

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

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## I. BACKGROUND

### A. History

The federal Clean Water Act<sup>1</sup> provides that discharges from point sources to waters of the United States are prohibited, unless in compliance with a national pollutant discharge elimination system (NPDES) permit. (CWA § 301(a).) In 1987, the CWA was amended to establish a framework for regulating municipal and industrial storm water storm water discharges under the NPDES program. (CWA § 402(p).) In 1990, the U.S. Environmental Protection Agency (US EPA) promulgated regulations establishing application requirements for storm water permits for specified categories of industries. (55 Fed. Reg. 47990, codified at 40 C.F.R. § 122.26.) In 1992, US EPA revised the monitoring requirements for industrial storm water discharges. (57 Fed.Reg. 11394-01; 40 C.F.R. § 122.44(i)(2), (4)- (5).) In 1999, US EPA adopted additional storm water regulations, known as Phase II. (64 Fed.Reg. 68722-52.) The Phase II regulations, provide, among other things, for exclusions from NPDES permits for “industrial activities that have “no exposure” to storm water.

Discharges of storm water associated with industrial activity are regulated pursuant to CWA section 402(p)(3)(A). This provision requires that NPDES permits for discharges associated with industrial activity must implement CWA section 301, which requires that dischargers comply with technology-based effluent limitations, as well as any more stringent limitations necessary to meet water quality standards. (CWA § 402(p)(3)(A).) Technology-based effluent limitations applicable to industrial activities are best practicable control technology currently achievable (BCT) for conventional pollutants, and best available technology economically achievable (BAT) for toxic and non-conventional pollutants. (CWA § 301(b)(1)(A) and (2)(A).) To ensure strict compliance with water quality standards, NPDES permits can require a discharger to implement best management practices (BMPs), narrative effluent limitations, and/or numeric effluent limitations. (CWA §§ 301(b), 402; 40 C.F.R. §§ 122.26, 122.28, 125.3.) The State Water Board is mindful that, for storm water permits, US EPA has recommended the use of BMPs in lieu of numeric effluent limitations, and the limited use of sampling and analysis in storm water permits, because it is generally difficult to calculate numeric effluent limitations for the widely variable flows associated with storm water and to monitor such intermittent discharges. In reissuing this General Permit, however, the State Water Board has concluded that it is feasible to require numeric effluent limitations and sampling and analysis requirements in certain circumstances. As more fully set forth below in section [INSERT] of this Fact Sheet, the State Water Board has considered the factors in 40 C.F.R. section 125.3 as well as the propriety of sampling and analysis requirements similar to requirements in NPDES permits for process water discharges from industrial facilities.

On April 17, 1997, the State Water Board issued a statewide general permit for storm water discharges associated with industrial activities, excluding construction activities, Water Quality Order No. 97-03-DWQ (previous permit). State Water Board Order No.

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<sup>1</sup> Federal Water Pollution Control Act of 1970 (also referred to as the Clean Water Act or CWA), 33 U.S.C. § 1201. Statutory references herein are to the CWA.

[INSERT ORDER NO. HERE] (hereinafter referred to as the General Permit) rescinds the previous permit and constitutes the statewide general permit for discharges of storm water associated with industrial activities. The State Water Board contains significant revisions to make this General Permit more uniform in its application and more objective in its enforcement. As more fully discussed below, this General Permit contains minimum BMPs and requires monitoring for more indicator parameters. This General Permit also includes NALs for these parameters. The NALs are derived from USEPA's Multi-Sector General Permit (MSGP). This General Permit also contains some requirements similar to the previous permit. For example, this General Permit retains the requirements that dischargers develop and implement storm water pollution prevention plans (SWPPP) that include BMPs that will achieve BAT and BCT to comply with water quality standards. Dischargers are also required to eliminate unauthorized non-storm water discharges and to conduct monitoring, including visual and analytical storm water monitoring. This General Permit also requires dischargers to electronically file all permit-related compliance documents. These documents include, but are not limited to, Notices of Intent (NOIs), SWPPPs, annual reports, Notices of Termination (NOTs), and NAL exceedance reports.

## **B. Blue Ribbon Panel of Experts and Feasibility of Numeric Effluent Limitations**

In 2005 and 2006, the State Water Board convened an expert panel (panel) to address the feasibility of numeric effluent limitations (NELs) in California's storm water permits. Specifically, the panel was asked to address:

"Is it technically feasible to establish numeric effluent limitations, or some other quantifiable limit, for inclusion in storm water permits? How would such limitations or criteria be established, and what information and data would be required?"

"The answers should address industrial general permits, construction general permits, and area-wide municipal permits. The answers should also address both technology-based limitations or criteria and water quality-based limitations or criteria. In evaluating establishment of any objective criteria, the panel should address all of the following:

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

Through a series of public participation processes (State Water Board meetings, State Water Board workshops, and the solicitation of written comments), a number of water quality, public process and overall program effectiveness problems were identified.

The panel made the following recommendations<sup>2</sup> regarding industrial discharges:

- The Panel recognizes the inadequacy of current monitoring data sets and recommends improved monitoring to collect data useful for establishing Numeric Limits and Action Levels.
- Required parameters for future monitoring should be consistent with the type of industrial activity instead of the current parameters (i.e., monitor for heavy metals when there is reasonable expectation that the industrial activity will cause greater heavy metals concentrations in the storm water).
- Insofar as possible, the Panel prefers the use of California data (or National data if it can be shown to be applicable to CA) in setting Numeric Limits and Action Levels.
- The Panel recognizes that economies of scale exist for large facilities and large groups of single facilities.
- Industrial facilities that do not discharge to MS4s should have to implement BMPs for their non-industrial exposure (e.g., parking lots, roof runoff) similar to commercial facilities in MS4 jurisdictions.
- Regardless of Action Levels or Numeric Limits, the permittees should implement a suite of minimum BMPs – good housekeeping, employee training, preventing materials from exposure to rain, etc.
- SIC categories are not a satisfactory way of identifying industrial activities at any given site. The Board should develop a better method of characterizing industrial activities that can impact storm water.
- The Panel recognizes this is a large task and recommends prioritizing the implementation of this approach to achieve the greatest reduction of pollutants statewide.
- Increasingly, a number of industries have moved industrial activities indoors, preventing storm water pollution. The Panel recognizes that these facilities should be granted some sort of regulatory relief from industrial Numeric Limits or action levels, but should still be required to comply with MS4 permit requirements.
- The Panel recognizes the need to make progress in monitoring and reducing storm water discharge from industrial facilities, but urges the Board to consider the total economic impact and not unduly penalize California industries with respect to industries outside of California.

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<sup>2</sup> [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/numeric/swpanel\\_final\\_report.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/numeric/swpanel_final_report.pdf)

## C. Legal Challenges and Court Decisions

### 1. Court Decisions on Public Participation

Two recent federal court opinions have vacated US EPA rules that denied meaningful public review of NPDES permit conditions. On January 14, 2003, the Ninth Circuit Court of Appeals held that certain aspects of US EPA's Phase II regulations governing MS4s were invalid primarily because the general permit did not contain express requirements for public participation. (*Environmental Defense Center v. USEPA* (9th Cir. 2003) 344 F.3d 832.) Specifically, the court determined that applications for general permit coverage (including the Notice of Intent (NOI) and Storm Water Management Program (SWMP)) must be made available to the public, the applications must be reviewed and determined to meet the applicable standard by the permitting authority before coverage commences, and there must be a process to accommodate public hearings. (*Id.* at 852-54.) Similarly, on February 28, 2005, the Second Circuit Court of Appeals held that the USEPA's confined animal feeding operation (CAFO) rule violated the CWA because it allowed dischargers to write their own nutrient management plans without public review. (*Waterkeeper Alliance v. USEPA* (2d Cir. 2005) 399 F.3d 486.) Although neither decision involved the issuance of industrial storm water permits, the State Water Board's Office of Chief Counsel has recommended that the new General Permit address the courts' rulings where feasible.<sup>3</sup>

The CWA and the US EPA's regulations provide states with the discretion to formulate permit terms, including specifying best management practices (BMPs) to achieve strict compliance with water quality standards. (*Natural Resources Defense Council v. USEPA* (9th Cir. 1992) 966 F.2d 1292, 1308.) Accordingly, this General Permit has developed specific BMPs as well as numeric action levels (NALs) and numeric effluent limitations (NELs) in order to achieve these minimum federal standards. In addition, the General Permit requires a SWPPP to be developed and to include site-specific BMPs. By requiring the Dischargers to implement these specific BMPs, NALs, and NELs, this General Permit ensures that the dischargers do not "write their own permits." As a result, this General Permit does not require each Discharger's SWPPP to be reviewed and approved by the Regional Water Boards. However, the public still has a meaningful opportunity to participate in the permitting process. Not only can the public go online to access, compliance information submitted, but also this General Permit enables public review and hearings on permit applications when appropriate.

## D. Summary of Significant Changes in this General Permit

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<sup>3</sup> In *Texas Independent Producers and Royalty Owners Assn. v. USEPA* (7th Cir. 2005) 410 F.3d 964, the Seventh Circuit Court of Appeals held that the USEPA's construction general permit was not required to provide the public with the opportunity for a public hearing on the Notice of Intent or Storm Water Pollution Prevention Plan. The Seventh Circuit briefly discussed why it agreed with the Ninth Circuit's dissent in *Environmental Defense Center*, but generally did not discuss the substantive holdings in *Environmental Defense Center* and *Waterkeeper Alliance*, because neither court addressed the initial question of whether the plaintiffs had standing to challenge the permits at issue. However, notwithstanding the Seventh Circuit's decision, it is not binding or controlling on the State Water Board because California is located within the Ninth Circuit.

1. Requires a set of minimum BMPs that all dischargers must incorporate into their SWPPPs. The minimum BMPs, in combination with additional facility specific BMPs, serve as the basis for discharger compliance with BAT and BCT. Although there are great variation in industrial activities and pollutant sources between the industrial sectors and, in some cases, differences in operations even among facilities in the same industrial sector, the minimum BMPs specified in this General Permit represent common practices that can be implemented by virtually all facilities and that represent a minimum and enforceable level of environmental protection.. The previous permit did not require a minimum set of BMPs but rather allowed dischargers to “consider” which BMPs to select and implement. The minimum BMPs in this General Permit compare favorably to that of U.S.EPA multi-sector permit, guidance developed by CASQWA, and recommendations by Regional Board staff inspectors.
2. Requires a more comprehensive and defined set of procedures that dischargers must follow when the facility’s discharge is causing or contributing to an exceedance of a water quality standard. The revised procedures are designed to improve Dischargers response, lead to compliance with water quality standards, and provide the Regional Boards with more enforceable requirements than the previous permit.
3. Applies US EPA’s Phase II Conditional Exclusion regulations to all industries subject to this General Permit including what US EPA formerly termed “light industry.
4. Requires additional sampling requirements for facilities with significant land disturbances. The previous permit did not account for the differences that exist in the pollutant loading coming off of a facility that disturbs significant amounts of erodible materials. Erodible materials, unlike other pollutants, can increase in discharges over the period of a storm event.
5. Contains Electronic Reporting Requirements. The previous permit used a paper reporting process, where electronic reporting was optional.
6. Requires a Qualified SWPPP Developer and a Qualified SWPPP Practitioner
7. Contains Corrective Actions: Level 1 Operational Source Control, Level 2 Structural and/or Treatment Controls and the Imposition of NELs at Level 3. These corrective action levels represent enhanced requirements above the Baseline requirements (sometimes referred to as Level 0).
8. Requires dischargers to consider receiving water impairments (303(d) listings) when selecting additional parameters.
9. Establishes a 10-year, 24-hour (expressed in inches of rainfall) Compliance Storm Event for TSS. In addition, all treatment BMPs for any other pollutants shall be designed for a 10 year, 24 hour storm event.

10. Defines a qualifying storm event<sup>4</sup> as one that occurs:-
- From a storm event that has produced a minimum of ¼ inch of rainfall as measured by an on-site rainfall measurement device, and;
  - From a storm event that was preceded by two consecutive days of dry weather.
11. Changes the requirement that dischargers collect grab samples must be taken during the first hour of discharge that commences during scheduled facility operating hours, to requiring a discharge from a qualifying storm event is occurring during scheduled facility operating hours. Requiring samples to be taken during the first hour of discharge lead to confusion on how to comply with the previous permit, when the first hour missed, dischargers were unclear if they should still take samples or not. Facilities with multiple discharge locations had difficulty collecting sample with such a short timeframe and rushing to collect samples interfered with data quality. This new definition allows a reasonable amount of time to collect samples somewhat de-emphasizes the “first flush” mentality of the previous permit. Sampling requirements overall are being tailored to capture the overall impact of storm water discharge on receiving waters and not the peak impact.
12. Increases sampling to quarterly and requires that one storm event is sampled per quarter at a Discharger’s facility. The quarters are defined as follows:
- 1<sup>st</sup> Quarter = January, February, and March
  - 2<sup>nd</sup> Quarter = April, May, June
  - 3<sup>rd</sup> Quarter = July, August, September
  - 4<sup>th</sup> Quarter = October, November, December
13. Group Monitoring This General Permit requires an improved training baseline, similar to that required in the Construction General Permit, which includes the requirement for the discharger to have a QSD and a QSP. The previous permit had no baseline training although it was arguable that the group leader performed some of the QSD functions. This permit emphasizes sampling and analysis as a means to determine compliance with BAT/BCT. Reduced sampling of the magnitude provided to group participants interferes with that goal.
14. No Discharge Conditional Exclusion Certification This General Permit allows dischargers who meet the definition of No Discharge and comply with the

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<sup>4</sup> A discharger shall collect samples from all storm water drainage areas within four hours after a qualified storm event has been determined and this only applies during scheduled facility operating hours. For visual monitoring of qualified storm events, dischargers shall visually observe the discharge of stored or contained storm water at the time of discharge during scheduled facility operating hours.

procedures of the general permit to be conditionally excluded from complying with the SWPPP and Monitoring requirements. Dischargers must either demonstrate facility containment of storm water discharge for up to a 100 year, 24-hour compliance storm event or that the facility geographic and topographic location isolated it from discharging to waters of the U.S.. PEs are required to prepare and sign the certifications.

## II. RATIONALE

### A. General Permit Conditions

#### 1. Prohibitions

With respect to Prohibition A, this General Permit authorizes storm water and authorized non-storm water discharges from facilities that are required to be covered by a storm water permit. This General Permit prohibits discharges of material other than storm water (non-storm water discharges) that are not authorized by this General Permit and discharges containing hazardous substances in storm water in excess of reportable quantities established at 40 C.F.R. sections 117.3 and C.F.R.302.4. Authorized non-storm water discharges are addressed in Section IV of this General Permit.

With respect to the Prohibition B, the State Water Board is authorized, under Water Code section 13377, to issue NPDES permits that protect beneficial uses and that prevent nuisance.

#### 2. Effluent Limitations

NPDES permits for storm water discharges must meet all applicable provisions of Sections 301 and 402 of the CWA. These provisions require control of pollutant discharges using BAT and BCT to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards. This General Permit requires Dischargers to reduce or prevent the discharge of pollutants in storm water discharges and authorized non-storm water discharges by developing and implementing BMPs that constitute compliance with BAT/BCT. All dischargers subject to Baseline Compliance and Level 1 and Level 2 corrective actions are subject to the narrative, technology-based effluent limitations, or BAT/BCT.

USEPA regulations (40 C.F.R. Subchapter N) establish effluent limitation guidelines for storm water discharges from facilities in eleven industrial sectors. For these facilities, compliance with the effluent limitation guidelines constitutes compliance with BAT and BCT for the specified pollutants and must be met to comply with this General Permit.

For storm water discharges from facilities not among the eleven industrial sectors listed in 40 C.F.R. Subchapter N, US EPA authorizes the use of numeric effluent limitations and/or BMPs to meet BAT/BCT (40 C.F.R. 122.44(k)). Previous industrial permits have required dischargers who detected a pollutant in "significant quantities" to determine the pollutant's source, implement clean-up procedures when

appropriate, and assess whether additional BMPs are necessary. The permits did not contain or reference a set of significant quantity concentrations for these parameters. This led to inconsistent interpretations and difficulty in enforcement. This General Permit incorporates the US EPA storm water discharge benchmark values as NALs.

The values used as NALs in the General Permit provide a quantitative indicator that storm water discharges have reduced those particular pollutants using BAT/BCT. Therefore, effluent that results in a corrective action trigger as defined by this General Permit indicates that the discharger may not be employing BAT/BCT. Similar to the US EPA MSGP, this General Permit is using these NAL values to spurn corrective actions where needed.

The US EPA benchmarks are located in the US EPA's MSGP<sup>5</sup> and appear in Table VIII.2 of this General Permit for common pollutants found in industrial storm water discharges. As used by the US EPA, these NALs are not numeric storm water effluent limits, are not related or necessarily protective of any specific receiving water, and exceedances of these NALs are not automatically considered permit violations. Similar to the US EPA's MSGP, exceedances of these NALs trigger the need for Corrective Actions.

In the event that a discharger arrives at Corrective Action Level 3, the NAL(s) which trigger this corrective action level becomes a technology-based numeric effluent limitation (NEL). This is due to the fact that each NAL in this General Permit reflects the technology needed to reduce the pollutant to either BAT or BCT, respectively. It is the best professional judgment (BPJ) of the State Water Board staff that dischargers employing BAT and BCT can reduce the pollutants in their storm water effluent to achieve concentrations at or below the NALs.

[The State Water Board must consider a number of factors including the cost of achieving effluent reductions in relation to the effluent reduction benefits, the age of the equipment and facilities, the processes employed and any required process changes, engineering aspects of the control technologies, non-water quality environmental impacts (including energy requirements), and other such other factors as the State Water Board deems appropriate (CWA 304(b)(1)(B)). This analysis and rationale is still under development at this time and will be completed prior to adoption.]

### 3. Receiving Water Limitations

Pursuant to CWA section 301 and Water Code section 13377, this General Permit requires strict compliance with water quality standards. Storm water discharges shall not cause or contribute to a violation of an applicable water quality standard. Implementation of BMPs that comply with BAT and BCT will usually result in compliance with water quality standards. Therefore, if a facility's storm water

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<sup>5</sup> [http://www.epa.gov/npdes/pubs/msgp2008\\_finalpermit.pdf](http://www.epa.gov/npdes/pubs/msgp2008_finalpermit.pdf)

discharge causes or contributes to an exceedance of a water quality standard, the discharger must implement additional BMPs to ensure compliance. A discharger who is notified by a Regional Water Board or who determines that the discharge is causing or contributing to an exceedance of water quality standards must comply with Provision V.6. That requires the discharger to:

- i. Examine all industrial activities and all sources of pollutants to determine the source of the exceedance.
- ii. Examine the current BMPs to see if they are properly implemented and working correctly. Every potential source of pollution should have a corresponding suite of BMPs to control the pollutants.
- iii. Determine if the targeted BMPs are appropriate and effective at controlling the pollutants.
- iv. Specify the additional BMPs that will be implemented and indicate how they will provide the necessary control. If there are pollutants that cannot be controlled through the implementation of source control BMPs, treatment BMPs will be necessary.
- v. Determine if there are pollutants that cannot be linked to an -industrial activity. If such pollutants are found in the discharge, it may be necessary to do further monitoring to determine their source.

These corrective actions are different from the Level 1, 2, and 3 corrective actions that result from effluent-based monitoring and triggers. And it is possible to be at any level of effluent-based corrective action and still have to perform the Provision V.6 actions for a pollutant (or multiple pollutants). To distinguish these we will refer to these as water quality-based corrective actions,

The discharger must update its SWPPP to reflect the changes that will be made to the BMPs. If there are pollutants that do not appear to be caused by facility operations, or if the pollutant discharge can be eliminated without upgrading the SWPPP (e.g. a one-time pollutant source or a pollutant that is not generated from the facility), the discharger shall provide supporting documentation and certify that no new BMPs are necessary.

The discharger shall implement the changes identified in the updated SWPPP. dischargers shall revise the SWPPP and implement the appropriate BMPs in a timely manner but in no case more than 90 days after a determination that the SWPPP is in violation of any General Permit requirement.

The failure to implement any of these steps in a timely manner is a violation of this General Permit. If the additional operational source control measures (aka water quality-based corrective actions) do not reduce the pollutants adequately the discharger must implement additional measures such as the construction of treatment systems and/or overhead coverage. Even if a discharger follows this procedure, the Regional Water Board may determine that the steps are not adequate, and it may require implementation of additional, specific measures and/or

may take enforcement against the discharger for failure to comply with the General Permit.

## **B. Conditions For Permit Coverage**

### 1. Types of Storm Water Discharges Covered by this General Permit

This General Permit covers new or existing storm water discharges and authorized non-storm water discharges from:

- a. Facilities required by federal regulations to obtain a permit;
- b. Facilities designated by the Regional Water Quality Control Boards (Regional Water Boards); and
- c. Facilities whose operators seek coverage under this General Permit with the permission of the Regional Water Boards.

40 C.F.R. Section 122.26(b)(14) defines "storm water associated with industrial activity" and describes the types of facilities subject to permitting [mostly by Standard Industrial Classification (SIC) code]. This General Permit provides the federal definition in Attachment 3, Definition 9 and describes the facility categories subject to permitting in Attachment A. This General Permit covers all facilities with industrial activities described in Attachment A, whether the industrial activity is the Discharger's primary or secondary industrial function.

In 1997, the North American Industrial Classification System (NAICS) was published, and it replaced the 1987 SIC Manual. The US EPA has indicated that it intends to incorporate the NAICS codes into the storm water regulations, but has not done so yet. The State Water Board recognizes the difficulty Dischargers will have obtaining SIC code information. The Notice of Intent (NOI) form attached to this General Permit and the State Water Board's NOI processing system have been modified to accept both SIC codes and NAICS codes.

The facilities included in category 1 of Attachment A (facilities subject to 40 C.F.R. Subchapter N) are subject to storm water effluent limitation guidelines that are incorporated into the requirements of this General Permit. Dischargers whose facilities are included in this category must examine the appropriate federal effluent limitation guidelines to determine if they are applicable. This General Permit also contains additional requirements (see Section VIII.6.) that apply only to facilities with storm water effluent limitations guidelines.

This permit includes coverage of inactive, active, or closed landfills that have received industrial wastes. Storm water discharges from these facilities must be covered by this General Permit unless (1) they are already covered by another NPDES permit, or (2) the Regional Water Board has determined that an NPDES permit is not required because the site has been stabilized or required closure activities are completed. In most cases, it is appropriate for new landfill construction or closure to be covered by the State Water Board's General NPDES Permit for storm water discharges from construction and land disturbance activities, rather than this General Permit. Questions have arisen as to what constitutes new landfill

construction at an existing landfill versus the normal planned expansion of a landfill. Similarly, questions of the type of closure activities subject to the construction permit versus the normal closure of “cells” that occurs during continued landfill operations. Other questions such as whether temporary or permanent newly graded/paved roads of greater than 1 acre are constructed at a landfill require construction permitting. Landfill dischargers have asked for clarity to the above questions. Because the previous permit required dischargers to contact the Regional Boards to determine permit appropriateness, some (but not complete) guidance can be provided to some of these questions. However, site specific circumstances will nonetheless continue to cause dischargers to contact Regional Board staff for final determinations.

Normally, continued expansion or closure of landfill areas that occur during active landfill operations are authorized under the permitted approved by the local municipal agency. These expansion/closure activities occur within a limited timeframe (less than 90 days) and are not separately subject to additional local approval. These types of activities generally will be allowed to be covered by this permit. Construction/removal of new or re-located temporary roads related to the landfill operations (whether paved or not) will also generally be covered by this permit. Activities that are likely to require the construction permit are the construction or closure of a separate section of the landfill that either is subject to additional permitting by the local authorities or that last more than 90 days. Construction of any permanent facility structures such a buildings, parking lots, roads of greater than 1 acre would be subject to the construction permit. For the purposes of this section, permanent would mean any structural improvement designed to remain until the landfill is closed. Staff experience indicates that site specific circumstances such as proximate to nearby waterways, extent of activities, pollutants of concern, etc can impact any ultimate decision as to whether a particular activity is more environmentally protective under the industrial or construction permit. Regional Boards will continue to exercise their discretion as necessary to protect the environment.

Section 1068 of the Intermodal Surface Transportation Efficiency Act of 1991 exempted municipal agencies serving populations of less than 100,000 from Phase I permit requirements for most facilities they operate (uncontrolled sanitary landfills, power plants, and airports were still required to be permitted). The Phase II regulations eliminated the above exemption on March 10, 2003 and subjected these facilities to the permitting requirements. These facilities are included in this General Permit.

Dischargers required to comply with this General Permit and that have been designated as non-traditional Small Municipal Separate Storm Sewer Systems (MS4s) may choose not to obtain coverage under the NPDES General Permit for the Discharge of Storm Water from Small MS4s, Order 2003-005-DWQ (as described in Finding 13 of that permit), provided the following conditions are met:

- i. Industrial Permit coverage shall encompass the entire facility (rather than only those areas where industrial activities occur);

- ii. In addition to the SWPPP requirements outlined in Section VII of this General Permit, the facility's SWPPP shall incorporate the six minimum measures, as outlined in the Small MS4 permit;
- iii. The SWPPP shall be submitted to the appropriate Regional Water Board within 180 days of designation (or as directed by the Regional Water Board); and
- iv. The SWPPP shall be amended if necessary pursuant to the Small MS4 General Permit public review process.

2. Types Of Discharges Not Covered By This General Permit

- a. Discharges from construction and land disturbance activities that are subject to the State Water Board NPDES General Permit for Construction and Land Disturbance Activities.
- b. Discharges covered by another individual or general storm water NPDES permit. Some storm water discharges may be regulated by other individual or general NPDES permits issued by the State Water Board or the Regional Water Boards. This General Permit shall not regulate these discharges. When the individual or general NPDES permits for such discharges expire, the State Water Board or Regional Water Board may authorize coverage under this General Permit or another general NPDES permit, or may issue a new individual NPDES permit consistent with the federal and state storm water regulations. Interested parties may petition the State Water Board or appropriate Regional Water Board to issue individual or general NPDES permits. General permits may be issued for a particular industrial group or watershed area.
- c. Discharges that the Regional Water Boards determine to be ineligible for coverage under this General Permit. In such cases, a Regional Water Board will require that the discharges be covered by another individual or general NPDES permit. The applicability of this General Permit to such discharges is terminated when the discharge is subject to another individual or general NPDES permit.
- d. Discharges that do not enter waters of the United States. These include:
  - i. Discharges to municipal separate sanitary sewer systems;
  - ii. Discharges to evaporation ponds, percolation ponds, or that are otherwise retained and prevented from entering waters of the United States.; and
  - iii. Discharges to combined sewer systems. In California, the only major combined sewer systems are located in San Francisco and downtown Sacramento. Dischargers who believe they discharge into a combined

sewer system should contact the Regional Water Board to verify discharge location.

Note: To avoid discharging without a permit, violating the CWA, and facing possible enforcement action, Dischargers should be certain that no discharge of storm water to waters of the United States could occur under any circumstances. Such Dischargers should contact the Regional Water Board with any zero discharge exemption questions.

- e. Discharges from oil and gas facilities, unless:
  - i. Discharges have resulted in a reportable quantity (RQ) discharge for which notification is or was required pursuant to 40 C.F.R. Parts 110, 117, and 302 at any time after November 19, 1987, or
  - ii. Discharges contributed to a violation of a water quality standard.
- f. Discharges from mining facilities that do not come into contact with any overburden, raw materials, intermediate product, finished product, by-product, or waste product located at the facility. These facilities must obtain Permit coverage if they have a new release of storm water resulting in a discharge of an RQ.
- g. Discharges from facilities on Tribal Lands are regulated by US EPA and are not subject to this General Permit.

### 3. Conditions for Permit Coverage

- a. The State Water Board has decided that all documents related to general storm water enrollment and compliance should be submitted electronically. The State Water Board has developed an online database system call the Stormwater Multi Application Reporting and Tracking System (SMARTS) to handle this business process and self-reporting. More on SMARTS and access to the database is available online at <https://smarts.waterboards.ca.gov>
- b. In accordance with the Phase II regulations, this General Permit requires all Dischargers who operate facilities described in Attachment A (that are not otherwise permitted) to electronically submit using SMARTS either PRDs to obtain coverage under this General Permit, or a Certification related to Conditional Exclusion (e.g., No Exposure – NEC, No Discharge and others) to certify that there are no industrial activities exposed to storm water at the facility. The requirement to submit PRDs or a NEC includes facilities that previously self-certified no exposure under the previous permit (category 11). The Legally Responsible Person shall electronically submit the applicable form or forms (either the PRDs or the NEC) using SMARTS for each individual facility.

- c. This General Permit's PRDs and NEC requirements are intended to establish a clear accounting of the name, address, and contact information for each Discharger, as well as a description of each Discharger's facility.
- d. All Dischargers submitting PRDs on or after the effective date of this General Permit shall immediately comply with this General Permit. Existing Dischargers who have filed NOIs before the effective date of this General Permit shall:
  - i. Receive automatic coverage under this General Permit;
  - ii. Modify and implement SWPPPs and Monitoring Programs in compliance with this General Permit no later than [insert effective date];
  - iii. Continue storm water compliance activities in accordance with the expired general permit until their SWPPP and Monitoring Programs are modified and implemented; and
  - iv. File a Notice of Termination (NOT) or NEC at any time after this General permit has been adopted when they satisfy the conditional exclusion conditions or otherwise become eligible to terminate permit coverage.
- e. Dischargers who had not submitted PRDs prior to the adoption of this General Permit because their facilities were classified as 'light industries' (under the prior Phase I regulations) and did not have exposure to industrial materials and activities, shall mail or electronically file a NEC by January 1, 2012.

### **C. Non Storm Water Discharges**

A major element of the SWPPP is identification and elimination of unauthorized non-storm water discharges. Unauthorized non-storm water discharges can contribute a significant pollutant load to receiving waters. Measures to control spills, leakage, and dumping can often be addressed through BMPs.

Unauthorized non-storm water discharges can be generated from various pollutant sources. Depending upon their quantity and location where generated, unauthorized non-storm water discharges can discharge to the storm drain system either during dry weather, or during a storm event (co-mingled with storm water discharge). They can consist of (1) waters generated by the rinsing or washing of vehicles, equipment, buildings, or pavement; and (2) fluid, particulate or solid materials that have spilled, leaked, or disposed of improperly.

Some non-storm water discharges are not directly related to industrial activities and do not normally contain pollutants when properly managed. Section IV of this General Permit lists non-storm water discharges that are authorized when dischargers satisfy certain described conditions.

The requirements for authorized and non-authorized discharges remain essentially unchanged from the prior permit(s).

#### **D. Training Qualifications and Requirements**

The previous permit did not specify how to comply with many of the requirements it contained and much of the training that dischargers received had little or no state guidance on how to achieve compliance. By standardizing and requiring training standards, it is the State Water Board's opinion that this will improve monitoring data quality, provide more site-specific compliance information, and expand industries' understanding and implementation of the permit requirements. This General Permit requires dischargers to hire a Qualified SWPPP Developer (QSD) who has completed the statewide training protocol. The QSD is responsible for writing the SWPPP and for giving professional site compliance guidance to the discharger. The discharger is also required to assign and send an individual from the facility who is authorized to implement this General Permit's requirements to the Qualified SWPPP Practitioner (QSP) training.

#### **E. SWPPP Requirements**

##### **1. Minimum BMPs**

The EPA's 2008 MSGP requires dischargers to comply with 12 non-numeric technology based effluent limits in Section 2.1.2 of the permit<sup>6</sup> through implementing control measures. This requirement was an expansion of the general considerations outlined in the MSGP from 2000. The control measures specified by the EPA are as follows:

1. Minimize Exposure
2. Good Housekeeping
3. Maintenance
4. Spill Prevention and Response Procedures
5. Erosion and Sediment Controls
6. Management of Runoff
7. Salt Storage Piles or Piles Containing Salt
8. Sector Specific Non-Numeric Effluent Limits
9. Employee Training
10. Non-Stormwater Discharges
11. Waste, Garbage and Floatable Debris
12. Dust Generation and Vehicle Tracking of Industrial Materials

This General Permit incorporates six of the above control measures more directly because Regional and State Board staff have found them to be the most applicable to California's dischargers. Some of the others control measures such as minimizing exposure are integrated into this General Permit more indirectly. The following summarizes the requirements in this General Permit that are related to the control measures found in the EPA's MSGP:

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<sup>6</sup> US EPA's MSGP page 13 Section 2.1.2

## Good Housekeeping

The EPA's MSGP Part 2.1.2.2 requires dischargers to keep all exposed areas, that may be a potential source, clean and orderly. This General Permit seeks to define "clean and orderly" by specifying required a set of seven minimum good housekeeping BMPs which include weekly inspections of outdoor/exposed areas, BMPs for controlling material tracking and rinse/wash water activities, covering and containing stored industrial materials and diverting stormwater from industrial process areas.

## Preventative Maintenance

The EPA's MSGP Part 2.1.2.3 requires dischargers to regularly inspect, test, maintain, and repair all industrial equipment so that leaks, spills and releases to receiving waters via stormwater due to these sources is avoided. This General Permit (Section XX) incorporates this concept by requiring four non structural BMPs which include the identification and inspection of equipment, an equipment maintenance schedule, and equipment maintenance procedures.

## Spill Response

The EPA's MSGP Part 2.1.2.4 requires dischargers to minimize the potential for leaks, spills and other releases that may be exposed to stormwater. There is also a requirement to develop a spill response plan and implement procedures such as label containers that are susceptible to a spill or a leakage, containment measures for such materials, procedures for stopping leaks/spills and notifying appropriate personnel about the occurrence. This General Permit (Section XX) requires the implementation of three general BMPs that facilities can easily incorporate into their industrial activities to respond to spills in general, but will also help prevent that such spills may affect stormwater. These BMPs are: developing a set of spill response procedures, identify/describe equipment needed and where located at facility, and identify and train spill response personnel.

## Material Handling and Waste Management

The EPA's MSGP Part 2.1.2.3 requires dischargers to ensure that waste, garbage and flutable debris are not discharged into receiving waters. The MSGP identifies that keeping areas clean and intercepting such materials are ways to minimize such discharges. This General Permit (Section XX) requires dischargers to prevent or minimize handling of waste or materials during a storm event that could potentially discharge, contain materials susceptible to wind erosion, cover waste disposal containers when not in use, clean manage spills of such wastes or materials in accordance with Section XX, and daily inspect outdoor areas and equipment that may come into contact with such materials or waste and become contaminated.

## Employee Training Program

The EPA's MSGP Part 2.1.2.9 requires all employees engaged in industrial activities or materials that may affect stormwater to be trained in how to implement this permit.

This General Permit requires that necessary personnel are trained in how to comply with the permit's requirements. These are the Four minimum training BMPs required: prepare the proper training materials and manuals for employees, identify which staff needs to be trained, provide a training schedule, and maintain documentation on the training classes and who received the training. This General Permit also requires a QSD, who writes the SWPPP and a QSP who is assigned to each facility, both of these individuals can help with compliance of these training requirements. Any personnel involved with implementing, permit requirements, the SWPPP, monitoring requirements or BMPs is part of the Pollution Prevention Team.

### Erosion and Sediment Controls

The EPA's MSGP Part 2.1.2.5 requires the use of structural and/or non-structural control measures to stabilize exposed areas and contain runoff. Also required is the use of a flow velocity dissipation device(s) in outfall channels where necessary to reduce erosion and/or settle out pollutants. The EPA has developed some online resources for erosion and sediment controls that can be found at the MSGPs website: <http://cfpub.epa.gov/npdes/stormwater/msgp> which includes thier National Menu of BMPs <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm> and the National Management Measures to Control Nonpoint Source Pollution from Urban Areas: <http://water.epa.gov/polwaste/nps/urban/index.cfm>

Another valuable resource for research possible BMPs is the California Storm Water Quality Associations Industrial and Commerical BMP Handbook:  
<http://www.cabmphandbooks.com/Industrial.asp>

### Record Keeping and Quality Assurance

The EPA's MSGP does not assign control measures directly to record keeping in Section 2.1.2 but has many direct permit requirements related to reporting Section 7 Reporting and Recordkeeping. This General Permit has directly enforceable minimum reporting BMPs that require dischargers to keep and maintain records and ensure that management procedures are designed to ensure that appropriate staff implements permit requirements, including the SWPPP and monitoring. These protocols mirror some of the EPAs requirements in Section 7.

### Visual Inspections

The EPA's MSGP Part 2.1.2 The EPA's MSGP does not assign control measures directly to visual inspections in Section 2.1.2 but has many direct permit requirements related to mandatory visual inspections in Section 4.2 Quarterly Visual Assessment of Stormwater Discharges. This General Permit has directly enforceable minimum visual inspection BMPs that require dischargers to conduct a minimum of one quarterly visual inspection of industrial areas and activities (where one can be the ACFCE), implement corrective actions and/or SWPPP revisions resulting from inspections, prepare a corrective actions summary and SWPPP revisions based on these visual inspections to include in the Annual Report, and certify in the Annual Report that each quarterly visual inspection was completed. These protocols mirror some of the EPAs requirements in Section 4.2.

Dischargers are required to implement an effective suite of BMPs that meet the BAT/BCT standard for their facility. Regional Board staff conducted inspections of dischargers' facilities and discovered significant variation among each discharger's interpretation of what BMPs constitute BAT and BCT, and consequently, what BMPs are necessary to comply with the previous permit. Therefore, Section VII. 8.A of this General Permit establishes a new requirement that dischargers must include specific minimum BMPs in their SWPPP and implement these at their facilities. In addition, due to significant variety of facilities conducting numerous and differing industrial activities throughout the state, this General Permit retains the requirement from the previous permit to establish and implement facility-specific BMPs that reflect BAT and BCT beyond the minimum BMPs in this General Permit. These minimum BMPs, together with the more comprehensive facility-specific BMPs, will constitute compliance with BAT/BCT. All Dischargers must evaluate their facilities to determine the best practices necessary to implement these minimum BMPs and the additional, facility-specific BMPs. By requiring minimum BMPs, the number of compliance violations identified during Regional Water Board inspections should be reduced.

The State Water Board has selected minimum BMPs that are generally applicable and necessary at all facilities. The minimum BMPs are consistent with the types of BMPs normally found in properly developed SWPPPs and, in most cases, should represent a significant portion of a discharger's BAT and BCT compliance. Because of the diverse industries covered by this General Permit, the development of a more comprehensive list of minimum BMPs, that would constitute full compliance with BAT/BCT for all dischargers, is not currently feasible. The selection, applicability, and effectiveness of a given BMP is very often related to industrial activity type and to facility-specific facts and circumstances. These additional, facility-specific BMPs must be selected and implemented by the dischargers, based on the type of industry and facility-specific conditions, in order to achieve BAT and BCT.

The failure to implement any of these minimum BMPs, unless it can be clearly demonstrated that they are not applicable to the facility, is a violation of the General Permit. An example of how a discharger would demonstrate that a minimum BMP does not apply to their facility operations would be a statement in the SWPPP that the facility has no waste disposal containers<sup>7</sup> that need to be covered. The failure to implement facility-specific BMPs that are necessary to achieve compliance with BAT/BCT and to meet applicable water quality standards is also a violation of this General Permit.

## 2. SWPPP

This General Permit requires all Dischargers to develop, implement, and retain onsite a facility-specific SWPPP. The SWPPP must be written by a QSD and overseen by a QSP. This General Permit's SWPPP requirements generally follow the US EPA's five-phase approach to developing SWPPPs as described in Fact Sheet Figure 1. This approach provides the flexibility necessary to establish appropriate BMPs for different types of industrial activities and pollutant sources.

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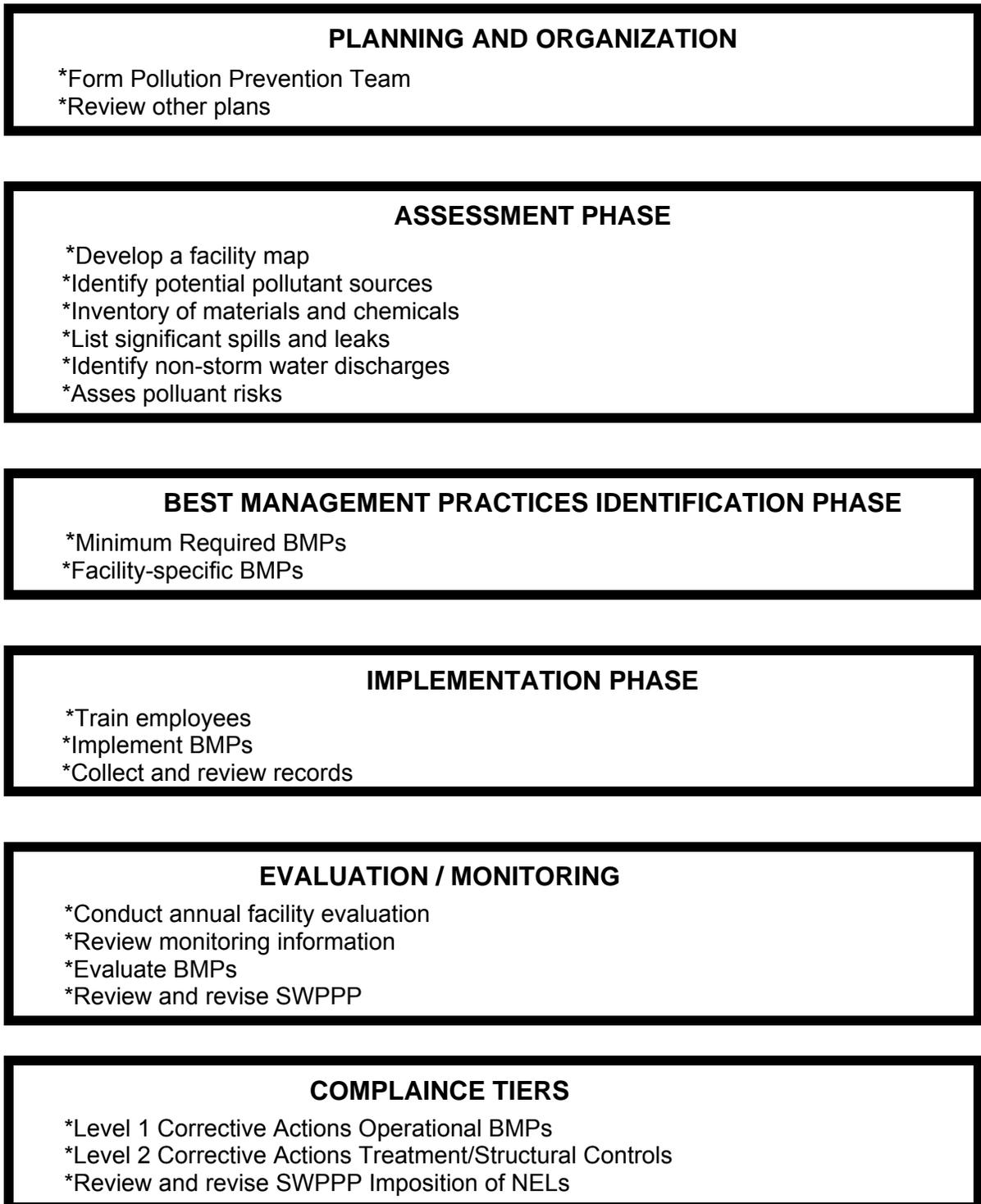
<sup>7</sup> See General Permit Section VIII.H.1.d.iii

This General Permit's SWPPP requirements have been modified to better clarify the extent Dischargers must describe their BMPs. Dischargers must not only describe a BMP in a generic sense, for example "sweeping," but must also describe who is responsible for sweeping, where and how often the sweeping will occur, what the pollutants of concern are, the type and location of sweeping equipment, how and where swept materials should be handled and disposed, etc. Similarly, a Discharger's training program must identify who must receive training, what type of training to provide, how often training needs to be provided, and must include a method to track whether the appropriate personnel have received the training.

This General Permit requires dischargers, at a minimum, to conduct quarterly facility inspections to determine whether the SWPPP should be revised to address any physical or operational changes at the facility and to detect any obvious problems with the SWPPP's existing set of BMPs. The previous permit did not include this requirement, and many dischargers did not conduct the inspections necessary to assure that the SWPPP is updated throughout the year. Many dischargers did not update their SWPPPs until completion of the annual comprehensive site compliance evaluation. The State Water Board believes that setting a minimum frequency is reasonable and will not result in a significant burden for dischargers.

The failure to develop, implement, or update an adequate SWPPP that is specific to the facility is a violation of this General Permit. As part of the Regional Boards enforcement authority, they may place a discharger in violation of any of this General Permit's Corrective Action Levels (as described in Section XVII of this General Permit) into any one of the three Corrective Action Levels. The failure to maintain the SWPPP on site and have it available for inspection is a violation of this General Permit.

**FIGURE 1: Five Phases for Developing and Implementing Industrial SWPPPs**



**FIGURE 2: Example Assessment of Potential Industrial Pollution Sources and Corresponding BMPs Summary**

Area	Activity	Pollutant Source	Industrial Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery	Fuel oil	-Use spill and overflow protection
		Spills caused by topping off fuel tanks	Fuel oil	-Train employees on proper fueling, cleanup, and spill response techniques
		Hosing or washing down fuel area	Fuel oil	-Use dry cleanup methods rather than hosing down area  -Implement proper spill prevention control program
		Leaking storage tanks	Fuel oil	-Inspect fueling areas regularly to detect problems
		Rainfall running off fueling area, and rainfall running onto and off fueling area	Fuel oil	-Minimize run-on of storm water into the fueling area, cover fueling area

## F. Monitoring Program

This General Permit requires dischargers to develop and implement a facility-specific monitoring program to provide indicator monitoring information for the following:

- a. BMPs addressing pollutants in storm water discharges and authorized non-storm water discharges comply with the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations of this General Permit,
- b. the presence of pollutants (and their sources) in storm water discharges and authorized non-storm water discharges that may require immediate corrective action, additional BMP implementation, or SWPPP revisions, and
- c. The effectiveness of BMPs to prevent or reduce pollutants in storm water discharges and authorized non-storm water discharges.

Sampling and analysis information can often be useful to the discharger while evaluating the need for improved BMPs. This General Permit's monitoring requirements are consistent with US EPA guidance that emphasizes visual monitoring as the most effective monitoring method for evaluating the effectiveness of BMPs at most facilities. However, this General Permit goes well beyond the US EPA permit

requirements and requires sampling and analysis from all facilities covered by this General Permit. Fact Sheet Figure 3 provides a summary of all the monitoring-related requirements of this General Permit. As recommended by US EPA policy, this General Permit's monitoring requirements also include sampling and analysis for specific parameters that would indicate the presence of pollutants in storm water discharges. Dischargers are also required to evaluate their facilities and analyze samples for additional, facility-specific parameters and constituents. The monitoring program requirements are designed to provide useful, cost-effective, timely, and easily obtained information to assist dischargers to identify pollutant sources, implement corrective actions, and revise BMPs. All dischargers (with the exception of certain active mining operations) are required to:

1. Visually monitor authorized and unauthorized non-storm water discharges.
2. Collect and analyze storm water samples from qualifying storm events. Each quarterly analysis must include: (a) the minimum indicator parameters: pH, total suspended solids (TSS), Oil and Grease, and specific conductance, (b) parameters that indicate the presence of materials that are mobilized by contact with storm water (such as rock salt) and are likely to be exposed to storm water (based upon the Discharger's pollutant source assessment required in the SWPPP), (c) parameters listed in Table VIII "Additional Analytical Parameters" (These parameters are dependent on the facility's SIC code), and (d) parameters indicating the presence of industrial materials that may be causing or contributing to an exceedance of a water quality standard in the receiving waters. Dischargers subject to federal storm water effluent limitation guidelines in 40 C.F.R. Subchapter N must also sample for and analyze any pollutant specified in the appropriate category.
3. Visually monitor the facility before every anticipated storm event to locate and manage obvious pollutant sources.

Minimum parameters are necessary so that dischargers, regardless of whether additional site-specific parameters are selected as discussed below, develop comparable sampling data over time and over many storm events to indicate compliance. Additionally, Regional Water Boards can use such comparable data when evaluating individual facility compliance and when assessing the differences between the various industries. The selection of appropriate indicator parameters is difficult because of the various materials handled at industrial facilities. The parameters selected are relatively broad, inexpensive, and easy to understand. Some parameters, such as pH and specific conductance, shall be tested by dischargers using relatively inexpensive field instruments, providing an immediate alert to possible pollutant sources.

The four selected parameters are considered *indicator* parameters. In other words, regardless of the facility type, these parameters are nonspecific and general enough to usually provide some indication whether pollutants are present in storm water discharge. The following briefly explains why each of these parameters was selected:

pH is a numeric measurement of the hydrogen-ion concentration. The neutral range is usually considered to be within 6.5 to 8.5. At values less than 6.5, the water is considered acidic; above 8.5 it is considered alkaline or basic. Pure rainfall tends to have a pH of a little less than 7. Many industrial facilities handle materials that can affect pH.

TSS is an indicator of the un-dissolved solids that are present in storm water discharge. Sources of TSS include sediment from erosion and dirt from impervious (i.e., paved) areas. Because many pollutants can adhere to sediment particles, reducing sediment can reduce the amount of these pollutants in storm water discharge.

Specific Conductance (SC) is a numerical expression of the ability of the water to carry an electric current. It provides an indication of the degree of mineralization, salinity, or the total dissolved solids present in storm water discharges. Rainwater has a SC of close to zero. Seawater has a very high SC. High SC could affect the usability of waters for drinking, irrigation, and other commercial or industrial use.

Oil and Grease (O&G) is a measure of the amount of oil and grease present in storm water discharge. At very low concentrations, O&G can cause sheen on the surface of water. O&G can adversely affect aquatic life, create unsightly floating material, and make water undrinkable. Sources of O&G include maintenance shops, vehicles, machines, and roadways.

The prior permit allowed dischargers to analyze samples for either Oil & Grease or Total Organic Carbon (TOC). This permit requires all dischargers analyze for Oil & Grease since virtually all dischargers with outdoor activities operate equipment and vehicles which can generate non-water soluble oils and greases. Dischargers with water-soluble based organic oils may, in addition, test for TOC. The TOC and Oil & Grease tests are not synonymous, duplicative or interchangeable.

This General Permit's Monitoring Program contains a table (Table 2) of analytical parameters organized by SIC codes as did the previous permit (Table D). The table is taken from the US EPA's MSGP. In the early 1990s, US EPA, through its group application program, evaluated nationwide monitoring data and developed the listed parameters and SIC associations. The US EPA's MSGP requires dischargers to analyze storm water effluent for the listed parameters under certain conditions. A new analytical requirement has been added to complement the parameters in Table 2. Dischargers are required to select additional site-specific analytical parameters based upon the types of materials that are both exposed to and mobilized by contact with storm water. Dischargers should generally understand how to identify industrial materials that are handled outdoors and which of those materials can easily dissolve or be otherwise transported via storm water.

Similar to the previous permit, dischargers are also required to identify pollutants that may be causing or contributing to an existing violation of any applicable water quality standards for the receiving water. This requirement requires dischargers to select additional analytical parameters that are representative of materials handled at the facility (regardless of degree of storm water contact or relative mobility) if they are related to pollutants that are causing an exceedance of a water quality standard.

Information on 303(d) listed water bodies is available from the State Water Board and Regional Water Boards. This General Permit requires a combination of visual monitoring and analytical monitoring. Visual monitoring provide dischargers immediate information indicating the presence of most pollutants and their sources. Dischargers must implement timely corrective actions and revise BMPs as necessary. Analytical monitoring can provide an indication of the presence and relative concentrations of pollutants in storm water discharge. Dischargers are required to evaluate potential pollutant sources and corresponding BMPs and make appropriate SWPPP revisions when concentrations exceed NAL corrective action triggers as described below.

This General Permit requires dischargers to perform pre-storm visual monitoring to identify and correct obvious pollutant sources before a storm event to prevent discharges of pollutants. This requirement, which is similar to that required in the Construction Storm Water General Permit, should result in reduced pollutant discharge. Even facilities with good SWPPPs and BMP implementation may, on occasion, detect irregular or non-routine pollutant sources that might not have been otherwise mitigated in time to prevent contact with storm water.

For the purpose of this General Permit's visual monitoring and sampling requirements dry weather shall be defined as two consecutive days (or 48 hours) of combined rainfall of less than  $\frac{1}{8}$  inch as measured by an on-site rainfall measurement device. The definition is different than the previous permit's definition of "3 working days". The three working days in the previous permit led dischargers to miss many storm events. Often, dischargers were unable to collect even one sample per year. The current MSGP established by the EPA sets a "measurable storm event" as one that results in an actual discharge after 72 hours (three days)<sup>8</sup>. Washington State defines a "qualifying storm event" as a storm with at least 0.1 inches of precipitation preceded by at least 24 hours of no measurable precipitation<sup>9</sup>. Washington's requirement mirrors the previous EPA's MSGP (2000 version). Oregon State only requires that samples are take 14 days apart<sup>10</sup>. The two consecutive days (or 48 hours) as a definition for dry weather is a balance between the EPA's MSGP requirements and the more stringent 24 hour period set by Washington State. This definition is also consistent with the previously adopted Construction General Permit, which defines a Qualifying Rain Event as any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events<sup>11</sup>. Staff chose  $\frac{1}{4}$  of an inch over  $\frac{1}{2}$  since manu industrial facilites have impervious areas and will generate runoff faster than a Construction site

## G. Sampling And Analysis Requirements

As part of the 1991 general permit adoption process, the 1992 general permit amendment process, and the 1997 general permit adoption process, the State Water

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8 US EPA Multi Sector General Permit – Fact sheet page 38 Section 6.1.3 Measurable Storm Event

9 Washington State Department of Ecology Storm Water NPDES Industrial General Permit page 72 Fact sheet Sample Timing Section

10 Oregon State Department of Environmental Quality Storm Water NPDES Industrial General Permit page 13 Grab Sampling and Visual Monitoring Procedures and Locations

11 California's Storm Water NPDES Construction General Permit Appendix 5 Glossary page 8

Board considered comments from hundreds of stakeholders concerning sampling and analysis. Sampling and analysis issues are the most dominant of all the issues concerning this General Permit.

The comments received generally fall into three primary categories:

1. Those supporting a quantitative sampling and analysis approach (sampling and analysis that would produce accurate discharge-characterizing and pollutant concentration data) as the primary method of determining compliance with water quality standards. These commenters generally supported the use of stringent numeric effluent limitations such as California Toxics Rule (CTR) values to demonstrate compliance;
2. Those supporting only visual monitoring as the primary method of determining compliance. These commenters generally assert that storm water sampling is a defective means of determining water quality impacts on the receiving waters; and
3. Those supporting the prior permit's approach of a combination of visual monitoring and cost-effective qualitative sampling and analysis (sampling and analysis that would produce data indicating the presence of pollutants) to determine compliance. Within each of the three categories, there are various recommendations and rationales as to the exact monitoring frequencies, procedures, methods, etc.

Those in favor of the quantitative sampling and analysis approach argue that it is the only reliable and meaningful method of assuring that (1) BMPs are effective in reducing or preventing pollutants in storm water discharge in compliance with BAT/BCT, and (2) the discharge is not causing or contributing to an exceedance of a water quality standard. They believe that visual monitoring is not effective in measuring pollutant concentrations nor is it effective in determining the presence of colorless/odorless pollutants. They argue that qualitative sampling and analysis (and the use of indicator parameters) will not provide results useful for calculating pollutant loading nor accurately characterize the discharge.

Those in favor of requiring only visual monitoring argue that sampling and analysis is unnecessary because (1) the previous permit did not include numeric effluent limitations so the usefulness of sampling and analysis data is limited, (2) a significant majority of Dischargers should be able to develop appropriate BMPs without sampling and analysis data, (3) most pollutant sources and pollutants can be detected and mitigated through visual monitoring, (4) the costs associated with quantitative sampling and analysis are excessive and disproportional to any benefits, (5) the US EPA storm water regulations do not require sampling, (6) the US EPA's nationwide permit relies heavily on visual monitoring and only requires a limited number of specific industries to conduct sampling and analysis, and (7) the majority of dischargers are small businesses and do not have sufficient training or understanding to perform accurate sampling and analysis.

Those in favor of requiring both visual monitoring and a cost-effective qualitative monitoring program argue that (1) both are within the means and understanding of most dischargers, and (2) the results of both types of monitoring are useful for evaluating a discharger's compliance without increasing burden on the dischargers and without subjecting the dischargers to non-technically justified enforcement actions.

An area in common among many commenters is that the permit should provide a more accurate definition of what constitutes compliance, what corrective action procedure dischargers must follow, and a clearly defined end point for determining whether a discharger is in violation of the permit and subject to enforcement actions. The State Water Board believes that a significant majority of dischargers should be able to develop appropriate BMPs to reduce pollutants using BAT/BCT without implementing the necessary and costly improvements related to quantitative sampling and analysis.

The State Water Board believes that a significant majority of dischargers should be able to develop appropriate BMPs without costly quantitative sampling and analysis. Without established storm water numeric effluent limits, which are particularly difficult to calculate because of the variation in storm water discharge duration, intensity, and time of year, etc., the State Water Board considers the difficulty and costs associated with developing quantitative sampling and analysis programs at all 9,500 facilities currently permitted to outweigh the limited benefits. The problems of requiring quantitative monitoring lie mainly with the costs and difficulty of accurately sampling storm water discharges. Those who support quantitative monitoring believe that the data is necessary to determine pollutant loading, concentration, or contribution to water quality violations. To derive data that would support those goals, the data must be accurate and enforceable. Most facilities do not have well-defined storm water conveyance systems from which to collect samples. Storm water frequently discharges from multiple locations by sheet flow into nearby streets and adjoining property. Collecting a sample from a portion of the sheet flow is an inexact measurement since not all of the flow is being sampled. Requiring dischargers to construct well-defined storm water conveyances would cost anywhere from thousands to hundreds of thousands of dollars depending on the size and nature of each facility. At many facilities, the construction of such conveyances could violate local building codes, threaten safety, cause flooding, and increase erosion. In addition, eliminating sheet flow at some facilities could result in increased pollutant concentrations.

If a facility has a well-defined storm water conveyance system from which to collect samples, the State Water Board has considered the complexity and costs associated with storm water sampling. Unlike continuous point source discharges (like from Publicly Owned Treatment Works), storm water discharges are variable in intensity and duration. The concentration of pollutants discharged at any one time is dependent on many complex variables. Obviously, the largest concentration of pollutants would be generally expected to discharge earlier in the storm event and to taper off as discharges continued. Therefore, storm water discharges would need to be collected and sampled until most or all of the pollutants have been discharged. Multiple samples would have to be collected over many hours. To determine the pollutant mass loading, the storm water discharge flow would have to be measured at the time each sample is collected.

Quantitative monitoring, as described above, would normally require the installation of automatic sampling devices and flow meters at each discharge location. In addition, it requires qualified people to conduct quantitative monitoring procedures and to handle and maintain flow meters and automatic samplers. A significant majority of storm water Dischargers under this General Permit do not have the skills to manage such an effort. Such Dischargers would bear the cost of employing and/or training on-site staff to do this work or contracting with environmental consultants. Added to this is the cost of renting or buying the flow meters and automatic samplers. As is the case for estimating the costs with constructing a well-defined conveyance system, the costs for each Discharger to conduct quantitative monitoring will depend on the number of outfalls, number of storms, length of storm, skilled staff, and other variables. Costs would easily exceed a thousand dollars per outfall per storm event.

To address the above historic concerns, this General Permit includes a number of new items that bridge the gap between the previous permit approach of qualitative requirements and more quantitative approach of this General Permit. This General Permit includes a requirement for all dischargers to have both a QSD and QSP who will be trained to identify sample locations representative of storm water discharge, select and implement appropriate sampling procedures, and evaluate and develop additional BMPs to reduce pollutants in the storm water discharges using BAT/BCT.

It is a violation of this General Permit if the discharger does not develop and implement a monitoring program or if that monitoring program is unavailable on-site for inspection. It is a violation of this General Permit if the discharger fails to sample the discharge from a qualifying storm event when required.

Failure to develop and implement an adequate monitoring plan, including both visual monitoring and sampling and analysis, is a violation of this General Permit. Failure to implement additional sampling and analysis as a result of an exceedance of the NALs from a qualifying storm event is a violation of this General Permit.

## **H. Sampling Procedures and Test Methods**

Section 13383.5 of the Water Code requires (among other things) that the State Water Board include in this General Permit (1) standardized methods for collection of storm water samples, (2) standardized methods for analysis of storm water samples, (3) a requirement that every sample analysis be completed by a State certified laboratory or in the field in accordance with quality assurance and quality control protocols, (4) a standardized reporting format, (5) standardized sampling and analysis programs for quality assurance and quality control, and (6) minimum detection limits. This General Permit's monitoring section includes many revisions that address these requirements.

Many dischargers have not developed adequate sample collection and handling procedures, which affects the quality of the analytical results. In addition, dischargers often select inappropriate test methods, detection limits, or reporting units. Although the required sampling and analysis requirements contained in this General Permit are not designed to provide quantitative results (as discussed above), dischargers must develop and implement reasonable sampling procedures to ensure that samples are not mishandled or contaminated. Because the types of storm water conveyance and

collection systems are numerous and varied, the State Water Board cannot provide a single comprehensive set of sample collection and handling procedures/instructions. Instead, General Permit Section VIII.H.1 provides minimum storm water sample collection and handling requirement instructions that pertain to all facilities. Dischargers are required to develop facility-specific sample collection and handling procedures based upon these minimum requirements. Table 4 provides the minimum test methods (and associated detection limits) that shall be used for a variety of common pollutants. Dischargers should be aware that more sensitive test methods (such as USEPA Method 1631 for Mercury) might be necessary if they discharge to an impaired water body or are otherwise required to do so by the Regional Water Board.

The previous permit (Section B.7.d) allowed dischargers to assess whether drainage areas were substantially similar and then to reduce sample analysis either by (1) combining samples for an unspecified maximum number of substantially similar drainage areas, or (2) sampling a reduced number of substantially similar drainage areas. The State Water Board provided this procedure to reduce analytical costs. However, the complexity associated with determining “substantially equivalent” drainage areas, and that there was no specified maximum number of samples that could be combined, has led dischargers to various interpretations and analytic schemes. To make sample collection and analysis more standardized as required by Section 13383.5, yet continue to offer a reduced analytic cost option, these requirements have been revised. Section X.F requires dischargers to collect samples from all drainage areas. Dischargers may analyze each sample collected, or may analyze a combined sample consisting of equal volumes of samples collected from as many as four (4) drainage areas. A minimum of one combined sample shall be analyzed for every four (4) drainage areas.

### **I. Additional Sampling Requirements For Facilities With Significant Land Disturbances**

Many types of facilities under this General Permit involve significant land disturbances that have operations more like a construction site since such facilities rely mainly on erosion and sediment controls more than the minimum BMPs required in this General Permit. The primary pollutant of concern is sediment. Such facilities have been found to have the potential to discharge high levels of sediment and other erodible materials. As a storm event continues, BMP implementation, inspection and monitoring is required to prevent increased discharges of pollutants (sediment and erodible materials) during the course of the storm. In contrast, an industrial facility is largely impervious and pollutants will usually accumulate on the impervious surfaces and will be discharged during the first part of a storm, and not increase during the course of the storm. For this reason, daily sampling during a qualifying storm event is needed for the following SIC codes 10XX through 14XX; landfills; and other facilities with land disturbances identified by the Regional Water Boards. Facility operators of such facilities that do not have significant land disturbance operations may request an exemption from these additional monitoring requirements from the Regional Water Board.

### **J. Sampling and Analysis Reduction**

Facilities that demonstrate compliance over 10 consecutive sampled quarters are likely not posing a significant threat to water quality and should be eligible for a reduction in

sampling. This General Permit allows Dischargers to go from quarterly sampling to collecting just the first qualifying storm after October 1 of each reporting year. At any time the Discharger meets one or more of the three NAL compliance triggers, the Discharger immediately reverts back to normal sampling requirements.

## **K. Corrective Actions**

[Additional rationale is forthcoming.]

The previous permit requires dischargers who believe that their storm water discharge is causing or contributing to a water quality violation to evaluate their facility's pollutant sources and BMPs to determine what additional BMPs are necessary to achieve compliance with water quality standards. In accordance with the previous permit's Receiving Water Limitation (C.1-4 page 5) requirements dischargers are required to follow a set of instructions on BMP implementation and on how to report the possible exceedances of water quality standards to the appropriate Regional Water Board office. The previous permit, however, does not include a methodology for determining when a discharge is causing or contributing to a water quality standard. The previous permit does not reference the US EPA's MSGP benchmarks or any other set of action levels or triggers. Many Regional Water Boards have formally or informally notified dischargers that exceedances of US EPA's MSGP benchmarks should be used to determine whether additional BMPs are necessary. However, there is considerable confusion as to what extent a discharger is expected to implement corrective actions, and what the timelines are to avoid or trigger enforcement actions. This lack of specificity in terms of compliance triggers and expectations have been labeled a problem by both industry and environmental stakeholders.

This permit contains storm water sampling Numeric Action Levels (NALs) and corrective actions. The corrective actions are divided into three levels of complexity depending upon the number of years a facility's discharge triggers an NAL corrective action. These three levels are explained in Section XX. For dischargers that fail to comply with the prescribed corrective actions in each level, and/or whose discharge continues to meet the defined triggers, the technology-based NALs become technology-based NELs subject to mandatory minimum penalties under Water Code Section 13385. This system provides Dischargers with an adaptive process to develop and implement cost-effective BMPs prior to becoming subject to mandatory enforcement. At the same time, this General Permit's corrective action system is designed to have a well-defined compliance end-point – either a Discharger will implement effective BMPs in compliance with BAT/BCT or become subject to mandatory enforcement. The corrective action Levels 1 and 2 in this General Permit constitutes a technology-based non-numeric (narrative) effluent limitation as provided in 40C.F.R. section 122.44(k). The corrective action Level 3 requirements, where NALs become NELs, constitute technology-based numeric effluent limitation.

The corrective action requirements were developed in consideration of the State Water Board's best professional judgment and experience with the short-comings of the previous permit's compliance procedures. The State Board also considered comments in the preceding hearings on the draft 2002/2005 permits and looked at other states'

NPDES Industrial Stormwater permits that had well-defined corrective action requirements.

The State Water Board presumes that any single NAL exceedance for a particular parameter is not a clear indicator that a facility's discharge may be causing or contributing to a water quality violation. This presumption recognizes the highly variable nature of storm water discharge and the limited value of a single quarterly grab sample to characterize a facility's storm water discharge for an entire storm event and all other non-sampled storm events. This presumption also avoids requiring costly corrective actions that may not be warranted.

This General Permit contains three types of corrective action triggers:

1. The Daily Average (DA) for any particular parameter must exceed an NAL twice before the next corrective action level is triggered;
2. The DA for two or more parameters exceeds the NALs\*; or
3. The analytical result from any single sample or eligible combined sample is twice the NAL value (or more than one pH unit).\*

\*The second and third types of triggers are based upon samples from a single storm event.

Trigger 1(above): Any particular parameter exceeds the NAL twice. If sampling results (for one parameter) over two consecutive storm events demonstrate characteristics that meet trigger 1, this indicates the possibility of a larger compliance problem.

Trigger 2(above): More than one parameter is being exceeded in one storm event. If sampling results demonstrate characteristics that meet trigger 2, this indicates the possibility of a larger compliance problem that outweighs the State Water Board's concerns of basing corrective actions on a single storm event.

Trigger 3 (above): Based upon an analysis of the storm water data available to State Water Board staff, twice the NAL value is equivalent to between the 85<sup>th</sup> and 95<sup>th</sup> percentile of all values dependant upon the parameter. Although it is unknown how the revised DA will effect future analytical results, values at these high percentiles are not as easily attributed to the highly variable nature of storm water discharge and limited value as a single quarterly grab sample.

If corrective action is not triggered for a particular parameter, it is presumed that the Discharger is not causing or contributing to a violation of a water quality standard for that parameter. If a corrective action is triggered, the potential for a violation of water quality standards increases, and the facility is required to implement escalating levels of corrective actions. Baseline requirements (sometimes referred to as Level 0) is a level where the discharger's sampling results meet the NALs, and so no corrective action is necessary. However, if the discharger causes one of the three triggers, then in the following compliance year, the discharger moves up to Level 1 and begins corrective action. Level 1 corrective action emphasizes operational source control

BMPs such as better good housekeeping practices, minimizing pollutant exposure, better training, etc. Level 2 corrective actions require the consideration of structural source control BMPs (additional overhead coverage, containment of certain areas, etc) and treatment BMPs. Level 3 corrective actions is the imposition of NELs. Movement between corrective action levels takes effect at the beginning of each compliance year.

Since NALs and the corresponding corrective action triggers are not considered NELs (until Level 3 corrective action is implemented), discharges that trigger a corrective actions are not automatically considered permit violations or a violation of water quality standards. However, a discharger that does not comply with specific corrective action requirements, is considered to be in violation of this General Permit. For incomplete Level 1 and Level 2 corrective actions, the minimum penalty that is automatically imposed is automatic Level 3 corrective actions. The corrective action levels are more fully described below.

1. Baseline Compliance – No Corrective Action
2. Level 1 Corrective Actions - Operational Source Controls

This General Permit requires dischargers who trigger a Level 1 corrective action to sample one qualifying rain event per quarter. Dischargers must also review their SWPPPs and implement appropriate additional BMPs. This requirement is consistent with standard NPDES permit conditions described in 40C.F.R. section 122.22. Since this level of corrective action is a result of the first time a trigger is met for any parameter(s), nothing in the corrective action requires the discharger to do anything more that ensure compliance with the operational source control BMPs already required by the permit. Corrective actions in Level 1 require dischargers to:

- a. Evaluate the SWPPP and the facility's pollutant sources to identify where BMPs can be strengthened and where BMPs are in full compliance.
- b. Revise the SWPPP as appropriate to include additional operational source control BMPs to achieve full compliance with the NALs.
- c. Implement additional BMPs as soon as possible but no later than October 1 of the following compliance year.
- d. Submit a report to the Regional Water Board that includes the above evaluation and SWPPP revisions, as well as the complete implementation schedule.
- e. Make additional SWPPP revisions as required by the Regional Water Board.

If exceedances of NALs are not related to industrial activities conducted at the facility, so that additional operational source control BMPs would be ineffective in lowering pollutant concentrations, Dischargers shall provide a description of the non-industrial

related sources, and provide a specific detailed evaluation supporting that the facility's industrial activities are unrelated to the exceedances.

### 3. Level 2 Corrective Action - Structural Source Control and/or Treatment BMPs

Level 2 corrective actions are required during a subsequent year in which the same parameter(s) that triggered the level 1 corrective action again meets one of the corrective action triggers. Dischargers must now sample two qualifying storm events per quarter. Dischargers must include consideration and implementation of structural source controls and/or treatment BMPs. Structural source controls means physical, structural, or mechanical devices or facilities that are intended to prevent pollutants from contacting storm water. Examples of such controls include, but are not limited to:

- a. Enclosing and/or covering outdoor pollutant sources within a building or under a roofed or tarped outdoor area.
- b. Physically separating the pollutant sources to prevent run-on of uncontaminated stormwater.
- c. Devices that direct contaminated storm water to appropriate treatment BMPs (e.g., discharge to sanitary sewer as allowed by local sewer authority).

Treatment BMPs include, but are not limited to, detention ponds, oil/water separators, sand filters, sediment removal controls, constructed wetlands, etc.

Dischargers may select the most cost-effective BMPs to control the discharge of pollutants in storm water discharges. BMPs, where appropriate, can be designed and targeted for various pollutant sources (e.g., overhead coverage of one potential pollutant while discharging to a detention basin for another source may be the most cost-effective solution).

If installation of any or all structural source controls and/or treatment BMPs is infeasible prior to October 1 of the following compliance year, the Regional Water Board may approve additional time by approving a BMP Implementation Extension Request (BIER). The BIER will describe the reasons for the implementation delay, provide the implementation schedule, and outline additional temporary BMPs that will be implemented while implementation of the structural source controls and/or treatment BMPs are completed. Such requests must be uploaded in SMARTS by August 1 prior to the applicable compliance year. The BIER has been included to recognize that, in some cases, construction of structural source controls and/or treatment BMPs may either be lengthy or delayed because of local permitting or financing timelines. Dischargers that face implementation issues as described above will not be subject to Level 3 corrective actions until implementation of the structural source controls and/or treatment BMPs are completed. Regional Water Boards may deny BIERs if justification is not satisfactory, in which case additional trigger exceedance will result in Level 3 corrective actions. Non compliance with Level 2 requirements automatically lead to a fast track to Level 3 requirements.

#### 4. Level 3 Corrective Actions. Imposition of NELs

Dischargers that have designed and properly implemented all required structural source controls and/or treatment BMPs should not have additional exceedances of NALs or otherwise enable the Level 3 corrective action triggers. If, however, an additional trigger is met, dischargers shall be subject to NELs the following compliance year, and accompanying mandatory minimum penalties (MMPs) shall apply in any year that the triggers are met. Dischargers are free to design and implement additional structural source controls and/or treatment BMPs to avoid the possibility of MMPs but Dischargers are not required to report these additional actions to the Regional Water Boards.

Dischargers in Level 3 who believe they are implementing all the operational source controls and structural source control and/or treatment BMPs as required in Level 1 and Level 2 corrective actions, may submit to the Regional Water Board a Suspension of Numeric Effluent Limitations (SNEL) request. The request will document that (1) the discharge is not causing or contributing to an exceedance of a water quality standard, and (2) that the Discharger has met or exceeded compliance with BAT/BCT through the corrective actions required in Level 1 and Level 2. Although there is no timeline for when a Discharger must submit a SNEL request, any recurrence of a trigger prior to Regional Water Board approval will remain subject to MMPs. This request must be prepared and signed by a professional engineer.

#### 5. Level 3 Compliance Tier Exceptions

The State Water Board believes that there should be an end-point with a result of achieving permit compliance, the initiation of enforcement actions, or the waiver from implementing any further BMPs that may be unreasonably expensive either because of their cost, effectiveness, or benefit. For example, advanced treatment systems to remove sediment from storm water are more expensive than installing and maintaining a sediment pond. For example, if there is no impairment for sediment in the receiving water body, and the facility's discharge is only moderately above the NAL for sediment, the Regional Water Board may agree with the Discharger that implementing advanced treatment is not reasonable.

### **L. Records**

For a period of five years, Dischargers are required to retain records of all monitoring information, copies of all reports required by this General Permit, and records of all data used to complete the NOI from the date of measurement, report, or monitoring activity. The State Water Board and/or Regional Water Boards may extend this retention period. All records are public documents and must be provided to the Regional Water Boards upon request.

#### 1. Facility Operator Compliance Responsibilities

Dischargers are responsible for compliance with this General Permit.

The State Water Board recognizes that industrial activities and operating conditions at many facilities change over time. In addition, new and more effective BMPs are being developed by various Dischargers and by industrial groups. The SWPPP and monitoring program require various inspections, reviews, and monitoring, all of which recognize, encourage, and mandate an iterative self-evaluation process that is necessary to consistently comply with this General Permit. Figure 3 of the Fact Sheet is a summary of the many monitoring activities that are required. Where minor violations are discovered through this self-evaluation process, Dischargers are required to revise and implement their SWPPPs to correct such violations within 90 days.

### **M. Conditional Exclusion Requirements**

This General Permit's Conditional Exclusion Requirements are substantially similar to those provided in 40 CFR 122.26(g)(3). Some minor modifications clarify the types of "storm resistant shelters" and the periods when "temporary shelters" may be used in order to avert regulatory confusion. Dischargers must electronically submit into SMARTS a complete No Exposure Certification.

Unlike the federal regulations that require evaluation and renewal of NECs every five years, this General Permit requires Dischargers to evaluate and renew their NECs annually. Based on the State Water Board's regulatory experience with Dischargers in the storm water program, a five-year maximum NEC renewal period is inadequate. A significant percentage of facilities revise, expand, or relocate their operations in any given year. Furthermore, a significant percentage of facilities experience turnover of staff knowledgeable of the NEC requirements and limitations. The State Water Board believes that annual NEC evaluation and renewals are appropriate to assure adequate program compliance continuity.

### **N. No Discharge Requirements**

Dischargers who have facilities designed to contain a 100 year 24-hour storm event and three (3) consecutive 20 year 24 hour storm events in a month are not found to have a potential to discharge pollutants, and therefore pose no threat to water quality.

Staff chose the 100 year, 24 hour storm based on the infrequency of this storm occurring. A 100 year storm is defined as having a one percent (1%) chance of occurring in a given year<sup>12</sup>, so a 100 year storm happening in a row would have .0001% chance of occurring. The 100-year floodplain is what the Federal Emergency Management Agency (FEMA) uses to define the Special Flood Hazard Area (SFHA). The SFHA is the floodplain associated with a flood that has a 1-percent-annual chance of being equaled or exceeded in any given year. Therefore the SFHA is not a flood event that happens once in a hundred years, rather a flood event that has a one percent chance of occurring every year<sup>13</sup>.

<sup>12</sup> FEMA frequently asked questions #6 [http://www.fema.gov/plan/prevent/fhm/fq\\_genin.shtm#in6](http://www.fema.gov/plan/prevent/fhm/fq_genin.shtm#in6)

<sup>13</sup> FEMA frequently asked questions #2 [http://www.fema.gov/plan/prevent/fhm/fq\\_genin.shtm#in1](http://www.fema.gov/plan/prevent/fhm/fq_genin.shtm#in1)

## **O. Conditional Exclusion For Dischargers That Implement Green Infrastructure Stormwater Impact Reduction Technology (G-Sirt)**

The best way to minimize pollutants and prevent pollution problems associated with storm water runoff from industrial activities is to design (or redesign) the facility using low impact development<sup>1</sup> (LID) or green infrastructure<sup>2</sup> (GI) techniques. New industrial facilities built in California will almost always be subject to post-construction requirements that are related to LID and GI. For example, all new construction projects covered by [Water Board Order No. 20009-0009-DWQ](#), National Pollutant Discharge Elimination System (NPDES), General Permit For Storm Water Discharges Associated With Construction And Land Disturbance Activities (CGP), will soon have to comply with the post-construction requirements in that permit. Either the project will comply with this by adhering to the local, municipal separate storm sewer system (MS4) requirements or the specific runoff reduction requirements in the CGP.

The State Water Board would like to encourage both new and existing facilities to find ways to incorporate LID and GI techniques in their facility design and operations. Additional, potential benefits of using these techniques at a facility include recharge of groundwater supplies, enhanced habitat, improved urban forestry performance, aesthetic improvement, community education, and many others. At this time the State Water Board is developing the specific conditions and reasonable permit exclusions that are appropriate for a facility wishing to employ “Green Stormwater Impact Reduction Technology (G-SIRT).” The likely approach is that a facility (new or existing) will apply to the State or Regional Water Board for this exclusion using performance data and other information to demonstrate they qualify. Upon approval, the facility will likely be granted some conditional exclusion from some or all of the permit requirements. This regulatory relief is intended to provide a linkage between all of the the State Water Board’s strategic goals and objectives to promote LID, GI and all the associated benefits. It is reasonable to provide some relief to facilities that invest in their facility infrastructure in ways that not only reduce runoff volume and pollutants but enhance the overall beneficial uses of California’s valuable water resources.

## **P. Regional Water Board Authorities**

Because this General Permit will be issued to thousands of industrial facilities across the state, the Regional Water Boards retain discretionary authority over certain issues that may arise from the discharges in their respective regions. This General Permit emphasizes that the Regional Water Boards can take specific actions related to this General Permit. For example, the Regional Water Boards will be enforcing this General Permit and may need to adjust permit requirements for a Discharger based on the Discharger’s compliance history. Some specific permit authorities are:

- a. Evaluate a discharger’s claim that it is not responsible for a pollutant that is causing an NAL exceedance.

- b. Review, comment on, and approve/disapprove BMP implementation reports and timelines submitted by dischargers, and can grant a time extension.
- c. Review, comment on, and disapprove a discharger's request to discontinue site improvement or treatment to meet NELs based on cost benefit information.
- d. Assign higher compliance levels to facilities (including the earlier imposition of NELs) based upon a discharger's failure to comply with Level 1 and Level 2 corrective actions.

### Q. Plastic Materials: Special Requirements

AB258 outlined requirements for dischargers who handle plastic materials that included specific BMPs. This General Permit acknowledges that preproduction plastic materials (i.e., pellets, resins, powders, etc.) are significant pollutants when released into receiving waters. This General Permit requires facilities that handle these preproduction plastics to identify whether this pollutant is present/used at their facility when submitting their PRDs. Such facilities will be provided the requirements found in Assembly Bill (AB) 258 Kerkorian, which provides background and information on plastics and the environment.

**FIGURE 3: Summary of Monitoring Requirements**

	Description	Permit Section	Location	Frequency	Restrictions
<b>Quarterly Inspections</b>	Visually inspect all areas of industrial activity and associated potential pollutant sources. Inspect all authorized non-storm water discharges and look for the presence of unauthorized non-storm water discharges.	VII.8	All areas of industrial activity and associated pollutant sources	Once per quarter	Within 16 weeks, during daylight hours, days without precipitation, and during scheduled facility operating hours.
<b>Annual Comprehensive Site Compliance Evaluation (ACSCE)</b>	Review all records, visually inspect all potential pollutant sources, review and evaluate all BMPs and revise as necessary, visually inspect equipment needed to implement SWPPP, prepare evaluation report.	VII.9	NA	Annually	Within 8-16 months of prior ACSCE.
<b>Monthly Storm Water Visual Monitoring</b>	Visually observe storm water discharge quality. Record and maintain observations, dates, locations, and responses.	VIII.4	All storm water discharge locations	Once per month (October-May)	During 1 <sup>st</sup> hour of discharge, daylight hours, facility operating hours, and preceded by 3 working days without discharge.
<b>Documentation of Non-Discharging Storm Events</b>	Documents storm events that do not produce a discharge but that occur before a monthly visual monitoring.	VIII.4.e	NA	Daily (October-May)	Only document events during each month prior to performing Monthly Storm Water Visual Monitoring.
<b>Pre-Storm Inspections</b>	Inspect all storm water drainage areas for spills and leaks or materials exposed to storm water.	VIII.3	All storm water drainage areas	Prior to anticipated storm events	

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<b>Storm Water Sample Collection and analysis</b>	Collect samples of storm water discharges and submit for laboratory analyses.	VIII.5	All storm water discharge locations	Twice Annually (October-May)	First and second storms of wet season, during 1 <sup>st</sup> hour of discharge and scheduled facility operating hours preceded by 3 working days without discharge
<b>Storm Water Storage and Containment Area Inspections</b>	Visually inspect storm water storage and containment areas.	VIII.4.D	Storm Water storage and containment areas	Monthly	