.07. Table F.48 below show how the CTR equation was used to calculate the acute concentration criteria at a hardness of 94.07 mg/L.

TABLE F.48: Chollas Creek Metals WLA Translation

Parameter	CTR equation	Water Effect Ratio	Total Criteria in ug/L based on a hardness of 94.07 mg/L	90% of Criteria as the WLA in ug/L	Total Instantaneous Maximum mg/L NEL
Cu	$6.998 * (\text{EXP}(0.9422 * \text{LN}(\text{Hardness}) - 1.7))$	6.998	92.4823777	83.23413993	0.083
Pb	$(\text{EXP}(1.273 * \text{LN}(\text{Hardness}) - 1.460))$	1	75.5324136	67.97917227	0.068
Zn	$1.711 * (\text{EXP}(0.8473 * \text{LN}(\text{Hardness}) + 0.884)$	1.711	194.6576544	175.191889	0.175

*values are rounded to reflect the significant figures of each respective pollutant found in Table 2 of this General Permit

A geomean hardness of Chollas Creek was selected to calculate the criteria for translating each pollutant into a TNAL in the Chollas Creek Metals TMDL because it is not feasible or practical to require Responsible Dischargers to collect the ambient hardness of the receiving water body in concurrence with each monitoring sample. Therefore, Responsible Dischargers are assigned an instantaneous maximum NEL for copper, lead, and zinc for discharges to Chollas Creek. The monitoring requirements of this General Permit are at each facility’s individual industrial discharge location(s).

The 2017 draft of these TMDL requirements proposed a translation of these WLAs into TNALs. Based on discussions with the regional board during the public comment period and further review by State Water Board staff, those TNALs were replaced with NELs for the following reasons: The TMDL contains a numeric concentration target and the TMDL staff report identified a concentration-based permit requirement as an appropriate way to implement the WLA.

- Compliance Action and Schedule

Responsible Dischargers shall comply with the requirements of this General Permit. Responsible Dischargers shall compare all sampling and analytical results for all individual or Qualified Combined Samples of the facility's industrial storm water discharges to the receiving water body reaches and the respective instantaneous maximum NEL(s) listed in Table E-2.

The TMDL's final compliance deadline is October 22, 2028. As an interim target, Responsible Dischargers shall apply the NEL value as TNALs up until the compliance date of October 22, 2028. Future reissuances of this General Permit may incorporate additional or revised compliance requirements or interim targets to progress towards the required final compliance, when an instantaneous maximum NEL applies.

7. TMDL Implementation Costs

In 2012, the State Water Board released an analysis of the Compliance Costs for this General Permit¹⁷⁸ and an update of this analysis in 2013.¹⁷⁹ These reports analyzed the cost of compliance with this General Permit as compared to its previous iteration, released in 1997. The Report analyzed a five-year period with estimates dependent on predicted NAL exceedance rates. The analysis assumed that seventy (70) percent of all industrial facilities would remain in Baseline status for the 5-year term, twenty (20) percent would only have Level 1 NAL exceedances, and an additional ten (10) percent would have Level 1 and Level 2 NAL exceedances. The cost of compliance with this General Permit was approximated to be \$1.74 billion for all facilities over a five-year period compared to the \$1.57 billion for facilities complying with the previous permit, which is an increase of approximately \$170 million for statewide compliance with this General Permit over a five-year period.¹⁸⁰ The State Water Board, in incorporating TMDL requirements into this General Permit, worked to utilize as much of this General Permit's existing requirements as possible in order to minimize additional incremental costs.

¹⁷⁸ [Analysis of the Compliance Costs for the IGP \(July 16, 2012\)](https://www.waterboards.ca.gov/water_issues/programs/stormwater/historical.shtml#ind), available at: <https://www.waterboards.ca.gov/water_issues/programs/stormwater/historical.shtml#ind> [as of June 15, 2018].

¹⁷⁹ [2013 Update of Report on the Compliance Costs for the Final \(2013\) Draft Industrial General Permit \(IGP\) \(September 6, 2013\)](https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/igp_cost2013.pdf), available at: <https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/igp_cost2013.pdf> [as of June 15, 2018].

¹⁸⁰ [2013 Update of Report of the Compliance Costs for the Final \(2013\) Draft Industrial General Permit \(IGP\)](https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial_permitdocs/strikeout/cost_an_fnl.pdf). September 6, 2013. <https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial_permitdocs/strikeout/cost_an_fnl.pdf> [as July 30, 2018].

This General Permit's TMDL-specific requirements provide a consistent implementation approach for TMDLs with similar waste load allocations for industrial facilities, which provides a streamlined process for TMDL compliance. Responsible Dischargers implement applicable TMDLs through compliance with 1) this General Permit 2) TMDL-specific TNALs, and/or 3) TMDL-specific NELs. This consistency provides time- and cost-efficiencies for Responsible Dischargers in achieving compliance with applicable TMDL requirements. The discussion below is to provide 1) overview of TMDL implementation where the State Water Board has provided cost-efficiencies, 2) general information on TMDL pollutant categories and estimated compliance costs for the TMDL requirements by Responsible Dischargers, 3) examples of appropriate existing BMPs, and 4) general cost (high, medium, low) for potential TMDL-pollutant BMP categories.

a. Using the Existing General Permit Implementation Framework

Costs are site-specific and vary depending on multiple factors. This general information is provided to frame the cost considerations for TMDL implementation. This General Permit incorporates requirements for Responsible Dischargers to comply with applicable TMDLs. The incorporation of TMDL requirements into this General Permit allows the use of its existing monitoring and reporting framework to avoid incurring additional costs associated with TMDL implementation (e.g, additional and separate reports for TNAL exceedances, unique monitoring and sampling requirements specific to TMDLs, etc.). Fifty-eight (58) of the TMDL WLAs have been translated to TNALs, which are implemented consistently with this General Permit's framework for NAL compliance. As such, Responsible Dischargers will follow the ERA process of this General Permit and perform the required actions for TNAL exceedances as they would for NAL exceedances. At Level 2, a Responsible Discharger, as with NALs, may, when appropriate, perform a natural background source demonstration, a non-industrial pollutant source demonstration, or an industrial activity BMP demonstration. In addition, forty (40) of the TMDL WLAs have been translated to a requirement to comply with this General Permit, without imposition of additional TNALs, NELs, or other requirements, further avoiding additional costs associated with TMDL implementation.

b. Availability of Implementation Tools

The State Water Board recognizes the need to provide Responsible Dischargers tools and information to navigate the applicability of TMDL requirements, determine the spatial location of the requirements, and provide support for compliance analyses. In an effort to reduce the cost to Responsible Dischargers of complying with the TMDL requirements, state-developed tools to assist in the implementation of and compliance with the TMDL requirements are free and publicly available. These include a set of flowcharts tools and a GIS-based TMDL applicability map.

c. Compliance Options

Discharger with coverage under this General Permit may take advantage of the On-Site or Off-Site Compliance Options in Attachment I, which, in exchange for compliance with Section V.A of this General Permit and deemed compliance with Sections III.C, V.C, and VI, require implementation of BMP(s) for capture and use, infiltration, and/or evapotranspiration of authorized NSWDS and storm water associated with industrial activities produced up to and during the 85th percentile 24-hour precipitation event. These options provide Responsible Dischargers additional compliance strategies that may be a more cost-effective method for achieving compliance with this General Permit.

d. TMDL pollutant Categories

The TMDL pollutant categories are:

- a. Sediment, Bacteria
- b. Bacteria, Chloride and salts
- c. Nutrients, Debris, plastics, and trash
- d. Metals
- e. Debris, plastics, and trash, Nutrients
- f. Synthetic organics and Toxics, Sediment
- g. Chloride and salts, Synthetic organics and Toxics

Attachment E, Table E-2 of this General Permit lists all TMDLs applicable to Responsible Dischargers. For each TMDL, Table E-2 cross-references one or more of the pollutant categories above.

i. Sediment^{181, 182}

Excess sediment delivery to stream channels can be a pollutant and is associated with several natural processes as well as anthropogenic sources. Sediment can

¹⁸¹ [California Stormwater Quality Association \(CASQA\) Industrial and Commercial Best Management Practice Online Handbook](https://www.casqa.org/sites/default/files/casqa-handbook-industrial/full_handbook_2014.pdf). September 2014, page 1-6 Table 1-3. <https://www.casqa.org/sites/default/files/casqa-handbook-industrial/full_handbook_2014.pdf>. [as of July 19, 2018]. (CASQA Industrial and Commercial BMP Handbook).

¹⁸² State Water Resources Control Board, [California State Water Resources Control Board Order 2012-0011-DWQ As Amended by Order WQ 2014-0006-Exec, Order WQ 2014-0077-DWQ, and Order WQ 2015-0036-Exec, NPDES No. CAS000003 statewide storm water permit waste discharge requirements \(WDRs\) for state of California Department of Transportation](https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2012/wq2012_0011_dwq_conformed_signed.pdf). Adopted September 19, 2012. Trash TMDL Pollutant Category, page 36-38. <https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2012/wq2012_0011_dwq_conformed_signed.pdf>. [as of July 19, 2018]. (Caltrans 2012 NPDES MS4 stormwater permit).

transport other pollutants that attach to it, including nutrients, trace metals, and hydrocarbons. Sediment is the primary component of total suspended solids (TSS) the most common sediment water quality analytical parameter used in this General Permit. The anthropogenic industrial sources include, but are not limited to, track in and out from earth moving equipment, unpaved access road-related erosion (e.g., construction and maintenance of paved and unpaved roadways), dust, and soil/earth disturbing activities at these facilities (e.g. mines, landfills, renovations). Responsible Dischargers are required to comply with the existing requirements of this General Permit, including the TSS NAL, for compliance with the sediment TMDLs incorporated into this General Permit. As a result, compliance with these TMDLs is not expected to result in any additional costs. An analysis of industrial storm water analytical results from the 2016-2017 reporting year statewide revealed that 17% of the industrial stormwater samples reported were monitoring results for sediment parameters, showing a higher percentage of the number of samples.

ii. Bacteria^{183, 184}

Sources of bacteria and viruses in watersheds include, but are not limited to, animal excrement (from storm water infrastructure and animals) and sanitary sewer overflows of human excrement. Major contributors from industrial areas may include wild or tamed animals on the premises, food manufacturing, concentrated animal feeding operations, waste handling, and contaminants in erodible materials. There is not enough Discharger sampling data to analyze the percentage of compliance for the bacteria TNAL/NELs, potentially because many industrial facilities are not point sources for bacteria from industrial activities. This Fact Sheet contains supportive information referenced from the bacteria TMDLs that Dischargers are not a significant source of bacteria and therefore would meet the WLA and the translated limits. An analysis of industrial stormwater analytical results from the 2016-2017 reporting year statewide revealed that less than 1% of industrial storm water samples reported were monitoring results for bacteria parameters, showing this is not a commonly identified constituent in facility pollutant source assessments. Several bacteria TMDLs in Attachment E have no additional implementation requirements, and compliance with these TMDLs is not expected to result in additional costs. For bacteria TMDLs with additional requirements, Responsible Dischargers are expected to achieve the bacteria limitations in this General Permit at little-to-no additional cost in most circumstances.

¹⁸³ CASQA Industrial and Commercial BMP Handbook, section 1-6 Table 1-3.

¹⁸⁴ Caltrans 2012 NPDES MS4 stormwater permit, page 118-119.

iii. Nutrients^{185, 186}

Nutrients (e.g., ammonia, nitrogen, and phosphorous), which are commonly used in the manufacturing of plant fertilizers, are often found in storm water. The sources of nutrients from industrial areas are commonly from equipment washing, exposure of materials to storm water, and facility maintenance. The percentage of compliance with the nutrient TNAL/NELs is analyzed through existing Discharger sampling data in watersheds with nutrient TMDLs addressed in this General Permit's TMDL requirements. One hundred and eighty-eight (188) of two hundred and eight (208) active facilities within the nutrient TMDL watersheds have sampling data that demonstrates a lack of exceedances of the TNAL/NEL limitations (a rate of 90%). The compliance cost impact for implementation of the nutrient TMDLs is expected to be medium to low since additional BMPs may be required for controlling the specific nutrient concentrations from industrial facilities and an analysis of industrial stormwater analytical results from the 2016-2017 reporting year statewide revealed that 8% of industrial storm water samples were monitoring results for nutrient parameters showing this is not a commonly identified constituent in facility pollutant source assessments.

iv. Metals^{187, 188}

Metals (e.g., aluminum, cadmium, chromium, copper, lead, mercury, nickel, selenium, and zinc) are commonly found in industrial storm water. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles, or preserved wood as well as tires and vehicle breaks) contain metals, which enter storm water as the surfaces corrode, flake, dissolve, decay, or leach. Sources of metals from industrial areas include, but are not limited to, vehicle and equipment maintenance and washing, exposure of industrial materials to storm water, outdoor industrial activities, exposure and discharge of erodible materials, including but not limited to, the aerial deposition of dust or the exposure prior and during storm events. The expected percentage of compliance with the metal TNAL/NELs was analyzed through existing Discharger sampling data in watersheds with metal TMDLs addressed in this General Permit. Seven hundred and twelve (712) facilities have sampling data that demonstrates compliance with the TNAL/NEL limitations out of one thousand, five hundred, and six (1,506) active facilities within the metal TMDL watersheds. This is a compliance rate of 47% with the TMDL TNAL/NELs. The specific list of metal sampling data analyzed included: cadmium, copper, lead, mercury, methylmercury, nickel, selenium, and zinc.

¹⁸⁵ CASQA Industrial and Commercial BMP Handbook, section 1-6 Table 1-3.

¹⁸⁶ Caltrans 2012 NPDES MS4 stormwater permit, page 36-37.

¹⁸⁷ CASQA Industrial and Commercial BMP Handbook, section 1-6 Table 1-3.

¹⁸⁸ Caltrans 2012 NPDES MS4 stormwater permit, page 36-37 and 77-78.

Dischargers are not currently implementing BMPs designed to meet the TMDL-required metal levels. It is expected that the rate will increase as Responsible Dischargers implement BMPs designed to meet the TMDL requirements. The compliance cost impact for the metals TMDL implementation is expected to be high since additional BMPs may be required for controlling metal discharges from industrial facilities and many watersheds containing industrial facilities are subject to metal TMDL requirements. An analysis of industrial stormwater analytical results from the 2016-2017 reporting year statewide revealed that 28% of industrial storm water samples reported were monitoring results for metal parameters showing this is a commonly identified constituent in facility pollutant source assessments.

v. Debris, Plastics, and Trash^{189, 190}

Gross pollutants (e.g., debris, floatables, plastics, and trash) are produced throughout urban environments, including industrial areas. Sources of debris, plastics, and trash in industrial areas include, but are not limited to, manufacturing (including by-products), facility staff, maintenance areas, shipping and receiving, material use and handling, and waste handling and disposal. These pollutants can disperse from indoor and outdoor areas via wind, track-out, and/or cleaning operations. Responsible Dischargers are required to comply with the existing requirements of this General Permit (e.g., control of trash in industrial areas and compliance with applicable requirements in Section XVIII for plastic materials) for compliance with the trash TMDLs requirements. The compliance cost impact for the Debris, Plastics, and Trash TMDL implementation statewide is expected to be low since the number of watersheds with these requirements are low, however additional BMPs (minimum and/or advanced) may be required for Responsible Dischargers in watersheds with Debris, Plastics, and Trash TMDL requirements, which are expected to result in a cost increase if current BMPs are inadequate to prevent the discharge of these gross pollutants.

vi. Organics and Toxics^{191, 192}

Synthetic organic compounds (e.g., adhesives, cleaners, herbicides, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, sealants, solvents, etc.) found in storm water may be low in concentration but still toxic to aquatic life. Sources of synthetic organic compounds in industrial areas include, but are not limited to, exposure of the compounds to storm water during use and/or storage, improper disposal, and accidental release into storm drains or off-site. Sediment in storm water is associated with these compounds because they

¹⁸⁹ CASQA Industrial and Commercial BMP Handbook, section 1-6 Table 1-3.

¹⁹⁰ Caltrans 2012 NPDES MS4 stormwater permit, page 108-111.

¹⁹¹ CASQA Industrial and Commercial BMP Handbook, section 1-6 Table 1-3.

¹⁹² Caltrans 2012 NPDES MS4 stormwater permit, page 77-78.

often adhere to fine sediment particles. There is no Discharger sampling data available to analyze the percentage of compliance for the OC pesticides, PAHs, and PCB TNAL/NELs. For many of these TMDLs, this General Permit requires that Responsible Dischargers address the waste load allocations by complying with the existing requirements of this General Permit, including the TSS NAL. Some of the waste load allocations were translated into TNALs or NELs. No Discharger sampling data is available for these constituents. The compliance cost impact for implementation of the organics and toxics TMDLs is expected to be medium since additional BMPs may be required for specific constituents, but the constituents are not sampled by most industrial facilities. An analysis of industrial stormwater analytical results from the 2016-2017 reporting year statewide revealed that 7.6% of industrial facilities reported monitoring results for organic or toxic parameters, showing this is not a commonly identified constituent in the facility pollutant source assessments.

vii. Chloride and Salts¹⁹³

Salts, such as calcium chloride (CaCl), chloride, sodium chloride (NaCl), and magnesium chloride (MgCl), can originate in industrial areas from road de-icing activities, manufacturing processes, material storage and handling, and from nutrient sources (e.g. fertilizers). The only chloride TMDL currently addressed by this General Permit requires compliance with this General Permit's requirements rather than additional TNALs or NELs. As a result, no additional costs are expected. An analysis of industrial stormwater analytical results from the 2016-2017 reporting year statewide revealed that 2% of industrial storm water samples reported were monitoring results for chloride or salt-related parameters, showing this is not a commonly identified constituent in facility pollutant source assessments.

e. Storm Water BMP Selection

This General Permit provides Dischargers flexibility in selecting the facility-specific BMPs necessary to achieve compliance. This flexibility is also provided to Responsible Dischargers in selecting, installing, and maintaining the appropriate BMPs for facility-specific situations to meet applicable TMDL requirements, including BMP combinations (often referred to as "treatment trains") of: 1) non-structural BMPs (such as facility sweeping and staff training), 2) structural source control BMPs (physical, structural, or mechanical devices or BMPs intended to prevent pollutants from entering storm water) such as erosion control practices, maintenance of storm water facilities (e.g. pumping oil-water separators, cleaning

¹⁹³ State of Minnesota Pollution Control Agency. [Industrial Stormwater Best Management Practices Guidebook, Version 1.1](https://www.pca.state.mn.us/sites/default/files/wq-strm3-26.pdf). April 2015
<<https://www.pca.state.mn.us/sites/default/files/wq-strm3-26.pdf>>. [as of July 19, 2018].
(Minnesota 2015 Industrial Stormwater BMP Handbook).

out sediment traps, etc.), construction of roofs over storage and working areas, and direction of equipment wash water and similar discharges to the sanitary sewer or other end-use systems, and/or 3) structural treatment BMPs which include flow or volume based treatment BMPs. Structural source control and treatment BMPs usually include a capital investment but are cost-effective compared to removing pollutants after they have entered storm water and been discharged into a receiving water body.

Storm water BMP categories for the TMDL pollutant types in Sections X.X.4.a-X.X.4.g above are, in general, physical, chemical, hydraulic, and, biological. Selection of the BMPs appropriate for a facility must be determined based on facility-specific factors. No single BMP can achieve the required pollutant reductions for every given situation and pollutant and each BMP approach has pros and cons. The Responsible Discharger should consider the cost-benefit¹⁹⁴ when selecting storm water BMPs. Some factors include, but are not limited to, upfront cost, maintenance-cost, pollutant removal efficiency per area/treatment unit, local permitting, site hydrology and geology, safety, space, and staffing and monitoring needs for implementing the BMP. There are many ways to calculate the upfront and maintenance cost of BMPs that consider, for example, BMP sizing, the annual cost for maintenance and/or the annual maintenance hours required.¹⁹⁵

TABLE F.49: U.S. EPA BMP Cost Estimation¹⁹⁶

Table 3: Maintenance Costs (\$) and Hours per year for select BMPs – From UNHSC

BMP	Maintenance Cost (\$) per year	Annual Maintenance Hours
Bioretention	\$1,890.00	20.7
Chamber System	Not Assessed	Not Assessed
Detention Pond	\$2,380.00	24.0
Gravel Wetland	\$2,138.33	21.7
Porous Asphalt	\$1,080.00	6.0
Pervious Concrete	\$1,080.00	6.0
Retention Pond	\$3,060.00	28.0
Sand Filter	\$2,807.50	28.5

*Note: Initial costs based on cost of maintenance per year per acre of IC treated

¹⁹⁴ State of Hawaii Department of Transportation Highways Division. [Storm Water Permanent Best Management Practices Manual](#), page 7-2 Table 1. February 2007. <<http://hidot.hawaii.gov/wp-content/uploads/2015/05/Appx-E.1-Permanent-BMP-Manual-Feb-2007.pdf>>. [as of July 19, 2018]. (State of Hawaii BMP Manual).

¹⁹⁵ U.S. EPA. [Methodology for developing cost estimates for Opti-Tool Memorandum](#), page 8. February 20, 2016. <<https://www3.epa.gov/region1/npdes/stormwater/ma/green-infrastructure-stormwater-bmp-cost-estimation.pdf>>. [as of July 19, 2018]. (U.S. EPA BMP Cost Estimation Memorandum).

¹⁹⁶ U.S. EPA BMP Cost Estimation Memorandum, page 8.

f. Common Storm Water BMP Categories

The following categories describe in general the most common currently-available types of Storm Water BMPs, their effectiveness for TMDL pollutant categories, and some general cost comparisons.

The cost comparisons for 6.a-b are based on 1) staff experience in administering this General Permit for the non-structural and structural source control BMPs (minimum BMPs in Section X.H of this General Permit), and 2) the California Stormwater Quality Association Industrial and Commercial BMP Handbook¹⁹⁷ for appropriateness of minimum BMPs to control pollutants. The cost for non-structural controls, which includes good housekeeping, preventative maintenance, spill and leak prevention and response, erosion and sediment controls, employee training programs, and quality assurance and record keeping, is lower than the costs for other BMPs. For example, these costs consist of staff time for training or conducting routine minimum BMP activities and minimal costs for certain materials such as spill kits or for materials for retaining records. Costs for source control BMPs were estimated generally as being low, medium, or high, dependent on a variety of factors.

The cost comparisons and information in Table XX for 6.c-i are based on general conclusions from research conducted by the California Stormwater Quality Association, U.S. EPA, U.S. Department of Transportation, State of Hawaii Department of Transportation Highways Division, State of Minnesota Pollution Control Agency, and the Water Environment and Reuse Foundation. State Water Board staff reviewed these sources on 1) the selection of BMPs for general categories of pollutants and performance of pollutant removal, 2) the provided upfront costs for a BMP category from a range of low, medium, and high, and 3) the provided maintenance costs for a BMP category from a range of low, medium, and high. More specific information on methodology and estimates is available from these sources, which are cited below.

- i. **Non-Structural BMPs** which include, but are not limited to, facility sweeping, staff training and education, dumpster and waste management, and proper handling and spill response for industrial materials.¹⁹⁸ These BMPs can significantly reduce pollutant concentrations in all categories [a-g] and can

¹⁹⁷ CASQA Industrial and Commercial BMP Handbook

¹⁹⁸ U.S. Department of Transportation, Federal Highway Administration. [Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring](https://www.environment.fhwa.dot.gov/Env_topics/water/ultraurban_bmp_rpt/uubmp6p4.aspx). Section 6.5 Table 57. Relative Rankings of Cost Elements and Effective Life of BMP Options. <https://www.environment.fhwa.dot.gov/Env_topics/water/ultraurban_bmp_rpt/uubmp6p4.aspx>. [as of July 19, 2018]. (U.S. DOT BMP Selection and Monitoring).

range from low to medium upfront costs depending on the staffing and size of facility. In general, operation and maintenance costs are low.

- ii. **Source control BMPs**, which include minimizing or eliminating exposure of a pollutant source, can significantly reduce pollutant concentrations in all categories [a-g]. Upfront costs can range from low (e.g., moving materials or activities indoors) to high (if, for example, the facility must move or build extra covered areas/structures). In general, the operation and maintenance costs are low for exposure minimization and elimination BMPs.
- iii. **Bioretention BMPs**¹⁹⁹ are soil and plant-based filtration devices that reduce runoff velocity and remove pollutants over time through a variety of processes. Bioretention can significantly reduce pollutant concentrations for categories [a], [c], [d] (varies for dissolved metals), [f], and [g].²⁰⁰ Usually, costs are medium²⁰¹ per area treated, with low to medium maintenance requirements and cost²⁰².
- iv. **Media or Treatment Filtration BMPs**²⁰³ include either active or passive processes. In passive processes, water flows through treatment media or surface by gravity. In active processes, storm water flows through media via a pump or similar mechanized system. The media are usually a custom or proprietary blend from the manufacturer and/or vendor (e.g., flocculants, coagulants, carbon, sand, organics). Active systems are chambered and may include pretreatment features to enhance the treatment process. Media filtration can significantly reduce pollutant concentrations for categories [a-g]²⁰⁴ (other than b) depending on the specific treatment media. The costs vary significantly depending on the pollutant(s) required for treatment, the size of the

¹⁹⁹ [California Stormwater Quality Association \(CASQA\) Industrial and Commercial Best Management Practice Online Handbook](https://www.casqa.org/sites/default/files/casqa-handbook-industrial/full_handbook_2014.pdf). September 2014, page 1-6 Table 1-3. <https://www.casqa.org/sites/default/files/casqa-handbook-industrial/full_handbook_2014.pdf>. [as of July 19, 2018]. (CASQA Industrial and Commercial BMP Handbook).

²⁰⁰ Water Environment and Reuse Foundation (WERF). [International Stormwater BMP Database 2016 Summary Statistics Final Report](http://www.bmpdatabase.org/Docs/03-SW-1COh%20BMP%20Database%202016%20Summary%20Stats.pdf), section 2.3. 2017. <<http://www.bmpdatabase.org/Docs/03-SW-1COh%20BMP%20Database%202016%20Summary%20Stats.pdf>>. [as of July 19, 2018]. (WERF International Stormwater BMP Database 2016 Summary Report).

²⁰¹ State of Hawaii BMP Manual, page 7-2 Table 1,

²⁰² U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; State of Hawaii BMP Manual, page 7-2 Table 1; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²⁰³ CASQA Industrial and Commercial BMP Handbook, TC-40 Media Filter.

²⁰⁴ WERF International Stormwater BMP Database 2016 Summary Report.

system, and the system design. Upfront costs are generally medium to high per area treated with medium to high maintenance requirements and cost.²⁰⁵

- v. **Retention BMPs** (retention wet pond or extended detention wet pond)²⁰⁶ are constructed basins that have a permanent pool of water most of the year which settle out pollutants and can use plant life to biologically remove pollutants. Retention can significantly reduce pollutant concentrations for all categories but [c] and effectiveness for category [d] is variable depending on the metal and whether the metal is dissolved.²⁰⁷ The upfront and maintenance requirements and costs are tied to proper sizing and design of the system and vary from medium to low.²⁰⁸

- vi. **Detention BMPs** (Dry extended detention ponds, dry ponds, extended detention basins, detention ponds, extended detention ponds)²⁰⁹ are basins with designed outlets to achieve a required storm water draw down time (e.g. 24, 48, or 72 hours). To provide water quality treatment storm water runoff from a water quality design storm is detained for some minimum time (e.g., 48 hours) to allow particles and associated pollutants to settle. These basins have a temporary wet pool dependent on the infiltration rate of the subsoil. Detention can significantly reduce pollutant concentrations for all categories except for [g], and detention's effectiveness for category [d] is variable depending on the metal and whether the metal is dissolved.²¹⁰ The upfront and maintenance requirements and costs are tied to proper sizing and design of the system and vary from medium to low.²¹¹

- vii. **Wetland BMPs** (constructed wetlands)²¹² are constructed basins with a permanent pool of water for most of the year and are shallower with more vegetation than wet ponds. Storm water is stored in the shallow pools of vegetation. Pollutant removal is achieved through microbial transformation, plant uptake, settling, and adsorption. Pretreatment is suggested to reduce the

²⁰⁵ State of Hawaii BMP Manual, page 7-2 Table 1; U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²⁰⁶ CASQA Industrial and Commercial BMP Handbook, TC-20 Wet Pond.

²⁰⁷ WERF International Stormwater BMP Database 2016 Summary Report.

²⁰⁸ State of Hawaii BMP Manual, page 7-2 Table 1; U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²⁰⁹ CASQA Industrial and Commercial BMP Handbook, TC-22 Extended Detention Basins.

²¹⁰ WERF International Stormwater BMP Database 2016 Summary Report.

²¹¹ State of Hawaii BMP Manual, page 7-2 Table 1; U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²¹² CASQA Industrial and Commercial BMP Handbook, TC-21 Constructed Wetlands.

needed annual maintenance by reducing the amount of sediment and other solids entering the BMP. Wetlands can significantly reduce pollutant concentrations for all categories except for [b] and [c].²¹³ The upfront costs are medium to high and the operation and maintenance costs and requirements are medium.²¹⁴

- viii. **Infiltration BMPs** (volume reduction)²¹⁵ are trenches or basins which store stormwater in the void space between the media (e.g., rock, stones, soil media) and infiltrates/exfiltrates through the bottom and sides into the ground. Infiltration reduces stormwater discharge volume and pollutant loadings to surface waters and can recharge groundwater aquifers or be used for other appropriate purposes and provide cost-savings by offsetting the use of potable water (e.g., cooling towers and equipment cleaning water). Pretreatment is necessary to limit the amount of gross pollutants, oil & grease, and sediment to the system to ensure the system functions properly. Infiltration can significantly reduce pollutant concentrations for all categories except for [f], and in all cases fate and transport of pollutants to groundwater should be evaluated for impacts to drinking water beneficial uses (e.g. salts, solvents). The upfront and maintenance costs and requirements are tied to proper sizing and design of the system and are medium.²¹⁶ Some upfront and maintenance costs and requirements may be higher for this if an infiltration BMP is installed for compliance with a Compliance Option, due to Attachment I's large sizing requirement and the necessary pretreatment. Dependent on an analysis of the facility-specific costs and the benefits provided in Attachment I, this may be a possibly viable compliance strategy.
- ix. **Vegetated Swale BMPs** (bioswales, biofiltration swales, landscaped swales, grass swales/strips)²¹⁷ are natural or manmade open and shallow channels covered in vegetation. Vegetated swale BMPs slow down storm water runoff and provide treatment through vegetative filtration into underlying soils/soil matrices. Vegetated swale BMPs can significantly reduce pollutant concentrations for categories but [d], [e], and [f]. Effectives for category [d] depends on the metal and whether the metal is dissolved²¹⁸ and is often used

²¹³ WERF International Stormwater BMP Database 2016 Summary Report.

²¹⁴ State of Hawaii BMP Manual, page 7-2 Table 1; U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²¹⁵ CASQA Industrial and Commercial BMP Handbook, TC-10 Infiltration Trench and TC-11 Infiltration Basin.

²¹⁶ State of Hawaii BMP Manual, page 7-2 Table 1; U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²¹⁷ CASQA Industrial and Commercial BMP Handbook, TC-30 Vegetated Swale.

²¹⁸ WERF International Stormwater BMP Database 2016 Summary Report.

as a pretreatment strategy in a “treatment train.” The upfront and maintenance costs and requirements are medium to low.²¹⁹

TABLE F.50: Effective BMP Examples for TMDL Pollutant Categories²²⁰

	Non-Structural and Exposure Minimization	Bio-retention	Media Filtration	Retention Basins/Ponds	Detention Basins	Wetland Basins	Infiltration/Volume Reduction	Vegetated Strips/Swales ²²¹
a. Bacteria	X	X	X	X	X	X	X*	
b. Chloride, Salts***	X			X	X		X	
c. Debris, Plastics, and Trash**	X	X	X		X		X	
d. Metals	X	X	X	X	X	X	X	X
e. Nutrients	X		X	X	X	X	X	X
f. Sediment	X	X	X	X	X	X		X
g. Synthetic organics and Toxics*	X	X	X	X		X	X*	

* From CASQA TC-10 and TC-11 not evaluated in the WERF International Stormwater BMP Database 2017 Summary

** Not evaluated in the WERF International Stormwater BMP Database 2017 Summary, and is based upon this General Permit’s plastic material requirements in section XVIII, Caltrans 2012 NPDES MS4 stormwater permit, and the Phase I and II permittee Storm Water Trash Implementation Program’s Certified Multi-Benefit Treatment Systems Complying With Trash Full Capture System Requirements. <https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/trash_implementation/mbtscoversheet_revised_09mar18b.pdf>. [as of July 19, 2018].

²¹⁹ State of Hawaii BMP Manual, page 7-2 Table 1; U.S. DOT BMP Selection and Monitoring, section 6.5 Table 57; U.S. EPA BMP Cost Estimation Memorandum, page 8.

²²⁰ WERF International Stormwater BMP Database 2016 Summary Report. Also see Table F-50 footnotes

²²¹ CASQA Industrial and Commercial BMP Handbook, TC-30 Vegetated Swale

*** Not evaluated in the WERF International Stormwater BMP Database 2017 Summary, and is based upon guidance from the Minnesota 2015 Industrial Stormwater BMP Handbook.

G. Discharges Subject to the California Ocean Plan

1. Discharges to Ocean Waters

On October 16, 2012 the State Water Board amended the California Ocean Plan (California Ocean Plan) to require industrial storm water Dischargers with outfalls discharging to ocean waters to comply with the California Ocean Plan's model monitoring provisions. The amended California Ocean Plan requires industrial storm water dischargers with outfalls discharging to ocean waters to comply with the California Ocean Plan's model monitoring provisions. These provisions require Dischargers to: (a) monitor runoff for specific parameters at all outfalls from two storm events per year, and collect at least one representative receiving water sample per year, (b) conduct specified toxicity monitoring at certain types of outfalls at a minimum of once per year, and (c) conduct marine sediment monitoring for toxicity under specific circumstances (California Ocean Plan, Appendix III). The California Ocean Plan provides conditions under which some of the above monitoring provisions may be waived by the Water Boards.

This General Permit requires dischargers with outfalls that discharge to ocean waters to comply with the California Ocean Plan's model monitoring provisions and any additional monitoring requirements established pursuant to Water Code section 13383. Dischargers who have not developed and implemented a monitoring program in compliance with the California Ocean Plan's model monitoring provisions by July 1, 2015 or seven (7) days prior to commencing operations, whichever is later, are ineligible to obtain coverage under this General Permit.

2. Areas of Special Biological Significance (ASBS) Exception

The State Water Board adopted the California Ocean Plan (California Ocean Plan) in 1972, and has subsequently amended the Plan. The California Ocean Plan prohibits the discharge of waste to designated ASBS. ASBS are ocean areas designated by the State Water Board as requiring special protection through the maintenance of natural water quality. The California Ocean Plan states that the State Water Board may grant an exception to California Ocean Plan provisions where the State Water Board determines that the exception will not compromise protection of ocean waters for beneficial uses and the public interest will be served.

On March 20, 2012, the State Water Board adopted Resolution 2012-0012 (ASBS Exception), which grants an exception to the California Ocean Plan prohibition on discharges to ASBS for a limited number of industrial storm water Discharger applicants. The ASBS Exception contains "Special Protections" to maintain natural

water quality and protect the beneficial uses of the ASBS. In order to legally discharge into an ASBS, these Dischargers must comply with the terms of the ASBS Exception and obtain coverage under this General Permit. This General Permit incorporates the terms of the ASBS Exception and includes the applicable monitoring requirements for all Dischargers discharging to an ASBS under the ASBS Exception.

H. Training Qualifications

This General Permit and the previous permit both require Dischargers to ensure that personnel responsible for permit compliance have an acceptable level of knowledge. Stakeholders have observed that the previous permit did not adequately specify how to comply with various elements of the permit, such as selecting discharge locations representative of the facility storm water discharge and evaluating potential pollutant sources, nor did it provide a clearly outlined Discharger training program. Guidance that is available from outside sources can be complicated to understand or costly to obtain, which can result in many Dischargers developing and implementing deficient SWPPPs and conducting inadequate monitoring activities. Some Dischargers under the previous permit had the resources to hire professional environmental staff or environmental consultants to assist in compliance. Even in those cases, however, there was little certainty that Dischargers received training regarding implementation of the various BMPs being implemented and required monitoring activities under the previous permit. Through this General Permit, the State Water Board seeks to improve compliance and monitoring data quality, and expand each Discharger's understanding of this General Permit's requirements.

This General Permit establishes the Qualified Industrial Storm Water Practitioner (QISP) role. A QISP is someone who has completed a State Water Board sponsored or approved QISP training course and has registered in SMARTS. A QISP is required to implement certain General Permit requirements at the facility once it has entered Level 1 status in the ERA process as described in Section XII of this General Permit. In some instances it may be advisable for a facility employee to take the training, or for a facility to hire a QISP prior to entering Level 1 status as the training will contain information on the new permit requirements and how to perform certain tasks such as selecting discharge locations representative of the facility storm water discharge, evaluating potential pollutant sources, and identifying inadequate SWPPP elements.

Some industry stakeholders have claimed that their staff is already adequately trained. These employees may continue to perform the basic permit functions (e.g. prepare SWPPPs, perform monitoring requirements, and prepare Annual Reports) without receiving any additional training if the facility's sampling and analysis results do not exceed the NALs. This requirement is structured in a manner to reduce the costs of compliance for facilities that may not negatively impact receiving water quality.

California licensed professional civil, industrial, chemical, and mechanical engineers and geologists have licenses that have professional overlap with the topics of this General

Permit. The California Department of Consumer Affairs, Board for Professional Engineers, Land Surveyors and Geologists (CBPELSG) provides the licensure and regulation of professional civil, industrial, chemical, and mechanical engineers and professional geologists in California. The State Water Board is developing a specialized self-guided State Water Board-sponsored registration and training program specifically for these CPBELSG licensed engineers and geologists in good standing with CBPELSG. The CBPELSG has staff and resources dedicated to investigate and take appropriate enforcement actions in instances where a licensed professional engineer or geologist is alleged to be noncompliant with CBPELSG’s laws and regulations. Actions that result in noncompliance with this General Permit may constitute a potential violation of the CBPELSG requirements and may subject a licensee to investigation by the CBPELSG.

A QISP may represent one or more facilities but must be able to perform the functions required by this General Permit at all times. It is advisable that this individual be limited to a specific geographic region due to the difficulty of performing the needed tasks before, during, and after qualifying storm events may be difficult or impossible if extensive travel is required. Dischargers are required to ensure that the designated QISP has completed the appropriate QISP training course.

This General Permit contains a mechanism that allows for the Water Boards’ Executive Director or Executive Officer to rescind the registration of any QISPs who are found to be inadequately performing their duties as a QISP will no longer be able to do so. A QISP may ask the State Water Board to review any decision to revoke his or her QISP registration. Table 1 of this Fact Sheet below describes the different roles that the QISP and California licensed professional engineers have in this General Permit.

TABLE 1: Role-Specific Permit Requirements

Qualifications	Task
QISP	Assist New Dischargers determine coverage eligibility for Discharges to an impaired water body, Level 1 ERA Evaluation and report, Level 2 ERA Action Plan, and Technical Report, and the Level 2 ERA extension
California licensed professional engineer	Inactive Mining Operation Certification, SWPPPs for inactive mining, and annual re-certification of Inactive Mining Operation Certification, NONA Technical Reports, and Subchapter N calculations

I. Storm Water Pollution Prevention Plan (SWPPP)

1. General

This General Permit requires that all Dischargers develop, implement, and retain onsite a site-specific SWPPP. The SWPPP requirements generally follow U.S. EPA's five-phase approach to developing SWPPPs, which has been adapted to reflect the requirements of this General Permit in Figure 2 of this Fact Sheet. This approach provides the flexibility necessary to establish appropriate BMPs for different industrial activities and pollutant sources. This General Permit requires a Discharger to include in its SWPPP (Section X of this General Permit) a site map, authorized NSWDS at the facility, and an identification and assessment of potential pollutants sources resulting from exposure of industrial activities to storm water.

This General Permit requires that Dischargers clearly describe the BMPs that are being implemented in the SWPPP. In addition to providing descriptions, Dischargers must also describe who is responsible for the BMPs, where the BMPs will be installed, how often and when the BMPs will be implemented, and identify any pollutants of concern. Table 2 of this Fact Sheet provides an example of how a Discharger could assess potential pollution sources and provide a corresponding BMPs summary.

This General Permit requires that Dischargers select an appropriate facility inspection frequency beyond the required monthly inspections if necessary, and to determine if SWPPP revisions are necessary to address any physical or operational changes at the facility or make changes to the existing BMPs (Section X.H.4.a.vii and Section XI.A.4 of this General Permit). Facilities that are subject to multi-phased physical expansion or significant seasonal operational changes may require more frequent SWPPP updates and facility inspections. Facilities with very stable operations may require fewer SWPPP updates and facility inspections.

Failure to develop or implement an adequate SWPPP, or update or revise an existing SWPPP as required, is a violation of this General Permit. Failure to maintain the SWPPP on-site and have it available for inspection is also a violation of this General Permit.

Dischargers are required to assess potential pollutants with General Permit Section X.G. This includes the assessment of industrial pollutants related to receiving waters with 303(d) listed impairments identified in Appendix 3 or approved TMDLs that may be causing or contributing to an exceedance of a water quality standard in the receiving waters. Dischargers that have conducted a complete pollutant source assessment and identified all industrial pollutants at the facility per General Permit Section X.G., are not required to re-assess industrial areas or materials for TMDLs compliance, however a re-analysis may be necessary where the initial assessment was incomplete. An example of this is provided by the environmental justice

stakeholders where many Dischargers are not considering generated emission particulates as a source as part of the industrial pollutant source assessment. Dischargers with these sources or with other environmental permits identifying pollutants with the potential to be released into the environment (e.g., air quality permits) may need to conduct a reassessment of the pollutant sources at the facility if not already assessed.

Although clarifications have been made to the pollutant source assessment requirements in this General Permit to respond to stakeholder concerns about source assessments for TMDL implementation, Dischargers with these potential air emission particulate pollutant sources were always required to include them in the facility pollutant source assessment (The definition in Section X.G.C. for dust and particulate generating activities describes all industrial activities that generate a significant amount of dust or particulate that may be deposited within the facility boundaries). If these particulate pollutants are exposed to storm water with the potential to discharge, the Discharger would be required to add these parameters to their monitoring implementation plan.

Dischargers are also required to submit their SWPPPs and any SWPPP revisions via SMARTS; accordingly, BMP revisions made in response to observed compliance problems will be included in the revised SWPPP electronically submitted via SMARTS. Not all SWPPP revisions are significant and it is up to the Dischargers to distinguish between revisions that are significant and those that are not significant. If no changes are made at all to the SWPPP, the Discharger is not required to resubmit the SWPPP on any specific frequency.

- Significant SWPPP Revisions: Dischargers are required to certify and submit via SMARTS their SWPPP within 30 days of the significant revision(s). While it is not easy to draw a line generally between revisions that are significant and those that are not significant, Dischargers are not required to certify and submit via SMARTS any SWPPP revisions that are comprised of only typographical fixes or minor clarifications.
- All Other SWPPP Revisions: Dischargers are required to submit revisions to the SWPPP that are determined to not be significant every three (3) months in the reporting year.

FIGURE 1: Five Phases for Developing and Implementing an Industrial Storm Water Pollution Prevention Plan (SWPPP)

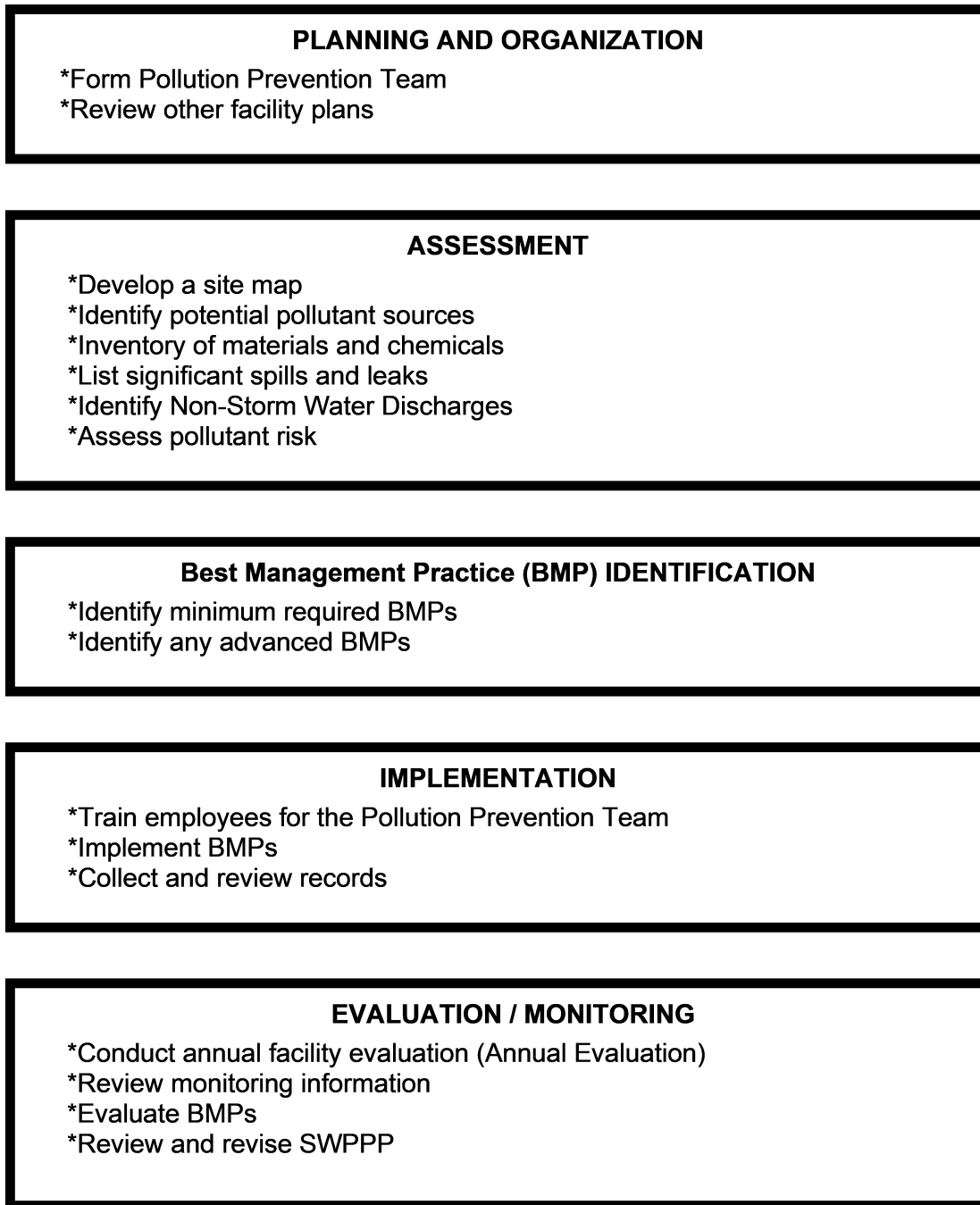


TABLE 2: Example - Assessment of Potential Industrial Pollution Sources and Corresponding BMPs Summary

Area	Activity	Pollutant Source	Industrial Pollutant	BMPs
Vehicle and Equipment Fueling	Fueling	Spills and leaks during delivery	Fuel oil	-Use spill and overflow protection
		Spills caused by topping off fuel tanks	Fuel oil	-Train employees on proper fueling, cleanup, and spill response techniques
		Hosing or washing down fuel area	Fuel oil	-Use dry cleanup methods rather than hosing down area -Implement proper spill prevention control program
		Leaking storage tanks	Fuel oil	-Inspect fueling areas regularly to detect problems
		Rainfall running off fueling area, and rainfall running onto and off fueling area	Fuel oil	-Minimize run-on of storm water into the fueling area, cover fueling area

2. Minimum and Advanced BMPs

Section V of this General Permit requires the Discharger to comply with technology-based effluent limitations (TBELs). In this General Permit, TBELs rely on implementation of BMPs for Dischargers to reduce and prevent pollutants in their discharge. The BMP effluent limitations have been integrated into the Section X.H of this General Permit and are divided into two categories – minimum BMPs which are generally non-structural BMPs that all Dischargers must implement to the extent feasible, and advanced BMPs which are generally structural BMPs that must be implemented if the minimum BMPs are inadequate to achieve compliance with the TBELs. Section X of this General Permit includes both substantive control requirements in the form of the BMPs listed in Section X.H, as well as various reporting and recordkeeping requirements. The requirement to implement BMPs “to the extent feasible” allows Dischargers flexibility when implementing BMPs, by not requiring the implementation of BMPs that are not technologically available and economically practicable and achievable in light of best industry practices.

The 2008 MSGP requires Dischargers to comply with 12 non-numeric technology-based effluent limits in Section 2.1.2 of the permit through the implementation of “control measures.” This requirement is an expansion of the general considerations outlined in the MSGP adopted in 2000. The control measures specified by the U.S. EPA in the 2008 MSGP are as follows (in order as listed in the 2008 MSGP):

1. Minimize Exposure
2. Good Housekeeping
3. Maintenance
4. Spill Prevention and Response Procedures
5. Erosion and Sediment Controls
6. Management of Runoff
7. Salt Storage Piles or Piles Containing Salt
8. Sector Specific Non-Numeric Effluent Limits
9. Employee Training
10. Non-Storm Water Discharges (NSWDs)
11. Waste, Garbage and Floatable Debris
12. Dust Generation and Vehicle Tracking of Industrial Materials

This General Permit addresses eleven of the above twelve control measures from the 2008 MSGP Section 2.1.2 Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT). Eleven of the control measures are addressed as minimum BMPs that the State Water Board has determined to be most applicable to California’s Dischargers. Two of those eleven control measures (1- Minimize Exposure, 6 – Management of Runoff) are also identified as advanced BMPs (Section X.H.2 of this General Permit). This General Permit is not a sector-specific permit and therefore does not contain limitations to address control measure number 8 (Sector Specific Non-Numeric Effluent Limits).

The non-structural elements of the control measure to minimize exposure are addressed in the minimum BMP Section X.H.1 of this General Permit while structural control elements are addressed in the advanced BMP Section X.H.2 of this General Permit. The on-site diversion elements of the control measure to minimize exposure are addressed as minimum BMPs.

The runoff reduction elements of the control measure to minimize exposure are included as advanced BMPs. Advanced BMPs that are required to be implemented when a Discharger has implemented the minimum BMPs to the extent feasible and they are not adequate to comply with the TBELs. The advanced BMP categories are: (1) exposure minimization BMPs, (2) storm water containment and discharge reduction BMPs, (3) treatment control BMPs, and (4) additional advanced BMPs needed to meet the effluent limitations of this General Permit. Advanced BMPs are generally structural control measures and can include any BMPs that exceed the minimum BMPs. The control measure for Non-Storm Water Discharges (NSWDs) is addressed in both the discharge prohibitions (Section III) and authorized non-storm

water discharges (Section IV) of this General Permit and essentially represents a minimum BMP.

This General Permit encourages Dischargers to utilize BMPs that infiltrate or reuse storm water where feasible. The State Water Board expects that these types of BMPs will not be appropriate for all industrial facilities, but recognizes the many possible benefits (e.g. increased aquifer recharge, reduces flooding, improvements to water quality) associated with the infiltration and reuse of storm water. Encouraging the use of storm water infiltration and reuse BMPs is consistent with the statewide approach to managing storm water with lower impact methods.

The BMPs in this General Permit that coincide with the control measures in the 2008 MSGP are as follows (in order as listed in the 2008 MSGP):

a. Minimization of Exposure to Storm Water

Section 2.1.2.1 of the 2008 MSGP requires Dischargers to minimize the exposure of industrial materials and areas of industrial activity to rain, snow, snowmelt, and runoff. The 2008 MSGP mixes both structural and nonstructural BMPs and specifies particular BMPs to consider when minimizing exposure such as grading/berming areas to minimize runoff, locating materials indoors, spill clean up, contain vehicle fluid leaks or drain fluids before storing vehicles on-site, secondary containment of materials, conduct cleaning activities undercover, indoors or in bermed areas, and drain all wash water to a proper collection system.

This General Permit requires the evaluation of BMPs in the potential pollutant source assessment in the SWPPP (Section X.G.2). When the minimum BMPs are not adequate to comply with the TBELs, Dischargers are required to implement advanced BMPs (Section X.H.2.a). These advanced BMPs may include additional exposure minimization BMPs (Section X.H.2.b.1).

b. Good Housekeeping

Section 2.1.2.2 of the 2008 MSGP requires that Dischargers keep all exposed areas that may be a potential source of pollutants clean and orderly. This General Permit (Section X.H.1.a) seeks to define "clean and orderly" by specifying a required set of nine (9) minimum good housekeeping BMPs, which include: observations of outdoor/exposed areas, BMPs for controlling material tracking, BMPs for dust generated from industrial materials or activities, BMPs for rinse/wash water activities, covering stored industrial materials/waste, containing all stored non-solid industrial materials, preventing discharge of rinse/wash waters/industrial materials, prevent non-industrial area discharges from contact with industrial areas of the facility, and prevent authorized NSWDS from non-industrial areas from contact with industrial areas of the facility.

c. Preventative Maintenance

Section 2.1.2.3 of the 2008 MSGP requires that Dischargers regularly inspect, test, maintain, and repair all industrial equipment to prevent leaks, spills and releases of pollutants that may be exposed to storm water discharged to receiving waters. This General Permit (Section X.H.1.b) incorporates this concept by requiring four (4) nonstructural BMPs which include: identification and inspection of equipment, observations of potential leaks in identified equipment, an equipment maintenance schedule, and equipment maintenance procedures.

d. Spill and Leak Prevention and Response

Section 2.1.2.4 of the 2008 MSGP requires that Dischargers minimize the potential for leaks, spills and other releases that may be exposed to storm water. Dischargers are also required to develop a spill response plan which includes procedures such as labeling of containers that are susceptible to a spill or a leakage, establishing containment measures for such industrial materials, procedures for stopping leaks/spills, and provisions for notification of the appropriate personnel about any occurrence. This General Permit (Section X.H.1.c) requires implementation of four (4) BMPs to address spills. These BMPs include: developing a set of spill response procedures to minimize spills/leaks, develop procedures to minimize the discharge of industrial materials generated through spill/leaks, identifying/describing the equipment needed and where it will be located at the facility, and identify/training appropriate spill response personnel.

e. Erosion and Sediment Controls

Section 2.1.2.5 of the 2008 MSGP requires the use of structural and/or non-structural control measures to stabilize exposed areas and contain runoff. Also required is the use of a flow velocity dissipation device(s) in outfall channels where necessary to reduce erosion and/or settle out pollutants. This General Permit (Section X.H.1.e) requires the implementation of (5) BMPs to prevent erosion and sediment discharges. The erosion and sediment control BMPs include: implementing effective wind erosion controls, providing for effective stabilization of erodible areas prior to a forecasted storm event, site entrance stabilization/prevent material tracking offsite and implement perimeter controls, diversion of run-on and storm water generated from within the facility away from all erodible materials, and ensuring compliance with the design storm standards in Section X.H.6. U.S. EPA has developed online resources for erosion and sediment controls.²²²

²²² U.S. EPA. [2008 MSGP](http://cfpub.epa.gov/npdes/stormwater/msgp.cfm). <<http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>> [as of February 4, 2014].

f. Management of Runoff

Section 2.1.2.6 of the 2008 MSGP requires the diversion, infiltration, reuse, containment, or otherwise reduction of storm water runoff, to minimize pollutants in discharges. This General Permit (Sections X.H.1.a.viii, X.H.1.d.iv., and X.H.1.e.iv) requires Dischargers to divert run-on from non-industrial sources and manage storm water generated within the facility away from industrial materials and erodible surfaces. Runoff reduction is required as an advanced BMP when minimum BMPs are not adequate to comply with the TBELs. The 2008 MSGP encouraged Dischargers to consult with EPA's internet-based resources relating to runoff management.²²³

g. Salt Storage Piles or Piles Containing Salt

Section 2.1.2.7 of the 2008 MSGP requires salt storage piles/piles containing salt that may be discharged to be enclosed or covered and to use BMPs when the salt is being used. This General Permit does not have a minimum BMP specifically for salt storage, however it does require all stockpiled/stored industrial materials be managed in a way to reduce or prevent industrial storm water discharges of the stored/stockpiled pollutants. The good housekeeping (Section X.H.1.a) and material handling and waste management (Section X.H.1.d) minimum BMPs in this General Permit require that all materials readily mobilized by storm water be covered, the minimization of handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event, and the diversion of run-on from stock piled materials.

h. Sector Specific Non-Numeric Effluent Limits

Section 2.1.2.8 of the 2008 MSGP requires Dischargers to achieve any additional non-numeric limits stipulated in the relevant sector-specific section(s) of Part 8 of the 2008 MSGP. This General Permit is not a sector-specific permit and does not

U.S. EPA. [National Menu of BMPs](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm).

<<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm>>. [as of February 4, 2014].

U.S. EPA. [National Management Measures to Control Nonpoint Source Pollution from Urban Areas](http://water.epa.gov/polwaste/nps/urban/index.cfm) <<http://water.epa.gov/polwaste/nps/urban/index.cfm>>. [as of February 4, 2014].

²²³ U.S. EPA. [Sector-Specific Industrial Stormwater Fact Sheet Series](http://www.epa.gov/npdes/stormwater/msgp) <www.epa.gov/npdes/stormwater/msgp>. [as of February 4, 2014].

U.S. EPA. [National Menu of Stormwater BMPs](http://www.epa.gov/npdes/stormwater/menuofbmps)

<www.epa.gov/npdes/stormwater/menuofbmps> [as of February 4, 2014].

U.S. EPA. [National Management Measures to Control Nonpoint Source Pollution from Urban Areas](http://www.epa.gov/owow/nps/urbanmm/index.html) (and any similar State or Tribal publications)

<www.epa.gov/owow/nps/urbanmm/index.html>. [as of February 4, 2014]

contain sector-specific non-numeric effluent limitations like the 2008 MSGP. While this General Permit does not specify sector-specific BMPs, Dischargers are required to select and implement BMPs for their specific facility to reduce or prevent industrial storm water discharges of pollutants to comply with the technology-based effluent limitations. In addition, sectors with applicable ELGs must comply with those ELGs.

i. Employee Training Program

Section 2.1.2.9 of the 2008 MSGP requires all employees engaged in industrial activities or the handling of industrial materials that may affect storm water to obtain training covering implementation of this General Permit. This General Permit (Section X.D.1 and X.H.1.f) requires a facility to establish a Pollution Prevention Team (team members, collectively) responsible for implementing permit requirements such as the SWPPP, monitoring requirements, or BMPs.

The five (5) minimum training BMPs include: ensuring that all team members are properly trained, preparing the proper training materials and manuals, identifying which individuals need to be trained, providing a training schedule, and maintaining documentation on the training courses and which individuals received the training.

This General Permit also requires a QISP to be assigned to each facility that reaches Level 1 status. One purpose of a QISP is to have an individual available who can provide compliance assistance with these training requirements. The QISP is responsible for training the appropriate team members. Appropriate team members are any team members involved in implementing this General Permit for drainage areas causing NAL/TNAL exceedances, and any other team members identified by the QISP that need additional training to implement this General Permit.

j. NSWDs

Section 2.1.2.10 of the 2008 MSGP requires that unauthorized NSWDs are eliminated (Part 1.2.3 of the 2008 MSGP lists the NSWDs authorized by the 2008 MSGP). The good housekeeping minimum BMP (Section X.H.1.a.ix of this General Permit) requires that contact between authorized NSWDs and industrial areas of the facility be minimized. This General Permit (Section IV) also includes separate requirements for authorized NSWDs and (Section III) prohibits unauthorized NSWDs.

k. Material Handling and Waste Management

Section 2.1.2.11 of the 2008 MSGP requires that Dischargers ensure waste, garbage, and floatable debris are not discharged into receiving waters. The 2008 MSGP identifies keeping areas clean and intercepting such materials as ways to

minimize such discharges. This General Permit (Section X.H.1.d) requires Dischargers to implement six (6) general BMPs that address material handling and waste management. These BMPs include: preventing or minimizing handling of waste or materials during a storm event that could potentially result in a discharge, containing industrial materials susceptible to being dispersed by the wind, covering industrial waste disposal containers when not in use to contain industrial materials, diversion of run-on and storm water generated from within the facility away from all stock piled materials, cleaning and managing spills of such wastes or materials (in accordance with Section X.H.1.e of this General Permit), and conducting observations of outdoor areas and equipment that may come into contact with such materials or waste and become contaminated.

I. Waste, Garbage and Floatable Debris

Section 2.1.2.11 of the 2008 MSGP requires that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged. Material handling and waste management BMPs are included in Section X.H.1.d of this General Permit. Dischargers are required to: prevent handling of waste materials during a storm event that could result in a discharge, contain waste disposal containers when not in use, clean and manage spills from waste, and observe outdoor areas and equipment that may come into contact with waste and become contaminated.

m. Dust Generation and Vehicle Tracking of Industrial Materials

Section 2.1.2.12 of the 2008 MSGP requires that generation of dust and off-site tracking of raw, final, or waste materials is minimized. This General Permit does not require minimization of dust generation and vehicle tracking of industrial materials as a minimum BMP directly. Dust generation and vehicle tracking of industrial materials BMPs are included in Section X.H.1.a (“good housekeeping”) of this General Permit where Dischargers must prevent dust generation from industrial materials or activities and contain all stored non-solid industrial materials that can be transported or dispersed via wind or come in contact with storm water, and Section X.H.1.d. (“material handling and waste management”) of this General Permit, which requires Dischargers to contain non-solid industrial materials or wastes that can be dispersed via wind erosion or come into contact with storm water during handling.

n. Quality Assurance and Record Keeping

Section 2.1.2 of the 2008 MSGP does not directly designate record keeping as a control measure. This General Permit (Section X.H.1.g) includes quality assurance and record keeping as a minimum BMP and requires Dischargers to implement three (3) general BMPs. These BMPs include: developing and

implementing procedures to ensure that all elements of the SWPPP are implemented, develop a method of tracking and recording the implementation of all BMPs identified in the SWPPP, and a requirement to keep and maintain those records. This ensures that management procedures are designed and permit requirements are implemented by appropriate staff.

o. Implementation of BMPs in the SWPPP

Like the previous permit, this General Permit does not assign Dischargers a schedule to implement BMPs. Instead, this General Permit requires Dischargers to select the appropriate schedule to implement the minimum BMPs. In addition, this General Permit requires Dischargers to identify, as necessary, any BMPs that should be implemented prior to precipitation events. Although Dischargers are required to maintain internal procedures to ensure the BMPs are implemented according to schedule or prior to precipitation events, Dischargers are only required to certify in the Annual Report whether they complied with the BMP implementation requirements.

Dischargers are required to implement an effective suite of BMPs that meet the technology and water-quality based limitations of this General Permit. Based upon Regional Water Board staff inspections, there is significant variation between Dischargers' interpretations of what BMPs were necessary to comply with the previous permit. This General Permit establishes a new requirement that Dischargers must implement, to the extent feasible, specific minimum BMPs to reduce or prevent the presence of pollutants in their industrial storm water discharge. In addition, due to the wide variety of facilities conducting numerous and differing industrial activities throughout the state, this General Permit retains the requirement from the previous permit that Dischargers establish and implement additional BMPs beyond the minimum. Implementation of this General Permit's minimum BMPs, together with any necessary advanced BMPs, will result in compliance with the effluent limitations of this General Permit (Section V.A). All Dischargers must evaluate their facilities and determine the best practices within their industry considering technological availability and economic practicability and achievability to implement these minimum BMPs and any advanced BMPs.

The State Water Board has selected minimum BMPs that are generally applicable at all facilities. The minimum BMPs are consistent with the types of BMPs normally found in properly developed SWPPPs and, in most cases, should represent a significant portion of the effort required for a Discharger to achieve compliance. Due to the diverse industries covered by this General Permit, the development of a more comprehensive list of minimum BMPs is not currently feasible. The selection, applicability, and effectiveness of a given BMP is often related to industrial activity type and to facility-specific facts and circumstances. Advanced BMPs must be selected and implemented by Dischargers, based on the type of industry and facility-specific conditions, to the extent necessary to

comply with the technology-based effluent limitation requirements of this General Permit.

Failure to implement all of the minimum BMPs to the extent feasible is a violation of this General Permit. (Section X.H.1.) Dischargers must justify any determination that it is infeasible to implement a minimum BMP in the SWPPP (Section X.H.4.b). Failure to implement advanced BMPs necessary to achieve compliance with either the technology or water quality standards requirements in this General Permit is a violation of this General Permit.

p. Temporary Suspension of Industrial Activities

The exception for inactive and unstaffed sites in section 6.2.1.3 of the 2008 MSGP does not require a Discharger with a facility that is inactive and unstaffed with no industrial materials or activities exposed to storm water (in accordance with the substantive requirements in 40 Code of Federal Regulations section 122.26(g)) to complete benchmark monitoring. The Discharger is required to sign and certify a statement in the SWPPP verifying that the site is inactive and unstaffed. If circumstances change and industrial materials or activities become exposed to storm water or the facility becomes active and/or staffed, this exception no longer applies and the Discharger is required to begin complying immediately with the applicable benchmark monitoring requirements under part 6.2 of the 2008 MSGP.

This General Permit allows Dischargers to temporarily suspend monitoring at facilities where industrial activities have been suspended in accordance with Section X.H.3. This is only intended for Dischargers with facilities where it is infeasible to comply with this General Permit's monitoring while activities are suspended (e.g. remote, unstaffed, or inaccessible facilities during the time of such a suspension). Dischargers are required to update the facility's SWPPP with the BMPs being used to stabilize the site and submit the suspension dates and a justification for the suspension of monitoring via SMARTS.

3. Design Storm Standards for Treatment Control BMPs

It is the State Water Board's intent to minimize the regulatory uncertainty and costs concerning treatment control BMPs in order to encourage the implementation of treatment control BMPs when appropriate. Section X.H.6 of this General Permit specifies a design storm standard for use when treatment controls BMPs are installed. There is both a volume-based and flow-based design storm standard in this General Permit. Both are based on the 85th percentile 24-hour storm event. Without a design storm standard, Dischargers have installed treatment controls using a wide variety of designs that were sometimes either unnecessarily stringent/expensive, or deficient in complying with the requirements of the relevant permit. Some Dischargers have been hesitant to consider treatment options because of the

uncertainty concerning acceptable treatment design. The design storm standards are generally expected to:

- Be consistent with the effluent limitations of this General Permit;
- Be protective of water quality;
- Be achievable for most pollutants and their associated treatment technologies; and,
- Reduce the costs associated with treating industrial storm water discharges beyond the levels necessary to achieve compliance with this General Permit.

In lieu of complying with the design storm standards for treatment control BMPs, Dischargers may certify and submit a Level 2 ERA Technical Report, including an Industrial Activity BMPs Demonstration (Section XII.D.2.a of this General Permit). The Level 2 ERA Technical Report requirement is based upon NAL/TNAL exceedances. Under this option, a Discharger with Level 2 status must either implement BMPs to eliminate future NAL/TNAL exceedances, or justify what BMPs must be implemented to comply with this General Permit even if the BMPs will not eliminate future exceedances of NALs/TNALs. Dischargers who implement treatment control BMPs that vary from the design storm standards in Section X.H.6 must include an analysis showing that their treatment control BMPs comply with this General Permit's effluent limitations in the Industrial Activity BMP Demonstration.

This General Permit does not require Dischargers to retrofit existing treatment controls that do not meet the design storm standard, unless the Discharger determines that the existing treatment controls are not adequate to comply with this General Permit. In addition, once TMDL-specific implementation requirements are added to this General Permit, those Dischargers subject to TMDLs may need to add new or retrofitted treatment control BMPs to meet the TMDL implementation requirements.

To arrive at these design storm standards, the State Water Board has relied heavily on previous Water Board decisions concerning treatment efficacy for municipalities, published documents, stakeholder comments, and reasonableness. In 2000, the State Water Board issued State Water Board Order WQ 2000-11, which upheld Los Angeles Regional Water Board's permit requirements which mandated that all new development and redevelopment exceeding certain size criteria design treatment BMPs based on a specific storm volume: the 85th percentile 24-hour storm event. This design storm standard was based on research demonstrating that the standard represents the maximized treatment volume cut-off at the point of diminishing returns

for rainfall/runoff frequency.²²⁴ On the basis of this equation, the maximized runoff volume for 85 percent treatment of annual runoff volumes in California can range from 0.08 to 0.86 inch depending on the imperviousness of the watershed area and the mean amount of rainfall. This design storm standard is referred to as the Standard Urban Storm Water Mitigation Plan's volumetric criterion and there are multiple acceptable methods of calculating this volume. For more information, see the California Stormwater Best Management Practices Handbook.²²⁵

The San Diego Regional Water Board first established both volumetric and flow-based design storm criteria for NPDES MS4 permits. It is generally accepted by civil engineers doing hydrology work to use twice the peak hourly flow of a specific storm event to use as the basis for flow-based design of BMPs. This General Permit therefore establishes the flow-based design storm standard to be twice the peak hourly flow of the 85th percentile 24-hour storm event.

The primary objective of specifying a design storm standard is to properly size BMPs to, at a minimum, effectively treat the first flush of run-off from all storm events. The economic impacts of treating all storm water from a facility versus the minimal environmental benefit of complete treatment justify the design storm approach. It is unrealistic to require each facility to do a cost benefit analysis of their treatment structures. To simplify the requirements for design, the State Water Board reviewed research from the City of Portland²²⁶ and the City of San Jose²²⁷ to determine the volume of each rain event compared to the amount of events that occur for that volume. The results of their findings show an inflection point that is typically found at approximately the 80 to 85 percentile of recorded storm events.

Dischargers should be aware of the potential unintended public health concerns associated with treatment control BMPs. Extensive monitoring studies conducted by the California Department of Public Health (CDPH) have documented that

²²⁴ California Regional Water Quality Control Board Los Angeles Region, [Standard Urban Storm Water Mitigation Plans and Numerical Design Standards for Best Management Practices - Staff Report and Record of Decision](#) (Jan. 18, 2000) <http://www.swrcb.ca.gov/rwqcb4/water_issues/programs/stormwater/susmp/susmp_final_staff_report.pdf>. [as of February 4, 2014].

²²⁵ California Stormwater Quality Association, [Stormwater Best Management Practice New Development and Redevelopment Handbook \(2003\)](#) <<http://www.casqa.org/>>. [as of February 4, 2014].

²²⁶ City of Portland Oregon. [Portland Stormwater Management Manual Appendix E.1: Pollution Reduction Methodology E.1-1](#) (August 1, 2008). <<http://www.portlandoregon.gov/bes/article/202909>>. [as of February 4, 2014].

²²⁷ California Stormwater Quality Association (CASQA). [CASQA BMP Handbook \(January 2003\) New Development and Redevelopment \(Errata 9-04\)](#) <<http://www.casqa.org/>>. [as of February 4, 2014].

mosquitoes opportunistically breed in structural BMPs, particularly those that hold standing water for over 96 hours. BMPs that produce mosquitoes create potential public health concerns and increase the burden on local vector control agencies that are mandated to inspect for and abate mosquitoes and other vectors within their jurisdictional boundaries. These unintended consequences can be lessened when BMPs incorporate design, construction, and maintenance principles developed specifically to minimize standing water available to mosquitoes²²⁸ while having negligible effects on the capacity of the structures to provide water quality improvements. The California Health and Safety Code prohibits landowners from knowingly providing habitat for or allowing the production of mosquitoes and other vectors, and gives local vector control agencies broad inspection and abatement powers.²²⁹

Dischargers who install any type of volume-based treatment device are encouraged to consider the BMPs in the California Department of Public Health's guidance manual published July 2012, "[Best Management Practices for Mosquito Control in California](http://www.cdph.ca.gov/HealthInfo/discond/Documents/BMPforMosquitoControl07-12.pdf)" at <http://www.cdph.ca.gov/HealthInfo/discond/Documents/BMPforMosquitoControl07-12.pdf>.

4. Monitoring Implementation Plan

Dischargers are required to prepare and implement a Monitoring Implementation Plan (Section X.I of this General Permit). The Monitoring Implementation Plan requirements are designed to assist the Discharger in developing a comprehensive plan for the monitoring requirements in this General Permit and to assess their monitoring program. The Monitoring Implementation Plan includes a description of visual observation procedures and locations, as well as sampling procedures, locations, and methods. The Monitoring Implementation Plan shall be included in the SWPPP.

J. Monitoring and Reporting Requirements

1. General Monitoring Provisions

This General Permit requires Dischargers to develop and implement a facility-specific monitoring program. Monitoring is defined as visual observations, sampling and analysis. The monitoring data will be used to determine:

²²⁸ California Department of Public Health. (2012). [Best Management Practices for Mosquito Control in California](http://www.westnile.ca.gov/resources.php). < <http://www.westnile.ca.gov/resources.php>>. [as of February 4, 2014]

²²⁹ California Health & Safety Code, Division 3, Section 2060 and following.

- a. Whether BMPs addressing pollutants in industrial storm water discharges and authorized NSWDS are effective for compliance with the effluent and receiving water limitations of this General Permit,
- b. The presence of pollutants in industrial storm water discharges and authorized NSWDS (and their sources) that may trigger the implementation of additional BMPs and/or SWPPP revisions; and,
- c. The effectiveness of BMPs in reducing or preventing pollutants in industrial storm water discharges and authorized NSWDS.

Effluent sampling and analysis information may be useful to Dischargers when evaluating the need for improved BMPs. The monitoring requirements in this General Permit recognize the 2008 MSGP approach to visual observations as an effective monitoring method for evaluating the effectiveness of BMPs at most facilities. Section 6.2 of the 2008 MSGP limits its monitoring sampling requirements to certain industrial categories. Similar to the previous permit, this General Permit requires all Dischargers to sample unless they have obtained NEC coverage or have an inactive mining operation(s) certified as allowed under this General Permit Section XIII.

This General Permit defines a Qualifying Storm Event (QSE) to provide clarity to Dischargers of when sampling is required. The previous permit (Section B.5.a) specified that sampling was required within the first hour of discharge, however, this General Permit requires Dischargers to sample within four hours of the start of Discharge. Many Dischargers were not able to get samples of their discharge locations within one (1) hour under the previous permit so this general permit has expanded the timeframe allowed to provide enough time to sample all discharge locations. The previous permit required three working dry days before sampling and this General Permit defines this period as 48 hours, this timeframe was decreased to provide more opportunities for Dischargers to obtain samples. This General Permit does not specify a volume for sampling due to the complexity of using rain gauges and the limited access of rain gauge station data.

Dischargers are only required to obtain samples required during scheduled facility operating hours and when sampling conditions are safe in accordance with Section XI.C.6.a.ii of this General Permit. If a storm event occurs during unscheduled facility operating hours (e.g. during the weekend or night) and during the 12 hours preceding the scheduled facility operating hours, the Dischargers is still responsible for obtaining samples at discharge locations that are still producing a discharge at the start of facility operations. Under the previous permit, many Dischargers were unable to obtain samples due to rainfall beginning at night.

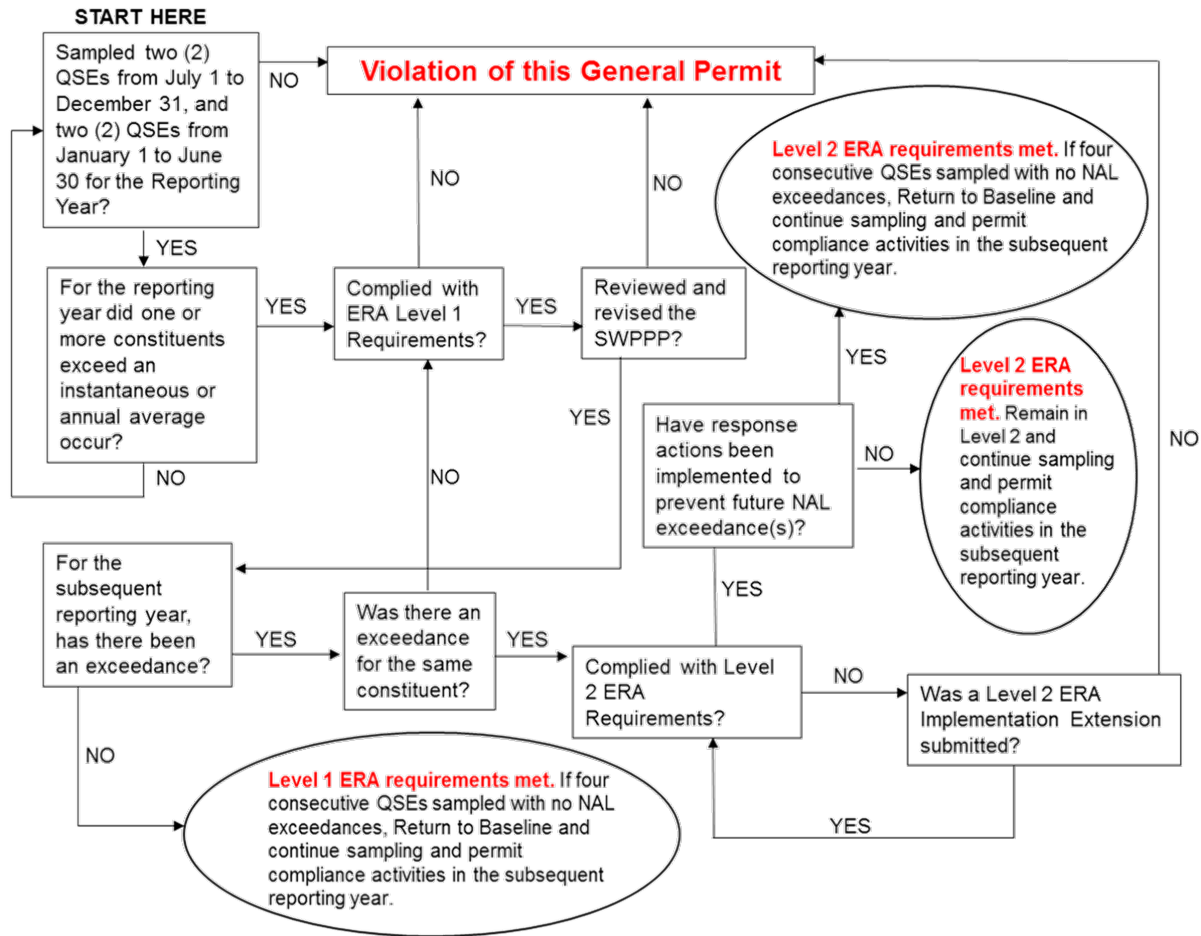
The State Water Board recognizes that it may not be feasible for all facilities to obtain four QSEs in a reporting year because there may not be enough qualifying storm events to do so. Therefore, a Discharger that is unable to collect and analyze storm

water samples from two QSEs in each half of a reporting year due to a lack of QSEs is not in violation of Section XI.B.2. Dischargers that miss four QSEs during a reporting year due to the fact that four QSEs did not occur are not required to make up these sampling events in subsequent reporting years.

The State Water Board recognizes that each facility has unique physical characteristics, industrial activities, and/or variations in BMP implementation and performance which warrants the requirement that each facility demonstrate its compliance. Figure 3 of this Fact Sheet provides a summary of all the monitoring-related requirements of this General Permit. This General Permit's monitoring requirements include sampling and analysis requirements for specific indicator parameters that indicate the presence of pollutants in industrial storm water discharges. The "indicator parameters" are oil and grease (for petroleum hydrocarbons), total suspended solids (for sediment and sediment bound pollutants) and pH (for acidic and alkaline pollutants). Additionally, Dischargers are required to evaluate their facilities and analyze samples for additional facility-specific parameters. These monitoring program requirements are designed to provide useful, cost-effective, timely, and easily obtained information to assist Dischargers as they identify their facility's pollutant sources and implement corrective actions and revise BMPs as necessary (Section XI.A.4 of this General Permit).

This General Permit requires a combination of visual observations and analytical monitoring. Visual observations provide Dischargers with immediate information indicating the presence of many pollutants and their sources. Dischargers must implement timely actions and revise BMPs as necessary (Section XI.A.4) when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP. Analytical monitoring provides an additional indication of the presence and concentrations of pollutants in storm water discharge. Dischargers are required to evaluate potential pollutant sources and corresponding BMPs and revise the SWPPP appropriately when specific types of NAL/TNAL exceedances occur as described below.

FIGURE 2: Compliance Determination Flowchart



2. Visual Observations

There are two major changes to the visual observation requirements in this General Permit compared to the previous permit, which include:

a. Monthly Visual Observations

The previous permit required separate quarterly visual observations for unauthorized and authorized non-storm water discharges. It did not require periodic visual observations of the facility to determine whether all potential pollutant sources were being adequately controlled with BMPs. Prior drafts of this General Permit proposed the addition of pre-storm inspections. This was met with great resistance by Dischargers because of the complexity and burden of determining when a QSE would occur. Many of these Dischargers recommended that monthly BMP and non-storm water discharge visual observations should replace the proposed pre-storm inspections. This General Permit merges all visual observations into a single monthly visual observation.

b. Sampling Event Visual Observations

The previous permit required monthly storm water visual observations. This required Dischargers to conduct visual observations for QSEs that were not being sampled since only two QSEs were required to be sampled in the previous permit. As discussed below, the sampling requirement has been increased to four QSEs within each reporting year with two QSEs required in each half of the reporting year. We expect that this will result in more samples being collected and analyzed, since most of California experiences, on average, at least two QSEs per half year. This General Permit streamlines the storm water visual observation requirement by linking the visual observations to the time of sampling.

3. Sampling and Analysis

a. General

As part of the process for developing previous drafts of this General Permit, the State Water Board considered comments from numerous stakeholders concerning sampling and analysis. Sampling and analysis issues were the most dominant of all issues raised in the comments.

The State Water Board received stakeholder comments that fall into three primary categories concerning this General Permit's sampling and analysis approach:

- i. Comments supporting an intensive water quality sampling and analysis approach (with the goal of producing more accurate discharge-characterizing and pollutant concentration data) as the primary method of determining compliance with effluent limitations and receiving water limitations. Since this approach requires large amounts of high quality data to accurately quantify the characteristics of the discharges, it is referred to as the quantitative monitoring approach. Stakeholders supporting the quantitative approach generally also support the use of stringent NELs to evaluate compliance with this General Permit;
- ii. Comments supporting only visual observations as the primary method of determining compliance: These stakeholders generally assert that storm water sampling is an incomplete and not very cost effective means of determining water quality impacts on the receiving waters; and,
- iii. Comments supporting a combination of visual observations and cost-effective water quality sampling and analysis approach (sampling and analysis that would produce data indicating the presence of pollutants) to determine compliance (similar to the previous permit's approach). Since this approach uses more qualitative information to describe the quality and characteristics of the discharges, it is referred to as the qualitative monitoring approach.

Within each of the three categories, there are various recommendations and rationales as to the exact monitoring frequencies, procedures and methods, required to implement the approach. Stakeholders in favor of the quantitative monitoring approach commented that it is the only reliable and meaningful method of assuring that: (1) BMPs are effective in reducing or preventing pollutants in storm water discharge in compliance with BAT/BCT, and (2) the discharge is not causing or contributing to an exceedance of a water quality standards. The stakeholders state that visual observations are not effective in measuring pollutant concentrations nor is it effective in determining the presence of colorless and/or odorless pollutants. The stakeholders state that qualitative monitoring (and the use of indicator parameters) will not provide results useful for calculating pollutant loading nor will it accurately characterize the discharge.

Stakeholders in favor of requiring only visual observations state that sampling and analysis is unnecessary because (1) the previous permit did not include NELs so the usefulness of sampling and analysis data is limited, (2) a significant majority of Dischargers should be able to develop appropriate BMPs without sampling and analysis data, (3) most pollutant sources and pollutants can be detected and mitigated through visual observations, (4) the costs associated with quantitative monitoring are excessive and disproportionate to any benefits, (5) U.S. EPA's storm water regulations do not require sampling, (6) The 2008 MSGP relies heavily on visual observations and requires only a limited number of specific industries to conduct sampling and analysis, and (7) the majority of Dischargers are small businesses and do not have sufficient training or understanding to perform accurate sampling and analysis.

Stakeholders in favor of requiring both visual observations and a cost-effective qualitative monitoring program state that (1) both are within the means and understanding of most Dischargers, and (2) monitoring results are useful for evaluating a Discharger's compliance without unnecessarily increasing the burden on the Discharger and without subjecting Dischargers to non-technical enforcement actions.

The State Water Board finds that it is feasible for the majority of Dischargers to develop appropriate BMPs without having to perform large amounts of quantitative monitoring, which can be very costly. In the absence of implementing NELs, the State Water Board has determined that the infeasibility and costs associated with developing quantitative monitoring programs at each of thousands industrial facilities currently permitted would outweigh the limited benefits. The primary difficulty associated with requiring intensive quantitative monitoring lies with the cost and the difficulty of accurately sampling industrial storm water discharges.

Stakeholders that support quantitative monitoring believe the data is necessary to determine pollutant loading, concentration, or contribution to water quality

violations. In order to derive data necessary to support those goals, however, the data must be of high quality, meaning it must be accurate, precise and have an intact chain of custody. Many industrial facilities do not have well-defined storm water conveyance systems for sample collection. Storm water frequently discharges from multiple locations through sheet flow into nearby streets and adjoining properties. Sample collection from a portion of the sheet flow is an inexact measurement since not all of the flow is sampled. Requiring every Discharger to construct well-defined storm water conveyances may cost anywhere from thousands to hundreds of thousands of dollars per facility depending on the size and nature of each industrial facility. At many facilities, the construction of such conveyances may also violate local building codes, create safety hazards, cause flooding, or increase erosion. In addition, eliminating sheet flow at some facilities could result in increased pollutant concentrations.

The State Water Board has considered the complexity and costs associated with quantitative monitoring. Unlike continuous point source discharges (e.g., publicly owned treatment works), storm water discharges are variable in intensity and duration. The concentration of pollutants discharged at any one time is dependent on many complex variables. The largest concentration of pollutants would be expected to discharge earlier in the storm event and taper off as discharges continue. Therefore, effective quantitative monitoring of storm water discharges would require that storm water discharges be collected and sampled until most or all of the pollutants have been discharged. Multiple samples would need to be collected over many hours. To determine the pollutant mass loading, the storm water discharge flow must also be measured each time a sample is collected.

For a quantitative monitoring approach to yield useful pollutant loading information, the installation of automatic sampling devices and flow meters at each discharge location would usually be necessary. In addition, qualified individuals would be needed to conduct the monitoring procedures, and to handle and maintain flow meters and automatic samplers are needed. A significant majority of storm water Dischargers under this General Permit do not possess the skills to manage such an effort. Dischargers will bear the cost of employing and/or training on-site staff to do this work, or the cost of contracting with environmental consultants and acquiring the required flow meters and automatic samplers. The cost to Dischargers to conduct quantitative monitoring varies depending on the number of outfalls, the number of storms, the length of each storm, the amount of staff training, and other variables.

To address these concerns, this General Permit includes a number of new items that bridge the gap between the previous permit's qualitative monitoring and the quantitative approach recommended by many commenters. This General Permit includes a requirement for all Dischargers to designate a QISP when they enter Level 1 status due to NAL/TNAL exceedances. The QISP is required to be

trained to: (1) more accurately identify discharge locations representative of the facility storm water discharge (2) select and implement appropriate sampling procedures (3) evaluate and develop additional BMPs to reduce or prevent pollutants in the industrial storm water discharges.

Dischargers that fail to develop and implement an adequate Monitoring Implementation Plan that includes both visual observations and sampling and analysis, are in violation of this General Permit. Dischargers that fail to comply with Level 1 status and Level 2 status ERA requirements, triggered by NAL/TNAL exceedances, are in violation of this General Permit.

Water Code section 13383.5 requires that the State Water Board include (1) standardized methods for collection of storm water samples, (2) standardized methods for analysis of storm water samples, (3) a requirement that every sample analysis be completed by a State certified laboratory or in the field in accordance with Quality Assurance and Quality Control (QA/QC) protocols, (4) a standardized reporting format, (5) standardized sampling and analysis programs for QA/QC, and (6) minimum detection limits. The monitoring requirements in this General Permit (Section XI), as supplemented by SMARTS, address these requirements.

Under the previous permit, many Dischargers did not developed adequate sample collection and handling procedures, decreasing the quality of analytical results. In addition, Dischargers often selected inappropriate test methods, method detection limits, or reporting units. This General Permit requires all Dischargers to identify discharge locations that are representative of industrial storm water discharges and develop and implement reasonable sampling procedures to ensure that samples are not mishandled or contaminated.

It is infeasible for the State Water Board to provide a single comprehensive set of sample collection and handling procedures/instructions due to the wide variation in storm water conveyance and collection systems in use at facilities around the state. As an alternative, Attachment H of this General Permit provides minimum storm water sample collection and handling instructions that pertain to all facilities. Dischargers are required to develop facility-specific sample collection and handling procedures based upon these minimum requirements. Table 2 in this General Permit provides the minimum test methods that shall be used for a variety of common pollutants. Dischargers must be aware that use of more sensitive test methods (e.g., U.S. EPA Method 1631 for Mercury) may be necessary if they discharge to an impaired water body or are otherwise required to do so by the Regional Water Board. This General Permit allows Dischargers to propose an analytical test method for any parameter or pollutant that does not have an analytical test method specified in Table 2 or in SMARTS. Dischargers may also propose analytical test methods with substantially similar or more stringent method detection limits than existing approved analytical test methods.

Upon approval, SMARTS will be updated over time to add additional acceptable analytical test methods.

The previous permit allowed Dischargers to reduce sampling analysis requirements for substantially similar drainage areas by either (1) combining samples for an unspecified maximum number of substantially similar drainage areas, or (2) sampling a reduced number of substantially similar drainage areas. The State Water Board provided this procedure to reduce analytical costs. The complexity associated with determining substantially similar drainage areas has led Dischargers to produce various, and sometimes questionable, analytical schemes. In addition, the previous permit did not establish a maximum number of samples that could be combined.

To standardize sample collection and analysis as required by Water Code section 13383.5, while continuing to offer a reduced analytic cost option, these requirements have been revised. Section XI.B.4 of this General Permit requires Dischargers to collect samples from all discharge locations regardless of whether the discharges are substantially similar or not. Dischargers may analyze each sample collected, or may analyze a combined sample consisting of equal volumes, collected from as many as four (4) substantially similar discharge locations. A minimum of one combined sample shall be analyzed for every one (1) to four (4) discharge locations, and the samples shall be combined in the lab in accordance with Section XI.C.5 of this General Permit.

Representative sampling is only allowed for sheet flow discharges or discharges from drainage areas with multiple discharge locations. Dischargers shall select the appropriate location(s) to be sampled and intervals necessary to obtain samples representative of storm water associated with industrial activities generated within the corresponding drainage area. Dischargers are not required to sample discharge locations that have no exposure of industrial activities or materials as defined in Section XVII of this General Permit within the corresponding drainage area. However, Dischargers are required to conduct the monthly visual observations regardless of the selected locations to be sampled.

This General Permit defines a QSE as a precipitation event that produces a discharge from any drainage area that is preceded by 48 consecutive hours without a discharge from any drainage area. The previous permit did not include a QSE definition; instead, it utilized a different approach to defining the storm events that were required to be sampled. Under the previous permit, eligible storm events were storm events that occurred after three consecutive working days of dry weather. The three consecutive working days of dry weather definition in the previous permit led Dischargers to miss many opportunities to sample. Some Dischargers were unable to collect samples from two storm events in certain years under the previous definition. To resolve this difficulty, this General Permit increases the sampling requirements to four (4) QSEs per year,

while decreasing the number of days without a discharge, resulting in additional opportunities for Dischargers to sample. Additionally, by eliminating the previous permit's reference to "dry weather," this General Permit allows some precipitation to occur between QSEs so long as there is no discharge from any drainage area. This change will result in more QSE sampling opportunities.

To improve clarity and consistency, the definitions contained in other storm water permits were considered with the goal of developing a standard definition for 'dry weather' for this General Permit. The 2008 MSGP sets a "measurable storm event" as one that produces at least 0.1 inches of precipitation and results in an actual discharge after 72 hours (three days) of dry weather. The State of Washington defines a "qualifying storm event" as a storm with at least 0.1 inches of precipitation preceded by at least 24 hours of no measurable precipitation, mirroring the definition found in the previous MSGP (2000 version). The State of Oregon requires that samples be taken in the first 12 hours of discharge and no less than 14 days apart. Review of other permits concludes that there is not a single commonly used approach to triggering sampling in industrial general permits. Therefore an enforceable sampling trigger is included in this General permit that requires Dischargers to sample four storm events within each reporting year.

b. Effluent Water Quality Sampling and Analysis Parameters

Dischargers are required to sample and analyze their effluent for certain parameters. "Parameter" is a term used in laboratory analysis circles to represent a distinct, reportable measure of a particular type. For example, ammonia, hexavalent chromium, total nitrogen and chemical oxygen demand are all parameters that a laboratory can analyze storm water effluent for and report a quantity back. A parameter is also an indicator of pollution. In this General Permit, pH, total suspended solids and chemical oxygen demand are examples of indicator parameters. They are not direct measures of a water quality problem or condition of pollution but can be used to indicate a problem or condition of pollution. Indicator parameters can also be used to indicate practices and/or the presence of materials at a facility to bring forth information for compliance evaluation processes, like annual report review and inspection. For example, chemical oxygen demand concentrations can indicate the presence of dissolved organic compounds, like residual food from collected recycling materials.

Minimum parameter-specific monitoring is required for Dischargers, regardless of whether additional facility-specific parameters are selected. This General Permit requires some parameters to be analyzed and reported for the duration of permit coverage to develop comparable sampling data over time and over many storm events and to demonstrate compliance. The Regional Water Boards may use such data to evaluate individual facility compliance and assess the differences between various industries. Accordingly, the parameters selected correspond to a

broad range of industrial facilities, are inexpensive to sample and analyze, and have sampling and analysis methods which are easy to understand and implement. Some analytical methods for field measurements of some parameters, such as pH, may be performed using relatively inexpensive field instruments and provides an immediate alert to possible pollutant sources.

The following three selected minimum parameters are considered indicator parameters, regardless of facility type. These parameters typically provide indication and/or the correlation of whether other pollutants are present in storm water discharge. These parameters were selected for the following reasons:

- i. pH is a numeric measurement of the hydrogen-ion concentration. Many industrial facilities handle materials that can affect pH. A sample is considered to have a neutral pH if it has a value of 7. At values less than 7, water is considered acidic; above 7 it is considered alkaline or basic. Pure rain water in California typically has a pH value of approximately 7.
- ii. Total Suspended Solids (TSS) is an indicator of the un-dissolved solids that are present in storm water discharge. Sources of TSS include sediment from erosion, and dirt from impervious (i.e., paved) areas. Many pollutants adhere to sediment particles; therefore, reducing sediment will reduce the amount of these pollutants in storm water discharge.
- iii. Oil and Grease (O&G) is a measure of the amount of O&G present in storm water discharge. At very low concentrations, O&G can cause sheen on the surface of water. O&G can adversely affect aquatic life, create unsightly floating material, and make water undrinkable. Sources of O&G include, but are not limited to, maintenance shops, vehicles, machines and roadways.

The previous permit allowed Dischargers to analyze samples for either O&G or Total Organic Carbon (TOC). This General Permit requires all Dischargers analyze samples for O&G since almost all Dischargers with outdoor activities operate equipment and vehicles can potentially generate insoluble oils and greases. Dischargers with water soluble-based organic oils may be required to also test for TOC. The TOC and O&G tests are not synonymous, duplicative or interchangeable.

This General Permit removes the requirement to analyze for specific conductance as part of the minimum analytic parameters. Specific conductance is not required by U.S. EPA for any industry type. Additionally, stakeholder comments indicate that there are many non-industrial sources that may cause high specific conductance and interfere with the efficacy of the test. For example, salty air deposition that occurs at facilities in coastal areas may raise the specific conductance in water over 500 micro-ohms per centimeter ($\mu\text{hos/cm}$).

Dischargers are not prevented from performing a specific conductance test as a

screening tool if it is useful to detect a particular pollutant of concern as required (e.g. salinity).

U.S. EPA has finalized minor amendments to its CWA regulations to codify that under the NPDES program, where U.S. EPA has promulgated or otherwise approved analytical methods under 40 Code of Federal Regulations Part 136, or 40 Code of Federal Regulations Chapter I, subchapters N and O, dischargers must use “sufficiently sensitive” analytical test methods. The purpose of this rulemaking is to clarify that NPDES applicants and permittees must use U.S. EPA approved analytical methods that are capable of detecting and measuring the pollutants at, or below, the applicable water quality criteria or permit limits. U.S. EPA modified existing NPDES application, compliance monitoring, and analytical methods regulations.

Some of the approved analytical test methods have greater sensitivities and lower minimum levels or method detection limits than other approved methods for the same pollutant. Many metals and toxic compounds (for example, mercury) have an array of U.S. EPA-approved methods, including some methods that have greater sensitivities and lower minimum levels than the others.

U.S. EPA and State permitting authorities use data from the permittees to determine whether pollutants are present in a discharge and to quantify the levels of all detected pollutants. These pollutant data are then used to determine whether technology- or water quality-based effluent limits are needed in the facility’s NPDES permit. It is critical, therefore, that dischargers provide data that have been measured at levels that will be meaningful to the decision-making process. The same holds true for monitoring and reporting relative to permit limits established for regulated parameters.

For the purposes of sufficiently sensitive test method implementation, a method is sufficiently sensitive when:

- The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either (a) the method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter, or (b) the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in a facility’s discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N, for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this General Permit or by the Regional Water Board. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

This General Permit requires Dischargers subject to Subchapter N ELGs for pH to analyze for pH using approved test methods in accordance with 40 Code of Federal Regulations part 136. These federal regulations specify that analysis of pH must take place within 15 minutes of sample collection. All other Dischargers may screen for pH using wide range litmus pH paper or other equivalent pH test kits within 15 minutes of sample collection. If in any reporting year a Discharger has two or more pH results outside of the range of 6.0 – 9.0 pH units, that Discharger is required to comply with the approved test methods in 40 Code of Federal Regulations part 136 in subsequent reporting years.

For almost all Dischargers, obtaining laboratory analysis within 15 minutes is logistically impossible. For many Dischargers, maintaining a calibrated pH meter is difficult, labor intensive, and error prone. Screening for pH will limit the number of additional Dischargers required to comply with 40 Code of Federal Regulations part 136 methods to those that have pH measures outside the range of 6.0-9.0 pH units. The use of wide range litmus pH paper or other equivalent pH test kits is not as accurate as a calibrated pH meter, however litmus paper is allowed in the 2008 MSGP, and when used properly it can provide an accurate screening measure to determine if further more-accurate pH sampling is necessary to determine compliance.

Review of available monitoring data shows that storm water discharges from most types of industrial facilities comply with the pH range of 6.0 to 9.0 pH units. There are specific types of industries, like cement or concrete manufacturers that have shown a trend of higher pH values very close to 9.0 pH units. Rather than require all industries as a whole to monitor with the more costly 40 Code of Federal Regulations part 136 methods, this General Permit establishes a triggering mechanism for these more advanced pH test methods. The Regional Water Boards retain their authority to require more accurate test methods. Once a Discharger triggers the requirement to use the more accurate testing methods in 40 Code of Federal Regulations part 136, the Discharger may not revert back to screening for pH for the duration of coverage under this General Permit.

In the early 1990s, U.S. EPA, through its group application program, evaluated nationwide monitoring data and developed the listed parameters and SIC associations shown in Table 1 of this General Permit. The 2008 MSGP requires that Dischargers analyze storm water effluent for the listed parameters under certain conditions. In addition to the parameters in Table 1 of this General Permit, Dischargers are required to select additional facility-specific analytical parameters

to be monitored, based upon the types of materials that are both exposed to and mobilized by contact with storm water. Dischargers must, at a minimum, understand how to identify industrial materials that are handled outdoors and which of those materials can easily dissolve or be otherwise transported via storm water.

The Regional Water Boards have the authority to revise the monitoring requirements for an individual facility or group of facilities based on site-specific factors including geographic location, industry type, and potential to pollute. For example, the Los Angeles Regional Water Board required all dismantlers (SIC Code 5015) within their jurisdiction to monitor for copper and zinc instead of aluminum and iron during the term of the previous permit. SMARTS will be programmed to incorporate any monitoring revisions required by the Regional Water Boards. Dischargers will receive email notification of the monitoring requirement revision and their SMARTS analytical reporting input screen will display the corresponding revisions. Dischargers may add, but not otherwise modify, the sampling parameters on their SMARTS input screen.

Dischargers are also required to identify pollutants that may cause or contribute to an existing exceedance of any applicable water quality standards for the receiving water. This General Permit requires Dischargers to control its discharge as necessary to meet the receiving water limitations, and to select additional monitoring parameters that are representative of industrial materials handled at the facility (regardless of the degree of storm water contact or relative mobility) that may be related to pollutants causing a water body to be impaired.

4. Methods and Exceptions

a. Storm Water Discharge Locations

Dischargers are required to visually observe and collect samples of industrial storm water discharges from each drainage area at all discharge locations. These samples must be representative of the storm water discharge leaving each drainage area. This is a change from the previous permit which allowed a Discharger to reduce the number of discharge locations sampled if two or more discharge locations were substantially similar.

Dischargers are required to identify, when practicable, alternate discharge locations if: (1) the facility's industrial drainage areas are affected by storm water run-on from surrounding areas that cannot be controlled, or (2) discharge locations are difficult to observe or sample (e.g. submerged discharge outlets, dangerous discharge location accessibility).

b. Representative Sampling Reduction

Some stakeholders have indicated that there are unique circumstances where sampling a subset of representative discharge locations fully characterizes the full set of storm water discharges. Stakeholders provided examples related to drainage areas with multiple discharge locations where sampling only a subset of these discharge locations produces results that are representative of the drainage areas' storm water discharges. In such situations, this General Permit allows Dischargers to reduce the number of discharge locations. For each drainage area with multiple discharge locations (e.g. roofs with multiple downspouts, loading/unloading areas with multiple storm drain inlets), the Discharger may reduce the number of discharge locations to be sampled if the conditions in Section XI.C.4 of this General Permit are met.

c. Qualified Combined Samples

Dischargers may combine samples from up to four (4) discharge locations if the industrial activities within each drainage area and each drainage area's physical characteristics (i.e. grade, surface materials) are substantially similar.

Dischargers are required to provide documentation in the Monitoring Implementation Plan supporting that the above conditions have been evaluated and fulfilled. A Discharger may combine samples from more than four (4) discharge locations only with approval from the appropriate Regional Water Board.

d. Sample Collection and Visual Observation Exceptions

Dischargers are not required to collect samples or conduct visual observations during dangerous weather conditions such as flooding or electrical storms, or outside of scheduled facility operating hours. A Discharger is not precluded from conducting sample collection activities or visual observations outside of scheduled facility operating hours.

In the event that a Discharger is unable to collect the required samples or conduct visual observations due to the above exceptions, the Discharger must include an explanation of the conditions obstructing safe monitoring in its Annual Report. If access to a discharge location is dangerous on a routine basis, a Discharger must choose an alternative discharge location in accordance with General Permit Section XI.C.3.

e. Sampling Frequency Reduction

Facilities that do not have NAL/TNAL exceedances for four (4) consecutive QSEs are unlikely to pose a significant threat to water quality. If the storm water from these facilities is also in full compliance with this General Permit, the Discharger is

eligible for a reduction in sampling frequency. The Sampling Frequency Reduction allows a Discharger to decrease its monitoring from four (4) samples within each reporting year to one (1) QSE within the first half of each reporting year (July 1 to December 31) and one (1) QSE within the second half of each reporting year (January 1 to June 30). If a Discharger has a subsequent NAL/TNAL exceedance after the Sampling Frequency Reduction, it must comply with the original sampling requirements of this General Permit. Only Dischargers that have baseline status or that have satisfied the Level 1 requirements are eligible for this sampling and analysis reduction.

A Discharger requesting to reduce its sampling frequency shall certify and submit a Sampling Frequency Reduction certification via SMARTS. The Sampling Frequency Reduction certification shall include documentation that the General Permit conditions for the Sampling Frequency Reduction have been satisfied.

Dischargers participating in a Compliance Group and certifying a Sampling Frequency Reduction are only required to collect and analyze storm water samples from one (1) QSE within each reporting year. These Dischargers must receive year-round compliance assistance from their Compliance Group Leader and must comply with all requirements of this General Permit.

5. Facilities Subject to Federal Storm Water Effluent Limitation Guidelines (ELGs)

Federal regulations at Subchapter N establish ELGs for industrial storm water discharges from facilities in eleven industrial sectors. For these facilities, compliance with the ELGs constitutes compliance with the technology standard of BPT, BAT, BCT, or New Source Performance Standards provided in the ELG for the specified pollutants, and compliance with the technology-based requirements in this General Permit for the specified pollutant.

K. Exceedance Response Actions (ERAs)

1. General

The previous permit did not incorporate the benchmarks from any of the MSGPs or NALs for Dischargers to evaluate sampling results. Unlike the requirements for industrial storm water discharges that cause or contribute to an exceedance of a water quality standards, the previous permit did not provide definitions, procedures or guidelines to assess sampling results. Many Regional Water Boards have formally or informally notified Dischargers that exceedances of the MSGP benchmarks should be used to determine whether additional BMPs are necessary. However, there was considerable confusion as to the extent to which a Discharger would be expected to implement actions in response to exceedances of these values, and the timelines that had to be met to prevent an enforcement action. The lack of specificity with regards to what constituted an exceedance, and what actions are required in response to an

exceedance, have been identified as a problem by the Water Boards, industry and environmental stakeholders.

This General Permit contains two (2) types of NALs. Annual NALs function similarly to, and are based upon, the values provided in the 2008 MSGP. Instantaneous maximum NALs/TNALs target hot spots or episodic discharges of pollutants and are established based on California industrial storm water discharge monitoring data. When a Discharger exceeds an NAL/TNAL it is required to perform ERAs. The ERAs are divided into two levels of responses and can generally be differentiated by the number of years in which a facility's discharge exceeds an NAL/TNAL trigger. These two levels are explained further in Section XII of this General Permit. This ERA process provides Dischargers with an adaptive management-based process to develop and implement cost-effective BMPs that are protective of water quality and compliant with this General Permit. This process is also designed to provide Dischargers with a more defined pathway towards full compliance.

The ERA requirements in this General Permit were developed using best professional judgment and Water Board experience with the shortcomings of the previous permit's compliance procedures. Public comments received during State Water Board hearings on the 2002, 2005, 2011, 2012 and 2013 draft permits, and NPDES industrial storm water discharge permits from other states with well-defined ERA requirements were also considered by the State Water Board.

The State Water Board presumes that one single NAL/TNAL exceedance for a particular parameter is not a clear indicator that a facility's discharge is out of compliance with the technology-based effluent limitations or receiving water limitations. This presumption recognizes the highly variable nature of storm water discharge and the limited value of a single quarterly grab sample to represent the quality of a facility's storm water discharge for an entire storm event and all other non-sampled storm events. With this presumption, the State Water Board is addressing costly monitoring requirements that do not bring forth valuable compliance and/or water quality information.

2. NALs and NAL/TNAL Exceedances

a. This General Permit contains two types of NAL exceedances as follows:

Annual NAL exceedance - the Discharger is required to calculate the average annual concentration for each parameter using the results of all sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data), and compare the annual average concentration to the corresponding Annual NAL values in Table 2 of this General Permit. An annual NAL exceedance occurs when the annual average of all the sampling results for a parameter taken within a reporting year exceeds the annual NAL value for that parameter listed in Table 2 of this General Permit.

For the purposes of calculating the annual average concentration for each parameter, this General Permit considers any sufficiently sensitive sampling result that are a “non-detect” or less than the method detection limit as a zero (0) value. The reason to use zero (0) values instead of the detected but not quantifiable value (minimum level or reporting limit) for sufficiently sensitive analysis is that these values are very low and are unlikely to contribute to an NAL exceedance. There are statistical methods to include low values when calculations are for numeric criteria and limitations, however, the NALs in this General Permit are approximate values used to provide feedback to the Discharger on site performance, and are not numeric criteria or limitations. Therefore, it is not necessary to include these insignificant values in the calculations for the NALs. For Dischargers using composite sampling or flow measurement in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA Guidance Manual for the Monitoring and Reporting Requirements of the NPDES Multi-Sector Storm Water General Permit.²³⁰

- i. Instantaneous maximum NAL exceedance - the Discharger is required to compare all sampling and analytical results from each distinct sample (individual or combined) to the corresponding instantaneous maximum NAL values in Table 2 of this General Permit. An instantaneous maximum NAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G), or are outside of the instantaneous maximum NAL range (for pH). An instantaneous maximum TNAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the applicable instantaneous maximum TNAL value.

b. Instantaneous maximum NAL analysis

In its June 19, 2006 report, the Blue Ribbon Panel of Experts (Panel) made several specific recommendations for how to set numeric limitations in future industrial storm water general permit(s). For sites not subject to TMDLs, the Panel suggested that the numeric values be based upon industry types or categories, with the recognition that each industry has its own specific water quality issues and financial viability. Furthermore, the Panel concluded:

To establish Numeric Limits for industrial sites requires a reliable database, describing current emissions by industry types or categories, and performance of existing BMPs. The current industrial permit has not produced such a database for most industrial categories because of inconsistencies in monitoring or compliance with monitoring

²³⁰ U.S. EPA. [NPDES Storm Water Sampling Guidance Document](http://www.epa.gov/npdes/pubs/owm0093.pdf). Web. July 1992. <<http://www.epa.gov/npdes/pubs/owm0093.pdf>>. [as of February 4, 2014].

requirements. The Board needs to reexamine the existing data sources, collect new data as required and for additional water quality parameters (the current permit requires only pH, conductivity, total suspended solids, and either total organic carbon or oil and grease) to establish practical and achievable Numeric Limits.

The Panel suggested an alternative method that would allow the use of the existing Water Board dataset to establish action levels, referred to as the “ranked percentile” method. The Panel recommended:

The ranked percentile approach (also a statistical approach) relies on the average cumulative distribution of water quality data for each constituent developed from many water quality samples taken for many events at many locations. The Action Level would then be defined as those concentrations that consistently exceed some percentage of all water quality events (i.e. the 90th percentile). In this case, action would be required at those locations that were consistently in the outer limit (i.e. uppermost 10th percentile) of the distribution of observed effluent qualities from urban runoff.

After performing various data analysis exercises with the Water Board dataset, State Water Board staff concluded that the Water Board dataset is not adequate to calculate instantaneous NAL values using the Panel’s recommended method for all of parameters that have annual NAL values based on the U.S. EPA benchmarks. Additionally, public comments on the January 2011 draft of this General Permit suggest that it is problematic to calculate NAL values based on the existing data. Therefore, the Water Board dataset was not used to calculate instantaneous NAL values for all parameters.

However, since all Dischargers regulated under the previous permit were required to sample for TSS and O&G/TOC, State Water Board staff found that the existing dataset for these parameters is of sufficient quality to calculate instantaneous NAL values. State Water Board staff also found that this data was less prone to what appear to be data input errors. The final dataset used to calculate the instantaneous NALs in this General Permit had outlier values that were eliminated from the dataset by using approved test method detection limits ranges. The methods and corresponding method detection limit ranges used to screen outliers are as follows:

- O&G - EPA 413.1 Applicable Range: 5-1,000 mg/L
- O&G - EPA 1664 Applicable Range: 5-1,000 mg/L
- TSS - EPA 160.2 Applicable Range: 4-20,000 mg/L

The intent of the instantaneous maximum NAL is to identify specific drainage areas of concern or episodic sources of pollution in industrial storm water that may indicate inadequate storm water controls and/or water quality impacts. In the effort to add instantaneous NAL exceedances to the ERA process, the State Water Board explored different options for the development of an appropriate value (i.e. percentile approach, benchmarks times a multiplier, confidence intervals). The California Stormwater Quality Association's comments on the previous draft permit included a proposed method for calculating NAL values using a percentile approach. The State Water Board researched and evaluated this methodology and determined it is the most appropriate way to directly compare available electronic sampling data from Dischargers regulated under the previous permit. This percentile approach was used to establish the instantaneous maximum NALs in this General Permit, for discharges to directly compare with sampling results and identify drainage areas of water quality concern.

The percentile approach is a non-parametric approach identified in many statistical textbooks for determining highly suspect values. Highly suspect values are defined as values that exceed the limits of the outer fences of a box plot. Upper limits of the outer fence are calculated by adding three times the inter-quartile range (25th to 75th percentiles) to the upper-end of the inter-quartile range (the 75th percentile). The California Stormwater Quality Association calculated an NAL value of 401 mg/L for TSS using the percentile approach using the Water Board dataset. The State Water Board performed the same analysis with the same Water Board dataset and calculated a slightly different value of 396 mg/L; therefore, the instantaneous maximum NAL value for TSS of 400 mg/L was established. Applying the percentile approach to the existing O&G data results in the instantaneous maximum NAL value for O&G of 25 mg/L.

The State Water Board compared existing sampling data to the instantaneous maximum NAL values and concluded that seven (7) percent of the total samples exceeded the highly suspected value for TSS and 7.8 percent of the total samples exceeded the highly suspected value for O&G. These results suggest that the instantaneous maximum NAL values are adequate to identify drainage areas of concern statewide since they are not regularly exceeded. Using best professional judgment, the State Water Board concludes that an exceedance of these values twice within a reporting year is unlikely to be the result of storm event variability or random BMP implementation problems, and the use of the percentile approach is therefore appropriate.

Due to issues with the ranges of concentrations and the logarithmic nature of pH, statistical methods cannot be applied to pH in the same ways as other parameters. Review of storm water sampling data by the State Water Board and other stakeholders has shown that pH is not typically a parameter of concern for most industrial facilities. Accordingly, a range of pH limits established in Regional

Water Board Basin Plans is implemented in this General Permit for the instantaneous maximum NAL values. Most Basin Plans set a water quality objective of 6.0 - 9.0 pH units for water bodies, an exceedance outside the range of 6.0 - 9.0 pH units is consistent with the water quality concerns for pH among Regional Water Boards. An industrial facility with proper BMP implementation is expected to have industrial storm water discharges within the range of 6.0 - 9.0 pH units.

High concentrations of TSS and O&G, or pH values outside the range of 6.0 – 9.0 pH units, in a discharge may be an indicator of potential BMP implementation or receiving water quality concerns with other pollutants with parameters that do not have an instantaneous maximum NAL value. The State Water Board may consider instantaneous maximum NAL values for other parameters in a subsequent reissuance of this General Permit, based on data collected during this General Permit term.

The percentile approach is considered by many stakeholders to be the best method to evaluate BMP performance and general effluent quality in a community or population where the vast majority of the industrial facilities are implementing sufficient pollutant control measures. The Water Board's current dataset does not provide a way of evaluating actual BMP implementation at each facility when analyzing the data; therefore the monitoring information reported during the previous permit term cannot be linked to compliance with technology-based standards. The State Water Board intends to use data collected during this General Permit term to evaluate the percentile approach, improve the quality of collected data for other parameters, and further develop an understanding of how reported data relates to implemented BMP-control technologies.

Under this General Permit, a Discharger enters Level 1 status and must fulfill the Level 1 status ERA requirements following its first occurrence of any NAL/TNAL exceedance. Level 2 status ERA requirements follow the second occurrence of an NAL/TNAL exceedance for the same parameter in a subsequent reporting year. This ERA process provides Dischargers with an adaptive management-based process to develop and implement cost-effective BMPs that are protective of water quality and compliant with this General Permit. This General Permit's ERA process is designed to have a well-defined compliance end-point. It is not a violation of this General Permit to exceed the NAL/TNAL values; it is a violation of the permit, however, to fail to comply with the Level 1 status and Level 2 status ERA requirements in the event of NAL/TNAL exceedances.

The State Water Board acknowledges that storm water discharge concentrations are often highly variable and dependent upon numerous circumstances such as storm size, the time elapsed since the last storm, seasonal activities, and the time of sample collection. Since there are potential enforcement consequences for failure to comply with this General Permit's ERA process, the State Water Board's

intention is to use NAL/TNAL exceedances to solely require Dischargers with recurring annual NAL exceedances or drainage areas that produce recurring instantaneous maximum NAL/TNAL exceedances to be subject to the follow-up ERA requirements.

If NAL/TNAL exceedances do not occur, the State Water Board generally expects that the Discharger has implemented sufficient BMPs to control storm water pollution. When NAL/TNAL exceedances do occur, however, the potential that the Discharger may not have implemented appropriate and/or sufficient BMPs increases, and the Discharger is required to implement escalating levels of ERAs. If NAL/TNAL exceedances occur, this General Permit requires Dischargers to evaluate and potentially install additional BMPs, or re-evaluate and improve existing BMPs to be in compliance with this General Permit.

3. Baseline Status

At the beginning of a Discharger's NOI coverage under this General Permit, the Discharger has Baseline status. A Discharger demonstrating compliance with all NALs/TNALs will remain at Baseline status and is not required to complete Level 1 status and Level 2 status ERA requirements.

If a Discharger has returned to Baseline status (from Level 2 status) and additional NAL/TNAL exceedances occur, the Discharger goes directly into Level 2.

4. Level 1 Status

Regardless of when an NAL/TNAL exceedance occurs during Baseline status, a Discharger's status changes from Baseline status to Level 1 status on July 1 of the subsequent reporting year. By October 1 following the commencement of Level 1 status, the Discharger is required to appoint a QISP to assist with the completion of the Level 1 Evaluation. The Level 1 Evaluation must include a review of the facility's SWPPP for compliance with the effluent and receiving water limitations of this General Permit, an evaluation of the industrial pollutant sources at the facility that are or may be related to the NAL/TNAL exceedance(s), and identification of any additional BMPs that will eliminate future exceedances. When conducting the Level 1 Evaluation, a Discharger must ensure that all potential pollutant sources that could be causing or contributing to the NAL/TNAL exceedance(s) are fully characterized, that the current BMPs are adequately described, that employees responsible for implementing BMPs are appropriately trained, and that internal procedures are in place to track that BMPs are being implemented as designed in the SWPPP. A Discharger is additionally required to evaluate the need for additional BMPs. Level 1 ERAs are designed to provide the Discharger the opportunity to improve existing BMPs or add additional BMPs to comply with the requirements of this General Permit.

By January 1 following commencement of Level 1 status, a Discharger is required to certify and submit via SMARTS a Level 1 ERA Report prepared by a QISP. The Level 1 ERA Report must contain a summary of the Level 1 Evaluation, all new or revised BMPs added to the SWPPP.

In most cases, the State Water Board believes that Level 1 status BMPs will be operationally related rather than structural and, therefore can be implemented without delay. Recognizing that a Discharger should not be penalized for sampling results obtained before implementing BMPs, sampling results for parameters and their corresponding drainage areas that caused the NAL/TNAL exceedance up to October 1 or the date the BMPs were implemented, whichever is sooner, will not be used for calculating NAL/TNAL exceedances. Although this General Permit allows up to January 1 to implement Level 1 status BMPs, the State Board has chosen an interim date of October 1 to encourage more timely Level 1 BMP implementation. Dischargers who implement Level 1 BMPs after October 1 may risk obtaining subsequent sampling results that may cause them to go into Level 2 status.

5. Level 2 Status

Level 2 ERAs are required during any subsequent reporting year in which the same parameter(s) has an NAL/TNAL exceedance (annual average or instantaneous maximum), if this occurs, a Discharger's status changes from Level 1 status to Level 2 status on July 1 of the subsequent reporting year. Dischargers with Level 2 status must further evaluate BMP options for their facility. Dischargers may have to implement additional BMPs, which may include physical, structural, or mechanical devices that are intended to prevent pollutants from contacting storm water. Examples of such controls include, but are not limited to:

- Enclosing and/or covering outdoor pollutant sources within a building or under a roofed or tarped outdoor area.
- Physically separating the pollutant sources from contact with run-on of uncontaminated storm water.
- Devices that direct contaminated storm water to appropriate treatment BMPs (e.g., discharge to sanitary sewer as allowed by local sewer authority).
- Treatment BMPs including, but not limited to, detention ponds, oil/water separators, sand filters, sediment removal controls, and constructed wetlands.

Dischargers may select the most cost-effective BMPs to control the discharge of pollutants in industrial storm water discharges. Where appropriate, BMPs can be designed and targeted for various pollutant sources (e.g., providing overhead coverage for one potential pollutant while discharging to a detention basin for another source may be the most cost-effective solution).

a. Level 2 ERA Action Plans

The State Water Board acknowledges that there may be circumstances that make it difficult, if not impossible, for a Discharger to immediately implement additional BMPs. For example, it may take time to get a contract for construction in place, obtain necessary building permits, and design and construct the BMPs. Dischargers may also suspect that pollutants are from a non-industrial or natural background source and need time to study their site. A Discharger is required to certify and submit an Action Plan prepared by a QISP via SMARTS by January 1 following the reporting year in which the NAL/TNAL exceedance that resulted in the Discharger entering Level 2 occurred. The Level 2 ERA Action Plan requires a Discharger to propose actions necessary to complete the Level 2 ERA Technical Report, the demonstrations the Discharger has selected, and propose a time frame for implementation.

If a Discharger changes the QISP assisting with the Level 2 ERA requirements this General Permit requires the Discharger to update the QISP information via SMARTS. Current information on individuals assisting Dischargers with compliance of this General Permit provides the Water Boards with the necessary contact information if there are questions on the submitted documents, and for possible verification of a QISP's certification.

Dischargers are required to address each Level 2 NAL/TNAL exceedance in an Action Plan. The State Water Board recognizes that Dischargers with Level 2 status may have multiple parameters or facility areas that have Level 2 NAL/TNAL exceedances and the timing of the exceedances may make it very difficult to address all Level 2 NAL/TNAL exceedances in one Action Plan. When Level 2 ERA exceedances occur in subsequent reporting years, after an Action Plan is certified and submitted, a Discharger will need to develop an Action Plan for this new Level 2 NAL/TNAL exceedance. This General Permit defines new Level 2 NAL/TNAL exceedances as an exceedance for a new parameter in any drainage area at the facility, or an exceedance for the same parameter being addressed in an existing Action Plan, but where the exceedance occurred in a different drainage area than identified in the existing Action Plan.

b. Level 2 ERA Technical Reports

The Level 2 ERA Technical Report contains three different options that require a Discharger to submit demonstrations showing the cause of the NAL/TNAL exceedance(s). This General Permit requires a Discharger to appoint a QISP to prepare the Level 2 ERA Technical Reports. The State Water Board acknowledges that there may be cases where a combination of the demonstrations may be appropriate; therefore a Discharger may combine any of the following three demonstration options in their Level 2 ERA Technical Report when appropriate. A Discharger is only required to annually update its Level 2 ERA

Technical Report when necessary as defined in Section XII.D.3.c of this General Permit, and is not required to annually re-certify and re-submit the entire Level 2 ERA Technical Report. If there are no changes prompting an update of the Level 2 ERA Technical Report, as specified in Section XII.D.3.c of this General Permit, the Discharger will provide this certification in the Annual Report that there have been no changes warranting re-submittal of the Level 2 ERA Technical Report.

i. Industrial Activity BMPs Demonstration

The Industrial Activity BMPs Demonstration is for the following:

- Dischargers who decided to implement additional BMPs that are expected to eliminate future NAL/TNAL exceedance(s) and that have been implemented in order to achieve compliance with the technology-based effluent limitations of this General Permit, and
- Dischargers who decided to implement additional BMPs that may not eliminate future NAL/TNAL exceedance(s) and that have been implemented in order to achieve compliance with the technology-based effluent limitations of this General Permit.

When preparing the Industrial Activity BMPs Demonstration, the QISP shall identify and evaluate all individual pollutant source(s) associated with industrial activity that are or may be related to an NAL/TNAL exceedance and all designed, information on the drainage areas associated with the Level 2 NAL/TNAL exceedances, and installed BMPs that are implemented to reduce or prevent pollutants in industrial storm water discharges in compliance with this General Permit.

If an Industrial Activity BMPs Demonstration is submitted as the Level 2 ERA Technical Report and the Discharger is able to show reductions in pollutant concentrations below the NALs/TNALs for four (4) subsequent consecutive QSEs, the Discharger returns to Baseline Status. A Discharger that submits an Industrial Activity BMPs Demonstration but has not installed additional BMPs that are expected to eliminate future NAL/TNAL exceedance(s) will remain with Level 2 status but is not subject to additional ERAs unless directed by the Regional Water Board.

ii. Non-Industrial Pollutant Source Demonstration

A Non-Industrial Pollutant Source Demonstration is for a Discharger to demonstrate that the pollutants causing the NAL/TNAL exceedances are not related to industrial activities conducted at the facility, and additional BMPs at the facility will not contribute to the reduction of pollutant concentrations.

Dischargers including the Non-Industrial Pollutant Demonstration in their Level 2 ERA Technical Report shall have a QISP determine that the sources of non-industrial pollutants in storm water discharges are not from industrial activity or natural background sources within the facility.

Sources of non-industrial pollutants that are discharged separately and are not commingled with storm water associated with industrial activity are not considered subject to this General Permit's requirements. When pollutants from non-industrial sources are commingled with storm water associated with industrial activity, the Discharger is responsible for all the pollutants in the combined discharge unless the technical report clearly demonstrates that the NAL/TNAL exceedances due to the combined discharge are solely attributable to the non-industrial sources. The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL/TNAL exceedance. In most cases, the Non-Industrial Pollutant Source Demonstration will contain sampling data and analysis distinguishing the pollutants from non-industrial sources from the pollutants generated by industrial activity.

Once the Level 2 ERA Technical Report, including this demonstration is certified and submitted via SMARTS, the Discharger has satisfied all the requirements necessary for that pollutant for ERA purposes. A Discharger that submits a Non-Industrial Pollutant Demonstration remains with Level 2 status but is not subject to additional ERAs unless directed by the Regional Water Board.

iii. Natural Background Pollutant Source Demonstration

The benchmark monitoring schedule in section 6.2.1.2 of the 2008 MSGP allows a Discharger to determine that the exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background. A Discharger making this determination is not required to perform corrective action or additional benchmark monitoring providing that the other 2008 MSGP requirements are met. The 2008 MSGP Fact Sheet requires Dischargers to include in the following in the SWPPP: 1) map(s) showing the reference site location, facility, available land cover information, reference site and test site elevation, available geology and soil information for reference and test sites, photographs showing site vegetation, site reconnaissance survey data and records. This General Permit requires this information to be included in the Natural Background Pollutant Source Demonstration in Section XII.D.2.c.

The Natural Background Pollutant Source Demonstration in this General Permit is for a Discharger that can demonstrate that pollutants causing the NAL/TNAL exceedances are not related to industrial activities conducted at the facility, and

are solely attributable to the presence of those pollutants in natural background. The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL/TNAL exceedance. Natural background pollutants include those substances that are naturally occurring in soils or groundwater that have not been disturbed by industrial activities. Natural background pollutants do not include legacy pollutants from earlier activity on a site, or pollutants in run-on from neighboring sources which are not naturally occurring. Dischargers are not required to reduce concentrations for pollutants in the effluent caused by natural background sources if these pollutants concentrations are not increased by industrial activity.

The 2008 MSGP Fact Sheet states that the background concentration of a pollutant in runoff from a non-human impacted reference site in the same watershed must be determined by evaluation of ambient monitoring data or by using information from a peer-reviewed publication or a local, state, or federal government publication specific to runoff or storm water in the immediate region. Studies that are in other geographic areas, or are clearly based on different topographies or soils, are not sufficient to meet this requirement. When such data is not available, and there are no known sources of the pollutant, the background concentration should be assumed to be zero. In cases where historic monitoring data from a site are used for generating a natural background concentration, and the site is no longer accessible or able to meet reference site acceptability criteria, the Discharger must submit documentation (e.g., historic land use maps) indicating the site did meet reference site criteria (such as indicating the absence of human activity) during the time data collection occurred.

Once the Level 2 ERA Technical Report, including a Natural Background Demonstration meeting the conditions in Section XII.D.2.c of this General Permit is certified and submitted via SMARTS, the Discharger is no longer responsible for the identified background parameters(s) in the corresponding drainage area(s). A Discharger that submits this type of demonstration will remain with Level 2 status but is not subject to additional ERAs unless directed by the Regional Water Board.

c. Level 2 ERA Implementation Extension

The State Water Board recognizes that there may be circumstances that make implementation of all necessary actions required in the Level 2 ERAs by the permitted due dates infeasible. In such circumstances a Discharger may request additional time by submitting a Level 2 ERA Implementation Extension. The Level 2 ERA Implementation Extension will automatically allow Dischargers up to an additional six (6) months to complete the tasks identified in the Level 2 ERA

Action Plans while remaining in compliance with this General Permit. The Level 2 ERA Implementation Extension is subject to Regional Water Board review. If additional time is needed beyond the initial six (6) month extension, a second Level 2 ERA Implementation Extension may be submitted but is not effective unless it is approved by the Water Board.

L. Inactive Mining Operations

Inactive mining sites may need coverage under this General Permit. Inactive mining operations are mining sites, or portions of sites, where mineral mining and/or dressing occurred in the past with an identifiable Discharger (owner or operator), but are no longer actively operating. Inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials. A Discharger has the option to certify and submit via SMARTS that its inactive mining operations meet the conditions for an Inactive Mining Operation Certification in Section XIII of this General Permit. The Discharger must have a SWPPP for an inactive mine signed (wet signature with license number) by a California licensed professional engineer. The Inactive Mining Operation Certification in this General Permit is in lieu of performing certain identified permit requirements. This General Permit requires an annual inspection of an inactive mining site and an annual re-certification of the SWPPP. Any significant updates to the SWPPP shall be signed (wet signature and license number) by a California license professional engineer. The Discharger must certify and submit via SMARTS any significantly revised SWPPP within 30 days of the revision(s)

M. Compliance Groups and Compliance Group Leaders

Group Monitoring, as defined in the previous permit, has been eliminated in this General Permit and replaced with a new compliance option called Compliance Groups. The Compliance Group option differs from Group Monitoring as it requires (1) all Dischargers participating in a Compliance Group (Compliance Group Participants) sample two QSEs each year, (2) the Compliance Group Leader to inspect each Participant's facility within each reporting year, (3) the Compliance Group Leader must complete a State Water Board sponsored or approved training program for Compliance Group Leaders, and (4) the Compliance Group Leader to prepare Consolidated Level 1 ERA Reports, and individual Level 2 ERA Action Plans and Technical Reports. The Compliance Group option is similar to Group Monitoring as it retains a mechanism that allows Dischargers of the same industry type to comply with this General Permit through shared resources in a cost saving manner.

This General Permit emphasizes sampling and analysis as a means to evaluate BMP performance and overall compliance, and the significantly reduced sampling requirements previously afforded to Group Monitoring Participants (two samples within a five-year period) does not provide the necessary information to achieve these goals. However, a moderate reduction in sampling requirements is included as an incentive for

Compliance Group Participants while concurrently requiring sufficient individual facility sampling data to determine compliance. A Compliance Group Leader is required to provide the necessary sampling training and guidance to the Compliance Group Participants. This additional training requirement will increase sampling data quality that will offset the reduced sampling frequency for Compliance Groups.

Participation in Compliance Groups will provide additional cost savings for Dischargers in the preparation of the Consolidated Level 1 ERA Reports, and for Compliance Group Leader assistance in preparing the Level 2 ERA Action Plans and the individual Level 2 ERA Technical Reports. It is likely that many of the pollutant sources causing NAL/TNAL exceedances, and the corresponding BMP cost evaluation and selection, when appropriate, will overlap for groups of facilities in a similar industry type. When these overlaps occur, a Compliance Group Leader should be able to more efficiently evaluate the pollutant sources and BMP options, and prepare the necessary reports.

The State Water Board believes that it is necessary for Compliance Group Leaders to have a higher level of industrial storm water compliance and training experience than the expectations of a QISP. Many stakeholder comments on this General Permit suggested various certifications to provide this higher level of experience; however, the State Water Board believes a process similar to the Trainer of Record process for the Construction General Permit training program will develop Compliance Group Leaders with the appropriate level of experience to fulfill the necessary qualifications.

The intent of the Compliance Groups is to have only one or a small number of Compliance Groups per industrial sector. The process for becoming a QISP trainer and/or a Compliance Group Leader is purposely similar to the Construction General Permit trainer of record process for consistency within storm water regulatory leaders. The formal process to qualify to conduct trainings for QISPs and/or to be a Compliance Group Leader will include the submittal of a statement of qualifications for review, a review fee, completion of an exam and training specific to this role. For more information see the [Construction General Permit trainer of record process](http://www.casqa.org/TrainingandEducation/ConstructionGeneralPermitTrainingQSDQSPToR/tabid/205/Default.aspx):
<http://www.casqa.org/TrainingandEducation/ConstructionGeneralPermitTrainingQSDQSPToR/tabid/205/Default.aspx>

After the initial Compliance Group registration, Compliance Group Leaders are required to submit and maintain their list of Compliance Group Participants via SMARTS. There are no additional administrative documents required. The previous permit required group leaders to provide annual group evaluation reports and a letter of intent to continue group monitoring. The State Water Board found these items to be resource intensive and placed an unnecessary administrative burden on group leaders. The Compliance Group requirements in this General Permit reduces the administrative burden on both the Compliance Group Leaders and Water Board staff.

The State Water Board's intent for the effluent data, BMP selection, cost, and performance information, and other industry specific information provided in Compliance

Group reports is for evaluation of sector-specific permitting approaches and the use of NALs in the next reissuance of this General Permit.

N. Annual Evaluation

Federal regulations require NPDES industrial storm water Dischargers to evaluate their facility and SWPPP annually. Typically this requires an inspection of the facility to ensure: (1) the SWPPP site map is up to date, (2) control of all potential pollutant sources is included in the SWPPP, and (3) sampling data and visual observation records are used to evaluate if the proper BMPs are being implemented. As Dischargers are required to conduct monthly visual observation that partially overlap with the actions required by the annual evaluation requirements, Dischargers may perform the annual evaluation inspection concurrent with a monthly visual observation.

O. Annual Report

All Dischargers shall certify and submit via SMARTS an Annual Report no later than July 15 following each reporting year. The reporting requirements for this General Permit's Annual Report are streamlined in comparison to the previous permit. The Annual Report now consists of two primary parts: (1) a compliance checklist indicating which permit requirements were completed and which were not (e.g., a Discharger who completes the required sampling of four QSEs during the reporting year, versus a Discharger who is only able to sample two QSEs during the reporting year), and (2) an explanation for items on the compliance checklist that were determined incomplete by the Discharger. Unlike the previous permit, the Annual Report does not require Dischargers to provide the details of each visual observation (such as name of observer, time of observation, observation summary, corrective actions, etc.) or provide the details of the Annual Comprehensive Site Evaluation. Dischargers, however, continue to be required to retain those records and have them available upon request. The Annual Report is further simplified through the immediate electronic reporting via SMARTS of sampling data and copies of the original laboratory reports instead of such information being included in the Annual Report.

P. Conditional Exclusion - No Exposure Certification (NEC) Requirements

This General Permit's conditional exclusion requirements are similar to the requirements provided in 40 C.F.R. section 122.26(g)(3). Clarifications were added in this General Permit, however, to the types of "storm resistant shelters" and the periods when "temporary shelters" may be used in order to avert regulatory confusion. California does not have operating coal power plants, which are a major contributor to acid rain elsewhere in the United States. California does have nonpoint sources or atmospheric deposition that may locally impact the pH of the rain water, however this is not categorized as acid rain as referred to by the U.S. EPA for the NEC coverage

requirements. The No Exposure Guidance Document²³¹ developed by the U.S. EPA mentions acid rain as a potential source of contaminants to consider for NEC coverage. The acid rain leachate language was not included in this General Permit's Appendix 2 to clarify that Dischargers may qualify for NEC coverage, even if the facility has metal buildings or structures.

The Discharger shall certify and submit complete PRDs for NEC coverage via SMARTS. Based upon the State Water Board's experience with reissuing and implementing the 2009 Construction General Permit, the transition for existing Dischargers to register under this new General Permit is staff resource intensive. The State Water Board staff is available to assist Dischargers requiring assistance with enrolling under this General Permit, both for NOI coverage and NEC coverage. The State Water Board has also experienced that more time is needed for its staff to assist Dischargers registering for NEC coverage. To provide better customer service to all Dischargers, three months have been added to the NEC coverage PRD submittal schedule for new and existing Dischargers (Section II.B.4 of this General Permit, extending the NEC coverage registration date to October 1, 2015).

Dischargers must annually inspect their facility to ensure continued compliance with NEC requirements, and annually re-certify and submit an NEC via SMARTS. Based on its regulatory experience, the State Water Board has determined that a five-year NEC re-certification period is inadequate. A significant percentage of facilities may revise, expand, or relocate their operations in any given year. Furthermore, a significant percentage of facilities experience turnover of staff knowledgeable of the NEC requirements and limitations. Accordingly, the State Water Board believes that annual NEC evaluation and re-certification requirements are appropriate to continually assure adequate program compliance.

Q. Special Requirements - Plastic Materials

Water Code section 13367 requires the Water Boards to implement measures that control discharges of preproduction plastic from point and nonpoint sources. The State Water Board intends to use this General Permit to regulate discharges of preproduction plastics from areas of facilities that are subject to this General Permit. A Regional Water Board may designate facilities, or areas of facilities, that are not otherwise subject to this General Permit, pursuant to Section XIX.F. For example, a Regional Water Board may designate Plastic Materials handling areas of a transportation facility that are not associated with vehicle maintenance as requiring coverage under this General Permit.

Preproduction plastics used by the plastic manufacturing industry are small in size and have the potential to mobilize in storm water. Preproduction plastic washed into storm

²³¹ U.S. EPA. [Guidance Manual for Conditional Exclusion from Storm Water Permitting Based On "No Exposure" of Industrial Activities to Storm Water](http://www.epa.gov/npdes/pubs/noxguide.pdf). Web. June 2000. <<http://www.epa.gov/npdes/pubs/noxguide.pdf>>. [as of January 31, 2014].

water drains can move to waters of the United States where it contributes to the growing problem of plastic debris in inland and coastal waters. Water Code section 13367 outlines five mandatory BMPs that are required for all facilities that handle preproduction plastic. These mandatory BMPs are included in this General Permit.

The State Water Board has received comments regarding the Water Code requirements for Plastics Facilities to install a containment system for on-site storm drain locations that meet 1mm capture and 1-year 1-hour storm flow requirement standards. As a result, this General Permit includes the option under Water Code section 13367 that allows a plastics facility to propose an alternative BMP or suite of BMPs that can meet the same performance and flow requirements as a 1mm capture and 1-year 1-hour storm flow containment system standards. These alternative BMPs are to be submitted to the Regional Water Board for approval. This alternative is intended to allow the facility to develop BMPs that focus on pollution prevention measures that can perform as well as, or better than, the containment system otherwise required by the statute.

The State Water Board also includes two additional containment system alternatives in this General Permit that are considered to be equivalent to, or better than, the 1mm capture and 1-year 1-hour storm flow requirements:

- An alternative allowing plastic facilities to implement a suite of eight BMPs addressing the majority of potential sources of plastic discharges. This suite of BMPs is based on industry and U.S. EPA recommendations and Water Board experience with storm water inspections, violations, and enforcement cases throughout California.
- An alternative allowing a facility to operate in a manner such that all preproduction plastic materials are used indoors and pose no potential threat for discharge off-site. The facility is required to notify the Regional Water Board of the intent to seek this exemption and of any changes to the facility or operations that may disqualify the facility for the exemption. The exemption may be revoked by the Regional Water Board at any time.

Plastics facilities may use preproduction plastic materials that are less than 1mm in size, or produce materials, byproducts, or waste that is smaller than 1mm in size. These small size materials will pass through the 1mm capture containment system required by Water Code section 13367. Plastics facilities with sub-1mm materials must design a containment system to capture the smallest size material onsite with a 1-year 1-hour storm flow requirement, or propose alternative BMPs for Regional Water Board approval that meet the same requirements.

The remaining BMPs required by Water Code section 13367 are consistent with recommendations for handling and clean-up of preproduction plastics in the American Chemistry Council publication, Operation Clean Sweep and U.S. EPA's publication Plastic Pellets in the Aquatic Environment: Sources and Recommendations. The State

Water Board believes that the entire approach in this General Permit for plastic materials is consistent with Water Code section 13367.

R. Regional Water Board Authorities

The Regional Water Boards retain discretionary authority over many issues that may arise from industrial discharges within their respective regions. This General Permit emphasizes the authority of the Regional Water Boards over specific requirements of this General Permit that do not meet region-specific water quality protection regulatory needs.

S. Special Conditions: Requirements for Dischargers Claiming the “No Discharge” Option in the Notice of Non-Applicability

1. General

Entities that operate facilities generating storm water associated with industrial activities that is not discharged to waters of the United States are not required to obtain General Permit coverage. Entities that have contacted the Water Boards to inquire what is necessary to avoid permit coverage have received inconsistent guidance. This has resulted in regulatory inconsistency and uncertainty as to whether they are in compliance if their industry operates without General Permit coverage. Depending upon how each Regional Water Board handles “No Discharge” claims, some facilities with advanced containment design may be required to obtain General Permit coverage while other facilities with less advanced containment design may be allowed to operate without General Permit coverage. Some stakeholders have complained that this type of regulatory inconsistency puts some facilities at an economically-competitive disadvantage given the costs associated with permit compliance.

U.S. EPA regulations do not provide a design standard, definition, or guidance as to what constitutes “No Discharge.” Unlike Conditional Exclusion requirements, U.S. EPA regulations do not require an entity to submit technical justification or certification that a facility does not discharge to waters of the United States (U.S.). Therefore, entities have previously been allowed to self-determine that their facility does not discharge to water of the U.S. when using any containment design standard. The State Water Board does not have available information showing that most entities have adequately performed hydraulic calculations to determine the frequency of discharge corresponding to their containment controls or have had these hydraulic calculations reviewed or completed by a California licensed professional engineer. Although U.S. EPA makes clear that an unpermitted discharge to waters of the U.S. is a violation of the CWA, this leaves regulatory agencies with the very difficult task of knowing when any given facility discharges in order to carry-out enforcement actions.

In 1998, the Water Code was amended to require entities who are requested by the Water Boards to obtain General Permit coverage, but that have a valid reason to not obtain General Permit coverage, to submit a Notice of Non-Applicability (NONA). (Wat. Code, § 13399.30, subd. (a)(2)). The NONA covers multiple reasons why an entity is not required to be permitted including (1) facility closure, (2) not the legal owner, (3) incorrect SIC code, (4) eligibility for the Conditional Exclusion (No Exposure Certification), and (5) the facility not discharging to water of the U.S. (“No Discharge”). The previous permit contained definitions, requirements, and guidance that entities may reference to determine whether they are eligible to select any of the first four NONA reasons for not obtaining General Permit coverage. However, neither the previous permit nor the Water Code provide definitions, requirements, and guidance for entities to determine whether they are eligible to indicate “No Discharge” on the NONA as a reason for not obtaining General Permit coverage.

This General Permit addresses and resolves the issues discussed above by establishing consistent, statewide eligibility requirements in Section XX.C for entities submitting NONAs indicating “No Discharge.” When requested by the Water Boards to obtain General Permit coverage, entities must meet these “No Discharge” eligibility requirements or obtain General Permit coverage. The Water Boards retain enforcement authority if a facility subsequently discharges.

2. “No Discharge” Eligibility Requirements

The entity must certify submit in SMARTS a NONA Technical Report signed (wet signature and license number) by a California licensed professional engineer that contains the analysis and details of the containment design supporting the “No Discharge” eligibility determination. Because containment design will require hydraulic calculations, soil permeability analysis, soil stability calculations, appropriate safety factor consideration, and the application of other general engineering principles, state law requires the technical report to be signed (wet signature and license number) by a California licensed professional engineer.

The State Water Board has selected a containment design target that, as properly applied will result in few, if any, discharges. The facility must either be:

- a. Engineered and constructed to contain all storm water associated with industrial activities from discharging to waters of the United States. (The determination of what is a water of the United States can be complicated, and in certain circumstances, a discharge to groundwater that has a direct hydrologic connection to waters of the United States may constitute a discharge to a water of the United States.) Dischargers must base their information upon maximum historic precipitation event data (or series of events) from the nearest rain gauges as provided by the National Oceanic and Atmospheric Administration’s (NOAA) website, or other nearby precipitation data available from other government

agencies. At a minimum, Dischargers must ensure that the containment design addresses maximum 1-hour, 24-hour, weekly, monthly, and annual precipitation data for the duration of the exclusion.

Design storm events are generally specified as a one-time expected hydraulic failure over a recurrence of years for a specified storm event. For example, if a design storm standard is a 100 year 24-hour event, then a facility's containment system designed to contain the maximum volume of water would be expected to fail in 24 hours once every 100 years. Design standards vary dependent upon the regulatory program and the level of protection needed. Since California has considerable variations in climate/topography/soil conditions across the state, the "No Discharge" NONA eligibility requirements have been created so that each facility's containment design can incorporate unique site specific circumstances to meet the requirement that discharges will not occur based upon past historical precipitation data. Facilities that are not designed to not meet the "No Discharge" eligibility requirements must obtain General Permit coverage.

- b. Located in basins or other physical locations that are not hydrologically connected to waters of the United States.

The State Water Board considered allowing Entities to review United States Army Corp of Engineer maps to determine, without a California licensed professional engineer, whether their facility location is within a basin and/or other physical location that is not hydrologically connected to waters of the United States. The State Water Board believes that this determination can be difficult in some cases, or is likely to be performed incorrectly. In addition, there may be areas of the state that are not hydrologically connected to waters of the United States, but are not on United States Army Corps of Engineer maps. Therefore, all "No Discharge" Technical Reports must be signed (wet signature and license number) by a California licensed professional engineer.

3. Additional Considerations

The "No Discharge" determination does not cover storm water containment systems that transfer industrial pollutants to groundwater. Entities must determine whether designs that incorporate infiltration may discharge to and contaminate groundwater. If there is a threat to groundwater, Entities must contact the Regional Water Boards prior to construction of infiltration design elements.

Entities that have not eliminated all discharges that are subject to General Permit coverage (NOI Coverage or NEC Coverage) are ineligible to submit NONAs indicating "No Discharge."

ATTACHMENT A

FACILITIES COVERED BY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

1. Facilities Subject To Storm Water Effluent Limitations Guidelines, New Source Performance Standards, or Toxic Pollutant Effluent Standards Found in 40 Code of Federal Regulations, Chapter I, Subchapter N (Subchapter N):

Cement Manufacturing (40 C.F.R. Part 411); Feedlots (40 C.F.R. Part 412); Fertilizer Manufacturing (40 C.F.R. Part 418); Petroleum Refining (40 C.F.R. Part 419), Phosphate Manufacturing (40 C.F.R. Part 422), Steam Electric (40 C.F.R. Part 423), Coal Mining (40 C.F.R. Part 434), Mineral Mining and Processing (40 C.F.R. Part 436), Ore Mining and Dressing (40 C.F.R. Part 440), Asphalt Emulsion (40 C.F.R. Part 443), Landfills (40 C.F.R. Part 445), and Airport Deicing (40 C.F.R. Part 449).

2. Manufacturing Facilities:

Facilities with Standard Industrial Classifications (SICs) 20XX through 39XX, 4221 through 4225. (This category combines categories 2 and 10 of the previous general permit.)

3. Oil and Gas/Mining Facilities:

Facilities classified as SICs 10XX through 14XX, including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 Code of Federal Regulations. 434.11(1) because the performance bond issued to the facility by the appropriate Surface Mining Control and Reclamation Acts authority has been released, or except for areas of non-coal mining operations which have been released

from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with any overburden, raw material, intermediate products, finished products, by-products, or waste products located on the site of such operations. Inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator. Inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined material; or sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim.

4. Hazardous Waste Treatment, Storage, or Disposal Facilities:

Hazardous waste treatment, storage, or disposal facilities, including any facility operating under interim status or a general permit under Subtitle C of the Federal Resource, Conservation, and Recovery Act.

5. Landfills, Land Application Sites, and Open Dumps:

Landfills, land application sites, and open dumps that receive or have received industrial waste from any facility within any other category of this Attachment; including facilities subject to regulation under Subtitle D of the Federal Resource, Conservation, and Recovery Act, and facilities that have accepted wastes from construction activities

Industrial General Permit Attachment A

(construction activities include any clearing, grading, or excavation that results in disturbance).

Only those portions of the facility involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or other operations identified under this Permit as associated with industrial activity.

6. Recycling Facilities:

Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093.

9. Sewage or Wastewater Treatment Works:

Facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge, that are located within the confines of the facility, with a design flow of one million gallons per day or more, or required to have an approved pretreatment program under 40 Code of Federal Regulations part 403. Not included are farm lands, domestic gardens, or lands used for sludge management where sludge is beneficially reused and are not physically located in the confines of the facility, or areas that are in compliance with Section 405 of the Clean Water Act.

7. Steam Electric Power Generating Facilities:

Any facility that generates steam for electric power through the combustion of coal, oil, wood, etc.

8. Transportation Facilities:

Facilities with SICs 40XX through 45XX (except 4221-25) and 5171 with vehicle maintenance shops, equipment cleaning operations, or airport deicing operations.

ATTACHMENT B

ACRONYM LIST

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)**

ASBS	Areas of Special Biological Significance
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BPT	Best Practicable Control Technology Currently Available
CBPELSG	California Board for Professional Engineers, Land Surveyors and Geologists
DDT	Dichlorodiphenyltrichloroethane
DWQ	Division of Water Quality
ELGs	Effluent Limitations Guidelines and New Source Performance Standards
ERA	Exceedance Response Action
MS4	Municipal Separate Storm Sewer System
MSGP	Multi Sector General Permit
NAL	Numeric Action Level
NAICS	North American Industrial Classification System
NEC	No Exposure Certification
NEL	Numeric Effluent Limitation
NOI	Notice of Intent
NONA	Notice of Non Applicability
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NSWD	Non Storm Water Discharges
O&G	Oil and Grease
OC	Organic Carbon

Industrial General Permit Attachment B

PAH	Polycyclic aromatic hydrocarbons
PCB	Polychlorinated biphenyl
PRDs	Permit Registration Documents
QA/QC	Quality Assurance/Quality Control
QISP	Qualified Industrial Storm water Practitioner
QSE	Qualifying Storm Event
SIC	Standard Industrial Classification
SMARTS	Storm Water Multiple Application and Report Tracking System
SWPPP	Storm Water Pollution Prevention Plan
TBEL	Technology Based Effluent Limitation
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TNAL	TMDL Numeric Action Level
TOC	Total Organic Carbon
TSS	Total Suspended Solids
U.S. EPA	United States Environmental Protection Agency
WDID	Waste Discharge Identification Number
WER	Water Effect Ratio
WLA	Waste Load Allocation
WQBEL	Water Quality Based Effluent Limitation

ATTACHMENT C

GLOSSARY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

Adoption Date April 1, 2014

Aerial Deposition

Total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Chemical composition of particulates varies widely, depending on location and time of year. Sources of airborne particulates include but are not limited to: dust, emissions from industrial processes, combustion products from the burning of wood and coal, combustion products associated with motor vehicle or non-road engine exhausts, and reactions to gases in the atmosphere. Deposition is the act of these materials being added to a landform.

Beneficial Uses

As defined in the California Water Code, beneficial uses of the waters of the state that may be protected against quality degradation, include but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Best Available Technology Economically Achievable (BAT)

As defined by United States Environmental Protection Agency (U.S. EPA), BAT is a technology-based standard established by the Clean Water Act (CWA) as the most appropriate means available on a national basis for controlling the direct discharge of toxic and nonconventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Best Conventional Pollutant Control Technology (BCT)

As defined by U.S. EPA, BCT is a technology-based standard for the discharge from existing industrial point sources of conventional pollutants including biochemical oxygen demand (BOD), total suspended sediment (TSS), fecal coliform, pH, oil and grease.

Best Professional Judgment (BPJ)

The method used by permit writers to develop technology-based NPDES permits conditions on a case-by-case basis using all reasonably available and relevant data.

GLOSSARY

Best Management Practices (BMPs)

Scheduling of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Chain of Custody

Form used to track sample handling as samples progress from sample collection to the laboratory. The chain of custody is also used to track the resulting analytical data from the laboratory to the client. Chain of custody forms can be obtained from an analytical laboratory upon request.

Debris

Litter, rubble, discarded refuse, and remains of destroyed inorganic anthropogenic waste.

Detected Not Quantifiable

A sample result that is between the Method Detection Limit (MDL) and the Minimum Level (ML).

Discharger

A person, company, agency, or other entity that is the operator of the industrial facility covered by this General Permit.

Drainage Area

The area of land that drains water, sediment, pollutants, and dissolved materials to a common discharge location.

Effective Date

The date, set by the State Water Resources Control Board (State Water Board), when at least one or more of the General Permit requirements take effect and the previous permit expires. This General Permit requires most of the requirements (such as minimum BMPs, sampling and analysis requirements) to take effect on July 1, 2015.

Effluent

Any discharge of water either to the receiving water or beyond the property boundary controlled by the Discharger.

Effluent Limitation

Any numeric or narrative restriction imposed on quantities, discharge rates, and concentrations of pollutants that are discharged from point sources into waters of the United States, waters of the contiguous zone, or the ocean.

GLOSSARY

Erosion

The process by which soil particles are detached and transported by the actions of wind, water or gravity.

Erosion Control BMPs

Vegetation, such as grasses and wildflowers, and other materials, such as straw, fiber, stabilizing emulsion, protective blankets, etc., placed to stabilize areas of disturbed soils, reduce loss of soil due to the action of water or wind, and prevent water pollution.

Facility

A collection of industrial processes discharging storm water associated with industrial activity within the property boundary or operational unit.

Field Measurements

Testing procedures performed in the field with portable field-testing kits or meters.

Good Housekeeping BMPs

BMPs designed to reduce or eliminate the addition of pollutants through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, and other actions.

Groundwater

The water beneath the surface of the earth within the zone below the water table in which the soil is completely saturated with water.

Industrial Materials

Includes, but is not limited to: raw materials, recyclable materials, intermediate products, final products, by product, waste products, fuels, materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERLCA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge and that are used, handled, stored, or disposed in relation to a facility's industrial activity.

Method Detection Limit

The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.

Minimum Level

The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of

GLOSSARY

the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed.

Monitoring Implementation Plan

Planning document included in the Storm Water Pollution Prevention Plan (SWPPP). Dischargers are required to record information on the implementation of the monitoring requirements in this General Permit. The MIP should include relevant information on: the Monthly Visual Observation schedule, Sampling Parameters, Representative Sampling Reduction, Sample Frequency Reduction, and Qualified Combined Samples.

Monitoring Requirements

Includes sampling and analysis activities as well as visual observations.

Natural Background

Pollutants including substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from previous activity at a facility, or pollutants in run-on from neighboring sources which are not naturally occurring.

New Discharge(r)

A facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source as defined in 40 Code of Federal Regulations 122.29, and which has never received a finally effective NPDES permit for discharges at that site. See 40 Code of Federal Regulations 122.2.

Numeric Action Level (NAL) Exceedance

Annual NAL exceedance - the Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data) and compare this to the corresponding Annual NAL values in Table 2. For Dischargers using composite sampling or flow measurement in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA Guidance Manual for the Monitoring and Reporting Requirements of the NPDES Multi-Sector Storm Water General Permit.¹ An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds an annual NAL value for that parameter listed in Table 2 (or is outside the NAL pH range);

Instantaneous maximum NAL exceedance - the Discharger shall compare all sampling and analytical results from each distinct sample (individual or composite) to the corresponding Instantaneous maximum NAL values in Table 2. An instantaneous maximum NAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the instantaneous maximum

¹ U.S. EPA. [NPDES Storm Water Sampling Guidance Document](http://www.epa.gov/npdes/pubs/owm0093.pdf). <<http://www.epa.gov/npdes/pubs/owm0093.pdf>>. [as of July 3, 2013]

GLOSSARY

NAL value (for TSS and O&G), or are outside of the instantaneous maximum NAL range (for pH).

Numeric Effluent Limitation (NEL)

A numerical limit, an exceedance of which is a violation of this General Permit.

Numeric Effluent Limitation (NEL) Exceedance

Responsible Discharger shall compare all sampling and analytical results from each distinct sample (individual or combined as authorized by XI.C.5) to the corresponding instantaneous maximum NEL values in the TDML Compliance Table E-2. An instantaneous maximum NEL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NEL value.

Non Detect

Sample result is less than Method Detection Limit; Analyte being tested cannot be detected by the equipment or method.

Non-Storm Water Discharges (NSWDs)

Discharges that do not originate from precipitation events. Including but not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

Numeric Action Level (NAL)

Pollutant concentration levels used to evaluate if best management practices are effective and if additional measures are necessary to control pollutants. NALs are not effluent limits. The exceedance of an NAL is not a permit violation.

Operator

In the context of storm water associated with industrial activity, any party associated with an industrial facility that meets either of the following two criteria:

- a. The party has operational control over the industrial SWPPP and SWPPP specifications, including the ability to make modifications to those plans and specifications
- b. The party has day-to-day operational control of activities at the facility which are necessary to ensure compliance with a SWPPP for the facility or other permit conditions (e.g., authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

pH

Unit universally used to express the intensity of the acid or alkaline condition of a water sample. The pH of natural waters tends to range between 6.0 and 9.0, with neutral being 7.0.

GLOSSARY

Plastic Materials

Plastic Materials are virgin and recycled plastic resin pellets, powders, flakes, powdered additives, regrind, dust, and other similar types of preproduction plastics with the potential to discharge or migrate off-site.

Qualified Industrial Storm Water Practitioner (QISP)

Only required once a Discharger reaches Level 1 status, a QISP is the individual assigned to ensure compliance with this General Permit or to assist New Dischargers with determining coverage eligibility for discharges to an impaired water body. A QISP's responsibilities include implementing the SWPPP, performing the Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation), assisting in the preparation of Annual Reports, performing ERAs, and training appropriate Pollution Prevention Team members. The individual must take the appropriate state approved or sponsored training to be qualified. Dischargers shall ensure that the designated QISP is geographically located in an area where they will be able to adequately perform the permit requirements at all of the facilities they represent.

Qualifying Storm Event (QSE)

A precipitation event that:

- a. Produces a discharge for at least one drainage area; and
- b. Is preceded by 48 hours with no discharge from any drainage area.

Regional Water Board

Includes the Executive Officer and delegated Regional Water Board staff.

Responsible Discharger

A Discharger with Notice of Intent (NOI) coverage under this General Permit who discharges storm water associated with industrial activities (and Authorized NSWDLs) either directly or through a municipal separate storm sewer system (MS4) to impaired waterbodies identified in a U.S. EPA approved TMDL with a waste load allocation assigned to industrial storm water sources.

Runoff Control BMPs

Measures used to divert run-on from offsite and runoff within the site.

Run-on

Discharges that originate offsite and flow onto the property of a separate facility or property or, discharges that originate onsite from areas not related to industrial activities and flow onto areas on the property with industrial activity.

Scheduled Facility Operating Hours

The time periods when the facility is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.

GLOSSARY

Sediment

Solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

Sedimentation

Process of deposition of suspended matter carried by water, wastewater, or other liquids that flow by gravity. Control of sedimentation is accomplished by reducing the velocity of the liquid below the point at which it can transport the suspended material.

Sediment Control BMPs

Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. Includes those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (i.e., silt fence, sediment basin, fiber rolls, etc.).

Sheet Flow

Flow of water that occurs overland in areas where there are no defined channels and where the water spreads out over a large area at a uniform depth.

Source

Any facility or building, property, road, or area that causes or contributes to pollutants in storm water.

Storm Water

Storm water runoff, snowmelt runoff, and storm water surface runoff and drainage.

Storm Water Discharge Associated With Industrial Activity

The discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant as identified in Attachment A of this General Permit. The term does not include discharges from facilities or activities excluded from the NPDES program. The term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials; manufactured products, waste material, or by-products used or created (including, but not limited to, air particulate emissions) by the facility; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined at 40 C.F.R. section 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 C.F.R. section 122.

GLOSSARY

Material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in this paragraph) include those facilities designated under 40 C.F.R. section 122.26(a)(1)(v).

Structural Controls

Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

Total Maximum Daily Load (TMDL)

The sum of the individual Waste Load Allocations (WLAs) for point sources, the load allocations for nonpoint sources and natural background, and the margin of safety.

TMDL Numeric Action Level (TNAL)

Pollutant concentration levels used to evaluate if best management practices are effective and if additional measures are necessary to control pollutants to comply with applicable TMDLs. All TNALs translated from a Waste Load Allocation are instantaneous maximums, and are set forth in the TMDL Compliance Table in Attachment E. The exceedance of a TNAL is not a permit violation.

TNAL Exceedance

An instantaneous maximum TNAL exceedance occurs when two or more analytical results from samples taken for any parameter within a reporting year exceed the instantaneous maximum TNAL value in the TMDL Compliance Table E-2 in Attachment E.

Total Suspended Solids (TSS)

The measure of the suspended solids in a water sample including inorganic substances such as soil particles, organic substances such as algae, aquatic plant/animal waste, and particles related to industrial/sewage waste, etc. The TSS test measures the concentration of suspended solids in water by measuring the dry weight of a solid material contained in a known volume of a sub-sample of a collected water sample. Results are reported in mg/L.

Toxicity

The adverse response(s) of organisms to chemicals or physical agents ranging from mortality to physiological responses, such as impaired reproduction or growth anomalies.

GLOSSARY

Trade Secret

Information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (1) derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Turbidity

The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU).

Waste Load Allocation (WLA)

The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution.

Water Effect Ratio

A factor that can be used under the U.S. EPA's system of Water Quality Criteria (WQC) to customize national aquatic life criteria to reflect site-specific water column conditions. The WER is used to derive site-specific criteria that maintain the level of protection of aquatic life intended by the "Guidelines for deriving numerical national WQC" (U.S. EPA 1985).

Waters of the United States

Generally refers to surface waters, as defined for the purposes of the federal Clean Water Act.

Water Quality Objectives

Defined in the California Water Code as limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

Water Quality Standards

Consists of beneficial uses, water quality objectives to protect those uses, an antidegradation policy, and policies for implementation. Water quality standards are established in Regional Water Quality Control Plans (Basin Plans) and statewide Water Quality Control Plans. U.S. EPA has also adopted water quality criteria (the same as objectives) for California in the National Toxics Rule and California Toxics Rule.

ATTACHMENT D

PERMIT REGISTRATION DOCUMENTS (PRDS)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

This Attachment provides an example of the information Dischargers are required to submit in the PRDs via the Storm Water Multiple Application and Report Tracking System (SMARTS). The actual PRD requirements are in Section II of this General Permit.

A. Who Must Submit PRDs

All Dischargers that operate facilities as described in Attachment A of this General Permit are subject to either Notice of Intent (NOI) or No Exposure Certification (NEC) Coverage and shall comply with the PRD requirements in this General Permit.

B. Who Is Not Required to Submit PRDs

Dischargers that operate facilities described below are not required to submit PRDs:

1. Facilities that are not described in Attachment A;
2. Facilities that are described in Attachment A but do not have discharges of storm water associated with industrial activity to waters of the United States; or,
3. Facilities that are already covered by an NPDES permit for discharges of storm water associated with industrial activity.

C. Annual Fees for NOI and NEC Coverage

Annual Fees for NOI and NEC coverage are established through regulations adopted by the State Water Board and are subject to change (see California Code of Regulations, title 23, section 2200 et seq.).

D. When and How to Apply

Dischargers proposing to conduct industrial activities subject to this General Permit must electronically certify and submit PRDs via the Storm Water Multiple Application Reporting and Tracking System (SMARTS)¹ no less than seven (7) days prior to the

¹ The State Water Board has developed the SMARTS online database system to handle registration and reporting under this General Permit. More information

PERMIT REGISTRATION DOCUMENTS (PRDS)

commencement of industrial activity. Existing Dischargers must submit PRDs for NOI coverage by or on August 14, 2015 or for NEC coverage by or on October 1, 2015.

E. PRD Requirements for NOI Coverage

1. Notice of Intent (NOI) and Signed Electronic Authorization Form.
2. Site Map (Section X.E of this General Permit).
3. Storm Water Pollution Prevention Plan (see Section X of this General Permit).

F. Description of PRDs for NOI Coverage

1. The Notice of Intent (NOI) requires the following information:

a. Operator/Owner Information

Operator/Owner Company or Organization Name
Contact First Name
Contact Last Name
Title
Street Address
Address Line 2
City/State/Zip
Phone (e.g. 999-999-9999)
E-mail (e.g. abc@xyz.com)
Federal Tax ID

b. Facility Information

Facility Name
WDID Number (if applicable)
Contact First Name
Contact Last Name
Title
Street Address
Address Line 2
City
County
Phone (e.g. 999-999-9999)
Emergency Phone (e.g. 999-999-9999)
E-mail (abc@xyz.com)

regarding [SMARTS](https://smarts.waterboards.ca.gov) and access to the database is available online at <<https://smarts.waterboards.ca.gov>>. [as of June 26, 2013].

PERMIT REGISTRATION DOCUMENTS (PRDS)

State/Zip CA
Total Site Size (Acres)
Latitude (Decimal degrees only, minimum 5 significant digits, e.g. 99.99999)
Longitude (Decimal degrees only, minimum 5 significant digits, e.g. 99.99999)
Total Percentage Site Imperviousness Area of Facility (Acres)
Total Areas of Industrial Activities and Materials Exposed to Precipitation
Primary SIC Code
Secondary SIC Code
Tertiary SIC Code
Regional Water Board

c. Billing Information

Billing Name
Contact First Name
Contact Last Name
Title
Street Address
Address Line 2
City/State/Zip
Phone (e.g. 999-999-9999)
E-mail (e.g. abc@xyz.com)

d. Receiving Water Information

Does your facility's storm water flow directly or indirectly into waters of the US such as river, lake, ocean, etc. (check box for directly or indirectly)

- i. Indirectly to waters of the US
- ii. Storm drain system - Enter owner's name:
- iii. Directly to waters of the US (e.g., river, lake, creek, stream, bay, ocean, etc.)
- iv. Name of the receiving water: _____

2. The Site Map(s) shall include the following Information:

- a. The facility boundary;
- b. Storm water drainage areas within the facility boundary;
- c. Portions of any drainage area impacted by discharges from surrounding areas and flow direction of each drainage area;
- d. On-facility surface water bodies;

Industrial General Permit Attachment D

PERMIT REGISTRATION DOCUMENTS (PRDS)

- e. Areas of soil erosion;
 - f. Location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.);
 - g. Location(s) of municipal storm drain inlets that may receive the facility's industrial storm water discharges and authorized Non-Storm Water Discharges (NSWDs);
 - h. Locations of storm water collection and conveyance systems and associated points of discharge, and direction of flow;
 - i. Any structural control measures (that affect industrial storm water discharges, authorized NSWDs, and run-on);
 - j. All impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures;
 - k. Locations where materials are directly exposed to precipitation;
 - l. Locations where significant spills or leaks identified (Section X.G.1.d of this General Permit) have occurred;
 - m. Areas of industrial activity subject to this General Permit;
 - n. All storage areas and storage tanks;
 - o. Shipping and receiving areas;
 - p. Fueling areas;
 - q. Vehicle and equipment storage/maintenance areas;
 - r. Material handling and processing areas;
 - s. Waste treatment and disposal areas;
 - t. Dust or particulate generating areas;
 - u. Cleaning and material reuse areas; and,
 - v. Any other areas of industrial activity which may have potential pollutant sources.
3. The Storm Water Pollution Prevention Plan (SWPPP) must be prepared in accordance with Section X of this General Permit.
 4. A NOI Certification by the Discharger that all PRDs submitted are correct and true.

PERMIT REGISTRATION DOCUMENTS (PRDS)

5. SMARTS Electronic Authorization Form (Signed by any user authorized to certify and submit data electronically).

G. PRD Requirements for NEC Coverage

1. No Exposure Certification and Signed Electronic Authorization Form.
2. No Exposure Certification Checklist Consistent with Requirements in Section XVII.F.2 of this General Permit.
3. Current Site Map Consistent with Requirements in Section X.E of this General Permit.

H. Description of PRDs for NEC Coverage

1. The No Exposure Certification requires the following information:

a. Operator/Owner Information

Operator/Owner Name
Contact First Name
Contact Last Name
Title
Street Address
Address Line 2
City/State/Zip
Phone Ex (999-999-9999)
E-mail (abc@xyz.com)
Federal Tax ID

b. Facility Information

Facility Name
Contact First Name
Contact Last Name
Title
Street Address
Address Line 2
City
County
Phone Ex (999-999-9999)
Emergency Phone Ex (999-999-9999)
E-mail (abc@xyz.com)
State/Zip CA
Total Site Size (Acres)
Latitude (Decimal degrees only, minimum 5 significant digits, Ex 99.99999)
Longitude (Decimal degrees only, minimum 5 significant digits, Ex 99.99999)

PERMIT REGISTRATION DOCUMENTS (PRDS)

Percent of Site Imperviousness (%)
Primary SIC Code
Secondary SIC Code
Tertiary SIC Code
Regional Water Board

c. Billing Information

Billing Name (if different than Operator/Owner)
Contact First Name
Contact Last Name
Title
Street Address
Address Line 2
City/State/Zip
Phone E.g. (999-999-9999)
E-mail (e.g. abc@xyz.com)

d. SMARTS Electronic Authorization Form - Signed by any user authorized to certify and submit data electronically.

e. Certification by the Discharger that all PRDs submitted are correct and true and that the conditions of no-exposure have been met.

2. The NEC Checklist (Section XVII.F.2 of this General Permit) must be prepared to demonstrate that, based upon a facility inspection and evaluation, none of the following industrial materials or activities are, or will be in the foreseeable future, exposed to precipitation:

a. Activities such as using, storing, or cleaning industrial machinery or equipment, and areas with materials or residuals from these activities;

b. Materials or residuals on the ground or in storm water inlets from spills/leaks;

c. Materials or products from past industrial activity;

d. Material handling equipment (except adequately maintained vehicles);

e. Materials or products during loading/unloading or transporting activities;

f. Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutants);

g. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

PERMIT REGISTRATION DOCUMENTS (PRDS)

- h. Materials or products handled/stored on roads or railways owned or maintained by the Discharger;
 - i. Waste material (except waste in covered, non-leaking containers, e.g., dumpsters). Application or disposal of processed wastewater (unless already covered by an NPDES permit); and,
 - j. Particulate matter or visible deposits of residuals from roof stacks/vents evident in the storm water outflow.
3. The Site Map(s) shall include the following information (see Section X.E of this General Permit):
- a. The facility boundary;
 - b. Storm water drainage areas within the facility boundary;
 - c. Portions of any drainage area impacted by discharges from surrounding areas and flow direction of each drainage area;
 - d. On-facility surface water bodies;
 - e. Areas of soil erosion;
 - f. Location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.);
 - g. Location(s) of municipal storm drain inlets that may receive the facility's industrial storm water discharges and authorized NSWDS;
 - h. Locations of storm water collection and conveyance systems and associated points of discharge, and direction of flow;
 - i. Any structural control measures (that affect industrial storm water discharges, authorized NSWDS, and run-on);
 - j. All impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures;
 - k. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified (Section X.G.1.d of this General Permit) have occurred;
 - l. Areas of industrial activity subject to this General Permit;
 - m. All storage areas and storage tanks;
 - n. Shipping and receiving areas;

PERMIT REGISTRATION DOCUMENTS (PRDS)

- o. Fueling areas;
- p. Vehicle and equipment storage/maintenance areas;
- q. Material handling and processing areas;
- r. Waste treatment and disposal areas;
- s. Dust or particulate generating areas;
- t. Cleaning and material reuse areas; and,
- u. Any other areas of industrial activity which may have potential pollutant sources.

I. Obtaining Coverage

To obtain coverage under this General Permit PRDs must be included and completed. If any of the required items are missing, the PRD submittal is considered incomplete and will be rejected. Upon receipt of a complete PRD submittal, the State Water Board will process the application package in the order received and assign a (WDID) number.

J. Additional Information

The Water Board may require the submittal of additional information in SMARTS if required to determine the appropriate fee for the facility as specified by the fee regulations.

K. Questions

If you have any questions on completing the PRDs or about SMARTS, please email stormwater@waterboards.ca.gov or call (866) 563-3107.

ATTACHMENT E

LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS) APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

The following table contains a list of existing TMDLs that are applicable to industrial storm water discharges. 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 amend TMDL-specific permit requirements in this Attachment E, or to incorporate new TMDLs adopted during the term of this General Permit that include requirements applicable to Responsible Dischargers regulated by this General Permit.

TABLE E-1: List of Applicable TMDLs

San Francisco Bay Regional Water Quality Control Board

TMDL	Pollutant
Napa River Sediment TMDL	Sediment
Sonoma Creek Sediment TMDL	Sediment
Walker Creek Mercury TMDL	Mercury

Los Angeles Regional Water Quality Control Board

TMDL	Pollutant
Ballona Creek Metals TMDL	Metals
Ballona Creek Estuary Toxics TMDL	Toxic Pollutants
Ballona Creek, Ballona Estuary and Sepulveda Channel TMDL	Bacteria
Calleguas Creek Salt TMDL	Salts
Calleguas Creek Watershed Metals and Selenium TMDL	Metals and Selenium
Colorado Lagoon TMDL	Pesticides, Polycyclic aromatic hydrocarbons, PCBs, and Metals
Harbor Beaches of Ventura County TMDL	Bacteria
Long Beach City Beaches and Los Angeles River Estuary TMDL	Indicator Bacteria
Los Angeles and Long Beach Harbors Waters TMDL	Toxic and Metals
Los Angeles Area Lakes TMDL	Nitrogen, Phosphorus, Mercury, Trash, Organochlorine Pesticides and PCBs

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Pollutant
Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel) TMDL	Bacteria
Los Angeles River Nitrogen TMDL	Nutrients
Los Angeles River Metals TMDL	Metals
Los Cerritos Channel TMDL	Metals
Machado Lake Nutrient TMDL	Nutrient
Machado Lake Toxics TMDL	Toxics
Marina del Rey Harbor Mothers' Beach and Back Basins TMDL	Bacteria
Marina Del Rey Harbor Toxics TMDL	Copper, Lead, Zinc, and Chlordane, and Total PCBs
Oxnard Drain 3 TMDL	Pesticides, PCBs and Sediment Toxicity
San Gabriel River Metals and Selenium TMDL	Metals and Selenium
Santa Clara River TMDL	Bacteria
Santa Clara River Chloride TMDL	Chloride
Santa Clara River Nitrogen TMDL	Nutrients
Santa Monica Bay Dichlorodiphenyltrichloroethane and Polychlorinated Biphenyls TMDLS	Dichlorodiphenyltrichloroethane and Polychlorinated Biphenyls
Santa Monica Bay Debris TMDL	Nearshore Debris

Santa Ana Regional Water Quality Control Board

TMDL	Pollutant
San Diego Creek and Newport Bay Toxics TMDL	Toxic Pollutants

San Diego Regional Water Quality Control Board

TMDL	Pollutant
Baby Beach and Shelter Island Indicator Bacteria TMDL	Indicator Bacteria
Chollas Creek Diazinon TMDL	Diazinon
Chollas Creek Metals TMDL	Copper, Lead, and Zinc
Los Peñasquitos Lagoon Sediment TMDL	Sediment
Rainbow Creek Watershed TMDL	Total Nitrogen and Total Phosphorus
Shelter Island Yacht Basin Copper TMDL	Dissolved Copper
Twenty Beaches and Creeks Bacteria TMDL	Indicator Bacteria

Industrial General Permit Attachment E

**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TABLE E-2: Compliance Table for TMDL-related General Permit Requirements

San Francisco Regional Water Quality Control Board (Region 2)

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Napa River Sediment TMDL	Napa River Watershed	Sediment	None	Comply with General Permit	July 1, 2020 <i>[Effective Date of these TMDL Requirements]</i>
Sonoma Creek Sediment TMDL	Sonoma Creek Watershed	Sediment	None	Comply with General Permit	July 1, 2020 <i>[Effective Date of these TMDL Requirements]</i>
Walker Creek Mercury TMDL	Walker Creek and Soulajule Reservoir	Mercury	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

Los Angeles Regional Water Quality Control Board (Region 4)

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek Metals TMDL	Ballona Creek or Sepulveda Canyon Channel	Copper	Total Copper Instantaneous Maximum NEL of 0.0137 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek Metals TMDL (cont.)	Ballona Creek or Sepulveda Canyon Channel (cont.)	Lead	Total Lead Instantaneous Maximum NEL of 0.07675 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek Metals TMDL (cont.)	Ballona Creek or Sepulveda Canyon Channel (cont.)	Zinc	Total Zinc Instantaneous Maximum NEL of 0.10477 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Ballona Creek Estuary Toxics TMDL	Ballona Creek or Ballona Creek Estuary (Ballona Watershed)	Cadmium, Chlordane, Copper, Dichlorodiphenyltrichloroethane (DDT), Lead, Polychlorinated biphenyls (PCBs), Silver, Zinc	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria	Ballona Creek	Fecal coliform	Reach 1: Fecal coliform density Instantaneous Maximum TNAL of 4000/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 15, 2021

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (cont.)	Ballona Creek (cont.)	E. coli	Reach 2: E. coli density Instantaneous Maximum TNAL of 576/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 15, 2021

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (cont.)	Ballona Estuary	Enterococcus	Enterococcus density Instantaneous Maximum TNAL of 104/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 15, 2021

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (cont.)	Ballona Estuary (cont.)	Fecal coliform	Fecal coliform density Instantaneous Maximum TNAL of 400/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 15, 2021

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (cont.)	Ballona Estuary (cont.)	Total coliform	<p>Total coliform density Instantaneous Maximum TNAL of 10,000/100 mL</p> <p>Total coliform density Instantaneous Maximum TNAL of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	July 15, 2021

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (cont.)	Sepulveda Channel	E. coli	E. coli density Instantaneous Maximum TNAL of 235/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 15, 2021
Calleguas Creek Salt TMDL	Calleguas Creek Watershed: Reach 3 (mainstem), Reach 4 (Revolon Slough above Wood Road),	Boron, chloride, sulfate, and total dissolved solids (TDS)	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Salt TMDL (cont.)	Reach 6 (Arroyo Las Posas & Fox/Barranca Channel), Reach 7 (Arroyo Simi), Reach 8 (Tapo Canyon Creek), Reach 9A and 9B (Conejo Creek), Reach 10 (Arroyo Conejo), Reach 11 (Arroyo Santa Rosa), Reach 12 (North Fork Arroyo Conejo), Reach 13 (South Fork Arroyo Conejo)	Boron, chloride, sulfate, and total dissolved solids (TDS)	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium	Calleguas Creek, Conjeo Creek, or Revolon Slough	Copper	Interim Total Copper Instantaneous Maximum TNAL of .204 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Mugu Lagoon (Reach 1)	Copper	<p>Final Total Copper Instantaneous Maximum NEL of 0.00876 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for copper above.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Mugu Lagoon (Reach 1) (cont.)	Nickel	<p>Total Nickel Instantaneous Maximum NEL of 0.074 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022
Calleguas Creek Watershed Metals and Selenium (cont.)	Mugu Lagoon (Reach 1) (cont.)	Mercury	None	<p>No additional requirements for sediment-based targets</p> <p>Comply with General Permit</p>	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Calleguas Creek, below Potrero Rd. (Reach 2)	Copper	<p>Final Total Copper Instantaneous Maximum NEL of 0.0214 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for copper above.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022
Calleguas Creek Watershed Metals and Selenium (cont.)	Calleguas Creek, below Potrero Rd. (Reach 2) (cont.)	Mercury	None	<p>No additional requirements for sediment-based targets</p> <p>Comply with General Permit</p>	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Calleguas Creek, below Potrero Rd. (Reach 2) (cont.)	Nickel	<p>Total Nickel Instantaneous Maximum NEL of 0.074 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Calleguas Creek, between Potrero Rd. and Somis Rd. (Reach 3)	Copper	<p>Final Total Copper Instantaneous Maximum NEL of 0.0274 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for copper above.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022
Calleguas Creek Watershed Metals and Selenium (cont.)	Calleguas Creek, between Potrero Rd. and Somis Rd. (Reach 3) (cont.)	Mercury	None	<p>No additional requirements for sediment-based targets</p> <p>Comply with General Permit</p>	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Calleguas Creek, between Potrero Rd. and Somis Rd. (Reach 3) (cont.)	Nickel	<p>Total Nickel Instantaneous Maximum NEL of 0.859 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Revolon Slough (Reach 4) and Beardsley Wash (Reach 5)	Copper	Final Total Copper Instantaneous Maximum NEL of 0.0058 mg/L Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for copper above.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	March 27, 2022
Calleguas Creek Watershed Metals and Selenium (cont.)	Revolon Slough (Reach 4) and Beardsley Wash (Reach 5) (cont.)	Mercury	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Revolon Slough (Reach 4) and Beardsley Wash (Reach 5) (cont.)	Nickel	<p>Total Nickel Instantaneous Maximum NEL of 0.075 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 22, 2022

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Revolon Slough (Reach 4) and Beardsley Wash (Reach 5) (cont.)	Selenium	<p>Total Selenium Instantaneous Maximum NEL of 0.290 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Arroyo Las Posas (Reach 6), Arroyo Simi (Reach 7), and Tapo Canyon Creek (Reach 8)	Copper	Final Total Copper Instantaneous Maximum NEL of 0.031 mg/L Responsible Dischargers are not subject to this NEL until the Compliance Due Date. There are no interim targets.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	March 27, 2022
Calleguas Creek Watershed Metals and Selenium (cont.)	Arroyo Las Posas (Reach 6), Arroyo Simi (Reach 7), and Tapo Canyon Creek (Reach 8) (cont.)	Mercury	None.	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Arroyo Las Posas (Reach 6), Arroyo Simi (Reach 7), and Tapo Canyon Creek (Reach 8) (cont.)	Nickel	<p>Total Nickel Instantaneous Maximum NEL of 0.958 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	March 27, 2022

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Conejo Creek (Reaches 9A & 9B), Arroyo Conejo (Reach 10), Arroyo Santa Rosa (Reach 11), North Fork Arroyo Conejo (Reach 12), and South Fork Arroyo Conejo (Reach 13)	Copper	Final Total Copper Instantaneous Maximum NEL of 0.0433 mg/L Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for copper above.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	March 27, 2022
Calleguas Creek Watershed Metals and Selenium (cont.)	Conejo Creek (Reaches 9A & 9B), Arroyo Conejo (Reach 10), Arroyo Santa Rosa (Reach 11), North Fork Arroyo Conejo (Reach 12), and South Fork Arroyo Conejo (Reach 13) (cont.)	Mercury	None.	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Calleguas Creek Watershed Metals and Selenium (cont.)	Conejo Creek (Reaches 9A & 9B), Arroyo Conejo (Reach 10), Arroyo Santa Rosa (Reach 11), North Fork Arroyo Conejo (Reach 12), and South Fork Arroyo Conejo (Reach 13) (cont.)	Nickel	Total Nickel Instantaneous Maximum NEL of 1.29 mg/L Responsible Dischargers are not subject to this NEL until the Compliance Due Date.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	March 27, 2022
Colorado Lagoon TMDL	Colorado Lagoon	Chlordane, DDT, Dieldrin, Lead, Polycyclic aromatic hydrocarbons (PAHs), PCBs, Zinc	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ventura County Harbor Beaches	Kiddie and Hobie Beaches (Harbor Beaches) in the Channel Islands Harbor	Enterococcus	Enterococcus density Instantaneous Maximum TNAL of 104/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	December 18, 2018

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ventura County Harbor Beaches (cont.)	Kiddie and Hobie Beaches (Harbor Beaches) in the Channel Islands Harbor (cont.)	Fecal coliform	Fecal coliform density Instantaneous Maximum TNAL of 400/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	December 18, 2018

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Ventura County Harbor Beaches (cont.)	Kiddie and Hobie Beaches (Harbor Beaches) in the Channel Islands Harbor (cont.)	Total coliform	<p>Total coliform density Instantaneous Maximum TNAL of 10,000/100 mL</p> <p>Total coliform density Instantaneous Maximum TNAL of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	December 18, 2018

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Long Beach City Beaches and Los Angeles River Estuary Indicator Bacteria	Long Beach City Beaches or Los Angeles River Estuary	Enterococcus	Enterococcus density Instantaneous Maximum TNAL of 104/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Long Beach City Beaches and Los Angeles River Estuary Indicator Bacteria (cont.)	Long Beach City Beaches or Los Angeles River Estuary (cont.)	Fecal coliform	Fecal coliform density Instantaneous Maximum TNAL of 400/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Long Beach City Beaches and Los Angeles River Estuary Indicator Bacteria (cont.)	Long Beach City Beaches or Los Angeles River Estuary (cont.)	Total coliform	Total coliform density Instantaneous Maximum TNAL of 10,000/100 mL Total coliform density Instantaneous Maximum TNAL of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL	Dominguez Channel or Torrance Lateral Channel	Copper	Interim Total Copper Instantaneous Maximum TNAL of 0.20751 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel or Torrance Lateral Channel (cont.)	Lead	Interim Total Lead Instantaneous Maximum TNAL of 0.12288 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel or Torrance Lateral Channel (cont.)	Zinc	Interim Total Zinc Instantaneous Maximum TNAL of 0.89887 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel or Torrance Lateral Channel (cont.)	Copper	<p>Final Total Copper Instantaneous Maximum NEL of 0.0097 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for copper above.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel or Torrance Lateral Channel (cont.)	Lead	<p>Final Total Lead Instantaneous Maximum NEL of 0.0427 mg/L</p> <p>Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for lead above.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel or Torrance Lateral Channel (cont.)	Zinc	Final Total Zinc Instantaneous Maximum NEL of 0.697 mg/L Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for zinc above.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary	Cadmium	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	Chlordane	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Chlordane Instantaneous Maximum TNAL of 5.9 x10⁻⁷ mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	Copper	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Copper Instantaneous Maximum TNAL of 0.0058 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	4, 4' DDT	Interim requirement: No additional requirements for sediment-based targets Final 4,4' DDT Instantaneous Maximum TNAL of 5.9×10^{-7} mg/L	For interim requirements: comply with General Permit For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	Dieldrin	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Dieldrin Instantaneous Maximum TNAL of 1.4×10^{-7} mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	Lead	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Lead Instantaneous Maximum TNAL of 0.221 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	PAHs	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final PAH Instantaneous Maximum TNAL of 0.000049 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	PCBs	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total PCBs Instantaneous Maximum TNAL of 1.7×10^{-7} mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Dominguez Channel Estuary (cont.)	Zinc	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Zinc Instantaneous Maximum TNAL of 0.095 mg/L</p>	<p>For interim requirements: comply with General Permit</p> <p>For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	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, and San Pedro Bay	Copper	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Copper Instantaneous Maximum TNAL of 0.0058 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	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, and San Pedro Bay (cont.)	4, 4' DDT	Interim requirement: No additional requirements for sediment-based targets Final 4,4' DDT Instantaneous Maximum TNAL of 5.9×10^{-7} mg/L	For interim requirements: comply with General Permit For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	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, and San Pedro Bay (cont.)	Lead	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Lead Instantaneous Maximum TNAL of 0.221 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	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, and San Pedro Bay (cont.)	PCBs	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total PCBs Instantaneous Maximum TNAL of 1.7×10^{-7} mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	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, and San Pedro Bay (cont.)	Zinc	Interim requirement: No additional requirements for sediment-based targets Final Total Zinc Instantaneous Maximum TNAL of 0.095 mg/L	For interim requirements: comply with General Permit For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Consolidated Slip	Cadmium, Chromium, Mercury	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Consolidated Slip (cont.)	Copper	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Copper Instantaneous Maximum TNAL of 0.0058 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Consolidated Slip (cont.)	4, 4' DDT	Interim requirement: No additional requirements for sediment-based targets Final 4,4' DDT Instantaneous Maximum TNAL of 5.9×10^{-7} mg/L	For interim requirements: comply with General Permit For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Consolidated Slip (cont.)	Lead	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Lead Instantaneous Maximum TNAL of 0.221 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Consolidated Slip (cont.)	PCBs	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total PCBs Instantaneous Maximum TNAL of 1.7×10^{-7} mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Consolidated Slip (cont.)	Zinc	Interim requirement: No additional requirements for sediment-based targets Final Total Zinc Instantaneous Maximum TNAL of 0.095 mg/L	For interim requirements: comply with General Permit For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Fish Harbor	Mercury	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Fish Harbor (cont.)	Copper	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Copper Instantaneous Maximum TNAL of 0.0058 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Fish Harbor (cont.)	4, 4' DDT	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final 4,4' DDT Instantaneous Maximum TNAL of 5.9×10^{-7} mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Fish Harbor (cont.)	Lead	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total Lead Instantaneous Maximum TNAL of 0.221 mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Fish Harbor (cont.)	PCBs	<p align="center">Interim requirement: No additional requirements for sediment-based targets</p> <p align="center">Final Total PCBs Instantaneous Maximum TNAL of 1.7×10^{-7} mg/L</p>	<p align="center">For interim requirements: comply with General Permit</p> <p align="center">For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	May 5, 2032

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles and Long Beach Harbor Waters TMDL (cont.)	Fish Harbor (cont.)	Zinc	Interim requirement: No additional requirements for sediment-based targets Final Total Zinc Instantaneous Maximum TNAL of 0.095 mg/L	For interim requirements: comply with General Permit For final requirements: In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	May 5, 2032
Los Angeles Area Lakes TMDL	Peck Road Park	Chlordane, DDTs, Dieldrin	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Peck Road Park (cont.)	Nitrogen	Total Nitrogen Instantaneous Maximum NEL of 3.61 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Peck Road Park (cont.)	PCBs	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Peck Road Park (cont.)	Phosphorous	Total Phosphorous Instantaneous Maximum NEL of 0.37 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Peck Road Park (cont.)	Trash	None	Responsible Dischargers shall comply with this General Permit and install minimum and advanced BMPs meet the TMDL target of 0 (zero) trash in or on the water and on the shoreline.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Echo Park Lake	Chlordane, Deildrin	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Echo Park Lake (cont.)	Nitrogen	Total Nitrogen Instantaneous Maximum NEL of 1.33 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Echo Park Lake (cont.)	PCBs	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Echo Park Lake (cont.)	Phosphorous	Total Phosphorous Instantaneous Maximum NEL of 0.16 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Echo Park Lake (cont.)	Trash	None	Responsible Dischargers shall comply with this General Permit and install minimum and advanced BMPs to meet the TMDL target of 0 (zero) trash in or on the water and on the shoreline.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Legg Lakes	Nitrogen	Total Nitrogen Instantaneous Maximum NEL of 1.8 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Legg Lakes (cont.)	Phosphorous	Total Phosphorous Instantaneous Maximum NEL of 0.64 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Puddingstone Reservoir	Chlordane, DDTs, Dieldrin	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Puddingstone Reservoir (cont.)	Nitrogen	Total Nitrogen Instantaneous Maximum NEL of 2.0 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Puddingstone Reservoir (cont.)	Phosphorous	Total Phosphorous Instantaneous Maximum NEL of 0.40 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Los Angeles Area Lakes TMDL (cont.)	Puddingstone Reservoir (cont.)	PCBs	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Puddingstone Reservoir (cont.)	Mercury	Total Mercury Instantaneous Maximum NEL of 4×10^{-6} mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Area Lakes TMDL (cont.)	Puddingstone Reservoir (cont.)	Methylmercury	Dissolved Methylmercury Instantaneous Maximum NEL of 0.081×10^{-8} mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Harbor Bacteria	Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel)	Enterococcus	Enterococcus density Instantaneous Maximum TNAL of 104/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Harbor Bacteria (cont.)	Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel) (cont.)	Fecal coliform	Fecal coliform density Instantaneous Maximum TNAL of 400/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles Harbor Bacteria (cont.)	Los Angeles Harbor (Inner Cabrillo Beach and Main Ship Channel) (cont.)	Total coliform	Total coliform density Instantaneous Maximum TNAL of 10,000/100 mL Total coliform density Instantaneous Maximum TNAL of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Nitrogen TMDL	Los Angeles River Watershed	Nitrate-nitrogen	Nitrate-nitrogen Instantaneous Maximum NEL of 8.0 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Nitrogen TMDL (cont.)	Los Angeles River Watershed (cont.)	Nitrite-nitrogen	Nitrite-nitrogen Instantaneous Maximum NEL of 1.0 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Nitrogen TMDL (cont.)	Los Angeles River Watershed (cont.)	Nitrate-nitrogen plus nitrite-nitrogen	Nitrate-nitrogen plus nitrite-nitrogen Instantaneous Maximum NEL of 8.0 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Nitrogen TMDL (cont.)	Los Angeles River (above LA-Glendale WRP)	Ammonia	Ammonia Instantaneous Maximum NEL of 4.7 mg/L for discharges into LA River above LA-Glendale WRP	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Nitrogen TMDL (cont.)	Los Angeles River (below LA-Glendale WRP)	Ammonia	Ammonia Instantaneous Maximum NEL of 8.7 mg/L for discharges into LA River below LA-Glendale WRP	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Nitrogen TMDL (cont.)	Los Angeles River Tributaries	Ammonia	Ammonia Instantaneous Maximum NEL of 10.1 mg/L for discharges into LA River tributaries	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Metals TMDL	Los Angeles River or Los Angeles River Tributaries	Cadmium	Total Cadmium Instantaneous Maximum NEL of 0.0031 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Metals TMDL (cont.)	Los Angeles River or Los Angeles River Tributaries (cont.)	Copper	Total Copper Instantaneous Maximum NEL of 0.06749 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Metals TMDL (cont.)	Los Angeles River or Los Angeles River Tributaries (cont.)	Lead	Total Lead Instantaneous Maximum NEL of 0.094 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Angeles River Metals TMDL (cont.)	Los Angeles River or Los Angeles River Tributaries (cont.)	Zinc	Total Zinc Instantaneous Maximum NEL of 0.159 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Cerritos Channel TMDL	Los Cerritos Channel	Copper	Total Copper Instantaneous Maximum NEL of 0.0098 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Cerritos Channel TMDL (cont.)	Los Cerritos Channel (cont.)	Lead	Total Lead Instantaneous Maximum NEL of 0.0558 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Cerritos Channel TMDL (cont.)	Los Cerritos Channel (cont.)	Zinc	Total Zinc Instantaneous Maximum NEL of 0.0956 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitations (NELs). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Machado Lake Nutrient TMDL	Machado Lake	Nitrogen	Total Nitrogen Instantaneous Maximum NEL of 1.0 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Machado Lake Nutrient TMDL (cont.)	Machado Lake (cont.)	Phosphorous	Total Phosphorus Instantaneous Maximum NEL of 0.1 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Machado Lake Toxics TMDL	Machado Lake	Chlordane, DDD ¹ (all congeners), DDE ² (all congeners), DDT (all congeners), Total DDT, Dieldrin, PCBs	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

¹ Dichlorodiphenyldichloroethane

² Dichlorodiphenyldichloroethylene

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Marina del Rey Back Basins Bacteria TMDL	Marina del Rey Harbor Mothers' Beach and back basins (Basins D, E, and F)	Enterococcus	Enterococcus density Instantaneous Maximum TNAL of 104/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Marina del Rey Back Basins Bacteria TMDL (cont.)	Marina del Rey Harbor Mothers' Beach and back basins (Basins D, E, and F) (cont.)	Fecal coliform	Fecal coliform density Instantaneous Maximum TNAL of 400/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Marina del Rey Back Basins Bacteria TMDL (cont.)	Marina del Rey Harbor Mothers' Beach and back basins (Basins D, E, and F) (cont.)	Total coliform	Total coliform density Instantaneous Maximum TNAL of 10,000/100 mL Total coliform density Instantaneous Maximum TNAL of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Marina del Rey Harbor Toxics TMDL	Marina del Rey Harbor	Chlordane, Copper, p,p' DDE, DDT, Lead, PCBs, Zinc	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Oxnard Drain 3 TMDL	Oxnard Drain Number 3	Chlordane, DDD, DDE, DDT, Dieldrin, PCBs, Toxaphene	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Gabriel River Metals and Selenium TMDL	San Gabriel River Reach 2 or its tributary/ies	Lead	Total Lead Instantaneous Maximum NEL of 0.166 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Gabriel River Metals and Selenium TMDL (cont.)	Coyote Creek or its tributary/ies	Copper	Total Copper Instantaneous Maximum NEL of 0.027 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Gabriel River Metals and Selenium TMDL (cont.)	Coyote Creek or its tributary/ies (cont.)	Lead	Total Lead Instantaneous Maximum NEL of 0.106 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Gabriel River Metals and Selenium TMDL (cont.)	Coyote Creek or its tributary/ies (cont.)	Zinc	Total Zinc Instantaneous Maximum NEL of 0.158 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Santa Clara River Bacteria	Santa Clara River Estuary	Enterococcus	Enterococcus density Instantaneous Maximum TNAL of 104/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Santa Clara River Bacteria (cont.)	Santa Clara River Estuary (cont.)	Fecal coliform	Fecal coliform density Instantaneous Maximum TNAL of 400/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Santa Clara River Bacteria (cont.)	Santa Clara River Estuary (cont.)	Total coliform	Total coliform density Instantaneous Maximum TNAL of 10,000/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Santa Clara River Bacteria (cont.)	Santa Clara River Reaches 3, 4, 5, 6, and 7	E. coli	E. coli density Instantaneous Maximum TNAL of 235/100 mL	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Santa Clara River Chloride TMDL	Santa Clara River Reach 3	Chloride	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Santa Clara River Nitrogen TMDL	Santa Clara River Reach 3	Ammonia as Nitrogen	Total Ammonia as Nitrogen Instantaneous Maximum NEL of 4.2 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Santa Clara River Nitrogen TMDL (cont.)	Santa Clara River Reach 7	Ammonia as Nitrogen	Total Ammonia as Nitrogen Instantaneous Maximum NEL of 5.2 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Santa Monica Bay DDTs and PCBs TMDL	Santa Monica Bay	DDT, PCB	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Santa Monica Bay Debris TMDL	Santa Monica Bay	Plastic Pellets	None	Comply with General Permit.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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Santa Ana Regional Water Quality Regional Water Quality Control Board (Region 8)

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL	San Diego Creek Watershed	Cadmium	Total Cadmium Instantaneous Maximum NEL of 0.0097 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	San Diego Creek Watershed (cont.)	Copper	Total Copper Instantaneous Maximum NEL of 0.027 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
San Diego Creek and Newport Bay Toxics TMDL (cont.)	San Diego Creek Watershed (cont.)	Lead	Total Lead Instantaneous Maximum NEL of 0.194 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	San Diego Creek Watershed (cont.)	Zinc	Total Zinc Instantaneous Maximum NEL of 0.21 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Upper Newport Bay	Cadmium	Total Cadmium Instantaneous Maximum NEL of 0.042 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Upper Newport Bay (cont.)	Copper	<p>Total Copper Instantaneous Maximum NEL of 0.00578 mg/L</p> <p>Discharge Requirement for boatyards is 0 (zero) lbs/year into Upper Newport Bay.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	<p align="center">July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i></p>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Upper Newport Bay (cont.)	Lead	<p>Total Lead Instantaneous Maximum NEL of 0.221 mg/L</p> <p>Discharge Requirement for boatyards is 0 (zero) lbs/year into Upper Newport Bay.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	<p align="center">July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i></p>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Upper Newport Bay (cont.)	Zinc	<p>Total Zinc Instantaneous Maximum NEL of 0.095 mg/L</p> <p>Discharge Requirement for boatyards is 0 (zero) lbs/year into Upper Newport Bay.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	<p>July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i></p>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Lower Newport Bay and Bay Segments (including Costa Mesa Channel and Santa Ana Delhi Channel)	Copper	<p align="center">Copper Instantaneous Maximum NEL of 0.00578 mg/L (Total metals)</p> <p align="center">Discharge Requirement for boatyards is 0 (zero) lbs/year into Lower Newport Bay.</p>	<p align="center">In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	<p align="center">July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i></p>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Lower Newport Bay and Bay Segments (including Costa Mesa Channel and Santa Ana Delhi Channel) (cont.)	Lead	<p align="center">Lead Instantaneous Maximum NEL of 0.221 mg/L (Total metals)</p> <p align="center">Discharge Requirement for boatyards is 0 (zero) lbs/year into Lower Newport Bay.</p>	<p>In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.</p>	<p align="center">July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i></p>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Lower Newport Bay and Bay Segments (including Costa Mesa Channel and Santa Ana Delhi Channel) (cont.)	Zinc	Zinc Instantaneous Maximum NEL of 0.095 mg/L (Total metals) Discharge Requirement for boatyards is 0 (zero) lbs/year into Lower Newport Bay.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Rhine Channel area of Lower Newport Bay	Chromium, Mercury	None	No additional requirements for sediment-based targets Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Rhine Channel area of Lower Newport Bay (cont.)	Copper	Copper Instantaneous Maximum NEL of 0.00578 mg/L (Total metals)	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Rhine Channel area of Lower Newport Bay (cont.)	Lead	Lead Instantaneous Maximum NEL of 0.221 mg/L (Total metals)	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
San Diego Creek and Newport Bay Toxics TMDL (cont.)	Rhine Channel area of Lower Newport Bay (saltwater)	Zinc	Zinc Instantaneous Maximum NEL of 0.095 mg/L (Total metals)	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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San Diego Regional Water Quality Regional Water Quality Control Board (Region 9)

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Baby Beach in Dana Point Harbor and Shelter Island Shoreline Park TMDL	Dana Point Harbor – Baby Beach (Dana Point HSA ³ 901.14)	Total coliform, Fecal coliform, Enterococcus (Indicator Bacteria)	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Baby Beach in Dana Point Harbor and Shelter Island Shoreline Park TMDL	San Diego Bay – Shelter Island Shoreline Park (Point Loma HA ⁴ 908.10)	Total coliform, Fecal coliform, Enterococcus (Indicator Bacteria)	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Chollas Creek Diazinon TMDL	Chollas Creek Watershed	Diazinon	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

³ Hydrologic Sub-area (HSA)

⁴ Hydrologic Areas (HA)

Industrial General Permit Attachment E

**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Chollas Creek Metal TMDL	Chollas Creek	Copper	Interim Total Copper Instantaneous Maximum TNAL of 0.083 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Chollas Creek Metal TMDL (cont.)	Chollas Creek (cont.)	Lead	Interim Total Lead Instantaneous Maximum TNAL of 0.068 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Chollas Creek Metal TMDL (cont.)	Chollas Creek (cont.)	Zinc	Interim Total Zinc Instantaneous Maximum TNAL of 0.175 mg/L	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Action Level (TNAL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Chollas Creek Metal TMDL (cont.)	Chollas Creek (cont.)	Copper	Total Copper Instantaneous Maximum NEL of 0.083 mg/L. Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for Total Copper above.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	October 22, 2028

Industrial General Permit Attachment E

**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Chollas Creek Metal TMDL (cont.)	Chollas Creek (cont.)	Lead	Total Lead Instantaneous Maximum NEL of 0.068 mg/L. Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for Total Lead above.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	October 22, 2028

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Chollas Creek Metal TMDL (cont.)	Chollas Creek (cont.)	Zinc	Total Zinc Instantaneous Maximum NEL of 0.175 mg/L. Responsible Dischargers are not subject to this NEL until the Compliance Due Date. See interim requirements for Total Zinc above.	In addition to complying with this General Permit, Responsible Dischargers shall take QSE samples in accordance with Section XI.B and shall compare the results to the corresponding TMDL Numeric Effluent Limitation (NEL). Sample, collection, and reporting shall be conducted in accordance with Section XI.B.	October 22, 2028

Industrial General Permit Attachment E

**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Los Peñasquitos Lagoon Sediment TMDL	Los Peñasquitos Lagoon Watershed	Sediment	None	Responsible Dischargers shall comply with General Permit and provide an estimate of the representative flow rate from their industrial facility for one Qualifying Storm Event (QSE) each reporting year. The Responsible Discharger shall submit the representative flow estimate as a PDF attachment to the Annual Report (due in SMARTS no later than July 15 th of each reporting year).	July 14, 2034
Rainbow Creek Watershed TMDL	Rainbow Creek Watershed	Nitrogen and Phosphorous	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>
Shelter Island Yacht Basin Copper TMDL	Shelter Island Yacht Basin	Copper	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Twenty Beaches and Creeks Indicator Bacteria	Pacific Ocean Shorelines: ⁵ San Joaquin Hills HSA (901.11) Laguna Beach HSA (901.12) Aliso HSA (901.13) Dana Point HSA (901.14)	Enterococcus, Total Coliform, and Fecal Coliform (Indicator Bacteria)	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

⁵ The Project I Bacteria TMDL developed for Pacific Shorelines is applicable to all beaches located on the shorelines of the hydrologic subareas (HSAs), hydrologic areas (HAs) and hydrologic units (HUs) listed above.

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Twenty Beaches and Creeks Indicator Bacteria (cont.)	Lower San Juan HSA (901.27) San Clemente HA (901.30) San Luis Rey HU (903.00) San Marcos HA (904.50) San Dieguito HU (905.00) Miramar Reservoir HA (906.10) Scripps HA (906.30)	Enterococcus, Total Coliform, and Fecal Coliform (Indicator Bacteria)	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

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**LIST OF EXISTING TOTAL MAXIMUM DAILY LOADS (TMDLS)
APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES**

TMDL	Impaired Waterbody/ Watershed	Pollutants	Additional TMDL-related Numeric Action Level or Numeric Effluent Limitation (TNAL/NEL)	Required Actions	Compliance Due Date
Twenty Beaches and Creeks Indicator Bacteria (cont.)	Tecolote Creek (906.50) Forester Creek (907.11) San Diego River (Lower) (907.12) Chollas Creek (908.22)	Enterococcus, Total Coliform, and Fecal Coliform (Indicator Bacteria)	None	Comply with General Permit	July 1, 2020 <i>(Effective Date of these TMDL Requirements)</i>

ATTACHMENT F

EFFLUENT LIMITATION GUIDELINES (ELGS)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

The following Parts of federal regulations at 40 Code of Federal Regulations Chapter I Subchapter N (Subchapter N) contain ELGs approved by US EPA for specific categories of industrial storm water discharges [Note: The PDF version of the relevant portions of Subchapter N were originally included as part of Attachment F for convenience. The official version of these regulations are maintained by the U.S. Government Publishing Office. The [current electronic version of Subchapter N](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N) may be accessed at: https://gov.ecfr.io/cgi-bin/text-idx?SID=2953883a6b30d79c49b1a030232b711e&mc=true&tpl=/ecfrbrowse/Title40/40cfrv31_02.tpl#0.]:

Point Source Category	ELGs ¹
Part 411 - Cement Manufacturing	Subchapter N Part 411 Subpart C – Cement Manufacturing (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.31.411&rgn=div5)
Part 418 - Fertilizer Manufacturing	Subchapter N Part 418 Subpart A – Fertilizer Manufacturing (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.31.418&rgn=div5)
Part 419 - Petroleum Refining	Subchapter N Part 419 - Petroleum Refining (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.31.419&rgn=div5)

¹ The applicable ELGs are attached to this Attachment F. To view the attachments from an electronic (pdf) version of this Attachment F, left-click on the paper clip icon to the left of this pdf file to make the attachment window appear, then double-click on the icons of the attached pdf files. The attachments are also available on the Industrial Storm Water program pages of the [State Water Resources Control Board's website \(www.waterboards.ca.gov\)](http://www.waterboards.ca.gov). [Note: This footnote references document functionality which was removed to create a version of this General Permit compliant with the Americans with Disabilities Act.]

EFFLUENT LIMITATION GUIDELINES (ELGs)

Point Source Category	ELGs ¹
Part 422 - Phosphate Manufacturing	Subchapter N Part 422 – Phosphate Manufacturing (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.31.422&rgn=div5)
Part 423 - Steam Electric Power Generating	Subchapter N Part 423 - Steam Electric Power Generating (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.31.423&rgn=div5)
Part 429 - Wetting of logs at wet deck storage areas	Subchapter N Part 429 Subpart I - Wetting of logs at wet deck storage areas (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.429&rgn=div5)
Part 434 - Coal Mining	Subchapter N Part 434 Coal Mining - (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.434&rgn=div5)
Part 436 - Mineral Mining And Processing	Subchapter N Part 436 – Mineral Mining and Processing (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.436&rgn=div5)
Part 440 - Ore Mining And Dressing	Subchapter N Part 440 – Ore Mining and Dressing (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.440&rgn=div5)
Part 443 - Paving And Roofing Materials (Tars And Asphalt)	Subchapter N Part 443 - Paving And Roofing Materials (Tars And Asphalt) (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.443&rgn=div5)
Part 445 - Landfills	Subchapter N Part 445 – Landfills (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.445&rgn=div5)
Part 449 - Airport Deicing	Subchapter N Part 449 – Airport Deicing (https://gov.ecfr.io/cgi-bin/text-idx?SID=bc8e5d2cdc530e55b331cdc2111c88af&mc=true&node=pt40.32.449&rgn=div5)

EFFLUENT LIMITATION GUIDELINES (ELGs)

New Source Performance Standards

New source performance standards (NSPS) represent the best available demonstrated control technology standards. US EPA has established NSPS guidelines for the industries found in the Table below. The intent of NSPS guidelines is to set effluent limitations that represent state-of-the-art treatment technology for new sources.²

Table 1 - Storm Water Specific NSPS Effluent Limitation Guidelines

Regulated Discharge	40 CFR Section	Multi Sector General Permit Sector	NSPS	Date New Source Data Established
Discharge resulting from spray down or intentional wetting of logs as wet deck storage areas	Part 429, Subpart I	A	Yes	1/26/81
Runoff from phosphate fertilizer manufacturing facilities that comes into contact with any raw materials, finished products, by-products or waste products (SIC 2874)	Part 418, Subpart A	C	Yes	4/8/74
Runoff from asphalt emulsion facilities	Part 443, Subpart A	D	Yes	7/28/75
Runoff from materials storage piles at cement manufacturing facilities	Part 411, Subpart C	E	Yes	2/20/74
Mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities	Part 436, Subparts B, C, D	J	No	N/A

² New source means any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced: (1) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or (2) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal as defined in 40 C.F.R section 122.26.

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EFFLUENT LIMITATION GUIDELINES (ELGs)

Regulated Discharge	40 CFR Section	Multi Sector General Permit Sector	NSPS	Date New Source Data Established
Runoff from hazardous waste and nonhazardous waste landfills	Part 445, Subparts A and B	K, L	Yes	2/2/00
Runoff from coal storage piles at steam electric generating facilities	Part 423	O	Yes	11/19/82 & 10/8/74
Discharges from primary airports with over 1,000 annual jet departures that conduct deicing operations.	Part 449, Subpart A	S	Yes	NA

ATTACHMENT G

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

A. Areas of Special Biological Significance (ASBS)

1. ASBS are defined in the California Ocean Plan as “those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable.”
2. The California Ocean Plan prohibits the discharge of waste to ASBS.
3. The California Ocean Plan authorizes the State Water Board to grant an exception to Ocean Plan provisions where the board determines that the exception will not compromise protection of ocean waters for beneficial uses and the public interest will be served.
4. On March 20, 2012, the State Water Board adopted Resolution 2012-0012 (amended by Resolution 2012-0031 on June 19, 2012) which contained a general exception to the California Ocean Plan for discharges of storm water and non-point sources (ASBS Exception). This resolution also contains the Special Protections that are to be implemented for direct discharges to ASBS. Resolution 2012-0012 is hereby incorporated by reference and its requirements must be complied with by industrial storm water Dischargers discharging directly to ASBS.
5. This General Permit requires Dischargers who have been granted an Ocean Plan exception for discharges to ASBS to comply with the requirements contained in the Special Protections. These requirements are contained below.

B. ASBS Non-Storm Water Discharges

1. The term “ASBS Non-Storm Water Discharges” means any waste discharges from a municipal separate storm sewer system (MS4) or other NPDES permitted storm drain system to an ASBS that are not comprised entirely of storm water.
2. Only the following ASBS Non-Storm Water Discharges are allowed, provided that the discharges are essential for emergency response purposes, structural stability, slope stability or occur naturally:
 - a. Discharges associated with emergency fire fighting operations.

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

- b. Foundation and footing drains.
 - c. Water from crawl space or basement pumps.
 - d. Hillside dewatering.
 - e. Naturally occurring groundwater seepage via a storm drain.
 - f. Non-anthropogenic flows from a naturally occurring stream via a culvert or storm drain, as long as there are no contributions of anthropogenic runoff.
3. Authorized ASBS Non- Storm Water Discharges shall not cause or contribute to a violation of the water quality objectives in Chapter II of the Ocean Plan nor alter natural ocean water quality in an ASBS.
 4. At the San Clemente Island ASBS, discharges incidental to military training and research, development, test, and evaluation operations are allowed. Discharges incidental to underwater demolition and other in-water explosions are not allowed in the two military closure areas in the vicinity of Wilson Cove and Castle Rock. Discharges must not result in a violation of the water quality objectives, including the protection of the marine aquatic life beneficial use, anywhere in the ASBS.
 5. At the San Nicolas Island and Begg Rock ASBS, discharges incidental to military research, development, testing, and evaluation of, and training with, guided missile and other weapons systems, fleet training exercises, small-scale amphibious warfare training, and special warfare training are allowed. Discharges incidental to underwater demolition and other in-water explosions are not allowed. Discharges must not result in a violation of the water quality objectives, including the protection of the marine aquatic life beneficial use, anywhere in the ASBS.

C. ASBS Compliance Plan

1. State Water Board Resolution 2012-0012 grants an exception to the Ocean Plan's prohibition on discharges to ASBS (ASBS Exception) to applicants who were identified as Dischargers of industrial storm water to ASBS (ASBS Dischargers). Each ASBS Discharger shall specifically address the prohibition of ASBS Non-Storm Water Discharges and the requirement to maintain natural water quality for industrial storm water discharges to an ASBS in an ASBS Compliance Plan to be included in the ASBS Discharger's SWPPP. The ASBS Compliance Plan is subject to approval by the Executive Director of the State Water Board. The ASBS Compliance Plan shall include:
 - a. A map of surface drainage of storm water runoff, showing areas of sheet runoff and priority discharges, and a description of any structural Best Management Practices (BMPs) already employed and/or BMPs to be

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

employed in the future. Priority discharges are those that pose the greatest water quality threat and which are identified as requiring installation of structural BMPs. The map shall also show the storm water conveyances in relation to other features such as service areas, sewage conveyances and treatment facilities, landslides, areas prone to erosion, and waste and hazardous material storage areas, if applicable. The SWPPP shall also include a procedure for updating the map and plan when changes are made to the storm water conveyance facilities.

- b. A description of the measures by which all unauthorized ASBS Non-Storm Water Discharges (e.g., dry weather flows) has been eliminated, how these measures will be maintained over time, and how these measures are monitored and documented.
- c. A description of how pollutant reductions in storm water runoff, that are necessary to comply with these special conditions, will be achieved through BMPs. Structural BMPs need not be installed if the Discharger can document to the satisfaction of the Executive Director that such installation would pose a threat to health or safety. BMPs to control storm water runoff discharges (at the end-of-pipe) during a design storm shall be designed to achieve on average the following target levels:
 - 1) Table B Instantaneous Maximum Water Quality Objectives in Chapter II of the Ocean Plan; or
 - 2) A 90% reduction in pollutant loading during storm events, for the applicant's total discharges.

The baseline date for the reduction is March 20, 2012 (the effective date of the ASBS Exception), except for those structural BMPs installed between January 1, 2005 and the adoption of these special protections. The reductions must be achieved and documented by March 20, 2018.

- d. A description of how the ASBS Discharger will address erosion and the prevention of anthropogenic sedimentation in the ASBS. The natural habitat conditions in the ASBS shall not be altered as a result of anthropogenic sedimentation.
- e. A description of the non-structural BMPs currently employed and planned in the future (including those for construction activities), and include an implementation schedule. The ASBS Compliance Plan shall also describe the structural BMPs, including any low impact development (LID) measures, currently employed and planned for higher threat discharges and include an implementation schedule. To control storm water runoff discharges (at the end-of-pipe) during a design storm, ASBS Dischargers must first consider using LID practices to infiltrate, use, or evapotranspiration storm water runoff

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

on-site. The BMPs and implementation schedule shall be designed to ensure that natural water quality conditions in the receiving water are achieved and maintained by either reducing flows from impervious surfaces or reducing pollutant loading, or some combination thereof.

D. Reporting

If the results of the receiving water monitoring described in Section F. below (Sampling and Analysis Requirements) indicate that the storm water runoff is causing or contributing to an alteration of natural ocean water quality in the ASBS, the ASBS Discharger shall submit a report to the State Water Board within 30 days of receiving the results.

1. The report shall identify the constituents in storm water runoff that alter natural ocean water quality and the sources of these constituents.
2. The report shall describe BMPs that are currently being implemented, BMPs that are identified in the SWPPP for future implementation, and any additional BMPs that may be added to the SWPPP to address the alteration of natural water quality. The report shall include a new or modified implementation schedule for the BMPs.
3. Within 30 days of the approval of the report by the Executive Director, the ASBS Discharger shall revise its ASBS Compliance Plan to incorporate any new or modified BMPs that have been or will be implemented, the implementation schedule, and any additional monitoring required.
4. As long as the ASBS Discharger has complied with the procedures described above and is implementing the revised SWPPP, the Discharger does not have to repeat the same procedure for continuing or recurring exceedances of natural ocean water quality conditions due to the same constituent.
5. Compliance with this section does not excuse violations of any term, prohibition, or special condition contained in the Special Protections of the ASBS Exception.

E. Compliance Schedule

1. As of March 20, 2012, all unauthorized ASBS Non-Storm Water Discharges (e.g., dry weather flow) were effectively prohibited.
2. By September 20, 2013, the Discharger shall submit a draft written ASBS Compliance Plan to the Executive Director that describes its strategy to comply with these special conditions, including the requirement to maintain natural water quality in the affected ASBS. The ASBS Compliance Plan shall include a description of appropriate non-structural controls and a time schedule to

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

implement structural controls (implementation schedule) to comply with these special conditions for inclusion in the Discharger's SWPPP.

3. By September 20, 2014, the Discharger shall submit the final ASBS Compliance Plan, including a description and final schedule for structural controls based on the results of runoff and receiving water monitoring.
4. By September 20, 2013, any non-structural controls that are necessary to comply with these special conditions shall be implemented.
5. By March 20, 2018, any structural controls identified in the ASBS Compliance Plan that are necessary to comply with these special conditions shall be operational.
6. By March 20, 2018, all Dischargers must comply with the requirement that their discharges into the affected ASBS maintain natural ocean water quality. If the initial results of post-storm receiving water quality testing indicate levels higher than the 85th percentile threshold of reference water quality data and the pre-storm receiving water levels, then the Discharger must re-sample the receiving water, pre- and post-storm. If after re-sampling the post-storm levels are still higher than the 85th percentile threshold of reference water quality data, and the pre-storm receiving water levels, for any constituent, then natural ocean water quality is exceeded. See Flowchart at the end of this Attachment.
7. The Executive Director may only authorize additional time to comply with the special conditions 5 and 6, above if good cause exists to do so. Good cause means a physical impossibility or lack of funding

If a Discharger claims physical impossibility, it shall notify the Board in writing within thirty (30) days of the date that the Discharger first knew of the event or circumstance that caused or would cause it to fail to meet the deadline in 5. or 6. The notice shall describe the reason for the noncompliance or anticipated noncompliance and specifically refer to this Section of these requirements. It shall describe the anticipated length of time the delay in compliance may persist, the cause or causes of the delay as well as measures to minimize the impact of the delay on water quality, the measures taken or to be taken by the Discharger to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The Discharger shall adopt all reasonable measures to avoid and minimize such delays and their impact on water quality.

The Discharger may request an extension of time for compliance based on lack of funding. The request for an extension shall require:

- a. for municipalities, a demonstration of significant hardship to Discharger ratepayers, by showing the relationship of storm water fees to annual

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

- household income for residents within the Discharger's jurisdictional area, and the Discharger has made timely and complete applications for all available bond and grant funding, and either no bond or grant funding is available, or bond and/or grant funding is inadequate; or
- b. for other governmental agencies, a demonstration and documentation of a good faith effort to acquire funding through that agency's budgetary process, and a demonstration that funding was unavailable or inadequate.

F. Additional Requirements – Waterfront and Marine Operations

In addition to the above provisions, a Discharger with waterfront and marine operations shall comply with the following:

1. For discharges related to waterfront and marine operations, the Discharger shall develop a Waterfront and Marine Operations Management Plan (Waterfront Plan). This plan shall contain appropriate Management Measures/Practices to address nonpoint source pollutant discharges to the affected ASBS.
 - a. The Waterfront Plan shall contain appropriate Management Measures/Practices for any waste discharges associated with the operation and maintenance of vessels, moorings, piers, launch ramps, and cleaning stations in order to ensure that beneficial uses are protected and natural water quality is maintained in the affected ASBS.
 - b. For discharges from marinas and recreational boating activities, the Waterfront Plan shall include appropriate Management Measures, described in The Plan for California's Nonpoint Source Pollution Control Program, for marinas and recreational boating, or equivalent practices, to ensure that nonpoint source pollutant discharges do not alter natural water quality in the affected ASBS.
 - c. The Waterfront Plan shall include Management Practices to address public education and outreach to ensure that the public is adequately informed that waste discharges to the affected ASBS are prohibited or limited by special conditions in these Special Protections. The management practices shall include appropriate signage, or similar measures, to inform the public of the ASBS restrictions and to identify the ASBS boundaries.
 - d. The Waterfront Plan shall include Management Practices to address the prohibition against trash discharges to ASBS. The Management Practices shall include the provision of adequate trash receptacles for marine recreation areas, including parking areas, launch ramps, and docks. The plan shall also include appropriate Management Practices to ensure that the receptacles are adequately maintained and secured in order to prevent trash discharges into the ASBS. Appropriate Management Practices include covering the trash

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

receptacles to prevent trash from being windblown, staking or securing the trash receptacles so they don't tip over, and periodically emptying the receptacles to prevent overflow.

- e. The Discharger shall submit its Waterfront Plan to the State Water Board Executive Director by September 20, 2012. The Waterfront Plan is subject to approval by the State Water Board Executive Director. The plan must be fully implemented within by September 20, 2013.
2. The discharge of chlorine, soaps, petroleum, other chemical contaminants, trash, fish offal, or human sewage to ASBS is prohibited. Sinks and fish cleaning stations are point source discharges of wastes and are prohibited from discharging into ASBS. Anthropogenic accumulations of discarded fouling organisms on the sea floor must be minimized.
3. Limited-term activities, such as the repair, renovation, or maintenance of waterfront facilities, including, but not limited to, piers, docks, moorings, and breakwaters, are authorized only in accordance with Chapter III.E.2 of the Ocean Plan.
4. If the Discharger anticipates that the Discharger will fail to fully implement the approved Waterfront Plan within the 18 month deadline, the Discharger shall submit a technical report as soon as practicable to the Executive Director. The technical report shall contain reasons for failing to meet the deadline and propose a revised schedule to fully implement the plan.
5. The State Water Board may, for good cause, authorize additional time to comply with the Waterfront Plan. Good cause means a physical impossibility or lack of funding.

If a Discharger claims physical impossibility, it shall notify the Board in writing within thirty (30) days of the date that the Discharger first knew of the event or circumstance that caused or would cause it to fail to meet the deadline in Section F.1.e above. The notice shall describe the reason for the noncompliance or anticipated noncompliance and specifically refer to this Section of this Attachment. It shall describe the anticipated length of time the delay in compliance may persist, the cause or causes of the delay as well as measures to minimize the impact of the delay on water quality, the measures taken or to be taken by the Discharger to prevent or minimize the delay, the schedule by which the measures will be implemented, and the anticipated date of compliance. The Discharger shall adopt all reasonable measures to avoid and minimize such delays and their impact on water quality. The Discharger may request an extension of time for compliance based on lack of funding. The request for an extension shall require:

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

- a. a demonstration of significant hardship by showing that the Discharger has made timely and complete applications for all available bond and grant funding, and either no bond or grant funding is available, or bond and/or grant funding is inadequate.
- b. for governmental agencies, a demonstration and documentation of a good faith effort to acquire funding through that agency's budgetary process, and a demonstration that funding was unavailable or inadequate.

G. Sampling and Analysis Requirements

1. Monitoring is mandatory for all ASBS Dischargers to assure compliance with the Ocean Plan. Monitoring requirements include both: (1) Core Discharge Monitoring and (2) Ocean Receiving Water Monitoring (see Sections H. and I. below). The State and Regional Water Boards must approve sampling site locations and any adjustments to the monitoring programs. All ocean receiving water and reference area monitoring must be comparable with the Water Boards' Surface Water Ambient Monitoring Program (SWAMP).
2. Safety concerns: Sample locations and sampling periods must be determined considering safety issues. Sampling may be postponed upon notifying the Executive Director that hazardous conditions prevail.
3. Analytical Chemistry Methods: All constituents must be analyzed using the lowest minimum detection limits comparable to the Ocean Plan water quality objectives. For metal analysis, all samples, including storm water effluent, reference samples, and ocean receiving water samples, must be analyzed by the approved analytical method with the lowest minimum detection limits (currently Inductively Coupled Plasma/Mass Spectrometry) described in the Ocean Plan.

H. Core Discharge Monitoring Program

1. General sampling requirements for timing and storm size:

Runoff must be collected during a storm event that is greater than 0.1 inch and generates runoff, and at least 72 hours from the previously measurable storm event. Runoff samples shall be collected during the same storm and at approximately the same time when post-storm receiving water is sampled, and analyzed for the same constituents as receiving water and reference site samples as described in Section I. below.
2. Runoff flow measurements
 - a. For industrial storm water outfalls in existence as of December 31, 2007, 18 inches (457mm) or greater in diameter/width (including multiple outfall pipes in combination having a width of 18 inches, runoff flows must be

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

measured or calculated, using a method acceptable to and approved by the Executive Director.

- b. This will be reported annually for each precipitation season to the Executive Director.
3. Runoff samples – storm events
- a. For outfalls equal to or greater than 18 inches (0.46m) in diameter or width:
 - 1) samples of storm water runoff shall be collected during the same storm as receiving water samples and analyzed for oil and grease, total suspended solids, and, if within the range of the southern sea otter, indicator bacteria or some other measure of fecal contamination; and 2) samples of storm water runoff shall be collected and analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.
 - b. For outfalls equal to or greater than 36 inches (0.91m) in diameter or width:
 - 1) samples of storm water runoff shall be collected during the same storm as receiving water samples and analyzed for oil and grease, total suspended solids, and, if within the range of the southern sea otter, indicator bacteria or some other measure of fecal contamination; and
 - 2) samples of storm water runoff shall be further collected during the same storm as receiving water samples and analyzed for Ocean Plan Table B metals (provided at the end of this Attachment) for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates); and
 - 3) samples of storm water runoff shall be collected and analyzed for critical life stage chronic toxicity (one invertebrate or algal species) at least once during each storm season when receiving water is sampled in the ASBS.
 - 4) if an ASBS Discharger has no outfall greater than 36 inches, then storm water runoff from the applicant's largest outfall shall be further collected during the same storm as receiving water samples and analyzed for Ocean Plan Table B metals (provided at the end of this Attachment) for protection of marine life, Ocean Plan polynuclear aromatic hydrocarbons (PAHs), current use pesticides (pyrethroids and OP pesticides), and nutrients (ammonia, nitrate and phosphates).
 - c. For an applicant not participating in a regional integrated monitoring program [see below in Section I.3.] in addition to the sampling requirements in Section H.3.a. and b. above, a minimum of the two largest outfalls or 20 percent of the

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

larger outfalls, whichever is greater, shall be sampled (flow weighted composite samples) at least three times annually during wet weather (storm event) and analyzed for all Ocean Plan Table A constituents, Table B constituents (Table A and B constituents are provided at the end of this Attachment) for marine aquatic life protection (except for toxicity, only chronic toxicity for three species shall be required), DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, and Ocean Plan indicator bacteria. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one (the largest) such discharge shall be sampled annually in each Region.

- d. The Executive Director may reduce or suspend core monitoring once the storm runoff is fully characterized. This determination may be made at any point after the discharge is fully characterized, but is best made after the monitoring results from the first permit cycle are assessed.

I. Ocean Receiving Water and Reference Area Monitoring Program

1. In addition to performing the Core Discharge Monitoring Program in Section H. above, all ASBS Dischargers must perform ocean receiving water monitoring. In order to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within their ASBS, ASBS Dischargers may choose either (1) an individual monitoring program, or (2) participation in a regional integrated monitoring program.
2. Individual Monitoring Program: The requirements listed below are for those ASBS Dischargers who elect to perform an individual monitoring program to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within the affected ASBS. In addition to Core Discharge Monitoring, the following additional monitoring requirements shall be met:
 - a. Three times annually, during wet weather (storm events), the receiving water at the point of discharge from the outfalls described in Section H.3. above shall be sampled and analyzed for Ocean Plan Table A constituents, Table B constituents (Table A and B constituents are provided at the end of this Attachment) for marine aquatic life, DDT, PCBs, Ocean Plan PAHs, OP pesticides, pyrethroids, nitrates, phosphates, salinity, chronic toxicity (three species), and Ocean Plan indicator bacteria.

The sample location for the ocean receiving water shall be in the surf zone at the point of discharges; this must be at the same location where storm water runoff is sampled. Receiving water shall be sampled prior to (pre-storm), and during (or immediately after) the same storm (post-storm). Post-storm sampling shall be during the same storm and at approximately the same time

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

- as when the runoff is sampled. Reference water quality shall also be sampled three times annually and analyzed for the same constituents pre-storm and post-storm, during the same storm seasons when receiving water is sampled. Reference stations will be determined by the State Water Board's Division of Water Quality and the applicable Regional Water Board(s).
- b. Sediment sampling shall occur at least three times during every five (5) year period. The subtidal sediment (sand or finer, if present) at the discharge shall be sampled and analyzed for Ocean Plan Table B constituents (provided at the end of this Attachment) for marine aquatic life, DDT, PCBs, PAHs, pyrethroids, and OP pesticides. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed.
 - c. A quantitative survey of intertidal benthic marine life shall be performed at the discharge and at a reference site. The survey shall be performed at least once every five (5) year period. The survey design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The results of the survey shall be completed and submitted to the State Water Board and Regional Water Board at least six months prior to the end of the permit cycle.
 - d. Once during each five (5) year period, a bioaccumulation study shall be conducted to determine the concentrations of metals and synthetic organic pollutants at representative discharge sites and at representative reference sites. The study design is subject to approval by the Regional Water Board and the State Water Board's Division of Water Quality. The bioaccumulation study may include California mussels (*Mytilus californianus*) and/or sand crabs (*Emerita analoga* or *Blepharipoda occidentalis*). Based on the study results, the Regional Water Board and the State Water Board's Division of Water Quality, may adjust the study design in subsequent permits, or add or modify additional test organisms (such as shore crabs or fish), or modify the study design appropriate for the area and best available sensitive measures of contaminant exposure.
 - e. Marine Debris: Representative quantitative observations for trash by type and source shall be performed along the coast of the ASBS within the influence of the ASBS Discharger's outfalls. The design, including locations and frequency, of the marine debris observations is subject to approval by the Regional Water Board and State Water Board's Division of Water Quality.
 - f. The monitoring requirements of the Individual Monitoring Program in this Section are minimum requirements. After a minimum of one (1) year of continuous water quality monitoring of the discharges and ocean receiving waters, the Executive Director of the State Water Board may require

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

additional monitoring, or adjust, reduce or suspend receiving water and reference station monitoring. This determination may be made at any point after the discharge and receiving water is fully characterized, but is best made after the monitoring results from the first permit cycle are assessed.

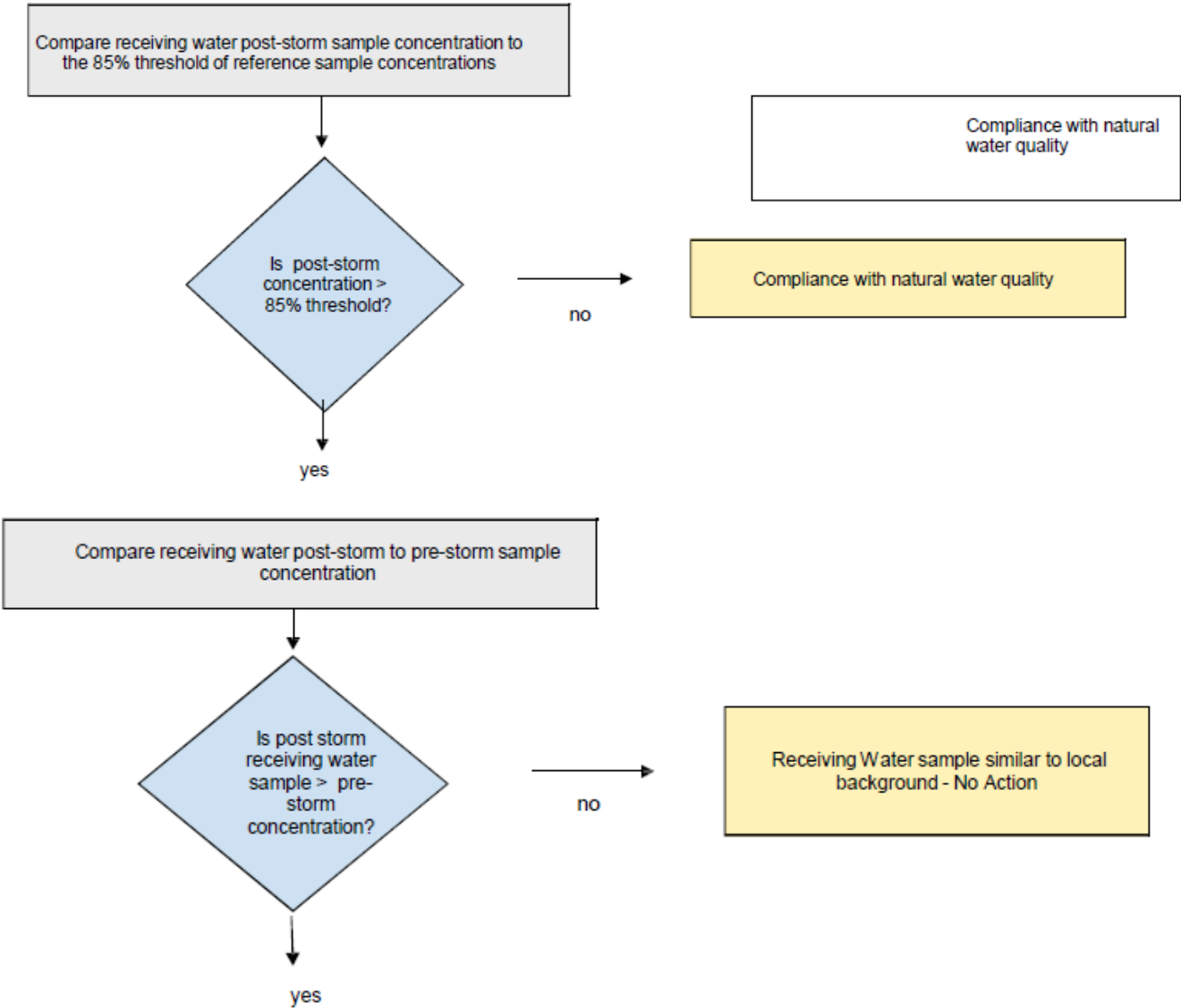
3. Regional Integrated Monitoring Program: ASBS Dischargers may elect to participate in a regional integrated monitoring program, in lieu of an individual monitoring program, to fulfill the requirements for monitoring the physical, chemical, and biological characteristics of the ocean receiving waters within their ASBS. This regional approach shall characterize natural water quality, pre- and post-storm, in ocean reference areas near the mouths of identified open space watersheds and the effects of the discharges on natural water quality (physical, chemical, and toxicity) in the ASBS receiving waters, and should include benthic marine aquatic life and bioaccumulation components. The design of the ASBS stratum of a regional integrated monitoring program may deviate from the otherwise prescribed individual monitoring approach (in Section I.2.) if approved by the State Water Board's Division of Water Quality and the Regional Water Boards.
 - a. Ocean reference areas shall be located at the drainages of flowing watersheds with minimal development (in no instance more than 10% development) and shall not be located in CWA Section 303(d) listed waterbodies or have tributaries that are 303(d) listed. Reference areas shall be free of wastewater discharges and anthropogenic non-storm water runoff. A minimum of low threat storm runoff discharges (e.g. stream highway overpasses and campgrounds) may be allowed on a case-by-case basis. Reference areas shall be located in the same region as the ASBS receiving water monitoring occurs. The reference areas for each Region are subject to approval by the participants in the regional integrated monitoring program, the State Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean reference water samples must be collected from each station, each from a separate storm during the same storm season that receiving water is sampled. A minimum of one reference location shall be sampled for each ASBS receiving water site sampled per responsible party. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.
 - b. ASBS ocean receiving water must be sampled in the surf zone at the location where the runoff makes contact with ocean water (i.e. at "point zero"). Ocean receiving water stations must be representative of worst-case discharge conditions (i.e. co-located at a large drain greater than 36 inches, or if drains greater than 36 inches are not present in the ASBS then the largest drain greater than 18 inches.) Ocean receiving water stations are subject to approval by the participants in the regional monitoring program and the State

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

- Water Board's Division of Water Quality and the applicable Regional Water Board(s). A minimum of three ocean receiving water samples must be collected during each storm season from each station, each from a separate storm. A minimum of one receiving water location shall be sampled in each ASBS per responsible party in that ASBS. For parties discharging to ASBS in more than one Regional Water Board region, at a minimum, one reference station and one receiving water station shall be sampled in each region.
- c. Reference and receiving water sampling shall commence during the first full storm season following the adoption of these special conditions, and post-storm samples shall be collected during the same storm event when storm water runoff is sampled. Sampling shall occur in a minimum of two storm seasons. For those ASBS Dischargers that have already participated in the Southern California Bight 2008 ASBS regional monitoring effort, sampling may be limited to only one storm season.
 - d. Receiving water and reference samples shall be analyzed for the same constituents as storm water runoff samples. At a minimum, constituents to be sampled and analyzed in reference and discharge receiving waters must include oil and grease, total suspended solids, Ocean Plan Table B metals (provided at the end of this Attachment) for protection of marine life, Ocean Plan PAHs, pyrethroids, OP pesticides, ammonia, nitrate, phosphates, and critical life stage chronic toxicity for three species. In addition, within the range of the southern sea otter, indicator bacteria or some other measure of fecal contamination shall be analyzed.

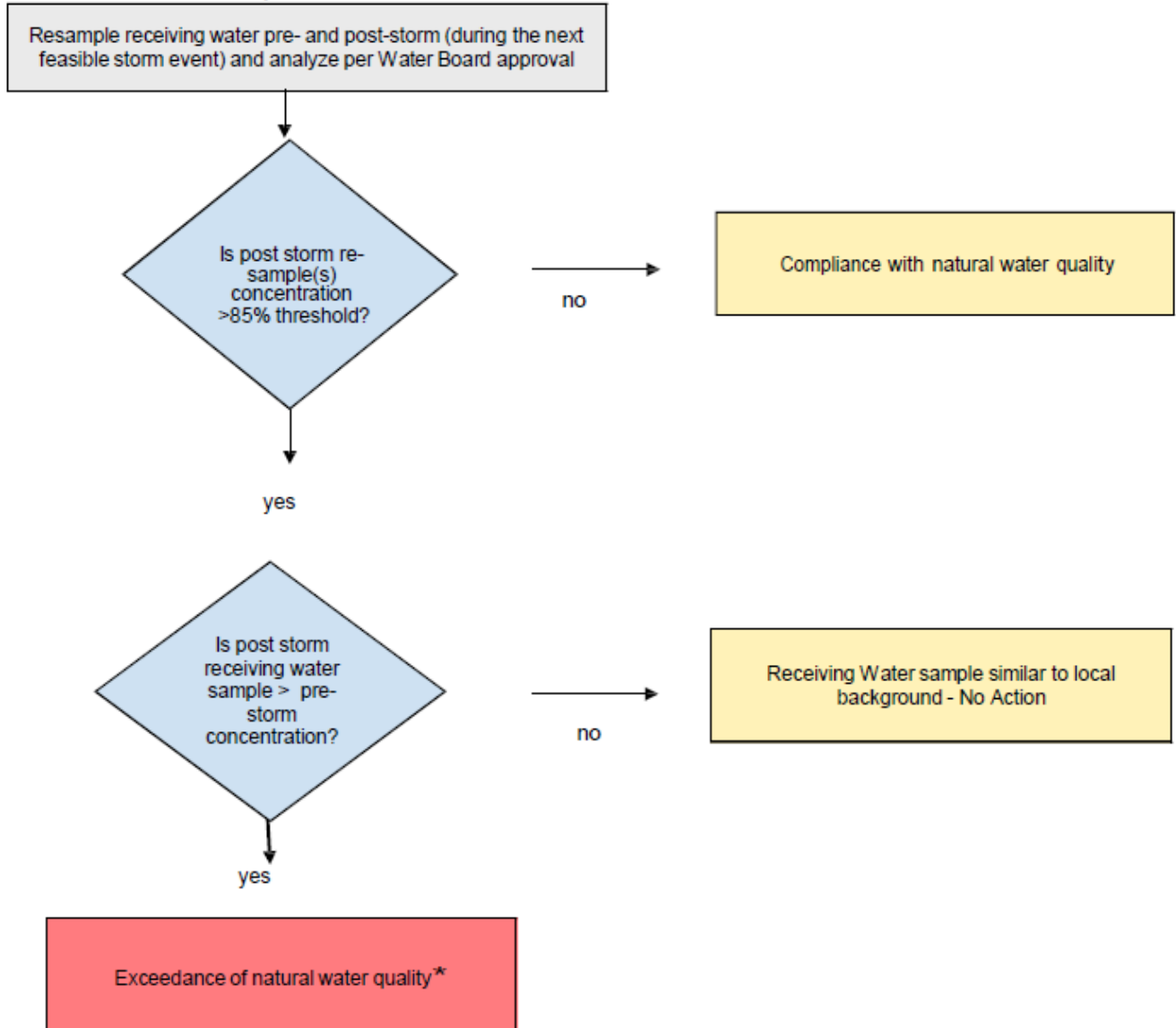
REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

Special Protections Section E.6. Flowchart to Determine Compliance with Natural Water Quality



(continue onto next page)

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS



* When an exceedance of natural water quality occurs, the Discharger must comply with Section D. Note, when sampling data is available, end-of-pipe effluent concentrations will be considered by the Water Boards in making this determination.

REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS

ASBS Monitoring

TABLE C
Monitoring Constituent List
(excerpted from California Ocean Plan dated 2009)

Constituent	Units
Grease and Oil	mg/L
Suspended Solids	Mg/L
Settleable Solids	mL/L
Turbidity	NTU
PH	

TABLE D
Monitoring Constituent List
(Excerpted from California Ocean Plan dated 2009)

Constituent	Units
Arsenic	µg/L
Cadmium	µg/L
Chromium	µg/L
Copper	µg/L
Lead	µg/L
Mercury	µg/L
Nickel	µg/L
Selenium	µg/L
Silver	µg/L
Zinc	µg/L
Cyanide	µg/L
Total Chlorine Residual	µg/L
Ammonia (as N)	µg/L
Acute Toxicity	TUa
Chronic Toxicity	TUc
Phenolic Compounds (non-chlorinated)	µg/L
Chlorinated Phenolics	µg/L
Endosulfan	µg/L
Endrin	µg/L
HCH	µg/L

Analytical Chemistry Methods: All constituents shall be analyzed using the lowest minimum detection limits comparable to the Ocean Plan water quality objectives. For metal analysis, all samples, including storm water effluent, reference samples, and ocean receiving water samples, shall be analyzed by the approved analytical method

Industrial General Permit Attachment G

**REQUIREMENTS FOR DISCHARGERS WHO HAVE BEEN GRANTED AN
OCEAN PLAN EXCEPTION FOR DISCHARGES TO ASBS**

with the lowest minimum detection limits (currently Inductively Coupled Plasma/Mass Spectrometry) described in the Ocean Plan.

ATTACHMENT H

SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

For more detailed guidance, Dischargers should refer to the U.S. EPA's "[Industrial Stormwater Monitoring and Sampling Guide](http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf)," dated March 2009, available at: http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf and the "[NPDES Storm Water Sampling Guidance Document](http://www.epa.gov/npdes/pubs/owm0093.pdf)," dated July 1992, available at: <http://www.epa.gov/npdes/pubs/owm0093.pdf> .

1. Identify the sampling parameters required to be tested and the number of storm water discharge points that will be sampled. Request the analytical testing laboratory to provide the appropriate number and type of sample containers, sample container labels, blank chain of custody forms, and sample preservation instructions.
2. Determine how samples will be transported to the laboratory. The testing laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory). The Discharger may either deliver the samples to the laboratory, arrange for the laboratory to pick up the samples, or overnight ship the samples to the laboratory. All sample analysis shall be done in accordance with 40 Code of Federal Regulations part 136. Samples for pH have a holding time of 15 minutes.¹
3. Qualified Combined Samples shall be combined by the laboratory and not by the Discharger. Sample bottles must be appropriately labeled to instruct the laboratory on which samples to combine.
4. Unless the Discharger can provide flow weighted information, all combined samples shall be volume weighted.
5. For grab samples, use only the sample containers provided by the laboratory to collect and store samples. Use of any other type of containers may contaminate samples.
6. For automatic samplers that are not compatible with bottles provided by the laboratory, the Discharger is required to send the sample container included with the automatic sampler to the laboratory for analysis.

¹ 40 C.F.R. section 136.3, Table II - Required Containers, Preservation Techniques, and Holding Times.

SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

7. The Discharger can only use automatic sampling device to sample parameters that the device is designed to. For pH, Dischargers can only use automatic sampling devices with the ability to read pH within 15 minutes of sample collection.
8. The Discharger is prohibited from using an automatic sampling device for Oil and Grease, unless the automatic sampling device is specifically designed to sample for Oil and Grease.
9. To prevent contamination, do not touch inside of sample container or cap or put anything into the sample containers before collecting storm water samples.
10. Do not overfill sample containers. Overfilling can change the analytical results.
11. Tightly screw on the cap of each sample container without stripping the threads of the cap.
12. Complete and attach a label for each sample container. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point. The label should also identify any sample containers that have been preserved.
13. Carefully pack sample containers into an ice chest or refrigerator to prevent breakage and maintain temperature during shipment. Remember to place frozen ice packs into shipping containers. Samples should be kept as close to 4 degrees Celsius (39 degrees Fahrenheit) as possible until arriving to the laboratory. Do not freeze samples.
14. Complete a Chain of Custody form for each set of samples. The Chain of Custody form shall include the Discharger's name, address, and phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis that is required for each sample container.
15. Upon shipping/delivering the sample containers, obtain both the signatures of the persons relinquishing and receiving the sample containers.
16. Dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the sample protocols and laboratory practices.
17. Refer to Table 1 in the General Permit for test methods, detection limits, and reporting units.
18. All sampling and sample preservation shall be in accordance with 40 Code of Federal Regulations part 136 and the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including Discharger

SAMPLE COLLECTION AND HANDLING INSTRUCTIONS

field instruments for measuring pH or specific conductance if identified as an additional sampling parameter) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses shall be conducted according to approved test procedures under 40 Code of Federal Regulations part 136, unless other test procedures have been specified by the Regional Water Quality Control Board. All metals shall be reported as total metals. Dischargers may conduct their own field analysis of pH (or specific conductance if identified as an additional sampling parameter) if the Discharger has sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis. With the exception of field analysis conducted by Dischargers for pH (or specific conductance if identified as an additional sampling parameter), all analyses shall be sent to and conducted at a laboratory certified for such analyses by the California Department of Public Health. Dischargers are required to report to the Water Board any sampling data collected more frequently than required in this General Permit (Section XXI.J.2)

ATTACHMENT I

COMPLIANCE OPTIONS

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

I. General Provisions

- A. This General Permit authorizes the implementation of the following Compliance Options as a method for compliance with the General Permit provisions specified below. These Compliance Options are optional and Dischargers are not required to implement one of the Compliance Options.
- B. A Discharger in compliance with (1) either Section II (On-Site Compliance Option) or Section III (Off-Site Compliance Option) of this Attachment and (2) all applicable requirements of this General Permit is in compliance with Section V.A of this General Permit (once the BMP(s) are implemented and operational).
- C. A Discharger in compliance with (1) either Section II (On-Site Compliance Option) or Section III (Off-Site Compliance Option) of this Attachment and (2) all applicable requirements of this General Permit is deemed in compliance with the following sections of this General Permit (once the BMP(s) are implemented and operational):
 - 1. Discharge Prohibitions, Section III.C;
 - 2. Effluent Limitations, Section V.C;
 - 3. Receiving Water Limitations, Section VI.
- D. If a Discharger chooses, but fails to comply with the requirements for the On-Site or Off-Site Compliance Option provided below, the Discharger shall comply with this General Permit, including Sections V.A, III.C, V.C, and VI, and this General Permit's requirements from which the Discharger was exempted in Sections II.I or III.G below.

COMPLIANCE OPTIONS

II. On-Site Compliance Option

- A. A Discharger may implement on-site BMP(s) for capture and use, infiltration, and/or evapotranspiration of storm water associated with industrial activities and authorized non-storm water discharges (NSWDs).¹
- B. The Discharger may include BMP(s) that capture and divert the required storm water runoff² volumes to a publicly-owned sanitary sewer treatment facility, to an on-site facility for on-site use, to a regional reclaimed water distribution system, or a combination thereof. Proposed discharges to a publicly-owned sanitary sewer or reclaimed water distribution system shall be supported by a permit or by authorization in writing from the system's agency that specifically allows the proposed storm water² flow rates. The minimum required storm water² volume to be diverted shall be in accordance with the Section E.1 and E.2 below. The diverted or used volume of storm water² is not authorized to discharge into a municipal storm sewer system or receiving surface water body from the industrial facility.
- C. A California licensed civil engineer shall certify (with a stamp and wet signature) that all hydrologic analyses, hydraulic calculations and BMP(s) operation parameters comply with Section E and IV.B below.³
- D. The Discharger shall ensure that groundwater is protected, as described in Sections IV.B and IV.C below.
- E. The BMP(s) implemented by the Discharger shall:
 - 1. Maintain the effective capacity to capture, infiltrate and/or evapotranspire the volume of runoff produced up to and during the 85th percentile 24-hour

¹ Storm water and authorized NSWDs from industrial drainage areas that meet the No Exposure Criteria (NEC) in Section XVII of this General Permit are not considered storm water or non-storm water discharges associated with industrial activity.

² Including authorized NSWDs.

³ All professional engineering documents shall be certified (signed and sealed) in accordance with the requirements of the Professional Engineers Act and any other laws related to the practice of professional engineering and shall be signed and sealed in a manner such that all work can be clearly attributed to the licensee(s) in responsible charge of the work. California licensed professional engineers are not required to certify documents outside of the scope of the Professional Engineers Act and any other laws related to the practice of professional engineering.

COMPLIANCE OPTIONS

- precipitation event based upon local, historical precipitation data and records;⁴
2. Be designed to capture, capture and divert, infiltrate, and/or evapotranspire drainage from all areas associated with industrial activity at the facility for only the following water sources;
 - a. Authorized sources listed in Section IV of this General Permit;
 - b. Storm water associated with industrial activities; and,
 - c. Non-industrial storm water run-on that commingles with the industrial storm water flowing into the BMP(s).
 3. Designed by a California licensed civil engineer with a 24-hour drawdown time⁵ or with additional storage volume beyond the compliance storm standard to offset longer drawdown time⁵.
 4. The Discharger shall implement measures to ensure the design standards for the life of the BMP(s) are maintained, and as appropriate, include reliability and safety factor calculations.
 5. A Discharger implementing infiltration BMP(s) shall include a shutoff mechanism⁶ (e.g., a valve that diverts discharge from entering the BMP(s)) in the design and implementation of infiltration BMP(s).
 6. The Discharger implementing infiltration BMP(s) shall address possible groundwater contamination from the BMP(s) operation by using one or more of the following methods:

⁴ Precipitation data shall be collected from the National Oceanic and Atmospheric Agency's website (or other nearby precipitation data available from other government agencies).

⁵ The On-site Compliance BMP must drain from full to empty when no inflows are occurring, considering any relevant safety factor included by the California licensed civil engineer.

⁶ If including a shutoff mechanism is infeasible for a BMP, appropriate spill prevention and response, and training shall be implemented.

COMPLIANCE OPTIONS

- a. The Discharger shall ensure that all influent⁷ entering the infiltration BMP(s) meets applicable Maximum Contaminant Level (MCL) criteria for industrial pollutants at the facility, as specified in Table A below. If the influent concentrations do not meet applicable MCLs, the Discharger shall have a California licensed civil engineer:
 - i. Recommend and oversee the installation of the necessary pretreatment controls during the design of the infiltration BMP(s) to ensure all the pollutants associated with industrial activities in the influent of the infiltration BMP(s) meet MCL criteria and include maintenance of all pretreatment controls in the operation and maintenance plan required in Section II.H.3.a.ii below; or
 - ii. Install monitoring devices (including, but not limited to, lysimeters) to collect monthly samples of the infiltrated water below the infiltration BMP(s) to demonstrate compliance with MCLs for pollutants associated with industrial activities in the influent of the infiltration BMP(s). The Discharger shall maintain proper calibration of the installed monitoring device(s). The monthly samples are only required when feasible sampling conditions exist (including, but not limited to, enough moisture in the monitoring device to collect a sample). When monthly samples are not collected, the Discharger shall document this information in an attachment to the Annual Report and update the SWPPP if necessary.

- b. The Discharger shall implement 6.a.i or ii above for applicable Table B constituents identified per the requirements in Section IV.

⁷ For the purposes of the compliance options, “influent” means storm water or authorized NSWDS (water as specified in E.2 above) flowing into a reservoir, basin, or treatment control.

COMPLIANCE OPTIONS

- c. The Discharger installing and operating storm water capture and infiltration dry wells^{8,9} shall comply with the requirements in Section 6.a.i above and are not eligible to install monitoring devices in lieu of the pretreatment requirements.
- d. For influent not meeting MCLs, the Discharger shall pretreat the infiltration BMP(s) influent¹⁰ to comply with the State Water Board's Division of Drinking Water MCLs referenced in Table A below.

⁸ "Drywell means a bored, drilled, or driven shaft or a dug hole or subsurface fluid distribution system, whose depth is greater than its largest surface dimension, which is completed above the water table so that its bottom and sides are typically dry except when receiving fluids well. The term does not include improved sinkholes." [U.S. EPA. Terms and Acronyms.](https://www.epa.gov/terms-and-acronyms)
<https://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/termsandacronyms/search.do?search=&term=drywell&matchCriteria=Contains&checkedAcronym=true&checkedTerm=true&hasDefinitions=false> [as of August 22, 2017].

⁹ In the event that the State Water Board develops and approves statewide standards for storm water capture and infiltration dry wells, these standards will be incorporated through a reopener to this General Permit. California Water Code section 13260(a)(3) requires the submittal of a report of waste discharge for construction or operation of an injection well. The U.S. EPA Underground Injection Control Program requires registration of injection wells with the U.S. EPA.

¹⁰ "Maximum Contaminant Level" means the maximum permissible level of a contaminant in water. Title 23 of the California Code of Regulations, State Water Resources Control Board's Division of Drinking Water. [EPA Ground Water and Drinking Water National Primary Drinking Water Regulations](https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations)
<<https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>>; [California State Water Resources Control Board Contaminants in Drinking Water](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chemicalcontaminants.shtml)
<http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chemicalcontaminants.shtml>; [California State Water Resources Control Board California Drinking Water-Related Laws](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Laws)
<http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Laws> [as of July, 27, 2017].

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Table E: Applicable Constituents with Primary or Secondary MCLs

Parameter Category	MCL Criteria for Industrial Pollutant Pretreatment¹¹
Primary MCLs: <ul style="list-style-type: none"> • Primary MCLs: Inorganics • Primary MCLs: Volatile Organic Carbon (VOCs) • Primary MCLs: Synthetic Organic Contaminants (SOCs) • Primary MCLs: Disinfection Byproducts 	California State Water Resources Control Board California Drinking Water-Related Laws <http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Lawbook.shtml>
Secondary MCLs: Total Dissolved Solids	Pollutants associated with industrial activities in the influent of the infiltration BMP(s) shall not exceed 500 mg/L.
Secondary MCLs: Chloride	Pollutants associated with industrial activities in the influent of the infiltration BMP(s) shall not exceed 250 mg/L.
Secondary MCLs: Specific Conductance	Pollutants associated with industrial activities in the influent of the infiltration BMP(s) shall not exceed 900 uS/cm.
Secondary MCLs for Sulfate	Pollutants associated with industrial activities in the influent of the infiltration BMP(s) shall not exceed 250 mg/L.

F. Implementation Schedule

1. Baseline Status

A Discharger with Baseline Status for all pollutants July 1, 2020 or on July 1 of the reporting year intending to implement the On-Site Compliance Option shall notify the Water Boards via SMARTS no later than three (3) months prior to the estimated date of the BMP(s) installation and operation or prior to obtaining applicable local approvals for the BMP(s), whichever comes first. The Discharger shall submit the required implementation information and schedule in the facility’s site specific Storm Water Pollution Prevention Plan (SWPPP) in accordance with Section II.H.3 below.

¹¹ If the applicable Regional Water Board’s Basin Plan contains different water quality objectives for groundwater, the Basin Plan water quality objectives supersede as a pretreatment limit.

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2. Level 1 Status¹²

A Discharger with Level 1 Status as of July 1, 2020 or on July 1 of the reporting year intending to implement the On-Site Compliance Option must submit the implementation information required in Section II above in their Level 1 Exceedance Response Action (ERA) Evaluation and Report, per the required schedule in Section XII.C of this General Permit or prior to obtaining applicable local approvals for the BMP(s), whichever comes first.

3. Level 2 Status¹³

A Discharger with Level 2 Status as of July 1, 2020 or on July 1 of the reporting year intending to implement the On-Site Compliance Option shall submit the implementation information required in Section II above in their Level 2 ERA Action Plan and Technical Report per the schedule in Section XII.D of this General Permit or prior to obtaining applicable local approvals for the BMP(s), whichever comes first.

4. Upon implementation and operation of the BMP(s), and compliance with the On-Site Compliance Option requirements in this Attachment, the status of Baseline, Level 1, or Level 2 is no longer applicable.

G. Reporting Requirements for BMP(s) Design

A Discharger complying with the On-Site Compliance Option shall submit the following information via SMARTS 7 days prior to the initial operation of the BMP(s):

1. Type of BMP(s) being implemented;
2. A map with the BMP(s) location;
3. BMP(s) latitude and longitude;
4. Bypass mechanisms for the discharged volume that is above and beyond the 85th percentile, 24hour storm, into a local municipal storm system or receiving surface water body; and,
5. Description of pretreatment system used for infiltration BMP(s).

¹² Dischargers may amend a facility's certified and submitted Level 1 ERA Report to submit this information when necessary via SMARTS.

¹³ Dischargers may amend a facility's certified and submitted Level 2 ERA Action Plan and/or Level 2 ERA Technical Report to submit this information when necessary via SMARTS.

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H. Monitoring and Reporting Requirements for a Discharger with implemented and operational On-Site Compliance Option BMP(s).

1. On-Site Compliance Option Monitoring Requirements

The Discharger shall:

- a. Conduct representative sampling and analysis of all discharge from the BMP(s) in compliance with the Sampling and Analysis Section XI.B.5-11, C.2, and C.6 of this General Permit and Attachment H,¹⁴ with the exception of comparing monitoring results to NALs in Section XI.B.7;
 - b. Submit all sampling and analysis information and results in SMARTS within 30 days after obtaining the information and results;¹⁵
 - c. Comply with the Visual Observation and Methods and Exceptions Section XI.A and C,¹⁶ respectively; and,
 - d. Conduct representative sampling and analysis of the influent entering the infiltration BMP(s) in compliance with the Sampling and Analysis Section XI.B.5-11, C.2, and C.6 of this General Permit and Attachment H⁸ of this General Permit, with the exception of comparing monitoring results to NALs in Section XI.B.7. Dischargers shall, at a minimum, collect and analyze samples of influent entering the infiltration BMP(s) two times within the first half of the Reporting Year (July 1 – December 31) and two times within the second half of the Reporting Year (January 1 – June 30).
2. A Discharger complying with the On-Site Compliance Option must submit the following sampling information in SMARTS within 30 days after obtaining the analytical laboratory sampling results:
- a. Monitoring (sampling and analysis) results for the infiltrated water, if applicable;
 - b. Monitoring (sampling and analysis) results of influent entering the BMP(s);

¹⁴ Storm Water Sample Collection and Handling Instructions

¹⁵ This information in and of itself is not to be used for enforcement of water quality standards or general permit compliance but to provide feedback on the effectiveness of this Compliance Option.

¹⁶ Not eligible for the Methods and Exceptions in Section XI.C.4, 5, and 7.

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- c. The size of each rain event, in inches of rain per hour, that discharges from the BMP(s);¹⁷
 - d. The estimated volume of the corresponding discharge; and,
 - e. The date and estimated start and end time of all discharges.
3. Storm Water Pollution Prevention Plan (SWPPP) Requirements¹⁸
- a. A Discharger complying with the On-Site Compliance Option shall update their SWPPP with the following documentation:
 - i. Description and photographs of the facility specific on-site BMP(s);
 - ii. Operation and maintenance plan certified by the California licensed civil engineer that includes, but is not limited to, the following items: 1) inspection frequency; 2) titles of personnel authorized to conduct the BMP(s) inspections; 3) maintenance procedures for BMP(s) and installed pretreatment; and, 4) a maintenance schedule;
 - iii. BMP(s) safety factor and reliability calculations required in Section II.E.3 above; and,
 - iv. Certification required in Section II.C above provided by the California licensed civil engineer; and,
 - v. Applicable information on any preexisting contamination in the soil or groundwater for any industrial or non-industrial pollutants at the facility that may be discharged or mobilized through infiltration to meet the protections in Section IV below.
 - b. The updated SWPPP shall be available at the facility 7 days prior to the initial operation of the BMP(s). The Discharger shall certify and submit the updated SWPPP via SMARTS 7 days prior to the initial operation of the BMP(s).
 - c. The Discharger implementing the On-Site Compliance Option shall, at a minimum, include the BMP(s) design information from Section II.E and the design information for any installed pretreatment systems/devices.

¹⁷ Obtained from an on-site rainfall gauge or a National Oceanic and Atmospheric Administration website (or other nearby precipitation data available from other government agencies).

¹⁸ Dischargers shall follow this General Permit's Monitoring and Records Section XXI.J. Order 2014-0057-DWQ amended by Order 2015-0122-DWQ & Order 2018-0028-DWQ

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- I. The Discharger with BMP(s) implemented and operating in compliance with the On-Site Compliance Option are exempt from the following provisions of this General Permit:
 - 1. Section VIII.A Discharges to Ocean Waters;
 - 2. Section IX Training Qualifications, requirement to obtain a QISP;
 - 3. Section X.A.7, X.H.2. Implementation of Advanced BMPs;
 - 4. Section X.H.6 Design Storm Standards for Treatment Control BMPs; and,
 - 5. Section XII Exceedance Response Actions.

- J. Additional Regional Water Board Authorities for Dischargers Implementing the On-Site Compliance Option
 - 1. The applicable Regional Water Board Executive Officer has the authority to review site-specific information, and disapprove any On-Site Infiltration BMP(s) as a permissible Compliance Option for the Discharger to address groundwater concerns under their Regional Water Board jurisdictions.
 - 2. The Regional Water Board Executive Officer may require the Discharger to modify the facility's SWPPP to demonstrate compliance with the On-Site Compliance Option or address other regional groundwater concerns. Upon written request of the Regional Water Board Executive Officer, the Discharger shall submit the required SWPPP modifications by the required due date, or no later than 90 days, whichever is shortest.
 - 3. The Regional Water Board may require additional information or modifications to the facility's SWPPP and/or BMP(s) to address:
 - a. Exceedances of applicable water quality objectives;
 - b. Impacts to groundwater beneficial uses; or,
 - c. Impacts to the groundwater quality due to the infiltration of the industrial authorized NSWDS and/or storm water discharges at the Discharger's industrial facility.
 - 4. The State Water Board Executive Director or the applicable Regional Water Board Executive Officer may authorize the discontinuation of monitoring for the infiltrated water if no threat to groundwater is determined.

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III. Off-Site Compliance Option

- A. The Discharger may enter into a local agreement with the local jurisdiction(s) to participate in the development, implementation, and operation of an off-site storm water capture and/or infiltration BMP(s) (Off-Site BMP(s)) provided the following criteria are met:
 - 1. The Off-Site BMP must maintain¹⁹ the effective capacity to capture, capture and divert, infiltrate and/or evapotranspire the volume of runoff produced up to and during the 85th percentile 24-hour precipitation event based upon precipitation data from the National Oceanic and Atmospheric Administration and/or local, historical precipitation data and records;²⁰ and,
 - 2. The authorized non-storm water²¹ and industrial storm water must not discharge to a water of the United States or a water of the state prior to reaching the Off-Site BMP(s).
- B. The Discharger shall work with the local jurisdiction(s) to define participation in the development, implementation, and operation of the Off-Site BMP(s).
- C. The Discharger and local jurisdiction shall ensure the agreement includes applicable protections for waters of the state for infiltration BMPs to demonstrate meeting the criteria in Section IV.
- D. The applicable Regional Water Board Executive Officer and local jurisdiction(s) representatives shall approve the Discharger's participation in the Off-Site Compliance Option. The applicable Regional Water Board shall provide at least a thirty (30) day public notice to obtain written comments prior to the approval of the Off-Site Compliance Option.
- E. A Discharger may enter into a local agreement with another Discharger(s) to participate in the development, implementation, and operation of an Off-Site BMP provided the criteria in Section III.A.1-2 are met. The agreement between Dischargers shall 1) include equal responsibility of the Off-Site BMP(s) among all parties involved, 2) not involve discharges to a municipal separate storm sewer

¹⁹ The BMP has met the standards if the BMP is designed with a 24-hour drawdown time or an alternate drawdown time approved by the Regional Board. See footnote 4 for the definition of drawdown time.

²⁰ Precipitation data shall be collected from the National Oceanic and Atmospheric Agency's website (or other nearby precipitation data available from other government agencies).

²¹ Listed in Section IV of this General Permit.

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systems (MS4), and 3) be approved by the applicable Regional Water Board Executive Officer.

F. A Discharger participating in an approved local agreement and discharging into an Off-Site BMP(s) and in compliance with the Off-Site Compliance Option requirements in this Attachment, are exempt from the following provisions and requirements of this General Permit:

1. Section VIII.A Discharges to Ocean Waters;
2. Section IX Training Qualifications, the requirement to obtain a QISP;
3. Section X.A.7, X.H.2. Implementation of Advanced BMPs;
4. Section X.H.6 Design Storm Standards for Treatment Control BMPs;
5. Section X.I.3-5 Monitoring Implementation Plan;
6. Section XI.A.2 Sampling Event Visual Observations
7. Section XI.B Sampling and Analysis; and,
8. Section XII Exceedance Response Actions.

G. Regional Water Board Authorities

The Regional Water Board Executive Officer has the authority to address regional groundwater concerns related to a Discharger's use of an Off-Site BMP(s) as a permissible Compliance Option through a review of site-specific information.

H. Monitoring, Reporting and Storm Water Pollution Prevention Plan (SWPPP) Update Requirements

The Discharger selecting the Off-Site Compliance Option shall:

1. Comply with the Monitoring and Records requirements in Section XXI.J of this General Permit or any Off-Site agreement-related monitoring and record retention requirements.
2. Update the facility's SWPPP to include:
 - a. A copy of the facility's agreement with the local jurisdiction(s);
 - b. A copy of the facility's agreement approval from the local jurisdiction;

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- c. A copy of the facility's agreement approval from the Regional Water Board Executive Officer;
 - d. Information on, and description of, the actions the Discharger must take during the development, implementation, and operation of the Off-Site BMP(s), as established in the approved agreement, that allows the facility's storm water discharge to enter an Off-Site BMP(s);
 - e. A milestone schedule that demonstrates compliance with the criteria in Section III.A-C above in accordance with the due dates in Section 3 below; and,
 - f. A copy of the operation and maintenance plan(s) for the Off-Site BMP(s) that receives the facility's discharge.
3. The updated SWPPP shall:
- a. Be maintained on-site at least 7 days prior to the initial implementation of the agreement; and
 - b. Be certified and submitted via SMARTS by the Discharger at least 7 days prior to the initial implementation of the agreement.
4. A Discharger participating in the Off-Site Compliance Option shall submit and certify via SMARTS the following information as an attachment to the Annual Report to document the status of the local agreement project(s) and implementation progress:
- a. Proof that participation in the local agreement is still valid (e.g., verify agreement effective period);
 - b. Identification of the local jurisdiction(s) that are part of the agreement including a contact name, title, email, and phone number of the local representative;
 - c. Summary of actions (including, but not limited to, monitoring, structural BMPs, non-structural BMPs, training) the facility completed the past Reporting Year;²²
 - d. Summary of actions (including, but not limited to, monitoring, structural BMPs, non-structural BMPs, training) the facility planned for

²² This General Permit defines a Reporting Year as July 1st to June 30th.

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implementation over the next two years to comply with the agreement with the local jurisdiction;

- e. The status and schedule of the local agreement project(s) completed this Reporting Year;
- f. The status and schedule of the local agreement project(s) planned for implementation over the next two years; and,
- g. A status and schedule implementation update regarding the Discharger's required actions per the local agreement.

IV. Protection of Waters of the State

A. The following discharges are prohibited for any Discharger implementing a Compliance Option:

- 1. Water related to the cleaning and maintenance of the BMP is an unauthorized NSWD; and,
- 2. Storm water associated with industrial activities occurring below the 85th percentile 24-hour storm event and/or sources of non-storm water authorized by this General Permit in Section IV.

B. The migration of pollutants that cause or contribute to the exceedance of a water quality objective in groundwater is prohibited. The Discharger shall ensure infiltration BMP(s) implemented for compliance with a Compliance Option shall be designed and operated to:

- 1. Prevent captured and/or infiltrated storm water from causing or contributing to the exceedance of a water quality objective in groundwater;
- 2. Prevent the constituents in Table B from causing a threat to the attainment of the groundwater's beneficial use(s) if identified and have the potential to discharge to groundwater.
- 3. Prevent the migration of existing soil contamination to groundwater and not interfere with any active remedial activities for existing groundwater contamination in the vicinity of the facility and/or Off-Site BMP(s); and,
- 4. Address other similar factors which may degrade groundwater.

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5. For the On-Site Compliance Option, include a determination of Section IV.B.1-4 of this Attachment above in the certification required by the California licensed civil engineer in Section II.C.

C. Infiltration and Groundwater Protection

1. Infiltration BMPs must not cause or contribute to an exceedance of an applicable groundwater quality objective.
2. Infiltration BMPs used for Compliance Option implementation shall comply with applicable local municipal ordinances, storm water requirements, and design standards for the infiltration of industrial storm water and authorized non-storm water as listed in Section IV of this General Permit.
3. The Minimum BMP requirements (Section X.H.1 of this General Permit) shall be implemented to maximize pollution prevention and protection of receiving groundwater quality and beneficial uses.
4. The soil through which infiltration occurs must have physical and chemical characteristics necessary to support infiltration rates and storm water treatment to meet the compliance storm standards in this Attachment I.

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Table F: Constituents of Concern

Pollutant/Constituent²³
1,1-Dichloroethane (1,1-DCA)
1,1-Dichloroethylene (1,1-DCE)
1,2,3-Trichloropropane (1,2,3 TCP)
1,2-Dichloroethane (1,2-DCA)
1,4 Dioxane (as Dioxane)
Arsenic
Benzene
Cadmium
Carbon Tetrachloride *
Chromium, Total
cis-1,2-Dichloroethylene *
Cyanide
DBCP
Di(2-ethylhexyl) phthalate (DEHP) *
Fluoride
Lead
Manganese
Methylene Chloride
Nickel
Nitrite Plus Nitrate (as N)
N-Nitrosodimethylamine (NDMA)
Perchlorate *
Polychlorinated Biphenyls (PCBs)
Polycyclic Aromatic Hydrocarbons (PAHs)
Tertiary Butyl Alcohol (TBA) *
Tetrachloroethylene (PCE) *
Total Trihalomethanes *
Trichloroethylene (TCE) *
Triclosan *
Vanadium
Vinyl chloride

²³ *Constituents currently without a 40 C.F.R. 136 approved test method. The Discharger may request approval from the appropriate Regional Water Board or the State Water Board to review and approve a proposed test method for sampling and analysis.

APPENDIX 1

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL
PERMIT FOR STORM WATER DISCHARGES
ASSOCIATED WITH INDUSTRIAL ACTIVITIES
(GENERAL PERMIT)

FACILITY NAME: _____

Waste Discharge Identification (WDID) #: _____

	FACILITY CONTACT	Consultant/Qualified Industrial Storm Water Practitioner (QISP)
Name		
Title		
Company		
Street Address		
City, State		
Zip		

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Signed Certification (Section II.A)			
Pollution Prevention Team (Section X.D.1)			
Existing Facility Plans (Section X.D.2)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

Site Map(s) (Section X.E)

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Facility boundaries (Section X.E.3.a)			
Drainage areas (Section X.E.3.a)			
Direction of flow (Section X.E.3.a)			
On-facility water bodies (Section X.E.3.a)			
Areas of soil erosion (Section X.E.3.a)			
Nearby water bodies (Section X.E.3.a)			
Municipal storm drain inlets (Section X.E.3.a)			
Points of discharge (Section X.E.3.b)			
Sampling Locations (Section X.E.3.b)			
Structural control measures (Section X.E.3.c)			
Impervious areas (Section X.E.3.d)			
Location of Directly Exposed Materials (Section X.E.3.e)			
Locations of significant spills and leaks (Section X.E.3.e)			
Areas of Industrial Activity (Section X.E.3.f)			
Areas of industrial activity (Section X.E.3.f)			
Storage areas/storage tanks (Section X.E.3.f)			
Shipping and receiving areas (Section X.E.3.f)			
Fueling areas (Section X.E.3.f)			
Vehicle and equipment storage/maintenance (Section X.E.3.f)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Material handling/processing (Section X.E.3.f)			
Waste treatment/disposal (Section X.E.3.f)			
Dust or particulate generation (Section X.E.3.f)			
Cleaning and material reuse (Section X.E.3.f)			
Other areas of industrial activities (Section X.E.3.f)			

List of Industrial Materials (Section X.F)

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Storage location			
Quantity			
Frequency			
Receiving and shipping location			
Quantity			
Frequency			
Handling location			
Quantity			
Frequency			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

Potential Pollution Sources (Section X.G)

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Description of Potential Pollution Sources (Section X.G.1)			
Industrial processes (Section X.G.1.a)			
Material handling and storage areas (Section X.G.1.b)			
Dust & particulate generating activities (Section X.G.1.c)			
Significant spills and leaks (Section X.G.1.d)			
Non-storm water discharges (Section X.G.1.e)			
Erodible surfaces (Section X.G.1.f)			
Assessment of Potential Pollutant Sources (Section X.G.2)			
Narrative assessment of likely sources of pollutants (Section X.G.2.a)			
Narrative assessment of likely pollutants present in storm water discharges (Section X.G.2.a)			
Identification of additional BMPs (Section X.G.2.b)			
Identification of drainage areas with no exposure (Section X.G.2.c)			
Identification of additional parameters (Section X.G.2.d)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

Storm Water Best Management Practices (Section X.H)

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Minimum BMPs (Section X.H.1)			
Good housekeeping (Section X.H.1.a)			
Preventative maintenance (Section X.H.1.b)			
Spill response (Section X.H.1.c)			
Material handling and waste management (Section X.H.1.d)			
Erosion and sediment controls (Section X.H.1.e)			
Employee training program (Section X.H.1.f)			
Quality assurance and record keeping (Section X.H.1.g)			
Advanced BMPs (Section X.H.2)			
Implement advanced BMPs at the facility (Section X.H.2.a)			
Exposure Minimization BMPs (Section X.H.2.b.i)			
Storm Water containment and discharge reduction BMPS (Section X.H.2.b.ii)			
Treatment Control BMPs (Section X.H.2.b.iii)			
Other advance BMPs (Section X.H.2.b.iv)			
Temporary Suspension of Activities (Section X.H.3)			
BMPs necessary for stabilization of the facility (Section X.H.3)			
BMP Descriptions (Section X.H.4)			
Pollutant that a BMP reduces or prevents (Section X.H.4.a.i)			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Frequency of BMP implementation (Section X.H.4.a.ii)			
Location of BMP (Section X.H.4.a.iii)			
Person implementing BMP (Section X.H.4.a.iv)			
Procedures/maintenance/instructions for BMP implementation (Section X.H.4.a.v)			
Equipment and tools for BMP implementation (Section X.H.4.a.vi)			
BMPs needing more frequent inspections (Section X.H.4.a.vii)			
Minimum BMP/applicable advanced BMPs not implemented at the facility (Section X.H.4.b)			
BMPs implemented in lieu of minimum or applicable advanced BMPs (Section X.H.4.c)			
BMP Summary Table (Section X.H.5)			

Monitoring Implementation Plan (Section X.I)

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Team members assisting in developing the MIP (Section X.I.1)			
Summary of visual observation procedures, locations, and details (Section X.I.2)			
Justifications if applicable for: Alternative discharge locations, Representative			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Sampling Reduction or, Qualified Combined Samples (Section X.I.3)			
Procedures for field instrument calibration (Section X.I.4)			
Example of Chain of Custody (Section X.I.5)			

Annual Comprehensive Facility Compliance Evaluation (Section XV)

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Review of all visual inspection and monitoring records and sampling and analysis results conducted during the previous reporting year (Section XV.A)			
Visual inspection of all areas of industrial activity and associated potential pollutant sources (Section XV.B)			
Visual inspection of all drainage areas previously identified as having no-exposure to industrial activities and materials in accordance with the definitions in Section XVII (Section XV.C)			
Visual inspection of equipment needed to implement the BMPs (Section XV.D)			
Visual inspection of any structural and/or treatment control BMPs (Section XV.E)			
Review and assessment of all BMPs for each area of industrial activity and associated potential pollutant			

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CHECKLIST

SWPPP (General Permit Section)	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
sources (Section XV.F)			
Assessment of other factors needed to complete the information described in Section XVI.B (Section XV.G)			

APPENDIX 2

INSTRUCTIONS FOR NO EXPOSURE CERTIFICATION (NEC)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

This Attachment provides general guidance instructions and guidance for obtaining NEC coverage. The actual NEC requirements are primarily contained in Section XVII of this General Permit.

A. INSTRUCTIONS:

Who May File for NEC Coverage

Sections 301 and 402(p) of the Clean Water Act (CWA), and Sections 1311 and 1342(p) of 33 United States Code prohibit the discharge of storm water associated with industrial activity to waters of the United States without a National Pollutant Discharge Elimination System (NPDES) permit. However, NPDES permit coverage is “conditionally excluded” for discharges of storm water associated with industrial activities (industrial storm water discharges) if the Discharger can certify that a condition of “No Exposure” exists at the industrial facility. A condition of “No Exposure” means that a Discharger’s industrial activities and materials are not exposed to storm water. Industrial storm water discharges from construction and land disturbance activities are ineligible for the NEC coverage. Dischargers who file valid NECs in accordance with these instructions are not required to implement Best Available Technology Economically Achievable /Best Conventional Pollutant Control Technology and comply with the Storm Water Pollution Prevention Plan (SWPPP) and monitoring requirements of this General Permit.

Obtaining and Maintaining NEC Coverage

A Discharger must electronically certify and submit NEC Permit Registration Documents (PRDs) via State Water Resources Control Board’s (State Water Board’s) Storm Water Multi-Application and Report Tracking System (SMARTS) to obtain NEC coverage. This conditional exclusion does not become effective

until the PRDs are submitted and the annual fee is paid. Upon receipt of the annual fee, the Discharger will electronically receive an NEC acceptance notification via SMARTS, which will include a Waste Discharge Identification (WDID) number. A Discharger must maintain a condition of “No Exposure” at the facility for the conditional exclusion to remain applicable. The Discharger must annually electronically re-certify the NEC via SMARTS to confirm that the conditions of “no exposure” are being maintained. If conditions change resulting in the exposure of materials and activities to storm water, the Discharger must electronically certify and submit PRDs via SMARTS for Notice of Intent (NOI) coverage under the General Permit for Storm Water Discharges Associated with Industrial Activities (General Permit).

Fees

First time NEC coverage PRDs and the annual re-certification require a fee. Fees may be changed by State Water Board regulation, independent of this General Permit.

How to Prepare and Submit PRDs for NEC Coverage

A Discharger must electronically certify and submit PRDs for NEC coverage in accordance with the instructions provided at the [State Water Board web site for SMARTS:](https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp)

<https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>

A Discharger with multiple facilities that satisfy the conditions of “No Exposure” must certify and

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submit PRDs for each facility. The Discharger is required to inspect and evaluate each individual facility to determine the condition of No-Exposure. The Discharger must retain an electronic or paper copy of the NEC coverage acceptance notification for their records.

The following information is required in the PRDs:

Discharger Information

1. The legal business name of the business entity, public organization, or any other entity that operates the facility described in the certification. The name of the operator may or may not be the same as the name of the facility. The operator is the legal entity that controls the facility operations, not the plant or site manager.
2. The mailing address of the facility operator, including the city, state, and zip code.
3. The facility operator contact person, telephone number and e-mail address.

Facility Information

4. The legal business name of the facility.
5. The total acreage of the facility associated with industrial activity. (Facility size in acres is calculated by taking the square feet and dividing by 43,560.)
6. The complete physical street address (e.g. the street address used for express deliveries), including the city, State, and zip code. Do not use a P.O. Box number. If a physical street address does not exist, describe the location or provide the latitude and longitude of a point within the facility boundary. Latitude and longitude are available from United States Geological Survey quadrangle or topographic maps, or may be found using a mapping site on the internet.

7. The facility contact person, telephone number, and e-mail address.
8. The 4-digit Standard Industrial Classification (SIC) code that represents the facility primary industrial activity. Provide a brief description of the primary industrial activity. If applicable, enter other significant SIC codes and descriptions. To obtain these codes, see the [1987 SIC Manual or the Occupational Health and Safety Administration's site](#):

<http://www.osha.gov/pls/imis/sicsearch.html>

9. If the facility is currently covered under the General Permit, include the WDID number. The WDID number will be used at a later date to terminate the facility's coverage under the General Permit as necessary.

Facility Mailing or Billing Address

Completion of this item is required the facility mailing address or billing address differs from the physical facility address provided above. The Discharger must indicate which address the annual fee invoice must be sent to if the State Water Board is unable to transmit the invoice electronically.

Site Maps

Site maps must be prepared and submitted in accordance with the requirements in Section X.E of this General Permit.

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NEC Checklist

The Discharger must evaluate the eleven major areas that storm water exposure may occur, per the listing at the end of this appendix. The Discharger must be able to certify that none of these major areas have potential for exposure. If the Discharger cannot certify that every one of the eleven major areas do not have exposure, a potential for exposure exists at the facility and the facility is not eligible for NEC coverage. The Discharger must obtain (or continue) NOI coverage under this General Permit if the facility is not eligible for NEC coverage. After obtaining NOI coverage, the Discharger may implement facility modifications to eliminate the potential for a discharge of storm water exposed to industrial activity, and then change their NOI coverage to NEC coverage by certifying the conditions of “No Exposure” are met.

Certification

Federal and state statutes provide for severe penalties for Dischargers that submit false information on the PRDs. Dischargers shall certify and submit PRDs via SMARTS for NEC coverage in accordance with Electronic Signature and Certification Requirements in Section XXI.K of this General Permit.

B. GUIDANCE:

Contact your local Regional Water Quality Control Board (Regional Water Board) office with questions regarding this guidance.

1. Who is Eligible to Qualify for the No Exposure Certification (NEC) - Conditional Exclusion?

All industrial categories listed in Attachment A of this General Permit (excluding construction) are eligible to apply for the NEC coverage.

2. Limitations on Eligibility for NEC Coverage

In addition to construction projects not being eligible, the following situations limit the applicability of NEC coverage:

- a. NEC coverage is available on a facility-wide basis only, not for individual drainage areas or discharge locations. Generally, if any exposed industrial materials or activities exist, or have a potential to exist, anywhere at a facility, NEC coverage is not applicable to the facility. If the Regional Water Board determines that a facility does have exposure or the facility’s storm water discharges have a reasonable potential to cause or contribute to an exceedance of applicable water quality objectives/standards, the Regional Water Board can deny NEC coverage.
- b. If changes at a facility result in potential exposure of industrial activities or materials, the facility is no longer eligible for NEC coverage. Dischargers shall register for NOI coverage under this General Permit prior to a planned facility change that will cause exposure, or within seven (7) calendar days after unplanned exposure occurs. If an unplanned exposure occurs due to an emergency response or one-time event that is unlikely to re-occur, a Discharger may contact the Regional Water Board to discuss whether the requirement to obtain NOI coverage can be waived. Unless the Discharger receives a written waiver from the Regional Water Board, the Discharger shall electronically certify and submit PRDs to obtain NOI coverage.
- c. Current contamination resulting from historic industrial practices at the facility (e.g., soil contamination, groundwater contamination, etc.) represents a

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condition of exposure to waters of the United State; therefore a facility with historic contamination is not eligible for NEC coverage.

dispersion (sawdust, powders, etc.) or being tracked out of the facility, and is not a source of pollutants in the industrial storm water discharges.

3. What is the Definition of No Exposure?

- a. No Exposure means all industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt and/or runoff.
- b. Industrial materials and activities include, but are not limited to, material-handling equipment or activities; industrial machinery; raw materials, intermediate products, by-products, and final products; or waste products.
- c. Material handling activities include storage, loading and unloading, transport, or conveyance of any raw material, intermediate product, by-product, final product, or waste product.
- d. Final products intended to be used outdoors (e.g., automobiles) typically pose little risk of polluting storm water since not typically contaminated with pollutants that become mobilized by contact with storm water. Final products are exempt from the requirement for protection by a storm-resistant shelter to qualify for no exposure. Similarly, containers, racks, and other transport platforms (e.g., wooden pallets) used for the storage or conveyance of final products may also be stored outside if pollutant-free or pollutants do not mobilize via contact with storm water.
- e. Storm-resistant shelters include: (1) completely roofed and walled buildings or structures, (2) structures with only a top cover (no side coverings) supported by permanent supports, provided material within the structure is not subject to wind

4. Industrial Materials/Activities Not Requiring a Storm-Resistant Shelter

The intent of the “No Exposure” exclusion is to maintain a condition of permanent “No Exposure”. A storm-resistant shelter is not required for the following industrial materials and activities:

- a. Drums, Barrels, Tanks, and Similar Containers that are sealed (“sealed” means banded or otherwise secured and without operational taps or valves), are not exposed provided those containers are not deteriorated, do not contain residual materials on the outside surfaces, and do not leak. Drums, barrels, etc., that are not opened while outdoors, or are not deteriorated or leaking, and that do not pose a risk of contaminating storm water runoff. Consider the following when making a “No Exposure” determination:
 - i. Materials shall not be added or withdrawn to/from containers while outdoors
 - ii. Simply moving containers while outside does not create exposure unless exposure occurs when pollutants are “tracked out” by the container handling equipment or vehicles.
 - iii. All outdoor containers shall be inspected to ensure they are not open, deteriorated, or leaking. When an outdoor container is observed as opened, deteriorated, or leaking, the container must immediately be closed, replaced, or sheltered. Frequent detection of open, deteriorated, or leaking containers, or failure to

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immediately close, replace, or shelter opened, deteriorated or leaking containers will cause a condition of exposure.

iv. Containers, racks, and other transport platforms (e.g., wooden pallets) used with drums, barrels, etc., can be stored outside providing they are contaminant-free and in good repair.

b. Above Ground Storage Tanks (ASTs) In addition to generally being considered as not exposed, ASTs may also be exempt from the prohibition against adding or withdrawing material to/from external containers. ASTs typically use transfer valves to dispense materials that support facility operations (e.g., heating oil, propane, butane, chemical feedstock) or fuel for delivery vehicles (gasoline, diesel, compressed natural gas). For operational ASTs to qualify for “No Exposure”, the following must be satisfied:

- i. The tank(s) shall be physically separated from and not associated with vehicle maintenance operations.
- ii. There shall be no leaks from piping, pumps, or other equipment that has the potential to come in contact with storm water.
- iii. Wherever feasible, the tank(s) shall have secondary containment (e.g., an impervious dike, berm or concrete retaining structure) to prevent runoff in the event of a structural failure or leaking transfer valve. Note: any resulting unpermitted discharge is in violation of the CWA.

c. Lidded Dumpsters. Lidded dumpsters containing waste materials, providing the containers are completely covered and nothing can drain out holes in the bottom, spilled when loaded into the dumpster, or

spilled in loading into a garbage truck. Industrial waste materials and trash that is stored uncovered is considered exposed.

d. Adequately maintained vehicles, such as trucks, automobiles, forklifts, trailers or other general-purpose vehicles found onsite - but not industrial machinery that are not leaking, are in good repair or are not otherwise a potential source of contaminants:

i. Vehicles passing between buildings may be exposed to storm water, however if the vehicles are adequately maintained, a condition of exposure may not exist. Similarly, non-leaking vehicles awaiting maintenance at vehicle maintenance facilities are not considered as potential exposure. However, vehicles that have been washed or rinsed that are not completely dry prior to outside exposure have the potential to cause a condition of exposure. Vehicles that track materials out of the facility are considered to be mobilizing pollutants. Vehicles that exit maintenance bays are also considered to cause exposure.

ii. The mere conveyance between buildings of materials / products that are otherwise not allowed to be stored outdoors, does not create a condition of exposure, provided the materials/products are adequately protected from storm water and do not have the potential to be released as a result of a leak or spill.

e. Final products built and intended for use outdoors (e.g., new cars), provided the final products have not deteriorated, are not contaminated, or are not otherwise potential sources of contaminants.

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Types of final products not qualifying for a certification of “No Exposure”:

- i. Products that may be mobilized in storm water discharges (e.g., rock salt).
- ii. Products, which may, when exposed, oxidize, deteriorate, leak, or otherwise be a potential source of contaminants (e.g., junk cars, stockpiled train rails).
- iii. “Final” products that are, in actuality, “intermediate” products. Intermediate products are those used in the composition of yet another product (i.e., sheet metal, tubing, and paint used in making tractors).
- iv. Even if the intermediate product is “final” for a manufacturer and destined for incorporation in a “final product intended for use outdoors,” the product is not allowed to be exposed because they may be chemically treated or are insufficiently impervious to weathering.
- f. Special Conditions for Construction Activities Permanent, uninterrupted sheltering of industrial activities or materials may not always be possible during facility renovation or construction. When such circumstances exist, the Discharger is not required to obtain coverage under an NPDES permit as long as the following conditions are met:
 - i. Materials and activities are protected with temporary covers or shelters (i.e. tarpaulins);
 - ii. Temporary covers or shelters prevent the contact of storm water to materials and activities;
 - iii. Materials are subject to wind dispersion are not stored under temporary sheltering;

- iv. Temporary shelters are only used when necessary during facility renovation or construction and until permanent storm-resistant shelters as described above are available; and,
- v. Temporary shelters are only used for a single period of ninety days or less. (Facilities with construction and renovation projects that will need the use of temporary shelters beyond 90 days, or that will require multiple periods of ninety days or less, are required to be covered by an NPDES permit.)

5. Other Potential Sources of Contaminants

- a. Particulate Emissions from Roof Stacks and/or Vents: Deposits of particles or residuals from roof stacks/vents that have the potential to be mobilized by storm water runoff are considered exposed.
- b. Pollutants Potentially Mobilized by Wind Windblown materials cause a condition of exposure. Materials sheltered from precipitation are be deemed exposed if the materials has a potential to be mobilized by wind.

6. Certifying a Condition of “No Exposure”

To obtain the NEC coverage, the Discharger must electronically certify and submit PRDs via SMARTS that the facility meets the definition of “No Exposure” and pay an annual fee. The Discharger must **submit PRDs for NEC coverage even if the Discharger was not previously required to file for NEC coverage under the previous General Permit**. These PRDs include a checklist requiring the Discharger to evaluate eleven major areas to determine whether there is exposure of industrial activities and materials at the facility. To qualify for NEC coverage the Discharger must satisfy all the NEC coverage conditions in this General

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Permit and certify that there is “No Exposure”. The checklist: 1) aids the Discharger in determining if its facility is eligible for NEC coverage, and 2) furnishes the necessary documentation supporting relief from the General Permit’s requirement of NOI coverage. Additionally, Dischargers with NEC coverage are not required to develop and implement SWPPPs or comply with the monitoring requirements.

If a Discharger cannot certify that there is “No Exposure” at the facility, the Discharger must make appropriate changes at the facility to eliminate exposure prior to registering for future NEC coverage. Facility changes must remove all potential for pollutant exposure to storm water.

An annual inspection and evaluation, re-certification and fee are required thereafter.

7. Other NEC coverage Facts:

- a. NEC coverage is only valid if the condition of “No Exposure” exists and is reasonably expected to continue to exist. Dischargers shall electronically certify and submit PRDs for NOI coverage when the condition of “No Exposure” is no longer expected to exist.
- b. Dischargers must file PRDs for NEC coverage for each qualifying facility.
- c. An NEC must be submitted for each separate facility qualifying for the “No Exposure” conditional exclusion.
- d. An NEC is non-transferable. If a new operator takes over facility operations, the new operator shall electronically certify and submit PRDs and applicable fees for new NEC coverage via SMARTS prior to the operations transfer. NEC coverage cannot be transferred from one physical location to another regardless of ownership.

8. Operators May Be Required to Obtain NOI Coverage Based on the Protection Of Water Quality?

Operators who certified that their facilities qualify for NEC coverage may, nonetheless, be required by the Regional Water Board to obtain NOI coverage if the Regional Water Board determines that the facility’s discharge has the potential to cause or contribute to an exceedance of applicable water quality objectives/standards or determines that exposure exists at the facility. The Regional Water Board may request information and/or inspect the facility to assess potential water quality impacts and to determine if NOI coverage is required. The Discharger shall take appropriate actions to ensure compliance with the General Permit.

9. Steps to Obtain NEC coverage

This section will walk you through the process of obtaining NEC coverage.

Step 1: Determine if your facility is subject to this General Permit (refer to Attachment A of this General Permit). If yes, proceed to Step 2. If not, stop here.

If your facility is included in Attachment A and conducts industrial activities, you are required to **either** register for NOI coverage or NEC coverage.

Step 2: Determine if your regulated industrial activity meets the definition of “No Exposure” and qualifies for the exclusion from permitting. If yes, proceed to Step 3. If no, stop here and obtain NOI coverage. An evaluation of the facility must be conducted by facility personnel familiar with the facility and its operations. Inspect all facility areas and potential pollutant sources to determine whether the facility satisfies the “No Exposure” conditions.

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Step 3: Electronically certify and submit the PRDs for NEC coverage via SMARTS and mail the annual fee to the State Water Board at the following address:

SWRCB
Surface Water Permitting Section
PO Box 1977
Sacramento, CA 95812-1977

To maintain NEC coverage, the NEC must re-certify and pay a fee annually. This may only be done if the condition of “No Exposure” continues to exist at the facility.

Step 4: If requested, staff from the Water Boards, local Municipal Separate Storm Sewer System (MS4), or United States Environmental Protection Agency must be allowed to inspect your facility. All inspection reports will be made publicly available.

Step 5: Maintain a condition of “No Exposure”.

- NEC coverage is not a blanket exemption. Therefore, if facility physical or operational changes occur which cause exposure of industrial activities or materials to storm water, the Discharger must then immediately comply with all the requirements of this General Permit, including obtaining NOI coverage as applicable.
- To maintain the condition of “No Exposure”, the Discharger shall annually evaluate the facility to assure that the conditions of “No Exposure” still exist. More frequent evaluations may be necessary in circumstances when facility operations are rapidly changing.
- Failure to maintain the condition of “No Exposure” or otherwise obtain NOI coverage may lead to the unauthorized

discharge of storm water associated with industrial activity to waters of the United States, resulting in penalties under the CWA and Water Code.

C. FREQUENTLY ASKED QUESTIONS:

Q1. Who is eligible for NEC Coverage?

- A. Any Discharger operating a facility described in Attachment A may register for NEC coverage if their facility has a condition of “No Exposure”.

Q2. How does an eligible Discharger file for NEC coverage and where is the annual fee sent?

- A. The PRDs for NEC coverage shall be electronically certified and submitted in accordance with the instructions provided in [SMARTS at the State Water Board website](https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp) at: <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp>. The fee is currently \$242, but may be changed by regulation. Once NEC coverage is accepted, an invoice will be electronically sent to the Discharger. The annual fee and invoice shall be sent to:

State Water Resources Control Board
Division of Water Quality
Attention: Industrial Storm Water Unit
P.O. Box 1977
Sacramento, CA 95812-1977

Q3. If my facility’s storm water discharges are covered by an individual permit, can I file for NEC coverage?

- A. Yes. Storm water discharges covered by an individual permit are eligible for NEC coverage if the conditions at the facility satisfy the definition of “No Exposure” and you obtain approval to terminate individual permit coverage from the local Regional Water Board prior to PRD

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submittal. Approval from the Regional Water Board is mandatory. Many individual permits, for example, contain numeric storm water effluent limitations ("antibacksliding" provisions may prevent these facilities from qualifying for the "No Exposure" conditional exclusion).

to file for NEC coverage or apply for NOI coverage before the commencement of facility operations will be out of compliance and subject to enforcement.

Existing Dischargers have two options for submitting NECs:

Q4. My facility was originally excluded from the Phase I regulations because it was classified as a "light industrial facility". The facility has never had any exposure to storm water runoff. Do I now need to certify that the facility meets the No Exposure Exclusion from NPDES Storm Water Permitting?

A. Yes. See answer provided to question number 9, "What is the exclusion "conditional" upon?"

Q5. Do I have to file a Notice of Termination (NOT) and a register for NEC coverage if my facility has NOI coverage and qualifies for NEC coverage?

A. No. You are only required to register for NEC coverage. You must provide the WDID# in your NEC coverage PRDs in order for the State Water Board to change permit coverage status.

Q6. When and how often is a NEC coverage re-certification required?

A. Re-certification of NEC coverage is required annually (assuming the facility maintains its "No Exposure" status). The State Water Board will electronically transmit an NEC re-certification and annual fee notification to each facility operator who has filed for NEC coverage.

New Dischargers must register for NEC coverage before the commencement of facility operations. Dischargers that fail

1. Facility operators of "light industrial" facilities who have been operating under their original, no-certification-required permitting exemption must submit the NEC at any time prior to October 1, 2015. Dischargers who have not submitted an NEC or applied for permit coverage by this due date will be considered out of compliance and subject to Water Board enforcement.

2. Dischargers who have NOI coverage may register for NEC coverage at any time following completion of facility changes that result in the condition of "No Exposure".

Q7. What happens if I know of changes that may cause exposure?

A. If exposure has the potential to occur in the near future due to some anticipated change at the facility, the Discharger must obtain NOI coverage to avoid potential enforcement for violations of this General Permit.

Q8. Is the NEC coverage transferable to a new Discharger?

A. No. If a new operator takes over your facility, the new operator must register for new NEC coverage prior to the transfer. A new application fee is required.

Q9. What is the exclusion "conditional" upon?

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A. The exclusion from permit coverage requirements is “conditional” upon the certification of the Discharger that the facility does not have exposure of materials or activities to storm water. PRDs for NEC coverage shall be electronically submitted to the State Water Board and will not be accepted if incomplete. The Regional Water Board may review the information, contact and/or inspect the facility, and invalidate the NEC and require the Discharger to obtain NOI coverage. PRDs are public documents and will be available for public review via SMARTS.

Q10. Can secondary containment around an outdoor exposed area qualify for a condition of “No Exposure”?

A. If secondary containment is engineered to always prevent a discharge of collected rainfall (based on the historical rainfall record) and a simultaneous spill of any other industrial materials or liquids, the “No Exposure” condition may be claimed. Note that there must be proper disposal of any water or liquids collected from the containment (i.e., discharged in compliance with another NPDES permit, treated and discharged to the sanitary sewer, or trucked offsite to an appropriate disposal/treatment facility).

D. NEC CHECKLIST

An NEC Checklist must be prepared by the Discharger demonstrating that: (1) the facility has been evaluated, (2) none of the following materials or activities are, or will be in the foreseeable future, exposed to precipitation, and (3) all unauthorized NSWs have been eliminated:

1. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed;
2. Materials or residuals on the ground or in storm water inlets from spills/leaks;
3. Materials or products from past industrial activity;
4. Material handling equipment (except adequately maintained vehicles);
5. Materials or products during loading/unloading or transporting activities;
6. Materials or products stored outdoors (except final products intended for outside use, i.e., new cars, where exposure to storm water does not result in the discharge of pollutants);
7. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;
8. Materials or products handled/stored on roads or railways owned or maintained by the Discharger;
9. Waste material (except waste in covered, non-leaking containers, i.e., dumpsters);

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10. Application or disposal of processed wastewater (unless already covered by an NPDES permit); and
11. Particulate matter or visible deposits of residuals from roof stacks/vents evident in the storm water outflow.

APPENDIX 3

WATERBODIES WITH CLEAN WATER ACT SECTION 303(D) LISTED IMPAIRMENTS

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES (GENERAL PERMIT)

The 303(d) impairments below are sourced from the 2010 Integrated Report. The rows in red are impairments for which industrial storm water Dischargers subject to this General Permit are not required to analyze for additional parameters unless directed by the Regional Water Board, because these parameters are typically not associated with industrial storm water. Test methods with substantially similar or more stringent method detection limits may be used if approved by the staff of the State Water Board prior to sampling and analysis and upon approval, will be added into SMARTS. The rows that are not in red are impairments for which Dischargers in the 303(d) impaired watershed are required to analyze for additional parameters, if applicable, because these parameters are more likely to be associated with industrial storm water. See General Permit Section XI.B.6.e. In the event that any of the impairments in this appendix are subsequently delisted, the Dischargers with discharges to that watershed are no longer required to analyze for the additional parameters for those impairments, and the provisions for new Dischargers with discharges to 303(d) impaired water bodies contained in Section VII.B of this General Permit no longer apply for those impairments.

[Note: The following information references document functionality which was removed to create a version of this General Permit compliant with the Americans with Disabilities Act.] The Excel spreadsheet containing the water bodies with 303(d) impairments is an attachment to this Appendix 3. To view the attachment from an electronic (pdf) version of this Appendix 3, left-click on the paper clip icon to the left of this pdf file to make the attachment window appear, then left-click on the icon of an Excel spreadsheet. The Excel spreadsheet is also available on the Industrial Storm Water program pages of the [State Water Resources Control Board's website](http://www.waterboards.ca.gov/) (<http://www.waterboards.ca.gov/>)