



California Stormwater Quality Association®

Dedicated to the Advancement of Stormwater Quality Management, Science and Regulation

February 14, 2018

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-2000



Submitted electronically – commentletters@waterboards.ca.gov

Subject: CASQA Comment Letter – Industrial General Permit Amendment

Dear Ms. Townsend:

The California Stormwater Quality Association (CASQA) is writing to comment on the proposed amendment to the General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit or IGP), implementing region-specific total maximum daily load (TMDL) requirements (Proposed Amendment). CASQA understands that the intent of the Proposed Amendment is to revise the Industrial General Permit to add the TMDL related permit requirements, incorporate the new U.S. EPA sufficiently sensitive methods (SSM) analytical testing requirements, and add two compliance options that would be available to industrial Permittees statewide (Attachment I). CASQA also appreciates that this process is multifaceted and complex and have developed the comments and recommendations with this in mind.

CASQA's membership includes broad representation of the entities that will be affected by the Industrial General Permit, including regulated industries, municipalities, stormwater professionals, academics, and attorneys. Since 2016, CASQA has been actively engaged in the public process for the Proposed Amendment to the IGP and has previously provided comments outlining concerns and recommended language changes. During the public review processes conducted by the Regional Water Boards regarding preliminary TMDL proposals, CASQA provided detailed comments to the San Francisco Bay, Los Angeles, Santa Ana, and San Diego Regional Water Boards. Because of those comments, CASQA was invited to participate in stakeholder discussions regarding the concept of "alternative compliance options."

CASQA leaders and members also recently attended the staff workshops in Los Angeles, San Diego, and Sacramento, held the week after the first, full State Water Board proposal was issued (on December 15th). Given that this is the first time the full set of language within the Order, Attachments, and Fact Sheet are available for review (including some language for the first time), CASQA was pleased to hear at the staff workshops and the January 9 State Water Board hearing that State Water Board staff are looking for further input on the language and concepts in the Proposed Amendment.

The TMDL implementation requirements will have a significant fiscal impact on the affected facilities and industries. The Proposed Amendment will result in the first incorporation of TMDLs into the Industrial General Permit, a permit that affects a broad range of California businesses including a diversity of industry types and economic circumstances. CASQA's overarching concerns with the Proposed Amendment to the IGP are summarized below with additional detail provided within the comment package.

CASQA Comments on the Proposed Amendment to the Industrial General Permit

- CASQA would like to work with State Water Board staff over the next few months to ensure that the new TMDL-related permit language is fully integrated into the permit provisions (e.g., Section III, V, VI, VII, Attachment E, Attachment I), is clear so that the industrial Permittees understand the new requirements, and identifies clear compliance pathways so that the industrial Permittees can meet the requirements and protect water quality. (Supported by Comments #1, #3, #11, #12, #13, #21)
- CASQA is concerned that the TMDLs will be interpreted too broadly and applied to more industrial facilities than they should. Not all industrial discharges to an impaired waterbody will be a source of the TMDL-pollutant, the pollutant will not be present as an industrial material, waste, product, or process. Permittees should only be designated as a Responsible Discharger subject to a TMDL if they meet the criteria within the Responsible Discharger definition. (Supported by Comments #6,#14)
- CASQA is requesting additional time to fully review the specific provisions and translation for each of the 37 TMDLs addressed in this Proposed Amendment. This time is necessary to address whether currently available treatment technology can meet the proposed TNALs/NELs, if the Proposed Amendment identifies the key assumptions of each TMDL and if they are interpreted consistent with those assumptions. This includes the State Water Board's proposed incorporation of numeric effluent limits for Permittees covered by several TMDL provisions in Attachment E. (Supported by Comments #2,#19, #20)
- CASQA appreciates the inclusion of the on-site and off-site compliance options and believes that the flexibility of these options within Attachment I is necessary for the implementation of the IGP, will provide long term benefit for water quality, and with further the goals of restoring watershed processes in developed areas. For these options to be a viable there are some aspects and design details that warrant further discussion and refinement. (Supported by Comments #22, #23, #24, #25)

The CASQA comment package includes the following:

- **Attachment A** – General and specific comments. Common redlining formatting is used to indicate suggested changes to permit language (underlined text for additions and strikethrough text for deletions).
- **Attachment B** - Additional editorial comments in table format.
- **Attachment C** – Example compliance determination and process flow charts.

Thank you for your thoughtful consideration of these observations, comments, and recommendations. If you have any questions, please contact CASQA Executive Director Geoff Brosseau at (650) 365-8620.

Sincerely,



Daniel Apt, Chair
California Stormwater Quality Association

Attachment A	CASQA General and Specific Comments on the Proposed Amendment to the Industrial General Permit
Attachment B	CASQA Additional Editorial Comments on the Proposed Amendment to the Industrial General Permit
Attachment C	Example Process Flow Charts

cc: Jonathan Bishop, State Water Board
Karen Larsen, State Water Board
Laurel Warddrip, State Water Board
Shuka Rastegarpour, State Water Board
CASQA Board of Directors, Executive Program Committee, Policy & Permitting Subcommittee, Industrial Subcommittee

ATTACHMENT A

**CASQA General and Specific Comments on the Proposed Amendment
to the Industrial General Permit**

Attachment A
CASQA General and Specific Comments on the Proposed Amendment to the Industrial General Permit

GENERAL COMMENTS

Comment 1 The State Water Board should convene additional stakeholder workshops and working meetings prior to the adoption of the Proposed Amendment to ensure that the permit provisions are fully integrated, clear, and implementable.

The Proposed Amendment has been developed over the past two years, including the following efforts:

- March – May 2016 – Regional Water Boards proposed TMDL implementation language (Regions 2, 4, 8, and 9);
- January – March 2017 – State Water Board staff circulated Conceptual Draft Compliance Options: On-site and Watershed-Based Compliance to a limited stakeholder group; and
- December 15, 2017 – State Water Board issued the full Proposed Amendment to the Industrial General Permit (includes all proposed language, covering 37 TMDLs).

As noted above, CASQA has been fully engaged in the public process for the Proposed Amendment to the IGP and has previously provided detailed comments to the Regional Water Boards and the State Water Board outlining CASQA's support, concerns and recommended language changes.

Although CASQA is very supportive of the compliance options and alternatives, some of the provisions and compliance approaches were presented in the December 15th Proposed Amendment for the first time (e.g., the methodology used to translate TMDL waste load allocations for use in the IGP, the required actions to comply with the TMDL in Attachment E, the design storm and other requirements for the off-site compliance option, additional provisions for TMDL Section VII).

These new provisions and compliance options have a significant impact and need further discussion/development, beyond the written public comment process. Although CASQA has provided detailed comments, for the benefit of achieving long-term successful implementation of the Proposed Amendment, CASQA recommends holding additional workshops/working meetings to ensure that the new provisions and compliance options are clear, fully integrated within the permit, implementable, and have the support of the regulated community.

CASQA Recommendation:

- *CASQA strongly recommends that State Water Board staff continue to work with the stakeholders to further evaluate and refine the language prior to the adoption of the Proposed Amendment. CASQA is requesting additional stakeholder workshops/working meetings to discuss the issues raised within this comment letter, in detail, to ensure that the incorporation of the TMDLs is fully vetted.*

Comment 2 Currently available advanced treatment technology cannot reliably achieve the numeric standards included in the Proposed Amendment to the IGP.

CASQA members recently conducted an evaluation of the ability of currently advanced treatment systems to meet the copper and zinc numeric action levels (NALs) and TMDL numeric action levels (TNALs) to the Los Angeles River and Los Angeles Harbor. The stormwater multiple application and report tracking system (SMARTS) data for these two parameters from Region 4 was used for the evaluation. Data presented for treatment systems represents five different types of systems from 17 sites. **Table 1** below presents the results of the evaluation. In summary, even with the use of currently available advanced treatment system, a significant number of Permittees will not be able to meet the low copper and zinc action levels and effluent limits. This is especially significant for facilities that will not have the ability to infiltrate or capture and use stormwater. As a result, these facilities have no practicable means of meeting the numeric limits with currently available advanced treatment technologies. While this evaluation was limited to two parameters in two water bodies, it is indicative of the overall challenge that permittees will face meeting these low concentrations whether NALs, TNALs, or numeric effluent limits (NELs). However, Permittees subject to NELs face the prospect of mandatory minimum penalties without a practicable technology to treat the stormwater.

Table 1. Summary of Implications of TNAL for Copper and Zinc

	Copper IGP NAL	Copper LA River TNAL ³	Copper LA-LB Harbor TNAL	Zinc IGP NAL	Zinc LA River TNAL	Zinc LA-LB Harbor TNAL
Action Level (mg/L)	0.0332	0.06749	0.00373	0.026	0.159	0.0856
Stormwater Data % meeting (T)NAL	60%	77%	17%	53%	38%	24%
Number of stormwater samples ¹	5570	5,570	5,570	10,717	10,717	10,717
% meeting (T)NAL with advance Treatment	45%	60%	14%	84%	66%	44%
Number of treated stormwater samples ²	182	182	182	203	203	203

¹ Region 4 industrial stormwater results exported on January 31, 2018. ² Dataset represents advanced treatment at 17 sites from 5 different sites of systems.

³ LA River TNAL for copper incorporated the Water Effect Ratio (WER = 3.97).

CASQA Recommendation:

CASQA recommends that the State Water Board re-evaluate the feasibility of meeting each TNAL and NEL proposed given currently available treatment technology. Where it is determined that practicable technologies do not exist, CASQA recommends that the State Water Board use its discretion to express the TMDL requirements as best management practices (BMPs) rather than numeric limits.

Comment 3 The IGP needs a process flow diagram to clearly indicate the steps involved in each of the various compliance pathways.

The Proposed Amendment includes several compliance pathways/requirements, each of which has its own and sometimes different, corresponding monitoring, exceedance assessments, follow up actions, and reporting. The IGP pathways/requirements include:

- Annual NALs;
- Instantaneous NALs;
- TMDL-based IGP requirements;
- TNALs;
- NELs; and
- U.S. EPA Subchapter N Effluent Limit Guidelines (ELGs).

As a result, there is some confusion as to what triggers a requirement and/or what follow up actions needs to be taken to remain in compliance. For example, questions that have been raised within the industrial community include:

- What are the specific requirements if a facility exceeds a TNAL?
- Does the exceedance response action (ERA) Level 1 and 2 processes apply to TNAL exceedances?
- What are the specific requirements if a facility exceeds an NEL?
- If a facility is complying with the Water Quality Based Corrective Action process for an exceedance of an NEL, would they also be required to perform ERAs for the same pollutant?
- What is the trigger for requesting a time schedule order (TSO) from the applicable Regional Water Board?

CASQA Recommendation:

- *In order to provide clarity to the IGP prior to adoption, CASQA recommends that the Proposed Amendment include a process flow diagram to identify the requirements and/or follow up actions for each the various compliance pathways (NALs, IGP, TNALs, and NELs). In addition, CASQA would welcome the opportunity to work collaboratively with State Water Board staff in the development of this flow chart. Example diagrams that provided this type of clarity are available in a 2014 presentation from the State Water Board as well as the current IGP Fact Sheet page 45 or Proposed Amendment Fact Sheet page 128 – Figure 3 Compliance Determination Flow Chart (**Attachment C**).*

Comment 4 The Industrial General Permit should recognize that when an industrial facility is designated as a Responsible Discharger¹ subject to a TMDL and is complying with the Required Actions (Attachment E – TNAL, or NEL), those values replace the corresponding NAL for the same constituent.

The IGP states “The General Permit’s NALs found in Table 2 shall continue to apply to Responsible Dischargers in addition to the TNALs and NELs found in the General Permit Compliance Table” (Finding 51 – Page 9).

In addition, the Fact Sheet states “This General Permit’s NALs found in Table 2 shall continue to apply in addition to the TMDL WLA translations found in the General Permit TMDL Compliance Table.....” (Page 39). It is unclear why the general NALs would apply if there are site specific TNALs or NELs based on an adopted TMDL for the same constituent(s). TNALs and NELs are derived from locally developed and adopted TMDL WLAs, while NALs were more generalized values borrowed from the U.S. EPA Multi Sector Permit benchmark values. In addition, the follow up compliance actions are different for NALs and NELs. The requirement to comply with both generic NAL standards and TMDL-based requirements for the same pollutants adds confusion to the IGP.²

CASQA Recommendation:

- *CASQA recommends that the IGP incorporate language that recognizes that the TMDL-based required actions identified in Attachment E (TNALs or NELs) replace the NAL for the same constituent. This replacement would be appropriate since the industrial Permittees would be complying in a method and manner consistent with the waste load allocation (WLA) and TMDL, which supports attainment of the water quality standards and are generally more stringent than existing NAL values.³ It should be noted that if this recommended modification is accepted, that there would be other language changes needed that are not currently reflected within this comment letter.*
- *Delete Finding 51 (Page 51)*

¹ While CASQA did not modify the terminology Responsible Discharger to Responsible Permittee throughout this comment letter, consistent with Comment #8, CASQA recommends that the term be modified.

² The Proposed Amendment suggests that TNALs and NELs would not replace existing NALs for the same pollutant because the NALs contain annual average values, while TNALs and NELs are instantaneous maximum values. However, CASQA submits that the use of annual averages for NALs was designed to provide flexibility, not additional stringency. The instantaneous NALs, unlike TNALs, were always intended to capture much higher values rarely experienced by IGP facilities, i.e. they are instantaneous for different reasons than are TNALs. See IGP Fact Sheet paras D.5, p. 6 (“Instantaneous maximum NALs target hot spots or episodic discharges of pollutants”), and K.2.b, p. 141-143 (detailed explanation of calculation of instantaneous NALs roughly targeting about highest 10% of reported values).

³ In the few cases where existing NAL values are lower than TNALs or NELs, the basis for the US EPA Benchmarks on which NALs were based does not provide a rationale for using (i.e., requiring exceedance response actions based on) the lower NALs. In all such cases where the same pollutant is analyzed in the NAL and TNAL or NEL, the Benchmarks/NALs are based on water quality criteria or other area water quality standards. The TMDLs are designed to achieve specifically applicable water quality standards for the waterbody, so should supplant the existing NALs. The TMDLs based on total nitrogen are a slightly different case, in that their TNALs and NELs test different forms of nitrogen than the NALs. It is worth discussing whether it is reasonable to supplant the NALs nonetheless.

Comment 5 The Industrial General Permit should refer to “compliance” when referencing a permit section and “attainment” when referencing a TMDL.

Currently the IGP uses the term “compliance” to describe both the permit provisions as well as the TMDL requirements. Instead, the IGP should use the term “compliance” when specifically referencing the IGP or one of its provisions while the term “attainment” should be used when referencing a TMDL or its implementation plan. This language modification would assist the industrial Permittees in understanding that they are to be in “compliance” with the specific IGP permit provisions (including Section VII and Attachment E), but that the “attainment” of a TMDL requires actions from multiple parties who are assigned WLAs and load allocations (LAs) (i.e., not just the industrial Permittees).

CASQA Recommendation:

- CASQA recommends that a global search be conducted in the full permit and fact sheet to identify when the term “compliance” is used and modify the terms as needed. A few examples of recommended modifications are:
 - **Finding 45 (Page 8)**
 - 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.~~
 - **VII. Total Maximum Daily Loads (TMDLs) A.1 (Page 24)**
 - TMDL-specific ~~attainment~~ ~~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
 - **VII. Total Maximum Daily Loads (TMDLs) A.3 (Page 25)**
 - The TMDL-specific requirements are shown in the Permit ~~TMDL Compliance Table X~~, in Attachment E of this General Permit.

Comment 6 Guidance and tools are needed to assist Permittees in determining which TMDLs are applicable to their facility.

The Proposed Amendment incorporates over 30 TMDLs, many of which cover similar constituents in neighboring or downstream waterbodies. Due to the way that the TMDLs are presented in Attachment E, it could be interpreted that Permittees are subject to multiple TMDLs (including those downstream) with different requirements (TNALs/NELs) for the same parameters. The lack of clarity makes it difficult for a Permittee to understand the true impacts of the Proposed Amendment and what they need to do/plan for in order to comply. In addition, when the issue of TMDL applicability was raised in the December 2017 Public Workshops, it was not clear how this issue would be resolved.

For example:

- The Los Angeles and Long Beach Harbors Toxics and Metals TMDL (based on saltwater objectives) and the upstream Los Angeles River and Tributaries Metals TMDL (based on freshwater objectives) both have TNALs for copper, lead, and zinc. Thus, the Proposed Amendment could be interpreted that industrial facilities within this region could be subject to both TMDLs, which poses a conflict since the TNALs are different between the two TMDLs.

In fact, the U.S. EPA Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity⁴ addresses this issue with the following “first water” approach/language:

⁴ https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_finalpermit.pdf

- Section 1.1.4.8 (pages 7-8) and Section 2.2.2 (page 20) [similar language] and “Discharge to an Impaired Water” definition (page A-3 of 11) [similar language]
 - *Note: For the purposes of this permit, your project is considered to discharge to an impaired water if the first water of the U.S. to which you discharge is identified by a state, tribe, or EPA as not meeting an applicable water quality standard, and:*
 - *Requires development of a TMDL (pursuant to section 303(d) of the CWA);*
 - *Is addressed by an EPA-approved or established TMDL; or*
 - *Is not in either of the above categories but the waterbody is covered by pollution control requirements that meet the requirements of 40 CFR 130.7(b)(1).*

For discharges that enter a separate storm sewer system⁵ prior to discharge, the first water of the U.S. to which you discharge is the waterbody that receives the stormwater discharge from the storm sewer system.

Since a comprehensive list of TMDLs by water body and Responsible Dischargers subject to each TMDL cannot easily be developed for the IGP due to the number of facilities throughout the state, clarification needs to be provided in the Proposed Amendment that an industrial facility is only subject to TMDLs for impaired waterbodies that they directly discharge to as defined under a clear definition of “Responsible Discharger.” In addition, although the approach would have to be modified to recognize the small foot print of an industrial facility compared to a municipality, the applicability of the TMDLs for industrial Permittees could generally follow the framework and intent set up by the regions in their TMDL applicability tables (for example, Los Angeles Region – Attachment K⁶ and San Diego Region – Attachment E⁷).

Consistent with this clarification, CASQA also strongly suggests that a mapping tool be developed so that the Permittees are able to clearly identify when they are Responsible Dischargers pursuant to a TMDL.

CASQA Recommendation:

- *CASQA recommends the following modifications:*
 - *Incorporate language in the Responsible Discharger definition similar to the U.S EPA Multi-Sector General Permit that recognizes the “first water” concept.*
 - **Attachment E – List of Existing Total Maximum Daily Loads (TMDLs) Applicable to Industrial Storm Water Discharges (Page 1)**

The following table contains a list of existing TMDLs that are applicable to ~~industrial storm water discharges~~ Permittees identified as Responsible Dischargers.

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 Discharges regulated by this General Permit.
- *The State Water Board should develop a mapping tool that identifies the applicable area for each TMDL so that the Permittees can identify the location of their facility and understand which TMDL(s) they need to comply with. CASQA would be willing to work collaboratively with State Water Board staff in the development and peer review of this mapping tool. The peer review is critical to ensure that the geographic area subject to the TMDL is consistent with the TMDL.*

⁵ Separate storm systems do not include combined sewer systems or sanitary sewer systems. Separate storm systems include both municipal storm sewer systems (MS4s) and non-municipal separate storm sewers.

⁶ https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/la_ms4/Dec5/Order%20R4-2012-0175%20-%20Final%20Attachment%20K.pdf

⁷ https://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/docs/2015-1118_AmendedOrder_R9-2013-0001_AttE.pdf

Comment 7 Extend the effective date of the Proposed Amendment to allow Responsible Dischargers time to update documents and identify/establish the compliance pathway for their facility.

As currently written, the TMDL provisions will become effective when the Proposed Amendment is adopted. However, most of the TMDLs included in the Proposed Amendment were adopted many years ago and are just now being incorporated into the IGP for the first time. In addition, as now described in Attachment E, requirements relating to approximately 78% (29 of the 37) of the TMDLs are effective upon adoption (or effective date) of the Proposed Amendment. As a result, Responsible Dischargers may be deemed immediately out of compliance upon the effective date of the Proposed Amendment. In order to avoid this situation, Responsible Dischargers should be provided with the time necessary to update their stormwater pollution prevention plans (SWPPPs) and Monitoring Implementation Plans (MIPs) and potentially identify on-site or off-site compliance options. Those Responsible Dischargers subject to NELs may also need time to develop the information necessary if a TSO must be requested from the Regional Water Board.

CASQA Recommendation:

- *Extend the Effective Date of the Order Amending the IGP to coincide with the adoption/effective date of the revised/renewed IGP (expected in 2019) or July 1, 2020, whichever is later. The effective date should be timed to begin with the start of the monitoring year, hence the request for July.*

Comment 8 SMARTS should be modified to assist the Responsible Dischargers in tracking TNAL and NEL exceedances.

With the addition of numerous TNALs and NELs to the IGP, CASQA recommends that the State Water Board incorporate TNAL/NEL tracking in SMARTS to assist the Responsible Dischargers in understanding when an exceedance has occurred so that they may engage in the follow up actions as needed.

CASQA Recommendation:

- *Develop new SMARTS modules and make them available prior to the effective date of the Proposed Amendment.*

Comment 9 The IGP should universally refer to the entities who obtain coverage under this permit as Permittee instead of Discharger.

Consistent with the terminology used in other stormwater permits and in support of recognizing stormwater as a resource, CASQA recommends that the State Water Board universally use the term Permittee instead of Discharger when referring to those entities who have obtained coverage under the IGP. CASQA is concerned that the messaging of stormwater as a resource may be confusing to the general public and others if they are, instead, referred to as dischargers. Although CASQA has adopted this revised terminology within this comment letter, there are other, additional modifications that would need to be made to the IGP to fully incorporate this comment.

CASQA Recommendation:

- *Throughout the IGP, modify the term Discharger to Permittee.*

SPECIFIC COMMENTS

I. FINDINGS

Comment 10 Throughout the permit include reference to TNALs wherever NALs are identified and revise findings to incorporate references to the TNALs.

The Proposed Amendment must include language that clearly establishes that the actions Responsible Dischargers will take in response to an exceedance of a TNAL follow the same processes and procedures as those followed for a NAL exceedance. It is important to ensure that the intent is not misinterpreted in the future.

CASQA Recommendation:

- CASQA recommends the following modifications:
 - **Finding 76 (Page 13)**

This General Permit contains annual and instantaneous maximum NALs and instantaneous maximum TNALs. 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. Instantaneous maximum TNALs were derived from Regional Water Board adopted TMDLs. An NAL/TNAL 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 ~~(for Total Suspended Solids, and Oil and Grease), or are outside of the instantaneous maximum NAL/TNAL range (for pH)~~ listed in Table 2 or Table E.1 of this General Permit. For the purposes of this General Permit, the reporting year is July 1 through June 30.*
 - **Finding 80 (Page 14)**

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 Permittee'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 Permittees 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.
 - **Finding 82 (last sentence – Page 14)**

... The standards are intended to eliminate the need for most Dischargers Permittees to further treat/control industrial storm water discharges that are unlikely to contain pollutant loadings that exceed the NALs/TNALs set forth in this General Permit.

II. ORDER AND ATTACHMENTS

Comment 11 Include language within the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations to clearly cross reference the TMDL requirements and the Compliance Options.

CASQA appreciates that the Proposed Amendment incorporates some language that establishes a direct linkage between the Discharge Prohibitions (Section III), Effluent Limitations (Section V), Receiving Water Limitations (Section VI), the TMDL requirements (Section VII and Attachment E), and the Compliance Options in Attachment I.

This language is important to recognize that exceedances of water quality objectives may persist while the TMDL is being implemented and to specify how the Permittees demonstrate compliance with these provisions. However, CASQA recommends that this language be fully incorporated into the IGP so that the Sections are explicitly linked and not interpreted as stand-alone Permit provisions.⁸

CASQA Recommendation:

- CASQA recommends the following modifications:
 - **III. Discharge Prohibitions (Page 22)**
 - 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.
 -
 - 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.
 - ...
 - A Permittee may satisfy discharge prohibitions III.A, III.C, and III.D by complying with Section VII and Attachment E and/or Attachment I, as applicable.
 - **V. Effluent Limitations (Pages 23-24)**
 - A. ~~Dischargers~~ Permittees 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.
 - ...
 - C. ~~Dischargers~~ Permittees identified as Responsible Dischargers pursuant to Attachment E 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~~ as set forth in Attachment E Section VII.
 - **VI. Receiving Water Limitations (Page 24)**
 - A. ~~Dischargers~~ Permittees 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.
 - ...
 - A Permittee may satisfy this Section by complying with Section VII and Attachment E and/or Attachment I, as applicable.

⁸ NRDC, Inc. v. County of Los Angeles, 673 F.3d 880 (9th. 2011).

- **VII. Total Maximum Daily Loads (TMDLs) (Pages 24-26)**
(New F – combining the existing F and G) A Responsible Discharger is in compliance with the Discharge Prohibitions (III.A, III.C, and III.D), Effluent Limitations (V.A and V.C), and Receiving Water Limitations (VI) for the water body-pollutant combination addressed by the TMDL if they are in compliance with one the following:
 - An NEL for the TMDL as required in Attachment E; or
 - The provisions for reporting and Exceedance Response Actions relating to a TNAL for a TMDL as required in Attachment E and Section XII; or
 - The Responsible Discharger is complying with the General Permit as required in Attachment E.

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

~~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 TMDL.~~

- **Attachment I – I. General Provisions (Page 1)**
(New B – combining the existing B and C)
~~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).~~
~~CB. A Discharger Permittee 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.A, III.C, III.D;
 2. Effluent Limitations, Section V.A and V.C;
 3. Receiving Water Limitations, Section VI;
 4. TMDL-related Provisions, Section VII; and
 5. Exceedance Response Actions, Section XII.

Comment 12 The Proposed Amendment must include language that identifies the TMDL compliance pathways.

Although the Proposed Amendment includes the flexibility of the Compliance Options in Attachment I, the language is unclear regarding how compliance with TMDL-related provisions in Attachment E will be determined. To address this issue, CASQA recommends incorporating a framework and language similar to that which was used in the recently adopted Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit as well as other stormwater permits that explicitly identify how compliance is determined and what pathways may be utilized. This language would provide clarity and flexibility for the Responsible Dischargers as well as State and Regional Water Board staff.

CASQA Recommendation:

- *In order to provide regulatory certainty and clarity to the IGP, CASQA recommends the following:*
 - **VII. Total Maximum Daily Loads (TMDLs)**
(New) Demonstration of Compliance

Attachment E contains the TMDL-specific permit requirements for the applicable Responsible Dischargers, consistent with the assumptions and requirements of the corresponding TMDL WLAs. Compliance with the TMDL-specific permit requirements may be demonstrated as specified below.

a) General Permit Required Actions

- a. A Responsible Discharger is deemed in compliance if there is timely implementation of the General Permit requirements; or
- b. The Responsible Discharger is deemed in compliance if there is timely implementation an on-site compliance option or has entered into an agreement for and is actively participating in an off-site compliance option (Attachment I).

b) TMDL – Numeric Action Level (TNAL) or Numeric Effluent Limit (NEL)

A Responsible Discharger is deemed in compliance if one or more of the criteria below are met:

- a. Receiving water monitoring and analysis by the Responsible Discharger or other Permittees under the TMDL, as approved by the Regional Water Board or its designee, demonstrates attainment of the applicable water quality standard in the waterbody; or
- b. Receiving water monitoring does not demonstrate attainment of the applicable water quality standard in the waterbody, but the Responsible Discharger demonstrates that they are not causing or contributing to the exceedances; or
- c. The Responsible Discharger is meeting the applicable TNAL or NEL; or
- d. The Responsible Discharger is not meeting the applicable TNAL or NEL, but demonstrates that other, uncontrollable factors are resulting in the excursion; or
- e. Where a TNAL or NEL or the TMDL is expressed as a mass-based value, the Responsible Discharger demonstrates, through an approach approved by the Regional Water Board or its designee, that the facility is meeting either the mass-based value or a corresponding concentration-based value; or
- f. Where a TNAL or NEL is expressed as the number of allowable exceedance days, the Responsible Discharger demonstrates, through an approach approved by the Regional Water Board or its designee, that the Responsible Discharger's discharge conforms to the allowable exceedance days; or
- g. The Responsible Discharger demonstrates, in a manner approved by the Regional Water Board or its designee, that no discharges from the facility to the applicable water body occurred during the relevant time period; or
- h. The Responsible Discharger demonstrates the attainment of the TNAL or NEL through other factors as described by the specific TMDL(s) and as approved by the Regional Water Board or its designee; or
- i. The Responsible Discharger is timely implementing an on-site compliance option or has entered into an agreement for and is actively participating in an off-site compliance option (Attachment I); or
- j. For TNALs Only – the Responsible Discharger is following the Exceedance Response Action requirements (Section XII) if a discharge exceeds a TNAL; or
- k. For NELs Only – the Responsible Discharger is following the Water Quality Based Corrective Action requirements (Section XX.B) if a discharge exceeds an NEL.

- **Attachment E**
Compliance with the TMDL required actions in Table E-2 shall be determined through the criteria listed in Section X (reference the section proposed above).

Comment 13 The Proposed Amendment must include language that identifies the compliance pathway if the TMDL final attainment date has passed.

Similar to other recently adopted stormwater permits such as the Phase II Small MS4 General Permit, the IGP should include language that identifies the compliance pathway for the Responsible Dischargers if the TMDL final attainment date has passed. Although the Fact Sheet has language about the use of Time Schedule Orders (TSOs) and what is required for the submittal, the Permit does not contain any corresponding language. The Fact Sheet (Pages 26-27) states:

“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 within 45 days of adoption of this General Permit amendment, or no less than 90 days prior to the final compliance deadline if after adoption of this General Permit amendment, request a time schedule order pursuant to California Water Code section 13300 for the Regional Water Board’s consideration.”

This language would provide clarity for the Responsible Dischargers as well as State and Regional Water Board staff. In addition, because this is the first time that the TMDLs have been incorporated into the IGP, additional time should be provided to the Permittee to develop the information that would be necessary to submit to the Regional Water Board when requesting a TSO.

CASQA Recommendation:

- *In order to provide regulatory certainty and clarity to the IGP, CASQA recommends the following:*
 - **Fact Sheet (Pages 26-27)**
3. Time Schedule Orders
Where a Discharger Permittee believes that additional time to comply with TMDL-based requirements in Attachment E is necessary, a Discharger Permittee may within 45 120 days of adoption effective date of this General Permit amendment, or no less than 90 days prior to the final compliance deadline if after adoption of this General Permit amendment, request a time schedule order pursuant to California Water Code section 13300 for the Regional Water Board’s consideration.
 - **VII.E. (Page 26)**
Responsible Dischargers with a NEL exceedance are in violation of this General Permit and must comply with the Water Quality Based Corrective Action, as defined in this General Permit in Section XX.B or request a time schedule order (TSO) from the Regional Water Board in accordance with Section XX (see edit below).....
 - **VII. Total Maximum Daily Loads (TMDLs)**
(New) TMDL Final Attainment Date has Passed
Where a TMDL final attainment date has passed and the Responsible Discharger has not demonstrated compliance as specified in Section XX above, the Responsible Discharger may seek a time schedule order (TSO) pursuant to Water Code section 13300 from the Regional Water Board. Responsible Dischargers may either individually request a TSO or may jointly request a TSO with other Responsible Dischargers subject to the TMDL in Attachment E.
Where a Permittee believes that additional time to comply with TMDL-based requirements in Attachment E is necessary, a Permittee may, within 120 days of the effective date of the Permit amendment, or no less than 90 days prior to the final compliance deadline if after adoption of this Permit amendment, submit a formal request for a TSO to the Regional Water Board.

Between a Permittee's request and timely approval of the request, the Permittee will be deemed in compliance with Attachment E. A Permittee that is timely implementing a duly approved TSO shall be deemed in compliance with Attachment E.

A request to the applicable Regional Water Board for a TSO shall include the following information:

- a) Available data demonstrating the current quality of the discharge(s) in terms of the applicable NEL or TNAL for the target pollutant(s) subject to the TMDL;
- b) A description and chronology of structural controls and source control efforts carried out by the Responsible Discharger to reduce the pollutant load in the discharges to the receiving waters subject to the TMDL;
- c) Justification of the need for additional time to achieve the requirements;
- d) The specific actions the Responsible Discharger will take in order to meet the TMDL-based requirements in Attachment E and a time schedule of interim and final deadlines proposed to implement those actions. The actions will reflect the requirements specified for the TMDL in Attachment E;
- e) A demonstration that the time schedule requested is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the TMDL-based requirements in Attachment E.

It is not the intention of the State Water Board or the Regional Water Boards to bring an enforcement action for non-attainment of a TMDL-based requirement in Attachment E where:

- a) A Responsible Discharger is in compliance with a TSO's implementation requirements and compliance schedule;
- b) A Responsible Discharger has in good faith requested a TSO from the Regional Water Board and is in compliance with all other permit requirements, except the applicable TMDL-based requirements in Attachment E by the final attainment deadline;
- c) A Regional Water Board has initiated proceedings to revise the TMDL to provide additional time for compliance or to modify TMDL wasteload allocations and the Responsible Discharger is in compliance with all other permit requirements, except the TMDL-based requirements in Attachment E by the final attainment deadline.

Comment 14 **Maintain consistency with the IGP framework and pollutant source assessment process and only identify facilities as Responsible Dischargers subject to a TMDL if the TMDL pollutant is identified as an industrial pollutant at the facility with the potential to be exposed to storm water and is located within the corresponding drainage area to the impaired water body.**

The IGP applies to a wide variety of industrial facilities that have different industrial pollutant sources specific to their operations. As a result, the IGP recognizes that not all potential industrial pollutants are present in the industrial operations of all facilities with the potential to be exposed to storm water and requires Permittees to conduct a pollutant source assessment of the industrial operations and materials and wastes at their facility (X.G). Based on this assessment, BMPs are selected and implemented (X.H) and a monitoring program (X.I) is designed for the industrial pollutants identified. This process of identifying and linking the presence and potential exposure of industrial pollutants to a specific facility is fundamental to the IGP and allows industrial Permittees to focus efforts on those industrial pollutants.

Similarly, the TMDL sections of the IGP should recognize that not all industrial facilities in a drainage area with an impaired waterbody or adopted TMDL will necessarily be a source of that specific impairment/TMDL-pollutant since

the pollutant may not be present as an industrial material, waste, product, or process. As such, an industrial facility should only be recognized as a Responsible Discharger pursuant to a TMDL if their pollutant source assessment identified the TMDL pollutant and their facility resides within the drainage area of the corresponding water body. If this modification is not made, the basis for the TMDL-based requirements will be fundamentally different than the basis for the other IGP-based permit requirements.

CASQA Recommendation:

- CASQA recommends that the TMDL language be modified to be consistent with the industrial pollutant source assessment process and limit the application of the pollutant specific TMDL-based requirements to those IGP facilities that are in the corresponding drainage area and identify the presence of the TMDL pollutant(s) as a part of the pollutant source assessment. This modification will provide much needed clarity as to when a facility is subject to a TMDL.

Recommended modifications include the following:

- **V. Effluent Limitations (Page 24)**
~~C. Dischargers~~ Permittees identified as a Responsible Dischargers pursuant to Attachment E 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 as set forth in Attachment E-Section VII.
- **VII. Total Maximum Daily Loads (TMDLs) (Page 24)**
(New) A.4 - The TMDL-specific permit requirements apply to those Permittees identified as Responsible Dischargers pursuant to Attachment E.
- **Attachment C – Glossary (Page 6)**
Responsible Discharger
A Discharger Permittee with Notice of Intent (NOI) coverage under this General Permit who:
 - a) Through the pollutant assessment process, ~~has~~
 - i. identified the TMDL pollutant as a parameter under X.G.2.d.2 ; or
 - ii. found that the TMDL pollutant is a parameter the facility is required to monitor under XI.B.6 and is associated with potential industrial pollutant sources at the facility and exposed to stormwater or NSWd; and
 - b) ~~Discharges storm water associated with industrial activities (and Authorized NSWds) to impaired waterbodies or to an upstream reach or tributary to impaired waterbodies either directly to, or through a municipal separate storm sewer system (MS4) which conveys the discharge to, an impaired waterbody with a included in a U.S. EPA developed or approved TMDL.~~
- **Attachment E – List of Existing Total Maximum Daily Loads (TMDLs) Applicable to Industrial Storm Water Discharges (Page 1)**
The following table contains a list of existing TMDLs that are applicable to ~~industrial storm water discharges~~ Permittees identified as Responsible Dischargers.
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....
- Consistent with this comment, CASQA also proposes the following modifications to the language referencing the identification of the pollutant source assessment and monitoring for TMDL pollutants.
 - **X.G.2.a.ix - Minor clarifying edit (Page 33)**
The identification of the industrial pollutants for the facility 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.

- **XI.B.6.c – Minor clarifying edit (Page 44)**
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. These additional parameters may be modified (added or removed) in accordance with any updated SWPPP pollutant source assessment. Test methods with lower detection limits may be necessary when discharging to receiving waters with 303(d) listed impairments or TMDLs;

Comment 15 Include TMDL compliance and a SWPPP performance standard for Responsible Dischargers.

Section X.C of the IGP identifies performance standards for the SWPPP. To emphasize the new requirements, compliance with the TMDLs should be added as a performance standard for the SWPPP.

CASQA Recommendation:

- CASQA recommends that a fourth item be added to this section regarding TMDL compliance.
 - **X.C SWPPP Performance Standards (Page 29)**
 1. ~~The Discharger~~ Permittee 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;~~;~~ and
 - d. Responsible Dischargers shall identify and describe applicable TMDLs, associated industrial pollutants, BMPs implemented to reduce or prevent TMDL pollutants in industrial storm water discharges and authorized NSWDS, and monitoring of those pollutants.

Comment 16 Revise Section XI.B Monitoring Implementation Plan to address monitoring methods for TNALs.

Minor changes have been made to update Section X.I Monitoring Implementation Plan to address TNALs and the SSM amendments. However, a list of appropriate analytical methods has not been developed for the TNALs or NELs as they were for the NALs.

Several provisions direct Permittees to contact the Regional Water Board to determine the appropriate analytical method for any parameter not listed in Table 2. The new language in the permit (XI.B.10, XI.B.11, etc.) requiring SSMs provides sufficient guidance for Permittees in identifying analytical methods without the need to consult with the Regional Water Board. Consultation with the State Water Board or Regional Water Board should be reserved for those situations where SSMs do not exist to achieve the TNAL or NEL.

CASQA Recommendation:

- Given the number of Permittees that will be subject to the TNALs and NELs, CASQA recommends that the State Water Board develop and include a list of appropriate analytical methods in Attachment E and reference it in Section XI.B.6.e and XI.B.7. Additionally, the following language changes to Section XI.B.6 are recommended to avoid confusion as the revised language in XI.B.10 addresses the need to select methods with sufficiently sensitive minimum levels and method detection limits. These changes assume a list has not been developed. If a list of analytical methods has been developed for the TNALs or NELs, the language should be modified accordingly.

o **XI.B Sampling and Analysis (Page 43)**

6. ~~The Discharger Permittee shall analyze all collected samples for the following parameters:~~

...

~~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 and Attachment E. 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. Additional For discharges subject to Subchapter N, additional parameters specifically required by Subchapter N. If the discharge is subject to ELGs, the Dischargers shall contact the Regional Water Board to determine appropriate analytical methods for parameters not listed in Table 2 below.~~

o **XI.B Sampling and Analysis (Pages 44-45)**

10. ~~The Discharger-Permittee 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 or by the Regional Water Board. The Permittee shall contact the State Water Board or Regional Water Board to determine appropriate analytical test methods for parameters listed in Attachment E for which there are no approved analytical methods capable of detecting and measuring the pollutants at, or below, the TNAL or NEL.~~

Comment 17 Clarify that Responsible Dischargers are eligible for exceptions identified in Section XI.C including alternate discharge location, representative sampling reduction, qualified combined samples, sample collection and visual observation exceptions, and sample frequency reduction.

Section XI.C provides for several exceptions to the monitoring methods required by the IGP that allow a facility to make adjustments based on site specific conditions, safety factors, and provide for cost efficiencies in sampling and analysis. It appears that these provisions would equally apply to Responsible Dischargers, however this is not stated. The term TNAL has been inserted into one location - XI.C.7.g in connection with losing the sample frequency reduction certification.

CASQA Recommendation

- To provide greater clarity CASQA recommends the following modifications:

o **C. Methods and Exceptions (Pages 48-51)**

1. ~~The Discharger-Permittee shall comply with the monitoring methods in this General Permit and Attachment H. The methods and exceptions identified in this section also apply to Permittees subject to NALs, TNALs, and NELs.~~

...

7.g. ~~A Discharger Permittee loses its Sampling Frequency Reduction certification if an NAL/TNAL or NEL exceedance occurs (Section XII.A).~~

Comment 18 Revise Section XII.A to reference the TNAL values in Attachment E, Table E.1.

Section XII.A provides direction regarding the exceedances of NALs and TNALs, however the amended text only references Table 2 (where the NALs are defined). CASQA recommends that this section be revised to reference the TNALs. If the recommended modifications are made, footnote 20 is no longer needed because the text would identify that TNALs are instantaneous maximum values.

CASQA Recommendation:

- CASQA recommends the following modifications:

- **XII.A. (page 52)**

The ~~Discharger Permittee~~ shall perform sampling, analysis and reporting in accordance with the requirements of this General Permit and shall compare the results to NALs/TNALs in Table 2 and Table E.1 ~~The two types of NAL values in Table 2 to determine whether either type of NAL/TNAL has been exceeded for each applicable parameter.~~²⁰ ~~The two types of potential NAL exceedances are as follows:....~~

2. Instantaneous maximum NAL/TNAL exceedance: The ~~Discharger Permittee~~ 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/TNAL values in Table 2 (NALs) or Table E.1 (TNALs). 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 ~~(for TSS and O&G) or are outside of the instantaneous maximum NAL/TNAL range for pH.~~

²⁰ ~~TNALs are implemented as instantaneous maximum values. Annual exceedances are not applicable to TNALs.~~

III. ATTACHMENT E – LIST OF EXISTING TMDLS APPLICABLE TO INDUSTRIAL STORM WATER DISCHARGES

Comment 19 The incorporation of the NELs into Attachment E should follow the federal regulatory process governing the derivation of water quality based effluent limits⁹.

It appears that the State Water Board staff did not follow the federal regulatory process governing the derivation of water quality based effluent limits (WQBELs). As a result, the NELs incorporated into Attachment E are not derived and tailored to regulate the varied discharges that may be permitted under the IGP.

In determining whether WQBELs must be implemented for a specific pollutant, regulations require a Reasonable Potential Analysis (RPA) using "procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water." 40 CFR § 122.44(d)(1)(ii); see also, *Divers' Env'l Cons.Org. v. SWRCB* (2006) 145 Cal. App.4th 246, 253-54 (describing RPA and procedures required when setting WQBELs).

However, the Proposed Amendment substitutes the technical analysis used to establish WLAs both for the required RPA and consideration of factors specified by the regulations in deriving the numeric value for each WQBEL (Fact Sheet, pp. 48-81). The purpose of and process for establishing TMDLs and WLAs is different than the purpose of and process for an RPA analysis (Findings 45-47).

⁹ Although the IGP states that TNALs are not effluent limits (Attachment C Glossary and Fact Sheet) the TNALs in the IGP have been translated from the TMDL WLAs (which are water quality-based values). As such, it seems that the process for incorporating and deriving the TNALs should also follow the federal regulatory process.

The process for conducting an RPA and deriving WQBELS is primarily focused on the quality of the regulated facility's effluent being discharged and consideration of the factors specified in 40 CFR section 122.44(d)(1)(ii):

- i. Effluent variability information such as history of compliance problems and toxic impacts;
- ii. Point and nonpoint source controls such as existing treatment technology, the type of industry, publicly owned treatment works (POTW) treatment system, or, BMPs in place;
- iii. Species sensitivity data including in-stream data, adopted water quality criteria, or designated uses; and
- iv. Dilution information such as critical receiving water flows or mixing zones. See NPDES 2010 Permit Writer's Manual at 6-30.

Pursuant to the regulations, WQBELS may be expressed as BMPs in lieu of numeric limits. BMPs to control or abate the discharge of pollutants are expressly authorized under 402(p) for control of storm water discharges or when NELs are infeasible. 40 CFR 122.44(k)(2), (3); see *Cmtys. for a Better Env't v. State Water Res. Control Bd.* (2003) 109 Cal. App. 4th 1089, 1105 (NPDES permit did not have to contain a numeric WQBEL even where numeric water quality standards were effective); *Divers, supra*, at 258, 260 (BMPs under 40 CFR section 122.44(k)(2) are WQBELS, which the permitting authority may impose for control of industrial storm water discharges); see IGP Finding 42 (acknowledging BMPs are authorized under section 122.44(k)(3) because *numeric effluent limitations are infeasible*); see also IGP Fact Sheet, pp. 1-2, 19-20; Finding 39.

"The permitting authority's decision as to how to express the WQBEL(s), either as numeric effluent limitations or as BMPs, with clear, specific, and measurable elements, should be based on an analysis of the specific facts and circumstances surrounding the permit, and/or the underlying WLA, including the nature of the storm water discharge, available data, modeling results, and other relevant information." USEPA, Memorandum, "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs,'" (Nov. 26, 2014) (EPA 2014 Memo), p. 6.

Consistent with Comment #2, Permittees will be discouraged from investing in expensive capital upgrades such as Advanced Treatment Systems if those BMP technologies cannot comply with NELs and, therefore, cannot guarantee permit compliance. The State Water Board should reevaluate the NELs in light of all regulatory factors, and reconsider using BMP-based compliance appropriate for stormwater discharge and receiving water conditions as WQBELS for implementation of the TMDLs in the IGP.

CASQA Recommendation:

- CASQA recommends that the State Water Board reevaluate the NELs in light of all regulatory factors, and reconsider using BMP-based compliance appropriate for stormwater discharge and receiving water conditions as WQBELS for implementation of the TMDLs in the IGP.

Comment 20 The TMDL language and requirements in Attachment E should be consistent with the adopted Basin Plan Amendments.

Where a TMDL has been approved, National Pollutant Discharge Elimination System (NPDES) permits must contain effluent limitations and conditions consistent with the requirements and assumptions in the TMDL. (40 CFR 122.44(d)(1)(vii)(B).) The Fact Sheet for the Proposed Amendment (Pages 40-42) identifies the criteria used to analyze and translate the existing TMDL WLAs into narrative or numeric effluent limitations as presented within Attachment E. The categories and criteria that were used include:

- Comply with the IGP
 - The TMDL does not assign a WLA specific to industrial stormwater discharges; or
 - The TMDL contains a WLA that translates to a less stringent TNAL than the NAL value in Table 2 of the IGP.
- TNALs
 - The TMDL has a final attainment date that is beyond the term of the IGP; or

CASQA Comments on the Proposed Amendment to the Industrial General Permit

- Concentration-based WLAs or numeric targets applicable to industrial stormwater discharges – compliance location in receiving water; or
- Mass-based WLAs applicable to industrial stormwater discharges that cannot be translated – apply concentration based numeric targets instead
- NELs
 - The TMDL has concentration-based WLAs specifically assigned to industrial stormwater discharges at the point of discharge.

CASQA is concerned that there are reinterpretations of language and/or discrepancies between the adopted TMDL Basin Plan Amendments (BPAs) and the language included within the Proposed Amendment Attachment E. These reinterpretations and inconsistencies negate the Basin Planning processes that occurred to establish the TMDLs and contradict the intent for how the TMDLs should be incorporated into the IGP. After incorporation into a Basin Plan, TMDLs generally constitute the “program of implementation needed for achieving water quality objectives.”¹⁰ Therefore, the IGP provisions (Attachment E) must be consistent with applicable Basin Plan(s).

Although CASQA has not had time to review all 37 TMDLs in depth (many of which have multiple waterbodies and multiple pollutants including roughly 60 pages of supporting information within the Fact Sheet), specific examples of inconsistencies are provided below. Some general observations include the following:

- Several of the TMDLs within Attachment E do not appear to meet the criteria established in the IGP Fact Sheet for inclusion in the permit and/or the compliance pathway (IGP, TNAL, or NEL) – specific examples are provided below.
- There are TMDLs within Attachment E that do not specifically identify industrial stormwater discharges as a source and/or assign a WLA.
- There are instances where the TNAL or NEL is less stringent than the NAL value in Table 2 of the IGP, however compliance with the IGP is not listed as the Required Action.
- The approach for using a concentration-based WLA in lieu of the assigned mass-based WLAs does not appear to be consistent and/or always based within the TMDL analysis.

San Francisco Regional Water Quality Control Board

- Walker Creek - Mercury TMDL
 - Industrial stormwater discharges are not identified as sources or assigned a WLA.
 - The Fact Sheet does not identify why industrial stormwater Permittees were identified as Responsible Parties pursuant to this TMDL
 - **CASQA Recommendation: remove this TMDL from the IGP**

Los Angeles Regional Water Quality Control Board (Note: CASQA is still reviewing the incorporation of the Los Angeles Region TMDLs into the IGP)

- Machado Lake – Toxics
 - The TMDL states that WLAs are applied with a 3-year averaging period. As such, the WLA translations to NELs is inconsistent with the TMDL.
 - **CASQA Recommendation: re-evaluate the incorporation of this TMDL**
- Machado Lake – Nutrients
 - The translation to NELs seems inconsistent with translations of other nutrient TMDLs which state that the "30-day average WLA is not appropriate to assign to Responsible Dischargers because storm water is an intermittent discharge and a 30-day averaging period is for measuring chronic effects."
 - **CASQA Recommendation: re-evaluate the incorporation of this TMDL**

¹⁰ Water Code § 13050(j).

Santa Ana Regional Water Quality Control Board

- San Diego Creek and Newport Bay – Toxics (Cd, Cu, Pb, Zn, Hg, Cr)
 - San Diego Creek
 - It is unclear how the WLAs in TMDL Table 5-6 (page 47¹¹), which are based on four different flow tiers and hardness values, were translated into the IGP
 - Currently the Fact Sheet only provides a translation for the large flow tier (>815 cfs in San Diego Creek and a hardness of 197 mg/L)
 - If a different flow tier and corresponding hardness were used the TNALs may be less than the NAL, which would place it in the “General Permit” category – in fact, since the TNAL for cadmium is less stringent than the NAL, “General Permit” should be the designated category for this metal
 - It is unclear where compliance with the WLA is measured
 - Newport Bay – Upper and Lower
 - It is unclear if the mass-based WLAs in TMDL Table 5-7a or the concentration-based WLAs in TMDL Table 5-7b should apply to industrial Permittees (page 49¹²)
 - Several of the translated NEL values are less stringent than the NALs
 - It is unclear where compliance with the WLA is measured
 - Rhine Channel – Lower Newport Bay
 - Although the WLAs (TMDL Table 7-4¹³ page 67) are mass-based, it is unclear why the mercury concentration-based TNAL value was derived from Table 2 of the IGP and why the chromium TNAL was derived from the California Toxics Tule (CTR) (instead of from the TMDL)
 - If the mercury TNAL is an annual average instead of an instantaneous maximum, this should also be clarified in the permit.
 - **CASQA Recommendation: Evaluate translation of this TMDL with State Water Board staff**

San Diego Regional Water Quality Control Board

- Shelter Island Yacht Basin – Dissolved Copper
 - It is unclear if marina owner/operators or underwater hull cleaners are subject to the IGP (they may be subject to Standard Industrial Code (SIC code) 44xx). If they are, then clarification should be provided as to whom, specifically, is a Responsible Discharger pursuant to this TMDL.
 - **CASQA Recommendation: provide clarification as to the type of facilities subject to the TMDL**
- Baby Beach in Dana Point Harbor and Shelter Island Shoreline Park in San Diego Bay – Indicator Bacteria TMDL
 - Industrial stormwater discharges are not identified as sources or assigned a WLA.
 - The Fact Sheet does not identify why industrial stormwater Permittees were identified as Responsible Parties pursuant to this TMDL
 - **CASQA Recommendation: remove this TMDL from the IGP to avoid unnecessary confusion and costs associated with re-evaluation of the program and the need to update SWPPP.**
- Chollas Creek – Diazinon TMDL
 - Industrial stormwater discharges are not identified as sources or assigned a WLA.
 - The Fact Sheet does not identify why industrial stormwater Permittees were identified as Responsible Parties pursuant to this TMDL

¹¹ https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/sd_crk_nb_toxics_tmdl/summary0602.pdf

¹² https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/sd_crk_nb_toxics_tmdl/summary0602.pdf

¹³ https://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/sd_crk_nb_toxics_tmdl/summary0602.pdf

- **CASQA Recommendation: remove this TMDL from the IGP to avoid unnecessary confusion and costs associated with re-evaluation of the program and the need to update SWPPP.**
- Rainbow Creek – Nutrient and Phosphorous TMDL
 - Industrial stormwater discharges are not identified as sources or assigned a WLA.
 - The Fact Sheet does not identify why industrial stormwater Permittees were identified as Responsible Parties pursuant to this TMDL
 - The Fact Sheet states “This TMDL does not identify industrial stormwater discharges as a source of impairment. Therefore, TMDL-related requirements are not applicable to Dischargers enrolled under this General Permit” (Page 49)
 - **CASQA Recommendation: remove this TMDL from the IGP to avoid unnecessary confusion and costs associated with re-evaluation of the program and the need to update SWPPP.**

CASQA Recommendation:

- *CASQA would like to fully review the “translations of the TMDL WLAs” into the IGP and work with State Water Board staff to ensure that the TMDL permit-related requirements are consistent with the requirements and assumptions in the TMDL.*
- *For the specific TMDLs identified above, implement the proposed recommendations.*

IV. ATTACHMENT I – COMPLIANCE OPTIONS

As noted previously, CASQA appreciates the inclusion of the on-site and off-site compliance options and believes that the flexibility of these options is necessary for the implementation of the IGP, will provide long term benefit for water quality, and will further the goals of restoring watershed processes in developed areas. In addition, these options further support the implementation of multi-benefit projects and the ability to use stormwater as a resource as envisioned by the State Water Board’s Storm Water Strategy (STORMS) and the Stormwater Resource Plans (SWRPs).

Comment 21 The Industrial General Permit should provide clarity as to when a Permittee may utilize the Compliance Options in Attachment I.

CASQA supports the inclusion of the compliance options presented in Attachment I and the use of the 85th percentile design storm (with the modifications noted in Comments 23 - 25). However, it appears that the IGP language does not yet fully incorporate the concept of the compliance options into the permit provisions. The Proposed Amendment currently only mention Attachment I within Finding 56, which states (emphasis added):

“The State Water Board allows Dischargers statewide to comply with the alternative compliance options in Attachment I instead of complying with applicable numeric action levels (NALs), Discharge Prohibitions Section III.C, TMDL waste load allocations (WLAs), and Receiving Water Limitations. Dischargers are still required to comply with applicable Subchapter N effluent limitations.”

In addition, the Fact Sheet states (page 24 and 38, respectively):

“The State Water Board anticipates that implementation of either Compliance Option will bring Dischargers in compliance with water quality standards and other water quality-based requirements. The appropriate Regional Water Board or its Executive Officer can require additional control measures, consistent with the provisions of this Order, to ensure compliance with water quality standards and other water quality-based requirements...”

“Responsible Dischargers must comply with applicable TMDL-specific requirements in Attachment E or one of the compliance options set forth in Attachment I, as well as all other applicable provisions of this General Permit.”

Our understanding is that the intent of the compliance options in Attachment I is to allow Industrial Permittees statewide the ability to comply with the IGP in general, not just for Responsible Dischargers subject to TMDL-related requirements in Attachment E (noting the language of Finding 56).

CASQA Recommendation:

- CASQA recommends the following modifications to streamline the provisions and provide clarity as to when the compliance options in Attachment I may be utilized:
 - **Finding 56 (Page 9)**
The State Water Board allows ~~Dischargers~~ Permittees statewide to comply with the alternative compliance options in Attachment I instead of complying with requirements relating to applicable numeric action levels (NALs), Discharge Prohibitions Section III.C, Effluent Limitations Section V.A and V.C, TMDL waste load allocations (WLAs) as expressed in Attachment E (General Permit, TNALs, or NELs), and Receiving Water Limitations Section VI. ~~Dischargers~~ Permittees are still required to comply with applicable Subchapter N effluent limitations.
 - **Attachment I – I. General Provisions (Page 1)**
 - A. This General Permit authorizes the implementation of the following Compliance Options as a method for compliance with specific General Permit provisions as specified below:
 - 1. Provisions for reporting and Exceedance Response Actions relating to Numeric Action Levels (as expressed in Table 2)
 - 2. TMDL Waste Load Allocations (as expressed in Attachment E as General Permit, TNALs, or NELs)
 - ~~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.B. A Discharger Permittee 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.A, III.C, III.D;~~
 - ~~2. Effluent Limitations, Section V.A and V.C;~~
 - ~~3. Receiving Water Limitations, Section VI;~~
 - ~~4. TMDL-related Provisions, Section VII; and~~
 - ~~5. Exceedance Response Actions, Section XII.~~
 - ~~D. (see new provision recommended in Comment 22)~~
 - ~~ED. If a Discharger Permittee chooses, but fails to comply with the requirements for the On-Site or Off-Site Compliance Option provided below, the Discharger Permittee shall demonstrate compliance with the above sections of this General Permit Sections III, V, VI, VII, and XII.~~

Comment 22 In Attachment I, clarify that the Permittee is deemed in compliance during the design and construction of the On-Site or Off-site BMPs.

Given the time that it can take to budget for, fund, design, and build the BMPs that may be utilized as part of an on-site or off-site compliance option, Permittees who select either option and notify the applicable Regional Water Board, should be deemed in compliance upon notification as long as they meet certain criteria. Otherwise, the Permittee would be out of compliance during this timeframe, which would be a disincentive to pursue these options.

In fact, CASQA believes that this is the intent of this provision since this concept is supported in the Off-Site Compliance Option Language, which states (emphasis added):

“A. The ~~Discharger~~ Permittee may enter into a local agreements with the local municipality(ies) to participate in the development, implementation, and operation of an off-site storm water capture and use infiltration BMP provided the following criteria are met:”

“B. The ~~Discharger~~ Permittee shall work with the local jurisdiction(s) to define participation in the development, implementation, and operation of the Off-Site BMP.”

In addition, similar language deeming a Permittee in compliance while a plan or BMPs are being developed has been incorporated in other stormwater permits.¹⁴

CASQA Recommendation:

- CASQA recommends the following modifications to provide clarity as to when the Permittee is in compliance (also see Comment 21):
 - **Attachment I – I. General Provisions (Page 1)**
 - A. This General Permit authorizes the implementation of the following Compliance Options as a method for compliance with specific General Permit provisions as specified below:
 - 1. Provisions for reporting and Exceedance Response Actions relating to Numeric Action Levels (as expressed in Table 2)
 - 2. TMDL Waste Load Allocations (as expressed in Attachment E as General Permit, TNALs, or NELs)
 - ~~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. B. A Discharger Permittee 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.A and V.C;
 - 3. Receiving Water Limitations, Section VI;
 - 4. TMDL-related Provisions, Section VII; and
 - 5. Exceedance Response Actions, Section XII.
 - (New) D. A Permittee is deemed in compliance with these provisions as long as they have notified the applicable Regional Water Board Executive Officer and:
 - Meet the applicable deadlines and demonstrate reasonable progress towards full implementation and operation of the BMP;
 - Continue to fully implement the existing SWPPP and is in compliance with the other applicable provisions of the IGP.

¹⁴ Central Valley Regional Water Board, Region-wide Municipal Stormwater Permit, Order No. R5-2015-0040, Provision V.C.9 (Page 23).

Los Angeles Regional Water Board, Los Angeles County Municipal Stormwater Permit, Order No. R4-2012-0175 as amended by Order WQ 2015-0075, Provision VI.C.3.b (Page 54).

COMPLIANCE OPTIONS – ON-SITE COMPLIANCE OPTION

Comment 23 CASQA supports the inclusion of the on-site compliance option and requests several technical changes to ensure that these options are viable for industry, municipalities, and protective of water quality.

CASQA appreciates the inclusion of the on-site compliance option and believes that the flexibility of this option and the off-site option are necessary for the successful implementation of the IGP. The on-site compliance option will provide long term benefit for water quality and will further the goals of protecting watersheds in developed areas. However, for this option to be viable there are some aspects and design details that warrant further discussion and refinement.

The use of BMPs to capture and use stormwater on-site can significantly reduce pollutant loads and can provide multiple benefits including reduced demand on water supply, groundwater augmentation, and protect watershed processes, such as stream morphology and hydrology. In fact, the on-site capture and use, especially infiltration of stormwater is required in all municipal stormwater permits for new and redevelopment projects (e.g., C.3, SUSMP. Phase II General Permit Post Construction requirements).

When evaluating established programs that require stormwater infiltration or reuse, CASQA notes several significant technical differences that may severely limit the use of the on-site option as written. In addition, the language as drafted in the Proposed Amendment may become precedent setting or result in revisions to BMP design standards that may end up discouraging the use of green infrastructure and/or infiltration BMPs. Several examples, and recommendations, are identified below.

A. 24-hour Drawdown

The 24-hour drawdown time does not conform to the standard designs for infiltration and biotreatment BMPs. Although the 24-hour drawdown time is a significant change from standard BMP design, no explanation is offered for the requirement.

Using this drawdown time will limit the types of BMPs used to those that are “less green” such as, large scale infiltration trenches and dry wells. These types of BMPs bypass treatment and attenuation of pollutants provided by the underlying soil and do not include biotreatment features.

In essence, because of the variables in storm event timing and intensity, the 24-hour draw down time is requiring sites to always maintain the storage capacity for the entire volume associated with the 85th percentile, 24-hr event on-site regardless of infiltration or removal rates.

CASQA Recommendation:

- CASQA requests that the drawdown requirement be modified to require conformance with the local municipality's infiltration and biotreatment BMP design standards. Ultimately, the final permit, most appropriately the factsheet, needs to provide an explanation or rationale for the technical design features to clearly explain the requirements to the Permittees and engineers.
- CASQA recommends that an option be included that would allow for a site-specific evaluation, such as modeling, to be used to demonstrate equivalency to the specified drawdown time.
- Additionally, this section of Attachment I specifies the 24-hour time-period for recovery or drawdown as “12:00a.m. to 11:59p.m.” CASQA requests this definition be removed because rain events do not conform to the 24-hour clock and recovery times need to be assessed on a rolling clock that start from the end of the storm event.

B. Use of Maximum Contaminant Levels (MCLs) to Assess Influent Quality

Requiring influent to a stormwater infiltration BMP to meet drinking water primary and secondary MCLs makes the on-site compliance option functionally unworkable, as identified below. In addition, this requirement is unprecedented

for stormwater infiltration BMPs. Municipalities and other stormwater Permittees in California are designing and installing stormwater infiltration BMPs to meet water quality and TMDL requirements under the directives of NPDES permits without a similar requirement.

EPA definitions of MCLs in 40 CFR Parts 141.2 and 142.2 focus on the quality of water delivered to the user of the public water system. Water delivered to the user undergoes significant testing and treatment to meet MCLs. Nonetheless, it remains important that stormwater infiltrated does not degrade the groundwater as a drinking water source, passing on treatment costs to water suppliers. The use of MCLs as an assessment for influent quality is overly conservative because it does not consider either the filtering in the soil of the BMP and/or the attenuation of pollutants as water passes through the soil and vadose zone. Few industrial facilities will find it cost effective to pursue an on-site compliance option where they will need to create pre-treatment systems to meet drinking water criteria as well as treatment systems to infiltrate the water. In addition, if the MCL standard is used as a precedent in other stormwater permits, this requirement will likely stall the development and implementation of green infrastructure in urban areas.

CASQA Recommendation:

- *CASQA would like to work with State Water Board staff to explore and identify practical approaches that protect ground water quality using ideas and approaches from other Regional Water Board land discharge/application programs that consider attenuation factors based on depth to groundwater, such as use of the Designated Level Methodology (DLM), site specific modeling to demonstrate that the infiltrated water will meet MCLs at the time it reaches groundwater, and consideration of the underlying water quality, which may exceed the MCLs and benefit from the infiltration of water of higher quality. CASQA notes that a tool like the DLM, used in land application evaluations, will be readily accessible at reasonable costs for most industrial Permittees.*

C. Monitoring Assessment for On-Site Compliance Infiltration BMPs

As noted previously, the use of MCLs for influent appear to be overly conservative. However, should the MCLs in some form remain in the permit as an assessment tool, additional clarity about the monitoring assessment is needed and the list of MCLs in Table A of Attachment I needs to be refined to focus on industrial stormwater pollutants identified in the facility's pollutant source assessment. Further, the use of MCLs as an assessment tool needs to be limited to locations where the underlying groundwater has an existing MUN beneficial use designation.

Attachment I, item II.E.6 establishes that influent to the on-site infiltration BMPs must meet MCLs on an instantaneous basis. It is unclear from item II.E.6.a if the intent of this requirement is one-time discharge characterization to be used as the basis for the design of the pretreatment system or if the intent is to establish an on-going influent monitoring requirement. Given that monitoring assessment is discussed in context with the pretreatment system design, it appears the assessment is intended as a limited duration, one-time, waste characterization to identify the design parameters.

CASQA Recommendation:

- *Revise the language to recognize that use of MCLs as an assessment tool is limited to locations where the underlying groundwater has an existing MUN beneficial use designation*
- *Revise the language of Attachment I Section II.E.6.a to establish that the influent monitoring is waste characterization for the purposes of pretreatment system design, as follows:*
The ~~Discharger~~ Permittee shall characterize the proposed ~~ensure that all~~ influent to the ~~entering the~~ infiltration BMP(s) to determine whether it meets applicable Maximum Contaminant Level (MCL) criteria for industrial pollutants at the facility, as specified in Table A below. If the characterization sampling indicates that the influent does not meet applicable MCLs on an instantaneous basis, ...

Table A of Attachment I presents a list of the Primary and Secondary MCLs many of which are unrelated to industrial stormwater pollutants, e.g., disinfection by-products, or are pollutants that are naturally associated with soil, such as

Aluminum, which makes up 7.3% of soil by weight.¹⁵ Consistent with other comments made in this letter, monitoring of stormwater, whether for discharge or infiltration, needs to be linked to the industrial pollutant source assessment.

CASQA Recommendation:

Add a title and footnote to Table A to clarify that only industrial stormwater pollutants identified in the pollutant source assessment need to be assessed.

- Table A. MCL Parameters and Criteria for Industrial Stormwater Pollutants Identified in the Pollutant Source Assessment.¹

¹. MCL parameter must be assessed only for those pollutants identified in the pollutant source assessment process outlined in X.G.

- *Finally, CASQA recommends that the infiltration characterization assessment for inorganics be based upon filtered samples. Filtering the samples will provide a more accurate representation of the quality of water that may reach the groundwater, although this still does not account for pollutant attenuation.*

D. Design of On-Site Infiltration BMPs

Attachment I requires that Permittees have a Professional Engineer make a determination and certify that the implementation and operation of the infiltration BMP(s) not contribute to an exceedance of a groundwater quality objectives (J.2.a-c). The elements of this certification may go beyond the engineering license as it appears to require an environmental and groundwater resource assessment, which is not addressed in the Professional Engineers Act.

CASQA Recommendation:

- *Revise Attachment I to delete the requirement for a professional engineer to certify those aspects of the infiltration system that pertain to the determinations of the impact upon groundwater quality, particularly J.2.*

E. Existing On-Site Infiltration BMPs

Many industrial facilities currently use infiltration BMPs and others may be on the cusp of installing these systems as part of their NAL exceedance response actions. These existing BMPs may be effectively infiltrating the design storm, but will be unable to certify stringent pre-construction design criteria. However, the IGP, as currently written, makes no allowance for existing systems to be included as an on-site compliance option.

CASQA Recommendation:

- *CASQA recommends establishing an effective date for the design standards contained in Attachment I that would allow existing systems to be considered compliant without the need for retrofit.*

F. Bypass Terminology

The term bypass is not defined in the IGP, however it is defined in federal regulations, 40 CFR Part 121.41, as the “intentional diversion of waste streams from any portion of a treatment facility” and bypasses are prohibited except under a set of limited circumstances. The bypasses allowed by the IGP are different that the bypasses defined in federal regulations. The proposed language in Attachment I establishes a design storm and requires a mechanism manage (divert) flows beyond the design storm away from the treatment system.

CASQA Recommendation:

- *Avoid use of the term bypass in connection with flows exceeding the design storm or add a definition of bypass to the IGP glossary that is relevant to its use in the IGP and distinct from the definition in the federal regulations.*

¹⁵ 1) Average (from Background Concentrations of Trace and Major Elements in California Soils, UC Riverside, 1996, posted http://envisci.ucr.edu/downloads/chang/kearney_special_report_1996.pdf)

G. BMP Bypass Sampling

Attachment I section II.H.1.A requires sampling of all bypasses or overflows from the on-site compliance BMPs and refers to the Sampling and Analysis Section XI.B.6-11. The cited sections do not include any provisions for safety or sampling during operating hours.

CASQA Recommendation:

- CASQA recommends that language be added to limit the sampling of bypasses or overflows to working hours of a facility and that to include Section XI.B.5, which provides for safety factors, as follows:

During facility operating hours, conduct analytical sampling of flows that exceed the design storm that are diverted around the or bypass/overflow from the BMP(s) in compliance with the Sampling and Analysis Section XI.B.6 5-11 of this General Permit and Attachment H8, with the exception of comparing monitoring results to NALs in Section XI.B.7;

H. Entry of the BMP Bypass Sampling into SMARTS

Given that the results from the BMP bypass monitoring will not be subject to NALs, TNALs, or NELs, SMARTS will need to be revised to allow input this data into new tabs that do not aggregate the data with Qualified Storm Event (QSE) data and/or include it in exceedance calculations.

CASQA Recommendation:

- Develop new SMARTS modules and make them available prior to the effective date of this requirement.

I. Verification of Inspection and Operation and Maintenance Responsibilities

The IGP should include language that verifies that the industrial Permittee has primary responsibility for inspections and operations and maintenance of an on-site BMP. This clarification will ensure that, in addition to the documentation required as a part of the SWPPP, the on-site BMP will be inspected and maintained and that records will be retained to demonstrate the implementation of the operations and maintenance plan.

CASQA Recommendation:

- CASQA recommends the following language modifications:

II. On-Site Compliance Option

B. The Permittee may include the BMPs that capture and divert the required storm water runoff volumes to a publicly-owned sanitary sewer treatment facility, or to an on-site facility for on-site use. Discharges to publicly-owned sanitary sewer systems typically require agency approval and must comply with local ordinances. The minimum required storm water volume to be diverted shall be in accordance with the Section E.1 and E.2 below. The diverted or used volume of storm water is not authorized to discharge from the industrial facility.

...

E.4. Include measures to be implemented to reliability and safety factor calculations that ensure the BMP(s) will maintain the design standards for the life of the BMP(s) including maintenance schedules and plans, and as appropriate, include safety factor and reliability calculations. [also see Attachment B]

...

G.6 A maintenance schedule and operations plan for the BMP.

...

H.3.a (New iii)

iii. Permittee must perform maintenance of the BMP per engineer design or manufacturer standards and retain records of maintenance.

COMPLIANCE OPTIONS – OFF-SITE COMPLIANCE OPTION

Comment 24 CASQA supports the inclusion of the off-site compliance option and requests several technical changes to ensure that this option is viable for industry, municipalities, and protective of water quality.

Building off the comments above, CASQA appreciates the inclusion of the off-site compliance option. This type of flexibility is necessary for the successful implementation of the IGP, will provide long term benefit for water quality, and will further the goals of restoring watershed processes in developed areas. However, for this option to be a viable there are some aspects and design details that warrant further discussion and refinement.

Although CASQA was involved in discussions with State Water Board staff in early 2017 regarding the off-site Compliance Option and various approaches that may be utilized, some of the language in the Proposed Amendment diverts from those initial discussions and poses significant concerns for the viability of such an option. Below are several significant technical differences that may severely limit the use of the off-site option as written.

A. 85th Percentile, 24-hour Precipitation Event

Although the 85th percentile retention (infiltrate, evapotranspire, or capture and use) requirement is consistent with most municipal stormwater permits and new development and significant redevelopment programs, Attachment I should be modified to clarify that the 85th percentile standard applies to the project footprint, not the entirety of the watershed.

CASQA Recommendation:

- CASQA recommends the following modifications:

III. Off-Site Compliance Option

A.1. The Off-Site BMP must maintain¹³ the effective capacity to capture, treat, infiltrate and/or evapotranspire the volume of runoff produced up to and during the 85th percentile 24-hour precipitation event for the project area to which is being designed for based upon precipitation data from the National Oceanic and Atmospheric Agency and/or local, historical precipitation data and records¹⁴;

B. 24-hour Drawdown

Footnote 13 of the off-site compliance option states:

¹³ “The BMP has not met the standards if the BMP is not able to recover its capacity through use, infiltration and/or evapotranspiration within a 24-hour period.”

Similar to the comment above, there is also concern about the 24-hour drawdown requirement for the off-site BMPs since it does not conform to the standard designs for infiltration and biotreatment BMPs statewide and would essentially render this option inviable. In fact, state wide, it is unlikely that the current BMPs, which are being funded, designed, and built by the municipalities as a part of their enhanced watershed management plans (EWMPs), watershed management plans (WMPs), water quality improvement plans (WQIP), or stormwater management plans (SWMPs) will meet this new, precedential design standard.

For example, many of the conceptual BMP designs in the Los Angeles area municipal stormwater EWMPs, which were developed to comply with many of the same TMDLs identified in Attachment E, don't explicitly state a drawdown, however most assumed a 72-96-hour drawdown within the modeling and design. Specific references are provided below:

- **Upper Los Angeles River EWMP (Appendix 4A - Pages 21 and 26)**¹⁶
"Typically, runoff percolates through the bottom of the gallery and an approximately 1-foot amended, tilled native soil layer, which has an infiltration rate capable of draining the infiltration gallery within a specified design drawdown time (usually up to 72 hours)."
- **Upper San Gabriel River EWMP (Appendix B-1 Conceptual Designs of Example Regional EWMP Projects - Page 3)**¹⁷
"Surface infiltration basins are sized to provide a 72-hour drawdown time based on the underlying soils infiltration capability. Drawdown time governs the maximum depth of the basin and, therefore, the footprint of the basin. An example schematic of an infiltration basin is shown in Figure 2 (LACDPW, 2009)."
- **Santa Monica Bay J2 & J3 EWMP (Appendix A-31)**¹⁸
"The assumed depth of the basin was determined assuming a 96-hr drawdown time for vector control purposes⁷."

"⁷A 96-hour drawdown time was assumed based on Attachment H of the MS4 Permit which states, "Harvested rainwater must be stored in a manner that precludes the breeding of mosquitoes or other vectors or with a draw down not to exceed 96 hours."

In addition to not being consistent with the current design criteria, a 24-hour drawdown would likely have the following effect:

- The BMPs would be limited to areas with very high infiltration rates; and
- Areas with lower infiltration rates would have to design very large (length and width or surface "footprint"-wise) and shallow BMPs (like infiltration basins) which would be very costly and impractical.

In short, the 24-hour drawdown requirement would significantly limit the areas where using this compliance option would be technically and economically feasible. Therefore, the drawdown time should be modified to be consistent with the standard approach used throughout the state for municipal stormwater programs.

CASQA Recommendation:

- *CASQA requests that the drawdown requirement (footnote 13) be modified to require conformance with the local municipality's infiltration and biotreatment BMP design standards. Ultimately, the final permit, most appropriately the factsheet, needs to provide an explanation or rationale for the technical design features to clearly explain the requirements to the Permittee and engineers.*
- *CASQA recommends that an option be included that would allow for a site-specific evaluation, such as modeling, to be used to demonstrate equivalency to the specified drawdown time.*

Comment 25 CASQA requests several technical changes to help ensure the off-site compliance option is viable for industry and protective of water quality.

As mentioned previously, CASQA strongly supports the concept of the off-site compliance options included in Attachment I (with the modifications identified in this comment letter). However, there are some aspects and design details that warrant further discussion and refinement in order to ensure that this is a viable option. First and

¹⁶https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/los_angeles/upper_losangeles/UpperLARiver_DraftEWMP4.pdf

¹⁷https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/san_gabriel/upper_sangabriel/USGRRevisedEWMP_Appendices_20160114.pdf

¹⁸https://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/watershed_management/santa_monica/SMB%20J2-J3%20EWMP%20Revised_040716.pdf

foremost, the watershed-based plans that have been developed by the municipalities [e.g., EWMPs, WMPs, WQIPs, etc.] are robust and specifically designed to address the same/similar TMDL pollutants and/or the high priority water quality constituents in their geographic area. If an industrial Responsible Discharger collaborates with a corresponding watershed group and enters into an agreement to participate in the watershed plan, there should be recognition that there is a net benefit to the watershed and flexibility in how participation is defined (within a framework defined by the IGP). Modifications to the IGP that would support this approach are included below.

The Off-Site Compliance Option includes language that states that the Permittee must not discharge to a water of the United States or a water of the state prior to reaching the Off-Site BMP. CASQA believes that this requirement misconstrues the intent of the off-site BMPs and should be deleted. Since the off-site BMP has to be in the same watershed (III.A.2), it could be upstream or downstream of the industrial facility. The intent should not be that the industrial facility will directly discharge to the BMP, rather, it should be that there is a greater water quality benefit to have the larger, regional BMP designed and built within the watershed than would otherwise be realized by a smaller BMP within the industrial facility footprint. If this provision remains in Attachment I, there will likely be few facilities that will be able to meet this criteria.

CASQA Recommendation:

- CASQA recommends the following modifications:
 - **III.A.1 (Page 9)**
The Off-Site BMP must maintain¹³ the effective capacity to capture, treat, infiltrate and/or evapotranspire the volume of runoff produced up to and during the 85th percentile 24-hour precipitation event for the project area to which is being designed for based upon precipitation data from the National Oceanic and Atmospheric Agency and/or local, historical precipitation data and records¹⁴;
 - **III.A.3 (Page 9)**
~~The authorized NSWDs and industrial storm water must not discharge to a water of the United States or a water of the state prior to reaching the OffSite BMP(s).~~
 - **III.E. (Page 10)**
*~~Regional Water Board Authorities
The Regional Water Board Executive Officer has the authority to review site specific information and disapprove the Discharger's discharge into Off Site BMPs as a permissible Compliance Option, to address regional groundwater concerns.~~*
 - **III.F.d (Page 11)**
~~d. Information on, and description of, the actions the ~~Discharger~~ Permittee must take during the development, implementation, and operation of the OffSite BMP(s), as established in the approved agreement, ~~that allows the Facility's storm water discharge to enter an Off Site BMP.~~~~
 - **III.F.f (Page 11)**
~~A copy of the operation and maintain plan(s) for the Off-Site BMP(s) ~~that receives the facility's discharge.~~~~

ATTACHMENT B

**CASQA Additional Editorial Comments on the Proposed Amendment
to the Industrial General Permit**

Attachment B
CASQA Additional Editorial Comments on the Proposed Amendment to the Industrial General Permit

Comment Number	Permit Section	Page Number	Comment/Recommendation
B-1.	Finding F. Total Maximum Daily Loads (TMDLs) #44	Page 7	<p>The original 303(d) listed impairment is by pollutant/water body combination, not pollutant/watershed combination. The header of “watershed” may inadvertently expand the area subject to the TMDL if there are other waterbodies within the same watershed.</p> <ul style="list-style-type: none"> • <i>Modify the Finding</i> <i>...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 water bodies watersheds with U.S. EPA-approved and U.S. EPA established TMDLs for Dischargers-Permittees covered by this General Permit.</i>
B-2.	Provision VII.C.1 TMDL Monitoring and Reporting	Page 25	<ul style="list-style-type: none"> • <i>The Responsible Discharger-Permittee is required to perform sampling, analysis, and reporting in accordance with the requirements of this General Permit, and additional monitoring required in the <u>Permit TMDL</u> Compliance Table X in Attachment E of this General Permit.</i>
B-3.	Attachment B. Acronym List	Page 2	<ul style="list-style-type: none"> • <i>Add TSO – Time Schedule Order</i>
B-4.	Attachment E. List of Existing Total Maximum Daily Loads (TMDLs) Applicable to Industrial Storm Water Discharges	Page 1	<p>Table E-1 should present the water bodies in the same order as they appear within the larger table in Attachment E (which should be labeled).</p> <ul style="list-style-type: none"> • <i>Table E-1 – re-order the water bodies so that they are in the same order as the water bodies in the larger table in Attachment E.</i> • <i>Label the larger table as Table E-2.</i>
B-5.	Attachment E. List of Existing Total Maximum Daily Loads (TMDLs) Applicable to Industrial Storm Water Discharges	Pages 3 - 48	<p>The original 303(d) listed impairment is by pollutant/water body combination, not pollutant/watershed combination. The header of “watershed” may inadvertently expand the area subject to the TMDL if there are other waterbodies within the same watershed.</p> <ul style="list-style-type: none"> • <i>Modify table column header of larger table within Attachment E</i> <i>Impaired Water BodyWatershed</i>

Attachment B
CASQA Additional Editorial Comments on the Proposed Amendment to the Industrial General Permit

Comment Number	Permit Section	Page Number	Comment/Recommendation
B-6.	Attachment I	2	<ul style="list-style-type: none"> • <i>Move the definition of drywell from Footnote 3 in Attachment I to the glossary.</i>
B-7.	Attachment I	2	<ul style="list-style-type: none"> • <i>II.E.4 Include <u>measures to be implemented to reliability and safety factor calculations that ensure the BMP(s) will maintain the design standards for the life of the BMP(s), as appropriate, include safety factor and reliability calculations.</u></i>
B-8.	Attachment I	9	<ul style="list-style-type: none"> • <i>III.A. The Discharger Permittee may enter into a local agreements with the local municipality(ies) to participate in the development, implementation, and operation of an off-site storm water capture and infiltration BMP provided the following criteria are met:</i>
B-9.	Fact Sheet (also see Comment #4)	40	<ul style="list-style-type: none"> • <i>Compliance deadlines <u>TMDL final attainment dates</u> that are beyond this General Permit's term</i> <i>For TMDLs that have a compliance deadline <u>final attainment date</u> beyond this General Permit's term, the WLAs shall be translated in TNALs due to the WAL not being enforceable during this General Permit's term.</i>
B-10.	Fact Sheet	62	<ul style="list-style-type: none"> • <i>The Los Angeles <u>San Diego</u> Regional Water Board adopted the Chollas Creek Diazinon TMDL on August 14, 2002.....</i>

ATTACHMENT C

Example Process Flow Charts



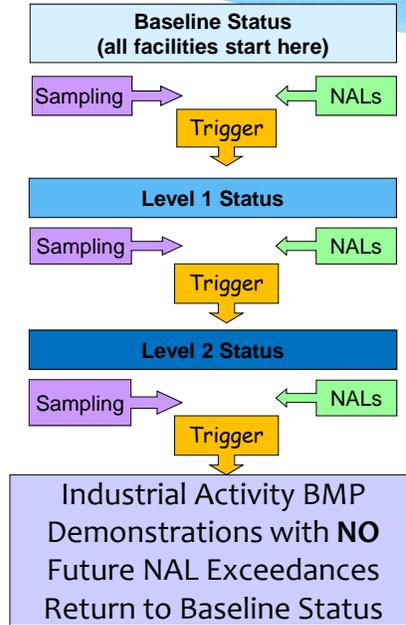
Industrial General Permit Overview

**State Water Resources Control Board
Division of Water Quality
Industrial/Construction Storm Water
Unit**



**Industrial General Permit
2014-0057-DWQ**

EXCEEDANCE RESPONSE ACTIONS (ERAs)

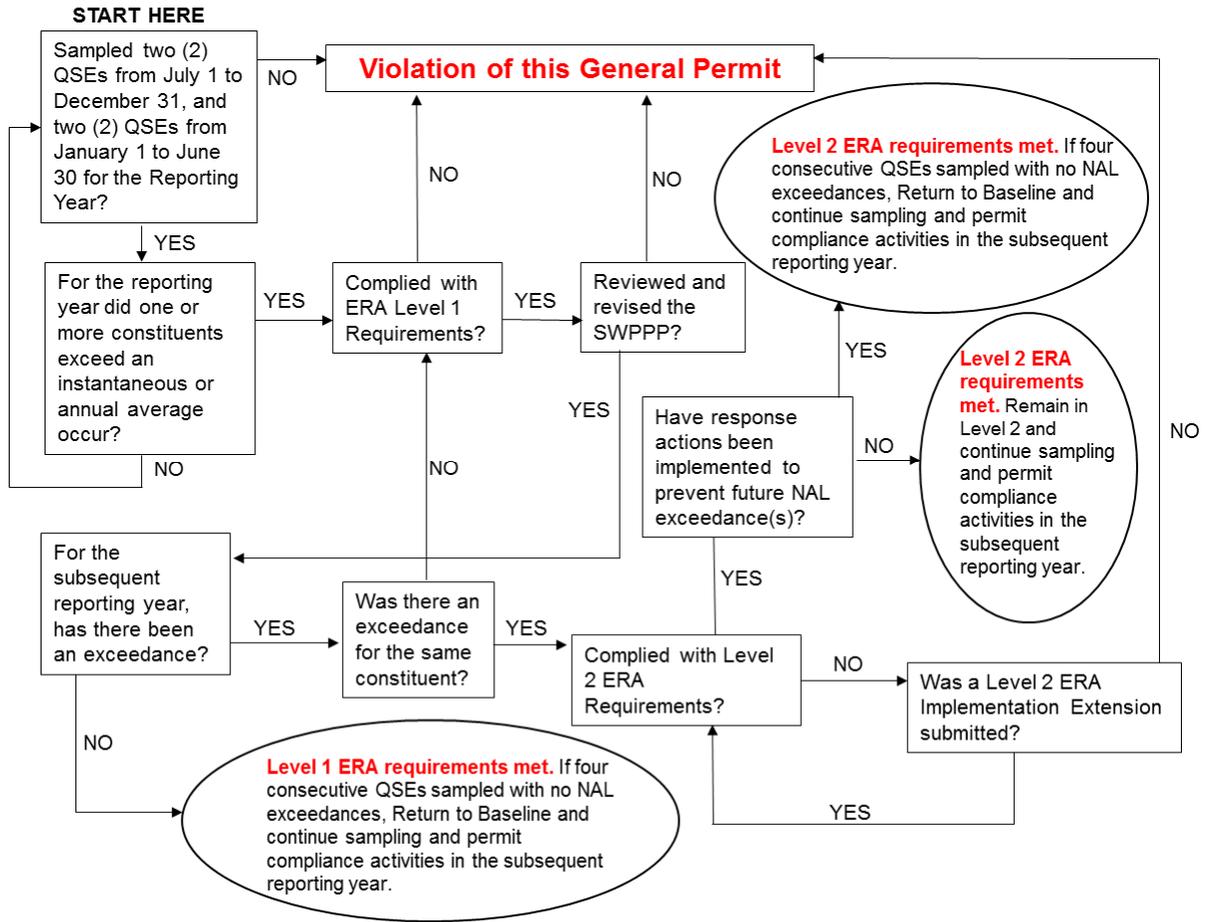


Questions?

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FIGURE 3: 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