

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

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**ORDER R9-2015-0009
NPDES NO. CA0109142**

**WASTE DISCHARGE REQUIREMENTS
FOR CONTINENTAL MARITIME OF SAN DIEGO
DISCHARGE TO SAN DIEGO BAY**

The following Discharger is subject to waste discharge requirements (WDR's) set forth in this Order:

Table 1. Discharger Information

Discharger	Continental Maritime of San Diego
Name of Facility	Continental Maritime of San Diego
Facility Address	1995 Bay Front Street
	San Diego, CA 92113
	San Diego County

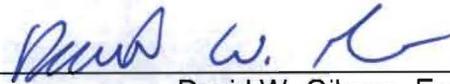
Table 2. Discharge Location

Discharge Point No.	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
003	Area 3 (Pier 7) Storm Water Runoff	32° 41' 38" N	117° 8' 52" W	San Diego Bay
004	Area 1 (Pier 6) Storm Water Runoff	32° 41' 38" N	117° 8' 53" W	San Diego Bay
005	Area 2, 4, 6, 9, and 10 Storm Water Runoff	32° 41' 42" N	117° 8' 57" W	San Diego Bay
006	Area 2 (New Portion of Pier – West End) Storm Water Runoff	32° 41' 37" N	117° 8' 3" W	San Diego Bay
007	Area 7 (West of North Parking Lot) Storm Water Runoff	32° 41' 43" N	117° 8' 60" W	San Diego Bay
008	Municipal Storm Drain	32° 41' 44" N	117° 8' 52" W	San Diego Bay
009	Area 5 (Outdoor Structural Area) Storm Water Runoff	32° 41' 44" N	117° 8' 52" W	San Diego Bay
010	Area 8 (Vehicle Maintenance Area) Storm Water Runoff	32° 41' 42" N	117° 8' 53" W	San Diego Bay
012	Area 8 (Maintenance Area) Storm Water Runoff	32° 41' 00" N	117° 8' 00" W	San Diego Bay

Table 3. Administrative Information

This Order was adopted on:	March 16, 2015
This Order shall become effective on:	June 1, 2015
This Order shall expire on:	May 31, 2020
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDR's in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	February 2, 2020
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, San Diego Region have classified this discharge as follows:	Minor discharge

I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Diego Region, on the March 16, 2015.



David W. Gibson, Executive Officer

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I. FACILITY INFORMATION

Information describing Continental Maritime of San Diego (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), finds:

- A. Legal Authorities.** This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this Facility to surface waters.
- B. Background and Rationale for Requirements.** The San Diego Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through K are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in section VI.A.2 are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES permit violations.
- D. Notification of Interested Parties.** The San Diego Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- E. Consideration of Public Comment.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.
- F. Executive Officer Delegation of Authority.** The San Diego Water Board by prior resolution has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter within this Order unless such delegation is unlawful under Water Code section 13223 or this Order explicitly states otherwise.

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order R9-2008-0049 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the San Diego Water Board from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS.

- A.** The dumping, deposition, or discharge of the following wastes directly into waters of the U.S., including but not limited to San Diego Bay, or adjacent to such waters in any manner that may permit its being transported into the waters is prohibited:
1. Paint chips;
 2. Blasting materials;
 3. Paint over spray;
 4. Paint spills;
 5. Water contaminated with blast materials, paint, oils, fuels, lubricants, solvents, or petroleum;
 6. Hydro-blast water;
 7. Treated or untreated sewage;
 8. Tank cleaning water from tank cleaning to remove sludge and/or dirt;
 9. Clarified water from oil and water separator except for storm water discharges treated by an oil and water separator and covered under this Order;
 10. Steam cleaning water;
 11. Pipe and tank hydrostatic test water unless regulated by an NPDES permit;
 12. Saltbox water;
 13. Hydraulic oil leaks and spills;
 14. Fuel leaks and spills;
 15. Trash;
 16. Refuse and rubbish, including but not limited to cans, bottles, paper, plastics, vegetable matter or dead animals;
 17. Fiberglass dust;
 18. Swept materials;
 19. Ship repair and maintenance activity debris;
 20. Waste zinc plates;
 21. Demineralizer and reverse osmosis brine; and
 22. Oily bilge water.
- B.** Discharges of liquids or materials other than storm water (i.e. non-storm water discharges) either directly or indirectly to waters of the U.S., including but not limited to San Diego Bay, are prohibited.
- C.** The discharge of materials of petroleum origin in sufficient quantities to be visible is prohibited.
- D.** All discharges regulated under this Order shall comply with discharge prohibitions contained in the San Diego Water Board's Basin Plan (Attachment H) and other applicable statewide water quality control plans described in the Fact Sheet (Attachment F) of this Order.
- E.** The discharge of the first 1 inch of storm water runoff from all areas designated as Industrial High Risk Areas, as described in section IV.A.1 of this Order, is prohibited unless pollutants in

the discharge are reduced to levels that comply with the effluent limitations in section IV.B. Effluent limitations contained in section IV.B are applicable to all discharges from the Facility.

- F. Discharges to waters of the U.S., including but not limited to San Diego Bay, containing a hazardous substance equal to or in excess of a reportable quantity listed in title 40 of the Code of Federal Regulations (40 CFR) part 117, Security Classification Regulations Pursuant To Executive Order 11652, or 40 CFR part 302, Designation, Reportable Quantities, and Notification, are prohibited.
- G. The discharge of wastes and pollutants from underwater operations, such as underwater paint and coating removal and underwater hull cleaning, is prohibited. This prohibition does not apply to the discharge of marine fouling organisms removed from unpainted and uncoated surfaces by underwater operations.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Storm Water Risk Level Designation Definition

Industrial High Risk Areas. All areas where wastes or pollutants of significant quantities from ship construction, modification, repair, and maintenance activities (including but not limited to abrasive blast grit material, primer, paint, paint chips, solvents, oils, fuels, sludges, detergents, cleansers, hazardous substances, toxic pollutants, nonconventional pollutants, materials of petroleum origin, or other substances of water quality significance) are subject to precipitation, storm water run-on, and/or storm water runoff.

B. Effluent Limitations – Discharge Point Nos. 003 through 010 and 012

For discharges of storm water from Industrial High Risk Areas, the Discharger shall maintain compliance with the following effluent limitations at Discharge Point Nos. 003 through 010 and 012, with compliance measured at Monitoring Locations SW-003 through SW-010 and SW-012 as described in the Monitoring and Reporting Program (MRP; Attachment E):

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Chronic Toxicity	Pass/Fail	--	^a	--	--

^{a.} Compliance with the Maximum Daily Effluent Limitation shall be based on the procedures specified in section III.C of the MRP, Attachment E, of this Order.

C. Discharge Specifications

1. **Pollutant Reduction to Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT).** The Discharger shall reduce pollutants in storm water discharges from Industrial High Risk Areas as follows:
 - a. Attain the technology-based standards of BAT for toxic and non-conventional pollutants and BCT for conventional pollutants; and
 - b. Attain compliance with applicable effluent limitations set forth in section IV of this Order and water quality standards set forth in section V of this Order.
2. **Storm Water Pollution Prevention Plan (SWPPP) Requirements.**
 - a. The Discharger shall maintain and implement an effective SWPPP designed to reduce or prevent the discharge of pollutants from industrial activities conducted in

Industrial High Risk Areas to the technology-based standards of BAT for toxic and non-conventional pollutants and BCT for conventional pollutants.

- b. The SWPPP shall include identification, assignment, and guidance for implementation of measures and best management practices (BMPs) to control discharges from Industrial High Risk Areas. The measures and BMPs shall be selected to achieve BAT/BCT and compliance with all effluent and receiving water limitations.
 - c. At a minimum, the SWPPP shall contain the elements and be implemented in accordance with Attachment G of this Order.
 - d. The SWPPP shall be reviewed annually and revised as necessary.
3. **Numeric Action Levels (NALs) for Industrial High Risk Areas.**
- a. **NAL Exceedance Determination Method:**
 - i. **Annual NAL Exceedance.** The Discharger shall determine the average concentration for each parameter using the results of all the industrial storm water sampling and analytical results for the entire Facility for the reporting year (i.e., all "effluent" data). This average concentration for each parameter shall be compared to the corresponding annual NAL values in Table G-1. For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentrations shall be calculated in accordance with the *U.S. EPA Industrial Stormwater Monitoring and Sampling Guide*.¹ An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds an annual NAL value for that parameter listed in Table G-1 or is outside the NAL pH range. The Discharger has the option of calculating the flow-weighted average concentration for all industrial storm water effluent data for the entire facility as shown below to compare the corresponding annual NAL values in Table G-1:

$$FWAC = \frac{\sum_{n=1}^{n=7} Q_n C_n}{\sum_{n=1}^{n=7} Q_n}$$

Where:

FWAC = Flow-weighted average concentration

Q_n = Flow rate of discharge at time of sample collection

C_n = Concentration of chemical in the collected sample

n = Number of discharge points

The flow rate for each discharge point is multiplied by the concentration (C) in the sample from that discharge point. This sum is divided by the total flow rate for all of the discharge points.

For calculating the average, all effluent sampling analytical results that are reported by the laboratory as "Not Detected" or less than the Method Detection Limit (MDL), a value of zero shall be used. Any results reported by the laboratory as "Detected Not Quantifiable" or less than the Minimum Level (ML)

¹ U.S. EPA. "Industrial Stormwater Monitoring and Sampling Guide." March 2009. EPA 832-B-09-003 Web 7 April 2014. <http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf>.

but above the MDL, a value of the MDL plus ½ the difference between the MDL and the ML shall be used.

- ii. **Instantaneous Maximum NAL Exceedance.** The Discharger shall compare all industrial storm water analytical results from each distinct sample (grab or composite) to the corresponding instantaneous maximum NAL values in Table G-1. An instantaneous maximum NAL exceedance occurs when two or more analytical results for total suspended solids (TSS), oil and grease, or pH from samples taken within a reporting year exceed the instantaneous maximum NAL value or is outside the NAL pH range.
- iii. The NALs described in Table G-1 of Attachment G of this Order are used as numeric thresholds for corrective action. An exceedance of a NAL is not a violation of this Order.

b. **NAL Exceedance Response Actions (ERAs)**

i. **Baseline Status – No Exceedance**

- (a) The Discharger will automatically be placed in Baseline Status at the beginning of the permit term.

ii. **Level 1 Status**

The Discharger's Baseline Status for any given parameter shall change to Level 1 Status if sampling results indicate an NAL exceedance for that same parameter. Level 1 Status will commence on July 1 following the reporting year during which the exceedance(s) occurred.

- (a) **Level 1 ERA Evaluation.** By October 1 following commencement of Level 1 Status for any parameter with sampling results indicating an NAL exceedance, the Discharger shall do the following:
 - (1) Complete an evaluation of the industrial pollutant sources at the Facility that are or may be related to the NAL exceedance(s); and,
 - (2) Identify in the evaluation the corresponding measures and BMPs in the SWPPP and any additional BMPs and SWPPP revisions necessary to prevent future NAL exceedance(s) and to comply with the requirements of this Order. Although the evaluation may focus on the drainage areas where the NAL exceedance(s) occurred, all drainage areas shall be evaluated.
- (b) **Level 1 ERA Report.** Based on the above evaluation, the Discharger shall do the following as soon as practicable, but no later than January 1 following commencement of Level 1 Status:
 - (1) Revise the SWPPP as necessary and implement any additional measures and BMPs identified in the evaluation;
 - (2) Certify and submit a Level 1 ERA Report that includes the following:
 - a) A summary of the Level 1 ERA Evaluation required in section IV.C.3.b.ii.(a) above; and
 - b) A detailed description of the SWPPP and any additional BMPs for each parameter that exceeded an NAL.
- (c) **Return to Baseline.** The Discharger's Level 1 Status for a parameter will return to Baseline Status once a Level 1 ERA Report has been completed,

all identified additional measures and BMPs have been implemented, and results from four consecutive Qualifying Storm Events² (QSEs) that were sampled subsequent to BMP implementation indicate no additional NAL exceedances for that parameter.

- (d) **NAL Exceedances Prior to Implementation of Level 1 Status BMPs.** Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1, whichever comes first, sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances.

iii. **Level 2 Status**

The Discharger's Level 1 Status for any given parameter shall change to Level 2 Status if sampling results indicate an NAL exceedance for that same parameter while the Discharger is in Level 1 Status. Level 2 Status will commence on July 1 following the reporting year during which the NAL exceedance(s) occurred.

(a) **Level 2 ERA Action Plan**

- (1) The Discharger with Level 2 Status shall certify and submit a Level 2 ERA Action Plan that addresses each new Level 2 NAL exceedance by January 1 following the reporting year during which the NAL exceedance(s) occurred. For each new Level 2 NAL exceedance, the Level 2 Action Plan will identify which of the demonstrations in section X.B of Attachment G the Discharger has selected to perform. A new Level 2 NAL exceedance is any Level 2 NAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.
- (2) The Level 2 ERA Action Plan shall at a minimum address the drainage areas with corresponding Level 2 NAL exceedances.
- (3) All elements of the Level 2 ERA Action Plan shall be implemented as soon as practicable and completed no later than 1 year after submitting the Level 2 ERA Action Plan.
- (4) The Level 2 ERA Action Plan shall include a schedule and a detailed description of the tasks required to complete the Discharger's selected demonstration(s) as described below in section X.B of Attachment G.

(b) **Level 2 ERA Technical Report**

- (1) On January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, the Discharger with Level 2 status shall certify and submit a Level 2 ERA Technical Report that includes one or more of the following demonstrations described in section X.B of Attachment G to this order:

² A QSE is a precipitation event that:

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

- a) Industrial Activity BMPs Demonstration;
 - b) Non-Industrial Pollutant Source Demonstration; or
 - c) Natural Background Pollutant Source Demonstration.
- (2) The San Diego Water Board may review the submitted Level 2 ERA Technical Reports. Upon review of a Level 2 ERA Technical Report, the San Diego Water Board may reject the Level 2 ERA Technical Report and direct the Discharger to take further action(s) to comply with this Order.
 - (3) Once the Discharger has Level 2 Status and has submitted the Level 2 ERA Technical Report, only annual updates to the Level 2 ERA Technical Report are required based upon additional NAL exceedances of the same parameter and same drainage area, facility operational changes, pollutant source(s) changes, and/or information that becomes available via compliance activities (monthly visual observations, sampling results, annual evaluation, etc.). The Level 2 ERA Technical Report shall be certified and submitted by the Discharger with each Annual Report. If there are no changes prompting an update of the Level 2 ERA Technical Report, as specified above, the Discharger will provide this certification in the Annual Report that there have been no changes warranting re-submittal of the Level 2 ERA Technical Report.
 - (4) The Discharger is not precluded from submitting a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 Status if information is available to adequately prepare the report and perform the demonstrations described above. If the Discharger chooses to submit a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 Status, the Discharger will automatically be placed in Level 2 Status in accordance with the Level 2 ERA schedule.
- (c) **Return to Baseline Status**
- (1) The Discharger's Level 2 Status will return to Baseline Status once an Industrial Activity BMPs Demonstration has been submitted in accordance with section X.B.1 of Attachment G, measures and BMPs to prevent future NAL exceedance(s) for the Level 2 parameter(s) have been implemented, and the results from four subsequent consecutive QSEs sampled indicate no additional NAL exceedance(s) for that parameter(s). If future NAL exceedances occur for the same parameter(s), the Discharger's Baseline Status will return to Level 2 Status on July 1 of the year subsequent to the reporting year during which the NAL exceedance(s) occurred. Upon return to Level 2 Status, the Discharger shall update the Level 2 ERA Technical Report.
 - (2) The Discharger is ineligible to return to Baseline Status if they submit any of the following:
 - a) A Industrial Activity BMP Demonstration but are not expected to eliminate future NAL exceedance(s) in accordance with section X.B.1.d of Attachment G;

- b) A Non-industrial Pollutant Source Demonstration in accordance with section X.B.2 of Attachment G; or,
- c) A Natural Background Pollutant Source Demonstration in accordance with section X.B.3 of Attachment G.

(d) Level 2 ERA Implementation Extension

- a) Dischargers that need additional time to submit the Level 2 ERA Technical Report shall be automatically granted a single time extension for up to six months upon submitting the following items, as applicable:
 - i) Reason(s) for the time extension;
 - ii) A revised Level 2 ERA Action Plan including a schedule and a detailed description of the necessary tasks still to be performed to complete the Level 2 ERA Technical Report; and
 - iii) A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed.
- b) The San Diego Water Board may review Level 2 ERA Implementation Extensions. Requests for extensions that total more than six months must be approved of in writing by the San Diego Water Board. The San Diego Water Board may do any of the following:
 - i) Reject or revise the time allowed to complete Level 2 ERA Implementation Extensions,
 - ii) Identify additional tasks necessary to complete the Level 2 ERA Technical Report, and/or
 - iii) Require the Discharger to implement additional temporary BMPs.

4. Design Storm Standards for Storm Water Retention and Treatment Control BMPs

The Discharger operates a storm water diversion system to capture and redirect, at a minimum, the first 2.3 inches of rainfall from storm events. The Discharger must maintain the current capabilities for storm water capture and redirection and operate the system in such a way so as to minimize the discharge of pollutants within storm water runoff.

D. Land Discharge Specifications – Not Applicable

E. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

The receiving water limitations set forth below for the waters of San Diego Bay are based on applicable water quality standards contained in water quality control plans and policies and federal regulations and are a required part of this Order. The discharges of waste shall not cause or contribute to violations of the receiving water limitations:

A. Water Quality Objectives and Criteria

The discharge of waste shall not cause violations of water quality objectives, federal pollutant criteria, or other provisions applicable to San Diego Bay waters contained in the water quality control plans, policies and federal regulations set forth below:

1. The San Diego Water Board's Basin Plan, including beneficial uses, water quality objectives, and implementation plans;
2. State Water Resources Control Board (State Board) water quality control plans and policies including the following:
 - a. Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries (Thermal Plan);
 - b. Water Quality Control Policy for the Enclosed Bays and Estuaries of California (Bays and Estuaries Policy);
 - c. Policy for Implementation of Toxics Standards for Inland Surface Waters, and Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP);
 - d. Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (Bays and Estuaries Plan – Sediment Quality Plan [SQO]).
3. Priority pollutant criteria promulgated by U.S. EPA through the following:
 - a. National Toxics Rule (NTR)³ (promulgated on December 22, 1992 and amended on May 4, 1995); and
 - b. California Toxics Rule (CTR)^{4,5}

B. Physical Characteristics

1. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. [Basin Plan]
2. Waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses. [Basin Plan].
3. Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses. [Basin Plan]
4. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. [Basin Plan]
5. Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses. [Basin Plan]
6. Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. [Basin Plan]
7. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. In addition, within San Diego Bay, the transparency of bay waters, insofar as it may be influenced by any controllable factor, either directly or through

³ 40 CFR section 131.36

⁴ 65 Federal Register 31682-31719 (May 18, 2000), adding section 131.38 to 40 CFR

⁵ If a water quality objective and a CTR criterion are in effect for the same priority pollutant, the more stringent of the two applies.

induced conditions, shall not be less than 8 feet in more than 20 percent of the readings in any zone, as measured by a standard Secchi disk. Wherever the water is less than 10 feet deep, the Secchi disk reading shall not be less than 80 percent of the depth in more than 20 percent of the readings in any zone. [Basin Plan]

8. The discharge of waste shall not cause the temperature of the receiving water to be altered in a manner that adversely impacts beneficial uses. [Thermal Plan – Existing Dischargers]

C. Chemical Characteristics

1. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally. The pH shall not be depressed below 7.0 nor raised above 9.0. [Basin Plan]
2. The dissolved oxygen concentration shall not at any time be less than 5.0 mg/L. The annual mean dissolved oxygen concentration shall not be less than 7 mg/L more than 10 percent of the time. [Basin Plan]
3. San Diego Bay waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses. [Basin Plan]
4. The discharge of wastes shall not cause concentrations of un-ionized ammonia (NH₃) to exceed 0.025 mg/L (as N) in San Diego Bay. [Basin Plan]
5. No individual pesticide or combination of pesticides shall be present in the water column, sediments or biota at concentration(s) that adversely affect beneficial uses. Pesticides shall not be present at levels which will bioaccumulate in aquatic organisms to levels which are harmful to human health, wildlife or aquatic organisms. [Basin Plan]

D. Biological Characteristics

1. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded. [Ocean Plan – best professional judgment (BPJ)]
2. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered. [Ocean Plan - BPJ]
3. The concentration of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health. [Ocean Plan - BPJ]

E. Bacterial Characteristics

1. The most probable number of total coliform organisms in the upper 60 feet of the water column shall be less than 1,000 organisms per 100 ml (10 organisms per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 organisms per 100 ml (10 per ml); and provided further that no single sample shall exceed 10,000 organisms per 100 ml as described in the Basin Plan. [Basin Plan]
2. The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70 organisms per 100 ml nor shall more than 10 percent of the samples collected during any 30-day period exceed 230 organisms per 100 ml for a five tube decimal dilution test or 330 organisms per 100 ml when a three-tube decimal dilution test is used where shellfish harvesting is designated. [Basin Plan]

3. Where bay waters are used for whole fish handling, the density of E. coli shall not exceed 7 organisms per ml in more than 20 percent of any 20 daily consecutive samples of bay water. [Basin Plan]

F. Radioactivity

1. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life. [Basin Plan]
2. The radioactivity in the receiving waters shall not exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 1, section 30253 of the California Code of Regulations (CCR).

G. Toxicity

1. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board. [Basin Plan]
2. Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities. [Bays and Estuaries Plan – sediment quality objectives (SQOs)]
3. Pollutants shall not be present in sediments at levels that will bioaccumulate in aquatic life to levels that are harmful to human health. [Bays and Estuaries Plan - SQOs]

H. Corrective Actions for Receiving Water Limitation Violations.

Upon determination by the Discharger or by written notification by the San Diego Water Board that storm water discharges are causing or contributing to an exceedance of Receiving Water Limitations in section V.A through V.G of this Order, the Discharger shall implement the following corrective actions at a minimum:

1. As soon as practicable, notify the San Diego Water Board that discharges are causing or contributing to an exceedance of Receiving Water Limitations in section V.A through V.G of this Order.
2. Conduct a facility evaluation to determine whether there are pollutant source(s) within the Facility and whether BMPs described in the SWPPP and other plans required by this Order have been properly implemented.
3. Conduct an assessment of the Facility's SWPPP and other plans required by this Order to determine whether additional measures or BMPs are necessary to prevent or to reduce pollutants in storm water discharges to comply with Receiving Water Limitations in section V of this Order.
4. Prepare a certification, based upon the Facility evaluation and assessment required above, that certifies either:
 - a. Additional measures and/or BMPs have been identified and included in the SWPPP and other plans required by this Order in order to comply with Receiving Water Limitations in section V of this Order; or

- b. No additional measures or BMPs are required to reduce or to prevent pollutants in storm water discharges to comply with Receiving Water Limitations in section V of this Order; or
 - c. There are no sources of the pollutants at the Facility.
5. If a certification states that no additional measures or BMPs are required to reduce or to prevent pollutants in storm water discharges to comply with Receiving Water Limitations in section V of this Order, the certification must show why the exceedance(s)/violation(s) occurred and why the exceedance(s)/violation(s) will not occur again under similar circumstance(s).
6. Implement additional measures and/or BMPs as soon as is practicable.
7. Within 60 days of the exceedance(s)/violation(s) of Receiving Water Limitations in section V of this Order, prepare and submit a report that does the following:
 - a. Describes the Facility evaluation;
 - b. Describes the assessment of the Facility's SWPPP and other plans required by this Order;
 - c. Identifies the additional measures and/or BMPs that are currently being implemented to assure compliance with Receiving Water Limitations in section V of this Order;
 - d. Identifies additional measures and/or BMPs that will be implemented to assure compliance with Receiving Water Limitations in section V of this Order with an implementation schedule; and
 - e. Includes the certification required above. The implementation schedule shall not exceed 90 days from the date of the determination of the exceedance(s)/violation(s) of Receiving Water Limitations in section V of this Order.
8. Within 30 days of being informed of needed modifications to the report required by 7 above, submit any modifications to the report as required by the San Diego Water Board.
9. Within 30 days of submitting the report required by 7 above or the modifications required by number 8 above, revise the SWPPP and other plans required by this Order to incorporate the additional measures and/or BMPs that have been or will be implemented and the implementation schedule.
10. Nothing in this section shall prevent the San Diego Water Board from enforcing any provisions of this Order while the Discharger prepares and implements the above report.
11. So long as the Discharger has complied with the procedures set forth above and is implementing the actions, the Discharger does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed to do so by the San Diego Water Board.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D.
2. **San Diego Water Board Standard Provisions.** The Discharger shall comply with the following provisions:

- a. The Discharger shall comply with all applicable federal, state, and local laws and regulations for handling, transport, treatment, or disposal of waste or the discharge of waste to waters of the state in a manner which causes or threatens to cause a condition of pollution, contamination or nuisance as those terms are defined in Water Code section 13050.
- b. This Order expires on **May 31, 2020**, after which, the terms and conditions of this permit are automatically continued pending issuance of a new permit, provided that all requirements of U.S. EPA's NPDES regulations at 40 CFR section 122.6 and the state's regulations at CCR title 23, section 2235.4 regarding the continuation of expired permits and waste discharge requirements are met.
- c. A copy of this Order shall be maintained on-site at the Facility and shall be available to San Diego Water Board, State Water Board, and U.S. EPA personnel and/or their authorized representative at all times.

B. Monitoring and Reporting Program (MRP) Requirements

1. The Discharger shall comply with the MRP in Attachment E and future revisions thereto.
2. Notifications required to be provided to this San Diego Water Board shall be made to:
E-mail – sandiego@waterboards.ca.gov
Telephone – (619) 516-1990
Facsimile – (619) 516-1994

C. Special Provisions

1. **Reopener Provisions**
 - a. This Order may be reopened and modified in accordance with NPDES regulations at 40 CFR parts 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any U.S. EPA approved, new, state water quality objective.
 - b. This Order may be modified, revoked and reissued, or terminated for cause in accordance with the provisions of 40 CFR parts 122, 124, and 125 at any time prior to its expiration under any of the following circumstances:
 - i. Violations of any terms or conditions of this Order.
 - ii. Endangerment to human health or the environment resulting from the permitted activity.
 - iii. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts.
 - iv. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
 - c. This Order may be reopened and modified for cause at any time prior to its expiration under any of the following circumstances:
 - i. Present or future investigations demonstrate that the discharge(s) regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses.
 - ii. New or revised water quality objectives come into effect or any total maximum daily load (TMDL) is adopted or revised that is applicable to the Discharger.

- iii. Modification is warranted to those provisions of this Order addressing compliance with water quality standards in the receiving water or those provisions of this Order laying out an iterative process for implementation of management practices to achieve compliance with water quality standards in the receiving water.
 - iv. Modification is warranted to incorporate additional effluent limitations, prohibitions, and requirements, regional monitoring requirements, based on the results of additional monitoring required by the MRP (Attachment E) of this Order.
 - v. Modification of the receiving waters monitoring and reporting requirements and/or special studies requirements of this Order is necessary for cause, including but not limited to a) revisions necessary to implement recommendations from Southern California Coastal Water Research Project (SCCWRP); b) revisions necessary to develop, refine, implement, and/or coordinate a regional monitoring program; and/or c) revisions necessary to develop and implement improved monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9-2012-0069, *Resolution in Support of a Regional Monitoring Framework*.
 - vi. Modification is warranted to address chronic toxicity in Facility wastewater discharges, storm water discharges, or receiving waters through new or revised effluent limitations or other permit toxicity requirements or to implement new, revised, or newly interpreted water quality standards applicable to acute or chronic toxicity.
- d. The filing of a request by the Discharger for modifications, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.
2. **Special Studies, Technical Reports and Additional Monitoring Requirements**
- a. Toxicity Reduction Requirements
See section III.C of the MRP (Attachment E) for an overview of Toxicity Reduction Evaluation (TRE) Requirements.
3. **Best Management Practices (BMP) – Not Applicable**
4. **Construction, Operation and Maintenance Specifications – Not Applicable**
5. **Other Special Provisions – Not Applicable**

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General

Compliance with effluent limitations shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purpose of reporting and administrative enforcement by the San Diego Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the constituent in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL) or lowest quantifiable level.

B. Multiple Sample Data

When determining compliance with an average annual effluent limitation (AAEL), average monthly effluent limitation (AMEL), or maximum daily effluent limitation (MDEL) and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determination of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, following by quantified values (if any). The order of individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Median Monthly Effluent Limit (MMEL)

If the median result of three independent toxicity tests, conducted within the same calendar month, and analyzed using the Test of Significant Toxicity (TST) is a "fail" (i.e. two out of three is "fail"), this will represent a single violation for the purpose of assessing mandatory minimum penalties under Water Code section 13385, though the Discharger will be considered out of compliance for each discharge day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month) for discretionary penalties. If median result is "fail", the Discharger will be considered out of compliance for days when the discharge occurs. For any one calendar month during which fewer than three samples are taken, no compliance determination can be made for that calendar month.

D. Chronic Toxicity for Discharges to San Diego Bay

1. The MDEL for chronic toxicity is exceeded and a violation will be flagged when a toxicity test results in a "fail" in accordance with the TST approach and the percent effect is greater than or equal to 0.50.
2. For this discharge, the determination of "pass" or "fail" from a chronic toxicity test at the Instream Waste Concentration (IWC) of 100 percent effluent is determined using the TST approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010).
3. The Discharger shall report the results of reasonable potential analyses, species sensitivity screenings, and routine toxicity tests to the San Diego Water Board as either a "pass" or a "fail" at the IWC, in accordance with the TST approach and provide the calculated percent effect at the IWC.

Pass

A test result that rejects the null hypothesis (H_0) below is reported as "Pass" in accordance with the TST approach:

H_0 : Mean response (100 percent effluent) $\leq 0.75 \times$ Control mean response

Fail

A test result that does not reject the null hypothesis (H_0) above is reported as "Fail" in accordance with the TST approach.

4. The presence or absence of chronic toxicity shall be determined as specified in section III.C of the MRP.

ATTACHMENT A – ABBREVIATIONS AND DEFINITIONS**Part 1 – Abbreviations**

Abbreviation	Definition
ASBS	Areas of Special Biological Significance
AST	Above Ground Storage Tanks
Basin Plan	Water Quality Control Plan for the San Diego Basin
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BOD ₅	Biochemical Oxygen Demand (5-Day at 20°C)
BPJ	Best Professional Judgment
BPT	Best Practicable Treatment Control Technology
CCR	California Code of Regulations
CFR	Code of Federal Regulations
CFU	Colony Forming Units
CIWQS	California Integrated Water Quality System
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
Water Code	California Water Code
DMR	Discharger Monitoring Report
DNQ	Detected, but Not Quantified
ECA	Effluent Concentration Allowance
ERA	Exceedance Response Action
gpd	gallons per day
gpm	gallons per minute
IWC	Instream Waste Concentration
lbs/day	Pounds per Day
MDEL	Maximum Daily Effluent Limitation
MDL	Method Detection Limit
MEP	Maximum Extent Practicable
mg/L	Milligrams per Liter
MGD	Million Gallons per Day
ML	Minimal Level
ml/L	Milliliters per Liter
MMEL	Maximum Monthly Effluent Limitation
MPCD	Marine Pollution Control Device
MPN	Most Probable Number
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
NAL	Numeric Action Level
ND	Not Detected
NOEL	No Observed Effect Level
NPDES	National Pollutant Discharge Elimination System
NR	Not Reported

Abbreviation	Definition
NTR	National Toxics Rule
Ocean Plan	California Ocean Plan, Water Quality Control Plan Ocean Waters Of California
PCB	Polychlorinated Biphenyls
PMP	Pollutant Minimization Program
PPP	Pollution Prevention Plan
QAPP	Quality Assurance Project Plan
QSE	Qualifying Storm Event
REC-1	Contact Water Recreation Beneficial Use
RL	Reporting Level
ROWD	Report of Waste Discharge
RPA	Reasonable Potential Analysis
San Diego Water Board	California Regional Water Quality Control Board, San Diego Region
SCCWRP	Southern California Coastal Waters Research Project
Sediment Quality Plan	Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality
SIP	State Implementation Plan
SQO	Sediment Quality Objective
State Water Board	State Water Resources Control Board
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TBEL	Technology-Based Effluent Limitations
Thermal Plan	Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TRE	Toxicity Reduction Evaluation
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
U.S.	United States
U.S.EPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Wasteload Allocation
WQBEL	Water Quality-Based Effluent Limitation
µg	Microgram
µg/L	Micrograms per Liter

Part 2 – Definitions of Common Terms

Acute Toxicity Tests

A measurement of the adverse effect (usually mortality) of a waste discharge or ambient water sample on a group of test organisms during a short-term exposure.

Arithmetic Mean (μ)

Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

$$\text{Arithmetic mean} = \mu = \Sigma x / n \quad \text{where: } \Sigma x \text{ is the sum of the measured ambient water concentrations, and } n \text{ is the number of samples.}$$

Average Monthly Effluent Limitation (AMEL)

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative Pollutants

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Best Management Practices (BMPs)

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. The BMPs also include treatment measures, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. The BMPs may include any type of pollution prevention and pollution control measure necessary to achieve compliance with this Order.

Best Professional Judgment (BPJ)

The method used by permit writers to develop technology-based NPDES permit conditions on a case by-case basis using all reasonably available and relevant data.

Carcinogenic

Pollutants are substances that are known to cause cancer in living organisms.

Clean Water Act (CWA)

The Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; 33 U.S.C 1251 et seq.

Chronic Toxicity

This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

Chronic Toxicity Tests

A measurement of the sub-lethal effects of a discharge or ambient water sample (e.g. reduced growth or reproduction). Certain chronic toxicity tests include an additional measurement of lethality.

Coefficient of Variation (CV)

CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Contamination

“Contamination” means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease.

“Contamination” includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected. [Water Code § 13050(k)]

Daily Discharge

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory’s MDL. Sample results reported as DNQ are estimated concentrations.

Dilution Credit

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Discharge incidental to the normal operation of a vessel

A discharge, including, but not limited to: graywater, bilgewater, cooling water, weather deck runoff, ballast water, oil water separator effluent, and any other pollutant discharge from the operation of a marine propulsion system, shipboard maneuvering system, crew habitability system, or installed major equipment, such as an aircraft carrier elevator or a catapult, or from a protective, preservative, or absorptive application to the hull of a vessel; and a discharge in connection with the testing, maintenance, and repair of any of the aforementioned systems whenever the vessel is waterborne, including pierside. A discharge incidental to normal operation does not include:

- (1) Sewage;
- (2) A discharge of rubbish, trash, or garbage;

- (3) A discharge of air emissions resulting from the operation of a vessel propulsion system, motor driven equipment, or incinerator;
- (4) A discharge that requires a National Pollutant Discharge Elimination System (NPDES) permit under the Clean Water Act; or
- (5) A discharge containing source, special nuclear, or byproduct materials regulated by the Atomic Energy Act.

Effluent Concentration Allowance (ECA)

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Facility

As used in the Storm Water Pollution Prevention Plan contained in Attachment G, a Facility is an area or areas discharging storm water associated with industrial activity within the property boundary or operational unit.

First Flush

Storm water runoff that occurs between the time a storm event begins and when a minimum of 1 inch of precipitation has been collected in a rain gauge or equivalent measurement device at a location on the site which is representative of precipitation at the site. A storm event is a period of rainfall that is preceded by at least seven days without rainfall.

Industrial High Risk Areas

All areas where wastes or pollutants of significant quantities from ship construction, modification, repair, and maintenance activities (including abrasive blast grit material, primer, paint, paint chips, solvents, oils, fuels, sludges, detergents, cleansers, hazardous substances, toxic pollutants, non-conventional pollutants, materials of petroleum origin, or other substances of water quality significance) are subject to precipitation, run-on, and/or runoff.

Inland Surface Waters

All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation

The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Instream Waste Concentration (IWC)

The concentration of a toxicant or effluent in the receiving water after mixing (the inverse of the dilution factor). A discharge of 100 percent effluent will be considered the IWC whenever mixing zones or dilution credits are not authorized by the applicable Water Board.

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Maximum Extent Practicable (MEP)

MEP is the technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that municipal dischargers of storm water must meet. MEP is the result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with structural and treatment methods where appropriate serving as additional lines of defense.

Median Monthly Effluent Limit (MMEL)

An effluent limit based on the median results of three independent toxicity tests, conducted within the same calendar month, and analyzed using the TST. The MMEL is exceeded when the median result (i.e. two out of three) is a "fail."

Median

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)

ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Non-Storm Water Discharge

Any discharge to storm sewer systems that is not composed entirely of storm water.

Not Detected (ND)

Sample results which are less than the laboratory's MDL.

Nuisance

"Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of waste. [Water Code § 13050(m)]

Numeric Action Level (NAL)

Numeric Action Levels (NALs), found in Table G-1 of Attachment G of this Order are used as numeric thresholds for corrective action. An exceedance of a NAL is not a violation of this Order.

Ocean Waters

The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Percent effect

The value that denotes the difference in response between the IWC and the control, divided by the mean response, and multiplied by 100 (see the equation in Step 6 of Appendix A of the Toxicity Policy).

$$\% \text{ Effect at IWC} = \frac{\text{Mean Control Response} - \text{Mean IWC Response}}{\text{Mean Control Response}} * 100$$

Persistent Pollutants

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant

“Pollutant” means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean: (a) Sewage from vessels; or (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well-used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources. NOTE: Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976). (40 CFR 122.2)

Pollutant Minimization Program (PMP)

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The San Diego Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution

“Pollution” means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses. “Pollution” may include “contamination.” [Water Code § 13050(l)]

Pollution Prevention

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board) or San Diego Water Board.

Pollution Prevention Plan (PPP)

A PPP is a plan for implementing pollution prevention containing, at a minimum, the elements identified in Water Code section 13263.3(d)(2).

Priority Pollutants

Priority pollutants are all compounds with criteria in the California Toxics Rule (CTR).

Qualifying Storm Event

A qualifying storm event is one that begins producing storm water discharge during daylight scheduled Facility operating hours, and is preceded by at least 48 hours without a storm water discharge.

Reporting Level (RL)

The RL is the ML (and it's associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the San Diego Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

San Diego Water Board

As used in this document the term "San Diego Water Board" is synonymous with the term "Regional Board" as defined in Water Code section 13050(b) and is intended to refer to the California Regional Water Quality Control Board for the San Diego Region as specified in Water Code Section 13200.

Significant Materials

Raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101 (14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and chemical the facility is required to report pursuant to section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be discharged.

Significant Quantities

Volumes, concentrations, or masses of pollutants that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standard for the receiving water or any receiving water limitation.

Significant Spills

Include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities under section 311 of the CWA (see 40 CFR 110.10 and 117.21) or section 102 of CERCLA (see 40 CFR 302.4).

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in San Diego **Water Board** Basin Plan.

Standard Deviation (σ)

Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

Storm Water

Includes storm water runoff, snowmelt runoff, and storm water surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

Storm Water Discharge Associated with Industrial Activity

The discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under 40 CFR Part 122. For the facilities identified in the Fact Sheet of this Order, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters; sites used for residual treatment, storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities referenced in this paragraph) include those facilities designated under 40 CFR 122.26(a)(1)(v).

Storm Water Management Plan (SWMP)

The Storm Water Management Plan (SWMP) is a written plan to reduce the discharge of pollutants from "Small Municipal (Military Base) MS4 Areas" to the technology –based standard of MEP to protect receiving water quality.

Storm Water Pollution Prevention Plan (SWPPP)

A SWPPP is a written document that identifies the industrial activities conducted at the site, including any structural control practices, which the industrial facility operator will implement to prevent pollutants from making their way into storm water runoff. The SWPPP also must include descriptions of other relevant information, such as the physical features of the facility, and procedures for spill prevention, conducting inspections, and training of employees. The SWPPP is intended to be a "living" document, updated as necessary, such that when industrial activities or storm water control practices are modified or replaced, the SWPPP is similarly revised to reflect these changes.

Test of Significant Toxicity (TST)

A statistical approach used to analyze toxicity test data. The TST incorporates a restated null hypothesis, Welch's t-test, and biological effect thresholds for chronic and acute toxicity.

Toxicity Reduction Evaluation (TRE)

TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific

chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Vessel

Includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on navigable waters of the United States or waters of the contiguous zone, but does not include amphibious vehicles.

Water Quality Objectives

Numerical or narrative limits on constituents or characteristics of water designed to protect designated beneficial uses of the water.

Water Quality Standards

Water quality standards, as defined in CWA Section 303(c) and 40CFR131.6, consist of 1) the beneficial uses of a water body, 2) criteria (referred to as water quality objectives in California law) to protect those uses, and 3) an anti-degradation policy. Under state law, the water boards establish beneficial uses and water quality objectives in their water quality control or basin plans. Together with an anti-degradation policy (State Water Board Resolution 68-16) , these beneficial uses and water quality objectives serve as water quality standards under the CWA. In CWA parlance, state beneficial uses are called “designated uses” and state water quality objectives are called “criteria.” Throughout this Order, the relevant term is used depending on the statutory scheme. The water quality standards described in section V of this Order are enforceable receiving water limitations for the surface water bodies for which they are established.

Waters of the United States

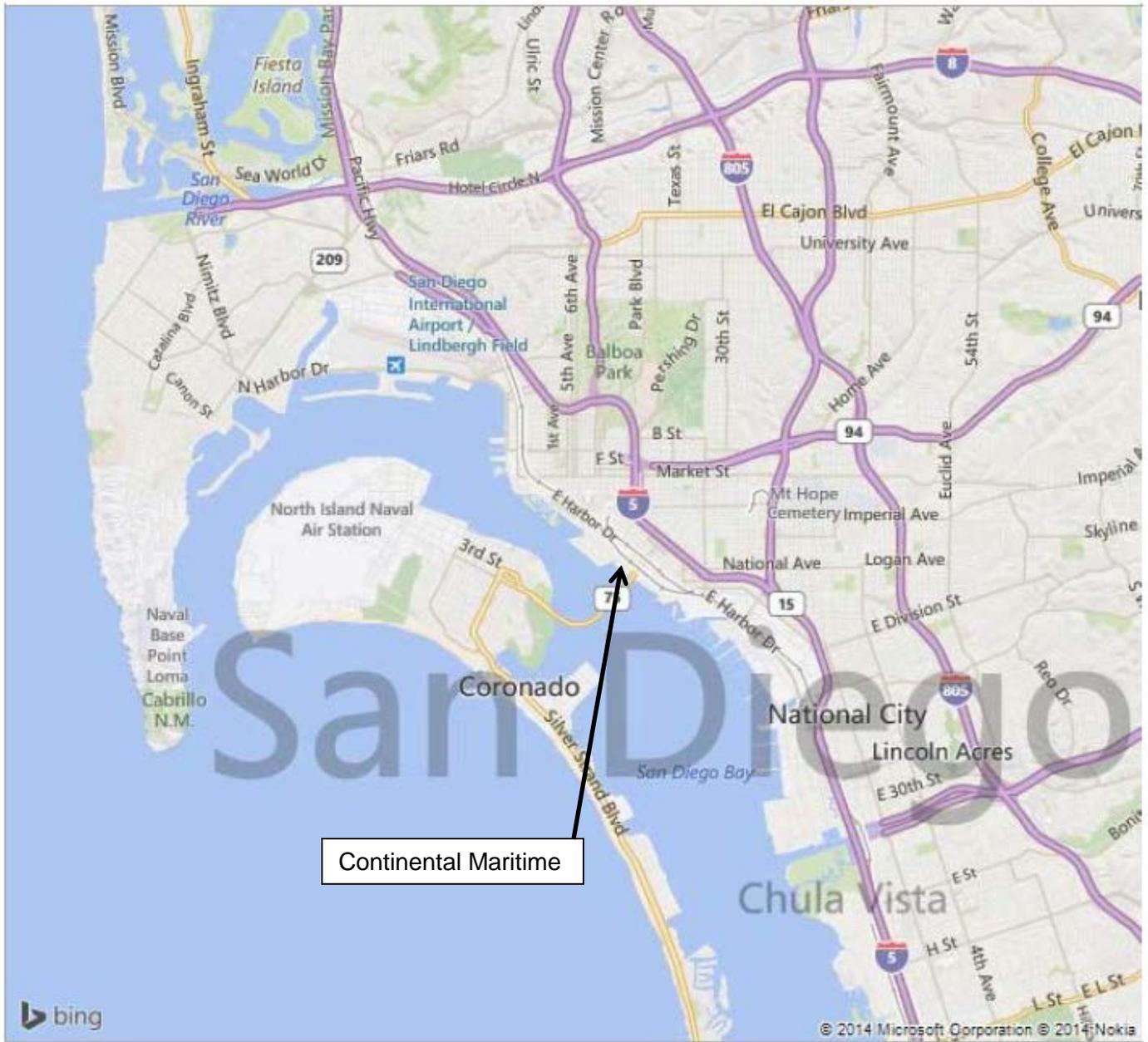
Waters of the United States are defined as: “(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate “wetlands;” (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purpose by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.” (40 CFR 122.2)

Whole Effluent Toxicity (WET)

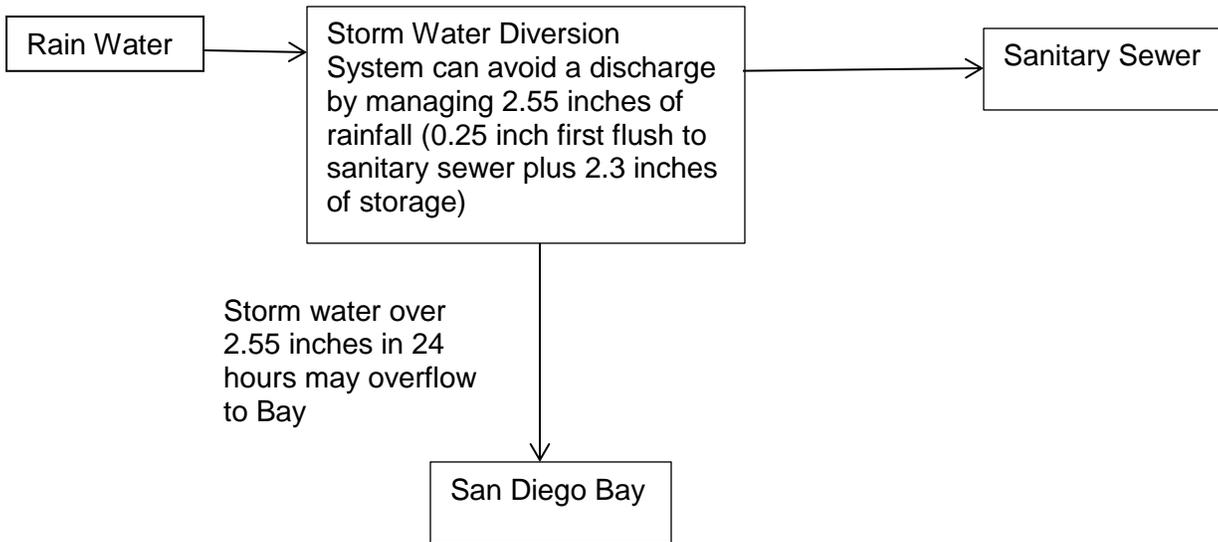
The aggregate toxic effect of a waste discharge measured directly by a chronic or acute toxicity test.

ATTACHMENT B – MAP

Figure B-1. Location Map



ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS**I. STANDARD PROVISIONS – PERMIT COMPLIANCE****A. Duty to Comply**

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR § 122.41(a).)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the San Diego Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR § 122.41(i); Water Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR § 122.41(i)(2));
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR § 122.41(i)(3)); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR § 122.41(i)(4).)

G. Bypass

1. Definitions
 - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)
 - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the San Diego Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the San Diego Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR § 122.41(m)(4)(i)(C).)
4. The San Diego Water Board may approve an anticipated bypass, after considering its adverse effects, if the San Diego Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii).)
5. Notice
 - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR § 122.41(m)(3)(i).)

- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2).)
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):
 - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));
 - b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));
 - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and
 - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR § 122.41(n)(3)(iv).)
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the San Diego Water Board. The San Diego Water Board may require modification or revocation and reissuance of

the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)
- B. Monitoring results must be conducted according to test procedures under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503 unless other test procedures have been specified in this Order. (40 CFR § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the San Diego Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)
- B. Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
 - 2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
 - 3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
 - 4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
 - 5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
 - 6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)
- C. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):
 - 1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and
 - 2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the San Diego Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the San Diego Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the San Diego Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); Water Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the San Diego Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR § 122.41(k).)
2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 CFR § 122.22(a)(1).)
3. All reports required by this Order and other information requested by the San Diego Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 122.22(b)(1));
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and
 - c. The written authorization is submitted to the San Diego Water Board and State Water Board. (40 CFR § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the San Diego Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

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

penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (40 CFR § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the San Diego Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the San Diego Water Board. (40 CFR § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR § 122.41(l)(6)(i).)
2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR § 122.41(l)(6)(ii)):
 - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(B).)
3. The San Diego Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the San Diego Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).)
3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR § 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the San Diego Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the San Diego Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

- A. The San Diego Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the San Diego Water Board as soon as they know or have reason to believe (40 CFR § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR § 122.42(a)(1)):
 - a. 100 micrograms per liter ($\mu\text{g/L}$) (40 CFR § 122.42(a)(1)(i));
 - b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR § 122.42(a)(1)(ii));
 - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(1)(iii)); or

- d. The level established by the San Diego Water Board in accordance with section 122.44(f). (40 CFR § 122.42(a)(1)(iv).)
2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR § 122.42(a)(2)):
 - a. 500 micrograms per liter ($\mu\text{g/L}$) (40 CFR § 122.42(a)(2)(i));
 - b. 1 milligram per liter (mg/L) for antimony (40 CFR § 122.42(a)(2)(ii));
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(2)(iii)); or
 - d. The level established by the San Diego Water Board in accordance with section 122.44(f). (40 CFR § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the San Diego Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. Pursuant to this authority this MRP establishes conditions for the Discharger to conduct routine or episodic self-monitoring of the discharges regulated under this Order at specified influent, internal operations, effluent and receiving water monitoring locations. The MRP requires the Discharger to report the results to the San Diego Water Board with information necessary to evaluate discharge characteristics and compliance status.

Each monitoring section contains an introductory paragraph summarizing why the monitoring is needed and the key management questions the monitoring is designed to answer. In developing the list of key management questions the San Diego Water Board considered four basic types of information for each question:

- (1) Management Information Need – Why does the San Diego Water Board need to know the answer?
- (2) Monitoring Criteria – What monitoring will be conducted for deriving an answer to the question?
- (3) Expected Product – How should the answer be expressed and reported?
- (4) Possible Management Actions – What actions will be potentially influenced by the answer?

The framework for this monitoring program has three components that comprise a range of spatial and temporal scales: 1. core monitoring, 2. regional monitoring, and 3. special studies.

1. Core monitoring consists of the basic site-specific monitoring necessary to measure compliance with individual effluent limits and/or impacts to receiving water quality. Core monitoring is typically conducted in the immediate vicinity of the discharge by examining local scale spatial effects.
2. Regional monitoring provides information necessary to make assessments over large areas and serves to evaluate cumulative effects of all anthropogenic inputs. Regional monitoring data also assists in the interpretation of core monitoring studies. In the event that a regional monitoring effort takes place during the permit cycle in which the MRP does not specifically address regional monitoring, the San Diego Water Board may allow relief from aspects of core monitoring components in order to encourage participation pursuant to section V of this MRP.
3. Special studies are directed monitoring efforts designed in response to specific management or research questions identified through either core or regional monitoring programs. Often they are used to help understand core or regional monitoring results, where a specific environmental process is not well understood, or to address unique issues of local importance.

I. GENERAL MONITORING PROVISIONS

- A.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified in section II Table E-1 below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the San Diego Water Board.

- B.** Monitoring must be conducted according to United States Environmental Protection Agency (U.S. EPA) test procedures approved at 40 CFR part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act*, as amended, unless other test procedures are specified in this Order and/or in this MRP or otherwise specified by the San Diego Water Board. Alternative test procedures not specified in this Order are subject to San Diego Water Board and U.S. EPA approval.
- C.** All analyses shall be performed in a laboratory certified to perform such analyses by the State Water Board's Division of Drinking (DDW) or by a laboratory approved by the San Diego Water Board. The laboratory must be accredited under the DDW Environmental Laboratory Accreditation (ELAP) program to ensure the quality of analytical data used for regulatory purposes to meet the requirements of this Order. Additional information on ELAP can be accessed at http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml
- D.** The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring, instrumentation, copies of all reports required by this Order and this MRP, and records of all data used to complete the application for this Order. Records of monitoring information shall include information required under Attachment D section IV. Records shall be maintained for a minimum of five years from the date of sample, measurement, report, or application. This period may be extended at the request of this San Diego Water Board or by the U.S. EPA at any time.
- E.** All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.
- F.** The Discharger shall have and implement an acceptable written quality assurance (QA) plan for laboratory analyses. When requested by U.S. EPA or the San Diego Water Board, the Discharger shall participate in a NPDES discharge monitoring report QA performance study. The Discharger should have a success rate equal to or greater than 80 percent.
- G.** The monitoring and reports, signed and certified as required by Attachment D, Standard Provisions V.B, of this Order, shall be submitted to electronically in accordance with section VIII.B.1 this MRP.
- H.** The Discharger shall report in its cover letter all instances of noncompliance not reported under Attachment D section V.H of this Order at the time monitoring reports are submitted. The reports shall contain the information listed in Attachment D section V.E of this Order.
- I.** Monitoring results shall be reported at intervals and in a manner specified in this Order.
- J.** This MRP may be modified by the San Diego Water Board, as appropriate.
- K.** This Order may be modified by the San Diego Water Board and the U.S. EPA to enable the Discharger to participate in comprehensive regional monitoring activities. Minor changes may be made without further public notice, consistent with 40 CFR section 122.63(b).

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	SW-003	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 38" N; 117° 8' 52" W
004	SW-004	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 38" N; 117° 8' 53" W
005	SW-005	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 41" N; 117° 8' 57" W
006	SW-006	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 37" N; 117° 9' 3" W
007	SW-007	A location where a representative sample of the municipal storm water discharge to the San Diego Bay can be obtained: 32° 41' 43" N; 117° 8' 59" W
008	SW-008	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 45" N; 117° 8' 50" W
009	SW-009	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 44" N; 117° 8' 52" W
010	SW-010	A location where a representative sample of the storm water being discharged to the San Diego Bay can be obtained: 32° 41' 42" N; 117° 8' 53" W

III. CORE MONITORING REQUIREMENTS**A. Influent Monitoring Requirements – Not Applicable****B. Effluent Monitoring Requirements - Not Applicable****C. Whole Effluent Toxicity (WET) Testing Requirements**

Whole effluent toxicity (WET) refers to the overall aggregate toxic effect of an effluent measured directly by an aquatic toxicity test(s). The control of WET is one approach this Order uses to control the discharge of toxic pollutants. WET tests evaluate the 1) aggregate toxic effects of all chemicals in the effluent including additive, synergistic, or antagonistic toxicity effects; 2) the toxicity effects of unmeasured chemicals in the effluent; and 3) variability in bioavailability of the chemicals in the effluent.

Monitoring to assess the overall toxicity of the effluent is required to answer the following questions:

- (1) Does the effluent comply with permit effluent limitations for toxicity thereby ensuring that water quality standards are achieved in the receiving water?
 - (2) If the effluent does not comply with permit effluent limitations for toxicity, are unmeasured pollutants causing risk to aquatic life?
1. **Monitoring Frequency for Chronic Toxicity**
The Discharger shall conduct chronic toxicity monitoring at the frequencies specified in Table E-2.
 2. **Marine and Estuarine Species and Test Methods**
The Discharger shall conduct a species sensitivity screening for chronic toxicity on a representative sample which shall include one vertebrate, one invertebrate, and one

aquatic plant during the first required monitoring period. The species sensitivity screening samples shall also be analyzed for the parameters required for the discharge. The test species that exhibits the highest percent effect at the Instream Waste Concentration (IWC) during a species sensitivity screening (i.e. the most sensitive species) shall be utilized for routine monitoring during the permit cycle.

The Discharger shall follow the methods for chronic toxicity tests as established in 40 CFR section 136.3. The U.S. EPA method manuals referenced therein include *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition* (EPA-821-R-02-013), and *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition* (EPA-821-R-02-014). Additional methods for chronic toxicity monitoring are outlined in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition* (EPA-600-R-95-136).

For discharges to marine and estuarine waters, the Discharger shall conduct a static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01); a static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0); and a static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0). For discharges to a freshwater surface water, the Discharger shall conduct a static renewal toxicity test with one vertebrate, one aquatic plant, and one invertebrate species.

If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing, then the Discharger shall conduct a static renewal toxicity test with the inland silverside, *Menidia beryllina* (Larval Survival and Growth Test Method 1006.01), found in the third edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA/821/R-02/014, 2002; Table IA, 40 CFR part 136). Additional species may be used by the Discharger if approved by the San Diego Water Board.

All toxicity tests shall be conducted as soon as possible following sample collection. The 36-hour sample holding time for test initiation shall be targeted. However, no more than 72 hours shall elapse before the conclusion of sample collection and test initiation.

3. Compliance Determination

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a toxicity test during routine monitoring results in a “fail” in accordance with the TST approach and the percent effect is greater than or equal to 0.50.

The determination of “pass” or “fail” from a chronic toxicity test at the IWC of 100 percent effluent shall be determined using the TST approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010).

The Discharger shall report the results of reasonable potential analyses, species sensitivity screenings, and routine toxicity tests to the San Diego Water Board as either a “pass” or a “fail” at the IWC, in accordance with the TST approach and provide the calculated percent effect at the IWC. The methodology for determining “pass”, “fail”, and “percent effect” is provided below.

Pass

A chronic toxicity test result that rejects the null hypothesis (Ho) below is reported as “pass” in accordance with the TST approach:

Ho: Mean response (100 percent effluent) \leq 0.75 x Control mean response

Fail

A chronic toxicity test result that does not reject the null hypothesis (Ho) above is reported as “fail” in accordance with the TST approach.

Percent Effect

The percent effect at the IWC is calculated for each chronic toxicity test result using the following equation:

$$\% \text{ Effect at IWC} = \frac{\text{Mean Control Response} - \text{Mean IWC Response}}{\text{Mean Control Response}} * 100$$

4. Chronic Toxicity MDEL Exceedance Follow-up Action

A chronic toxicity test result during routine monitoring indicating a “fail” with a percent effect at or above 0.50 is an exceedance of the chronic toxicity MDEL. The Discharger shall implement corrective action to abate the source of the toxicity within 24 hours from the time the Discharger becomes aware of an MDEL exceedance, if the source of toxicity is known (e.g. operational upset). The Discharger shall also conduct an additional toxicity test during the next discharge event after receiving results of an exceedance as required in section III.C.5 of this MRP.

5. Accelerated Chronic Toxicity Testing Monitoring Schedule

If the follow-up toxicity test result is “fail,” the Discharger shall implement an accelerated chronic toxicity monitoring schedule of the next three storms. If any one of the additional tests result in a “fail” and exhibit a percent effect equal to or greater than 0.25, the Discharger shall implement an approved TRE Work Plan as set forth below in section III.C.7 of this MRP. The requirement for a TRE may be waived by the San Diego Water Board on a case-by-case basis if implementation of a previously approved TRE Work Plan is already underway for the sampled discharge point. If all of the additional tests result in a “pass” or if none of the tests result in a “fail” and exhibit a percent effect equal to or greater than 0.25, the Discharger may return to routine monitoring for the following monitoring period.

6. Quality Assurance

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

- a. This discharge is subject to a determination of “pass” or “fail” from a toxicity test at the IWC (for statistical flowchart and procedures, see *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document*, Appendix A, Figure A-1). The chronic IWC for applicable discharges is 100 percent effluent.
- b. Effluent dilution water and control water should be prepared and used as specified in the test methods manual *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002); or, for *Atherinops affinis*, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). If the dilution water is different from test

organism culture water, then a second control using culture water shall also be used.

- c. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).
- d. All multi-concentration reference toxicant test results must be reviewed and reported according to U.S. EPA guidance on the evaluation of concentration-response relationships found in *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing* (40 CFR part 136) (EPA 821-B-00-004, 2000).
- e. If either the reference toxicant or effluent toxicity tests do not meet all test acceptability criteria in the test methods manual, then the Discharger shall resample and retest within 14 days (or as soon as possible for storm water).

7. Toxicity Reduction Evaluation (TRE)

- a. **TRE Work Plan Submittal.** The Discharger shall prepare and submit a TRE Work Plan to the San Diego Water Board no later than 30 days from the time the Discharger becomes aware that storm water from an Industrial High Risk Area had a chronic toxicity test result in a "fail" and exhibit a percent effect greater than or equal to 0.25 during accelerated monitoring.
- b. **TRE Work Plan.** The TRE Work Plan shall be in conformance with the U.S. EPA manual "*Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070, 1989)*." The TRE Work Plan shall also include the following information:
 - i. A description of the actions to be undertaken by the Discharger to investigate, identify, and correct the causes of toxicity;
 - ii. If the MDEL noncompliance has not been corrected, the amount of time it is expected to continue;
 - iii. A description of the steps taken or planned to reduce, eliminate, and prevent recurrence of the MDEL noncompliance; and
 - iv. A schedule for completion of all activities and submission of a final report.
- c. **TRE Work Plan Implementation.** The Discharger shall implement the TRE Work Plan unless otherwise directed in writing by the San Diego Water Board. The Discharger shall comply with any additional conditions set by the San Diego Water Board.
- d. **TRE Progress Reports.** The Discharger shall prepare and provide written semiannual progress reports that (1) describe the actions that have been taken toward achieving compliance with the chronic toxicity MDEL for the previous six months; (2) describe all activities including, data collection and other field activities which are scheduled for the next year and provide other information relating to the progress of work; (3) identify any modifications to the compliance plans that the Discharger proposed to the San Diego Water Board or that have been approved by San Diego Water Board during the previous six months; and (4) include information regarding all delays encountered or anticipated that may affect the future schedule for completion of the actions required to attain compliance with the MDEL, and a description of all efforts made to mitigate those delays or anticipated delays. These

progress reports shall be submitted to the San Diego Water Board semiannually by February 1 and August 1 each year following the adoption of this Order in accordance with the reporting schedule in Table E-4. Submission of these progress reports shall continue until compliance with the MDEL is achieved.

- e. **Toxicity Identification Evaluation (TIE).** Based upon the magnitude and persistence of the chronic toxicity, the Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). If a TIE is undertaken, the Discharger shall prepare and submit a work plan to the San Diego Water Board containing the following elements and comply with any conditions set by the Board:
 - i. Criteria for initiating a TIE on a sample;
 - ii. Roles and responsibilities of the team conducting the TIE;
 - iii. Study design, sample treatments, and chemical analysis;
 - iv. Data evaluation and communication;
 - v. Follow-up actions; and
 - vi. A schedule for completion of all activities and submission of a final report.

8. Violations

An exceedance of the MDEL during routine monitoring is a violation. Any exceedances occurring during a required accelerated monitoring period and, if appropriate, a TRE period shall not constitute additional violations provided that (1) the Discharger proceeds with the accelerated monitoring and TRE (if required) in a timely manner; and (2) the accelerated monitoring and TRE are completed within one year of the initial exceedance. The San Diego Water Board has the discretion to impose additional violations and initiate an enforcement action for toxicity tests that result in a "fail" after one year from the initial violation. Additionally, the Discharger's failure to initiate an accelerated monitoring schedule or conduct a TRE, as required by this Order, will result in all exceedances being considered violations of the MDEL and may result in the initiation of an enforcement action.

9. Reporting of Toxicity Monitoring Results

- a. The Discharger shall submit a full laboratory report for all toxicity testing as an attachment to the monitoring report. The laboratory report shall contain the toxicity test results; the dates of sample collection and initiation of each toxicity test; and all results for effluent parameters monitored concurrently with the toxicity test(s).
- b. The Discharger shall provide the actual test endpoint responses for the control (i.e., the control mean) and the IWC (i.e., the IWC mean) for each toxicity test to facilitate the review of test results and determination of reasonable potential for toxicity by the permitting authority.
- c. The Discharger shall notify the San Diego Water Board in writing within 14 days of receipt of any test result with an exceedance of the toxicity limit. This notification

shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

D. Storm Water Discharges from Industrial High Risk Areas

1. **Monitoring Questions.** The industrial storm water monitoring program is designed to address the following primary questions:
 - a. Does the runoff meet permit effluent limitations for toxicity thereby ensuring water quality standards are achieved in the receiving water?
 - b. Does the runoff meet the Numeric Action Levels (NALs)?
 - c. Is the Storm Water Pollution Prevention Plan (SWPPP) being properly implemented?
 - d. Is the Facility achieving standards of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT)?
2. **Non-Storm Water Discharge Visual Observations and Assessment**
 - a. Monthly, the Discharger shall visually assess each drainage area for the presence or indications of prior, current, or potential unauthorized non-storm water discharges and their sources.
 - b. The monthly visual observations shall be conducted during daylight hours, on days without precipitation, and during scheduled facility operating hours¹.
 - c. Visual observations shall document the presence of or the indication of any non-storm water discharge, pollutant characteristics (floating and suspended material, oil and grease, discoloration, turbidity, odor, etc.), and source.
 - d. The Discharger shall maintain records of the personnel performing the visual observations, the dates and approximate time each drainage area and non-storm water discharge was observed, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Attachment G of this Order.
 - e. In the Industrial Storm Water Annual Report referenced in section VII.B below, the Discharger shall provide a summary and evaluation of visual observations as well as an explanation for uncompleted monthly visual observations.
3. **Industrial Storm Water Discharge and Other Visual Observations**
 - a. Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Discharger shall observe the discharge of storm water associated with industrial activity.
 - b. The Discharger shall ensure that visual observations of discharge(s) of contained storm water are conducted at the time of discharge. If the discharge is not likely to occur during scheduled facility operating hours (based upon rainfall forecasts and containment freeboard), the visual observations of the contained storm water shall be conducted prior to the discharge. Visual observations shall confirm that the

¹ Scheduled facility operating hours are the time periods when the facility is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.

discharge is complying with the discharge prohibitions contained in section III of this Order.

- c. If the Discharger is employing volume-based or flow-based treatment BMPs, any bypass that occurs while the visual observations and/or sampling of storm water discharges are conducted shall be sampled.
 - d. The Discharger shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any observed pollutants.
 - e. In the event that a discharge location is not visually observed during the sampling event, the Discharger shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location.
 - f. Dischargers shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.
 - g. The Discharger shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.
 - h. In the Industrial Storm Water Annual Report referenced in section III.D.6 below, the Discharger shall provide a summary and evaluation of visual observations as well as an explanation for uncompleted visual observations.
- 4. Industrial High Risk Storm Water Sampling and Analysis**
- a. A Qualifying Storm Event (QSE) is a precipitation event that:
 - i. Produces a discharge for at least one drainage area; and
 - ii. Is preceded by 48 hours with no discharge from any drainage area.
 - b. The Discharger shall collect storm water samples from two QSEs during each semiannual period (i.e. January – June, July – December). Representative storm water discharge locations for Industrial High Risk Areas, as defined under section IV.A.1 of this Order, shall be sampled as specified in Table E-2 below.
 - c. Samples shall be collected from all storm water monitoring locations (Monitoring Location Nos. SW-003 through SW-010) within four hours of the following:
 - i. The start of the discharge, or
 - ii. The start of facility operations if the QSE occurs within the previous 12 hour period (storms that begin the previous night) and representative discharge of the facility is determined to still be occurring. Sample collection is required during scheduled facility operating hours and when sampling conditions are safe.
 - d. The Discharger shall visually observe and collect samples of storm water discharges from Discharge Point Nos. SW-003 through SW-010 that represent the quality and quantity of the Facility's storm water discharges from the storm event. Monitoring stations shall be positioned at points where the storm water flow has not commingled with any flow of water from a non-industrial area, and where samples representative of the discharge of storm water runoff associated with industrial activity in the drainage area can be obtained.

- e. Monitoring locations shall be identified in the SWPPP, depicted on a site map, and shall not be changed without notice to and the approval of the San Diego Water Board.
- f. Sampling of stored or contained storm water shall occur if the stored or contained storm water is discharged to a receiving water. Samples shall be collected from two QSEs during each semiannual period (i.e. January –June, July – December).
- g. Composite samples shall be flow-weighted storm water samples for the duration of the storm. If composite samples are collected, all parameters identified in Table E-2 with a sample type of grab or composite must be analyzed using composite samples.
- h. In the event that a QSE in a semi-annual period does not produce a discharge that can be sampled at all sampling locations, the Discharger shall record which sampling locations were observed that did not discharge, and collect samples from those locations during the next QSE(s) that produces a discharge in that semi-annual period. If the Discharger fails to collect a sample at one or more sampling locations that did produce a discharge, the Discharger is required to fulfill the sampling requirement from an additional QSE that produces a discharge.
- i. The industrial storm water discharges from the Industrial High Risk Areas, shall be sampled and analyzed as shown in Table E-2 below. Results shall be submitted in the Industrial Storm Water Annual Report referenced in section III.D.6 below.

Table E-2. Monitoring Requirements for Industrial High Risk Area Storm Water Discharges

Parameter	Unit	Sample Type	Minimum Frequency ⁶	Required Analytical Test Method
Discharge Volume	gallons	Estimate ¹	Two storms per semiannual period.	Estimate
Conventional Pollutants				
Chemical Oxygen Demand	mg/L	Grab or Composite	Two storms per semiannual period.	2
Oil and Grease	mg/L	Grab	Two storms per semiannual period.	2
pH	pH Units	Grab	Two storms per semiannual period.	5
Total Suspended Solids	mg/L	Grab	Two storms per semiannual period.	2
Priority Pollutants				
Arsenic, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Cadmium, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Copper, Total Recoverable	mg/L	Grab or Composite	Two storms per semiannual period.	2
Mercury, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Nickel, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Selenium, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2

Parameter	Unit	Sample Type	Minimum Frequency ⁶	Required Analytical Test Method
Silver, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Zinc, Total Recoverable	mg/L	Grab or Composite	Two storms per semiannual period.	2
Lead, Total Recoverable ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Non-Conventional Pollutants				
Aluminum, Total Recoverable ⁷	µg/L	Grab or Composite	Two storms per semiannual period.	2
Iron, Total Recoverable ⁷	µg/L	Grab or Composite	Two storms per semiannual period.	2
Magnesium, Total Recoverable ⁷	µg/L	Grab or Composite	Two storms per semiannual period.	2
Nitrate+Nitrite Nitrogen ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Phosphorus, Total ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Ammonia ⁷	mg/L	Grab or Composite	Two storms per semiannual period.	2
Chronic Toxicity ³	Pass or Fail	Grab or Composite	Two storms per semiannual period.	3
Other Pollutants ⁴	µg/L	Grab or Composite	Two storms per semiannual period.	2

- 1 The volume of storm water discharge can be estimated by multiplying: amount of rainfall in feet × square feet of surface area × impervious factor. There are 7.5 gallons per cubic foot.
- 2 As specified in 40 CFR section 136.3.
- 3 The presence of chronic toxicity in the storm water shall be determined as specified in section III.C of this MRP.
- 4 Pollutants that are likely to be present in storm water discharges in significant quantities shall be sampled. The pollutants shall be selected based upon the pollutant source assessment required in the SWPPP requirements contained in Attachment G, visual observations, and inspection records. If these pollutants are not detected in significant quantities after two consecutive sampling events, the Discharger may eliminate the pollutant from future analysis until the pollutant is likely to be present again. The Discharger shall select appropriate analytical test methods that indicate the presence of pollutants in storm water discharges in significant quantities.
- 5 Field test with pre- and post-calibrated portable instrument, or lab sample in accordance with 40 CFR part 136.
- 6 Sampling shall occur during QSEs, or if collected, prior to release to receiving water. If there are no QSEs during the year, then sampling shall occur as soon as possible. If there are no qualifying storm events during the fifth year and conditions for administrative extension are met, then sampling shall occur as soon as possible.
- 7 After four consecutive sample events where parameters are not detected or below the Annual NAL values, analysis for those parameters may be discontinued.

j. Sampling Frequency Reduction Certification

- i. The Discharger is eligible to reduce the number of QSEs sampled each reporting year in accordance with the following requirements:
 - (a) Results from four consecutive QSEs that were sampled (QSEs may be from different reporting years) did not exceed any NALs; and
 - (b) The Discharger is in full compliance with the requirements of this Order and has updated, certified and submitted all documents, data, and reports required by this Order during the time period in which samples were collected.

- (c) The Discharger has certified that it meets conditions a) and b) above.
- ii. The San Diego Water Board may notify a Discharger that it may not reduce the number of QSEs sampled each reporting year if the Discharger is subject to an enforcement action.
- iii. Upon Sampling Frequency Reduction certification, the Discharger shall collect and analyze samples from one QSE within the first half of each reporting year (July 1 to December 31), and one QSE within the second half of each reporting year (January 1 to June 30). All other monitoring, sampling, and reporting requirements remain in effect.
- iv. A Discharger may reduce sampling per the Sampling Frequency Reduction certification unless notified by the San Diego Water Board that: (1) the Sampling Frequency Reduction certification has been rejected or (2) additional supporting documentation must be submitted. In such instances, a Discharger is ineligible for the Sampling Frequency Reduction until the San Diego Water Board provides Sampling Frequency Reduction certification approval. Revised Sampling Frequency Reduction certifications shall be certified and submitted by the Discharger.
- v. A Discharger loses its Sampling Frequency Reduction certification if an NAL exceedance occurs.

5. **Visual Observation and Sample Collection Exceptions**

The Discharger shall be prepared to collect samples and conduct visual observations at the beginning of the semi-annual period until the minimum requirements of this section are completed with the following exceptions:

- a. The Discharger is not required to collect samples or conduct visual observations under the following conditions:
 - i. During dangerous weather conditions such as flooding and electrical storms; or
 - ii. Outside of scheduled Facility operating hours. The Discharger is not precluded from collecting samples or conducting visual observations outside of scheduled facility operation hours.
- b. If the Discharger does not collect the required samples or conduct the visual observations during a wet season due to these exceptions, then the Discharger shall include an explanation in the Annual Report indicating the reason why the sampling or visual observations were not conducted.
- c. The Discharger shall ensure that all industrial storm water discharge sampling locations are representative of drainage areas associated with industrial activities, where practicable. The storm water discharge observed and collected from these sampling locations shall be representative of the storm water discharge generated in each drainage area. For sheet flow, the Discharger shall determine the appropriate sampling location(s) which represent industrial storm water discharges generated from the corresponding drainage area.
- d. The Discharger shall identify practicable alternate sample collection locations representative of the Facility's storm water discharge if:

- i. Specific drainage areas at the Facility are affected by storm water run-on from offsite areas or on-site non-industrial areas; or.
- ii. Specific sampling locations are difficult to sample such as submerged discharge outlets, dangerous discharge location accessibility.

6. **Industrial Storm Water Annual Report**

The Discharger shall submit an Industrial Storm Water Annual Report by September 1 of each year to the San Diego Water Board. The report shall include the following:

- a. A summary and evaluation of visual observations and sampling and analysis results required by section III.D of this MRP;
- b. The Annual Comprehensive Site Compliance Evaluation Report as required by section IX of the SWPPP requirements contained in Attachment G;
- c. Laboratory reports;
- d. A list of authorized and non-authorized non-storm water discharges; and
- e. A signed certification if there were no storm water discharges during any required monitoring period.

IV. **RECEIVING WATER AND SEDIMENT MONITORING REQUIREMENTS**

The receiving water and sediment monitoring requirements set forth below are designed to measure the effects of the Facility discharges on San Diego Bay receiving waters. The overall receiving water monitoring program is intended to answer the following questions:

- (1) Does the receiving water meet water quality standards listed in section V of this Order, Receiving Water Limitations?
- (2) Are the receiving water conditions getting better or worse over time?
- (3) Does the Facility cause or contribute to violations of the Receiving Water Limitations in Section V. of this Order?

At this time, receiving water and sediment monitoring in the vicinity of the Facility shall be conducted as specified below. This program is intended to document conditions of receiving waters within the vicinity of the Facility discharges. Station location, sampling, sample preservation and analyses, when not specified, shall be by methods approved by the San Diego Water Board. The monitoring program may be modified by the San Diego Water Board at any time. The Discharger may also submit a list of and rationale for any reductions in or other changes to these monitoring requirements that it considers to be appropriate to the San Diego Water Board for approval.

During monitoring events sample stations shall be located using a land-based microwave positioning system or a satellite positioning system such as GPS. If an alternate navigation system is proposed, its accuracy should be compared to that of microwave and satellite based systems, and any compromises in accuracy shall be justified.

- A. Monitoring Responsibility.** Receiving water and sediment monitoring shall be performed individually by the Discharger to assess compliance with receiving water limits or through the Discharger's participation in a regional or water body monitoring coalition or both as determined by the San Diego Water Board.

- B. Monitoring Coalition Reopener.** To achieve maximum efficiency and economy of resources, the Discharger may establish or join a San Diego Bay water body monitoring coalition. If a San Diego Bay monitoring coalition is formed, revised monitoring requirements will be established to ensure that appropriate monitoring is conducted in a timely manner.
- C. Water and Sediment Monitoring Plan.** The Discharger shall prepare and submit a Water and Sediment Monitoring Plan to assess compliance with Receiving Water Limitations of this Order. The Water and Sediment Monitoring Plan shall be designed to answer the questions listed in section IV. above and submitted within 12 months of the effective date of this Order. The Water and Sediment Monitoring Plan shall contain the following elements:
- 1. Quality Assurance Project Plan (QAPP).** A QAPP describing the project objectives and organization, functional activities, and quality assurance/quality control (QA/QC) protocols for the water and sediment monitoring.
 - 2. Sampling and Analysis Plan.** A Sampling and Analysis Plan based on methods or metrics described in 40 CFR part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act* and the Sediment Quality Plan. The plan shall include a list of chemical analytes for the water column and sediment as well as frequency and monitoring locations.
 - 3. Receiving Water Monitoring**
 - a. Frequency.** The Sampling and Analysis Plan must propose the frequency and timing for receiving water sampling. The minimum frequency of sampling is shown in Table E-3 below. The proposed sampling must be based upon results on the fate and transport of pollutants from the conceptual model (see section IV.C.5, below).
 - b. Pollutants.** The Sampling and Analysis Plan must propose what pollutants will be monitored. At a minimum, monitoring must include the pollutants and frequency in Table E-3 below:

Table E-3. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	Standard units	Grab	Annually ⁶	5
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	Annually ⁶	1,2
Mercury, Total Recoverable	µg/L	Grab	Annually ⁶	1
Nickel, Total Recoverable	µg/L	Grab	Annually ⁶	1
Zinc, Total Recoverable	µg/L	Grab	Annually ⁶	1
Other Pollutants Identified by the Discharger	µg/L	Grab	Annually ⁶	1,3
Non-Conventional Pollutants				
Temperature	°F	Grab	Annually ⁶	1
Dissolved Oxygen	mg/l	Grab	Annually ⁶	1
Chronic Toxicity	Pass/Fail	Grab	Annually ⁶	4

¹ As specified in 40 CFR part 136

- ² Samples shall be analyzed for copper according to method 1638 or 1640. The commonly used methods 6010(c) (Inorganics by ICP-Atomic Emission Spectroscopy) and 200.7 (Trace Elements-ICP) have been found to give inaccurate copper readings in saline-matrix samples due to interference with the sodium argon complex, which has a molecular weight similar to copper. Method 1638 (ICP/MS) or 1640 (On-Line Chelation) will eliminate the sodium-argon complex before the sample is tested for copper. No inaccurate readings for other metals in a saline-matrix sample analyzed by methods 6010(c) or 200.7 are known.
- ³ As defined in the California Toxics Rule adopted by EPA on May 18, 2000 and amended on February 13, 2001
- ⁴ The presence of chronic toxicity shall be determined as specified in section III.C of this MRP.
- ⁵ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR part 136.
- ⁶ Receiving water samples shall be collected during one QSE per year. If there is no discharge of storm water, no sample is required.

4. Sediment Monitoring

- a. **Initial Chemistry Screening.** The Sampling and Analysis Plan shall propose an initial chemistry screening of pollutants to aid in the identification of appropriate locations for the triad monitoring of sediment chemistry, toxicity, and benthic community conditions and locations for screening-level risk assessment monitoring. Both near-shore and off-shore samples shall be taken to show sediment chemistry gradients at the facility, if any. The Discharger shall evaluate previous data from Sediment Sampling Site Nos. CNM-01 through CNM-011 and REF-01 through REF-03 and any other existing data. The pollutants in the screening shall be the chemical analytes in Attachment I of this Order unless rationale is provided for a subset of analytes.
- b. **Frequency.** Triad monitoring of sediment chemistry, toxicity and benthic community condition shall be done, at a minimum, once during the term of this Order.
- c. **Station Locations.** Triad station locations shall be identified after evaluating the initial chemistry screening results and the items in section IV.C.5 through IV.C.8 below.
- d. **Sediment Chemistry, Toxicity, and Benthic Community Condition.** Sediment chemistry, toxicity and benthic community monitoring shall be done in accordance with, at a minimum, the requirements section V. of the State Water Board Sediment Quality Plan (i.e. the State Water Board's *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality* (Sediment Quality Plan)). The proposal must include the following:
 - i. **Sediment Chemistry:** Bulk sediment chemical analysis shall include at a minimum the pollutants identified in Attachment A of the State Water Board Sediment Quality Plan and also in Attachment I of this Order.
 - ii. **Sediment Toxicity:** Short term survival tests and sublethal tests shall be performed as specified in section V.F of the State Board Sediment Quality Plan.
 - iii. **Benthic Community- Subtidal Habitat:** The benthic community shall be evaluated using the line of evidence approach in section V.G of the State Board Sediment Quality Plan.
- e. **Aquatic-Dependent Wildlife and Human Health Risk Assessments:** An aquatic-dependent wildlife and human health screening-level risk assessment shall be conducted to evaluate if sediment conditions potentially pose an unacceptable risk to aquatic-dependent wildlife and human health. The Tier I screening-level risk assessment shall be based on tissue data derived from the exposure of the clam

Macoma nasuta to site sediments for 28 days using ASTM protocols or similar procedures. A risk assessment shall be conducted considering any applicable and relevant information, including California Environmental Protection Agency's (Cal/EPA) Office of Environmental Health Hazard Assessment (OEHHA) policies for fish consumption and risk assessment, Cal/EPA's Department of Toxic Substances Control (DTSC) Risk Assessment, and USEPA Human Health Risk Assessment policies

5. **Conceptual Model.** A Conceptual Model identifying the physical and chemical factors that control the fate and transport of pollutants and receptors that could be exposed to pollutants in the water and sediment shall be developed and included in the Water and Sediment Monitoring Plan. The Conceptual Model shall serve as the basis for assessing the appropriateness of the Water and Sediment Monitoring Plan design. The Conceptual Model shall consider the following:
 - a. Points of discharge into the segment of the water body or region of interest;
 - b. Tidal flow and/or direction of predominant currents;
 - c. Historic or legacy conditions in the vicinity;
 - d. Nearby land and marine uses or actions;
 - e. Beneficial Uses;
 - f. Potential receptors of concern;
 - g. Change in grain size salinity water depth and organic matter; and
 - h. Other sources or discharges in the immediate vicinity.
 6. **Spatial Representation.** The Water and Sediment Monitoring Plan shall be designed to ensure that the sample stations are spatially representative of the water and sediment within the water body segment or region of interest.
 7. **Existing Data and Information.** The Water and Sediment Monitoring Plan design shall take into consideration existing data and information of appropriate quality including ongoing monitoring programs conducted by the Discharger and other entities.
 8. **Strata.** A stratified random design shall be used where resources permit to assess conditions throughout a waterbody. Identification of appropriate strata shall consider characteristics of the water body including sediment transport, hydrodynamics, depth, salinity, land uses, inputs (both natural and anthropogenic) and other factors that could affect the physical, chemical, or biological condition of the sediment.
 9. **Index Period.** All sediment stations shall be sampled between the months of June through September to correspond with the benthic community index period.
 10. **Report Completion Schedule.** The Water and Sediment Monitoring Plan shall include a schedule for completion of all sample collection and analysis activities and submission of the Water and Sediment Monitoring Report described below.
- D. **Water and Sediment Monitoring Plan Implementation.** The Discharger or water body monitoring coalition shall implement the Water and Sediment Monitoring Plan in accordance with the schedule contained in the Water and Sediment Monitoring Plan unless otherwise directed in writing by the San Diego Water Board. At the latest, Implementation of the initial chemistry screening required in section IV.C.4.a above and receiving water monitoring shall begin within 24 months of the effective date of this Order. An Updated Water and Sediment

Monitoring Plan shall be submitted no later than 36 months after the effective date of this Order to identify the triad sediment sample locations unless extended by the San Diego Water Board Executive Officer. Before beginning sample collection activities, the Discharger or water body monitoring coalition shall comply with any conditions set by the San Diego Water Board with respect to sample collection methods such as providing split samples.

- E. Receiving Water Monitoring Reports.** The Discharger or water body monitoring coalition shall submit Receiving Water Monitoring Reports twice during the permit cycle. The Receiving Water Monitoring Reports shall contain:
- 1. Monitoring Results.** The results of the monitoring in tabular and graphical form.
 - 2. Data Analysis, Interpretations, and Conclusions.** An analysis of the data to evaluate trends and interpretations and conclusions on the data.
 - 3. Receiving Water Limitation Determination.** A determination as to whether applicable Receiving Water Limitations in this Order have been attained.
 - 4. Sample Location Map.** The locations, type, and number of samples shall be identified and shown on a site map(s).
 - 5. Laboratory Reports.** The reports from laboratories with the original analysis results including any quality assurance / quality control information.
- F. Sediment Monitoring Reports.** The Discharger or water body monitoring coalition shall submit a Sediment Monitoring Report once during the term of the permit by February 1 of the year after the sampling occurs. The Sediment Monitoring Report shall contain the following information:
- 1. Aquatic Life Analysis.** The data, analyses, interpretation, and integration of the multiple lines of evidence (MLOE), and station assessment shall be performed using the MLOE approach as prescribed in the State Water Board Sediment Quality Plan. Compliance with receiving water limitations for sediment quality shall be determined for each station by integrating the sediment chemistry, toxicity, and benthic community lines of evidence to derive a benthic triad station assessment in accordance with the methodology in section V.I of the State Water Board Sediment Quality Plan.
 - 2. Aquatic-dependent Wildlife and Human Health.** The data, analyses, interpretation and results of the screening-level risk assessments for aquatic-dependent wildlife and human health shall be performed in accordance with section VI of the State Water Board Sediment Quality Plan. Compliance with receiving water limitations for sediment quality shall be determined for the site based on the aquatic-dependent wildlife and human health screening-level risk assessments.
 - 3. Receiving Water Limitation Determination.** A determination shall be made for each station of attainment of the applicable Receiving Water Limitations.
 - 4. Sample Location Map.** The locations, type, and number of samples shall be identified and shown on a site map(s).
 - 5. Laboratory Reports.** The reports from laboratories with the original analysis results including any quality assurance / quality control information.

V. REGIONAL MONITORING REQUIREMENTS

Regional receiving water monitoring provides information about the sources, fates, and effects of anthropogenic contaminants in the coastal marine environment necessary to make assessments

over large areas. The large scale assessments provided by regional monitoring describe and evaluate cumulative effects of all anthropogenic inputs and enable better decision making regarding protection of beneficial uses of receiving waters. Regional monitoring data assists in the interpretation of core monitoring studies by providing a more accurate and complete characterization of reference conditions and natural variability. Regional monitoring also leads to methods standardization and improved quality control through intercalibration exercise. The coalitions implementing regional monitoring enable sharing of technical resources, trained personnel and associated costs. Focusing these resources on regional issues and developing a broader understanding of pollutants effects in receiving waters enables the development of more rapid and effective response strategies. Based on all of these considerations the San Diego Water Board supports regional approaches to monitoring receiving waters.

The Discharger shall, as directed by the San Diego Water Board, participate with other regulated entities, other interested parties, and the San Diego Water Board in development and implementation of new and improved monitoring and assessment programs for receiving waters in the San Diego Region and discharges to those waters. These programs shall be developed and implemented so as to:

- (1) Determine the status and trends of conditions in ocean waters in the San Diego Region with regard to beneficial uses, e.g.,
 - i. Are fish and shellfish safe to eat?
 - ii. Is water quality safe for swimming?
 - iii. Are ecosystems healthy?
- (2) Identify the primary stressors causing or contributing to conditions of concern;
- (3) Identify the major sources of the stressors causing or contributing to conditions of concern; and
- (4) Evaluate the effectiveness (i.e., environmental outcomes) of actions taken to address such stressors and sources.

Development and implementation of new and improved monitoring and assessment programs for receiving waters will be guided by the following:

- (1) San Diego Water Board Resolution No. R9-2012-0069, "Resolution in Support of A Regional Monitoring Framework;"
- (2) San Diego Water Board staff report entitled "A Framework for Monitoring and Assessment in the San Diego Region;" and
- (3) Other guidance materials, as appropriate.

The San Diego Water Board may modify the receiving waters monitoring and reporting requirements, regional monitoring requirements, and/or special studies requirements of this Order as necessary for cause, including but not limited to a) revisions necessary to implement recommendations from Southern California Coastal Water Research Project (SCCWRP); b) revisions necessary to develop, refine, implement, and/or coordinate a regional monitoring program; and/or c) revisions necessary to develop and implement improved monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9-2012-0069, Resolution in Support of a Regional Monitoring Framework.

VI. SPECIAL STUDIES REQUIREMENTS – NOT APPLICABLE

VII. OTHER MONITORING REQUIREMENTS

A. Spill and Illicit Discharge Log

This requirement for a spill and illicit discharge log is designed to answer the following primary monitoring questions:

- (1) Are there more frequent and/or bigger spills at this Facility than at other similar facilities?
- (2) Are spills and illicit discharges properly addressed and are measures being taken or planned to reduce, eliminate, and prevent recurrence of them in the future?

The Discharger shall log and report all spills to surface waters and all illicit discharges of any quantity within the Facility including spills and illicit discharges from vessels that are at the Facility for service. The spill / illicit discharge reports shall identify the following:

1. The time and date of the spill or illicit discharge;
2. The cause of the spill or illicit discharge;
3. The materials or wastes involved in the spill or illicit discharge;
4. The estimated volume of the spill or illicit discharges;
5. The specific location where the spill or illicit discharge originated including storm water risk level;
6. The fate of the spill or illicit discharge (e.g., San Diego Bay, etc.);
7. The physical extent or size of the area(s) affected by the spill;
8. Whether the spill or illicit discharge contained pollutants;
9. The public agencies notified;
10. The corrective actions taken or planned; and
11. The measures taken or planned to prevent or minimize future spills or illicit discharges.

The spill and illicit discharge log shall be compiled and submitted quarterly in accordance with Table E-4 of this MRP.

The Discharger shall include in its Annual Report a summary of the spills and illicit discharges that occurred in or on the Facility during the annual reporting period. The spill/illicit discharge summary report shall indicate the total number of spills and illicit discharges for the year, categorize the spills and illicit discharges, and provide the percentages of each type of spill or illicit discharge in a graphical representation. The summary report shall also describe the steps taken or planned to reduce, eliminate, and prevent recurrence of the spills and illicit discharges.

VIII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. The Discharger shall report all instances of noncompliance not reported under Attachment D, sections V.E, V.G, and V.H, of this Order at the time monitoring reports are submitted.

3. By September 1 of each year, the Discharger shall submit an annual report discussing the compliance record and corrective actions taken, or which may be taken, or which may be needed to bring the discharge into full compliance with the requirements of Order No. R9-2015-0009 and this MRP.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal. Any reports not in CIWQS shall be submitted electronically to the San Diego Water Board's e-mail at sandiego@waterboards.ca.gov or as otherwise directed by the San Diego Water Board.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP. The Discharger shall submit quarterly, semiannual, and annual SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-4. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with quarterly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with quarterly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with quarterly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 1 February 1
Annually	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	July 1 through June 30	September 1

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Annual Storm Water Report	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	July 1 through June 30	September 1 Separate report from Annual Report

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory’s MDL shall be reported as “Not Detected,” or ND.
- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
- e. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the San Diego Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

5. **Multiple Sample Data.** When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

- b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
6. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

C. Discharge Monitoring Reports (DMRs) – Not Applicable

D. Other Reports

- 1. Special Reports. As specified in this Order, special reports or program components shall be submitted in accordance with the following reporting requirements. At minimum, the progress reports shall include a discussion of the status of final compliance, whether the Discharger is on schedule to meet the final compliance date, and the remaining tasks to meet the final compliance date.

Table E-5. Reporting Requirements for Special Provisions Progress Reports

Report Name	Section No.	Report Due Date
Toxicity Reduction Evaluation (TRE) Work Plan	MRP section III.C.7	See Section III.C.7 of MRP
Water and Sediment Monitoring Plan	MRP section IV.C	Within 12 months of the effective date of this Order

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II.B of this Order, the San Diego Water Board incorporates this Fact Sheet as findings of the San Diego Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

I. PERMIT INFORMATION

- A.** Continental Maritime of San Diego (Discharger) is the operator of Continental Maritime of San Diego (Facility), a shipyard for the conversion and repair of a wide range of naval surface vessels owned by the U.S. Navy and marine vessels owned by other commercial customers.

For the purposes of this Order, references to the “discharger” or “Discharger” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

The following table summarizes administrative information related to the Facility.

Table F-1. Facility Information

WDID	9 000000400
Discharger	Continental Maritime of San Diego
Name of Facility	Continental Maritime of San Diego
Facility Address	1995 Bay Front Street
	San Diego, CA 92113
	San Diego County
Facility Contact, Title and Phone	Russell A. McCarthy, Jr., Director of Administration, (619) 234-8851 Dewey Youngerman, Manager EH&S, (619) 234-8851
Authorized Person to Sign and Submit Monitoring Reports	Russell A. McCarthy, Jr., Director of Administration, (619) 234-8851 Dewey Youngerman, Manager EH&S, (619) 234-8851
Mailing Address	Same as Facility Address
Billing Address	Same as Facility Address
Type of Facility	Shipbuilding and Repair (SIC Code# 3731)
Major or Minor Facility	Minor
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Not Applicable
Recycling Requirements	Not Applicable
Facility Permitted Flow	Not Applicable
Facility Design Flow	Not Applicable
Watershed	San Diego Bay
Receiving Water	San Diego Bay
Receiving Water Type	Enclosed Bay

- B.** The Facility discharges storm water to San Diego Bay, a water of the United States. The Discharger was previously regulated by Order R9-2008-0049 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0109142, adopted on August 13, 2008 and expired on August 13, 2013. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

- C.** The Discharger filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on January 28, 2013. The application was deemed complete on February 10, 2014.

II. FACILITY DESCRIPTION

The Facility is a full service ship repair and modernization facility located on 31.8 acres of tidelands leased from the San Diego Unified Port District on the San Diego bay front. The lease area is comprised of 14 acres of land and an adjacent offshore area of 17.8 acres of water located between Cesar Chavez Parkway and Belt Street directly under the Coronado Bridge in San Diego, California. The Facility includes 350,625 square feet of office, warehouse and manufacturing building area, 679 parking spaces, and six piers ranging from 175 feet to 700 feet in length. The shipyard provides a variety of services, including structural repair, sheet metal fabrication, surface preparation (mechanical cleaning and abrasive blasting) and painting, electrical component repair and replacement, machinery overhaul and repair, piping systems repair, boiler repair, bilge/ballast water treatment, acid flushing, lagging and insulation removal and installation, and the overhaul and rigging of shipboard components. Some industrial processes at the Facility are exposed to storm water.

General industrial processes associated with shipbuilding, conversion, repair, and maintenance include metal fabrication, welding and brazing, abrasive blasting, hydrowashing, fiberglass work, paint and coating application, mechanical work, electrical work, wood work (including sanding), chemical cleaning of piping, line heating, and hazardous waste storage. Several shipbuilding and repair activities take place over water or near shore locations, while others may be performed in workshops or at work sites located inland on the shipyard property.

The Discharger manages four industrial process wastewater streams during a ship repair evolution. These waste streams include bilge/ballast water, steam cleaning pit water, shop cleaning of non-ferrous alloys, and sanitary sewer effluent. These waters are discharged according to the waste stream type:

- Bilge/Ballast Water - Ships bilge/ballast water contained in holding tanks and machinery spaces upon arrival at the Facility is transferred from vessels to a tank farm via installed piping systems. The final disposition of these liquids can go to one of the following:
 - A pump station and then to the local publicly-owned treatment works (POTW);
 - On-site processing and subsequent discharge to the POTW;
 - Manifest to a treatment, storage and disposal facility.
- Steam Cleaning Pit Water - The Facility performs various steam cleaning operations on items such as pumps, motors, miscellaneous machinery and piping components in addition to vehicle and rolling stock maintenance. Actual parts cleaning are done over a

containment area. When the steam pit is full, it is pumped to one of the holding tanks and then disposed of in a similar manner as bilge/ballast water.

- Shop Cleaning of Non-ferrous Alloys - Solutions of 10 percent hydrochloric acid or 3 percent citric acid and rinse become spent and are manifested by the Discharger and picked up by a registered hazardous waste hauler. None of these wastes enter the tank farm, steam pit, or sewer system.
- Sanitary Sewer Effluent- Vessel collection, holding, and transfer system effluent is pumped via hoses from the ships to risers located on Pier Nos. 4 and 6. From the risers effluent is piped directly to municipal sanitary sewer manholes.

Contact storm water from the facility is collected in a storm water diversion system and discharged routinely to the sanitary sewer or, in emergent situations, to San Diego Bay. Discharge from the Facility to San Diego Bay only occurs in the event that all storm water retention capacity at the Facility has been exhausted.

A. Description of Wastewater

1. Storm Water Discharges

Storm water generated on the site is collected in a storm water diversion system (SWDS), which can capture and manage 2.55 inches of rainfall (0.25 inches in initial flush sent to sewer and then 2.3 inches to storm water diversion tanks) from various catchment basins around the Facility. This includes the first flush of storm water associated with each storm event.

The industrial areas are divided into 11 distinct industrial storm water control areas that are segregated by berms and associated pumping mechanisms to control and divert storm water to a series of above ground tanks for storage. The Industrial User Discharge Permit issued by the City of San Diego Metropolitan Pretreatment Program to the Facility authorizes the Facility to release dilute wastewaters (including storm water) in addition to industrial process wastewater to the sanitary sewer system. The City's Industrial User Discharge Permit allows the first flush (0.25 inches) of storm water to be discharged to the sanitary sewer without a holding time or analysis. Stored storm water is analyzed to determine if it meets the pretreatment discharge limits specified in the Industrial User Discharge Permit. After 24 hours of retention time, the stored storm water is released into the San Diego Metropolitan Sanitary Sewer System (SDMSSS). In the event that the storm water containment capacity of the SWDS and above ground storage tanks is exceeded, excess storm water can be discharged to San Diego Bay through as many as eight designated outfalls (Discharge Point Nos. 003 through 010). The Discharger reports that no storm water has been discharged to San Diego Bay since 2004. The storm water drainage areas and storm event containment capability are shown in Table F-2 below:

Table F-2. Storm Water Control Areas

Storm Water Drainage Area	Area (Sq. Ft.)	Storm Water Storage Capacity (gallons)	Maximum Storm Event Contained	Outfall
Area 1: Pier 6	31,300	25,000	2.3" Rainfall in 24-hr, 5-year event	Outfall 4

Storm Water Drainage Area	Area (Sq. Ft.)	Storm Water Storage Capacity (gallons)	Maximum Storm Event Contained	Outfall
Area 2: Pier 4	20,300	25,000	2.7" Rainfall in 24-hr, 5-year event	Outfall 5 and 6
Area 3: Pier 7 Apron Area	6,700	Included with Pier 6 Tank	2.3" Rainfall in 24-hr, 5-year event	Outfall 3
Area 4: Paint and Blast Area	18,600	20,000	2.6" Rainfall in 24-hr, 5-year event	Storage Tanks
Area 5: Outdoor Structural Area	23,700	25,000	2.6" Rainfall in 24-hr, 5-year event	Outfall 9
Area 6: Storm Water Diversion Area	7,100	300,000	2.3" Rainfall in 24-hr, 5-year event	Storage Tanks
Area 7: Building 9 Bulkhead	8,150	Storm Water Diversion Tanks (300,000 gallons)	2.3" Rainfall in 24-hr, 5-year event	Outfall 7
Area 8: Maintenance Area	24,800	Storm Water Diversion Tanks (300,000 gallons)	2.3" Rainfall in 24-hr, 5-year event	Outfall 10 and 12
Area 9: Entrance Production Roadway Area	32,000	Storm Water Diversion Tanks (300,000 gallons)	2.3" Rainfall in 24-hr, 5-year event	Pumped to Tanks in Area 6
Area 10: Main Yard Storm Drain Area	145,000	Storm Water Diversion Tanks (300,000 gallons)	2.3" Rainfall in 24-hr, 5-year event	Outfall 5
Area 12: Pump Out Area and Boiler Shop Storage	4,730	Storm Water Diversion Tanks (300,000 gallons)	2.3" Rainfall in 24-hr, 5-year event	Pumped to alley in Area 10

The location of Discharge Points corresponding to the storm water collection areas are listed in Table F-3 of this Fact Sheet. Descriptions of the storm water collection areas include:

- a. Areas 1 and 2 consist of production piers Nos. 6 and 4, respectively. Pier Nos. 6 and 4 are used for berthing ships that are undergoing repair and maintenance. Industrial activities include metal surface preparation, painting, grinding, welding, and various ship repair activities. Potential sources of pollution include spills during storage and transportation, contaminated storm water run-off and wind conveyance of general trash and grit. Typical wastes include paint debris, paint sludge, grease and oil, solvents, and petroleum wastes.

- b. Area 3 is a general storage area for the Facility for the lay down of large equipment and truck parking. Potential sources of pollutants may include general debris, fuel and hydraulic fluids from trucks and loading equipment, and material spills.
- c. Area 4 contains the Facility's grit blasting and painting operation. Potential sources of pollutants include paint overspray, storm water runoff, airborne abrasive grit particles, and paint spills. Pollutants of concern include solvents, paint chips containing metals (copper, lead, zinc, etc.), and grease and oil.
- d. Area 5 contains the outdoor structural fabrication area, mainly used for steel structure and material storage, although production operations are periodically conducted in this area. The operations include grinding, cutting, and welding. Potential sources of pollution include storm water flows through the industrial area, spills from stationary equipment, and spills from transportation of hazardous materials. Pollutants generated in this area include general trash, metal grinding dust, welding residues, and lubricants.
- e. Area 6 is a tank farm area. Large volumes of oily bilge/ballast tank waters from ships, industrial storm water, and other industrial wastewaters are routed to the tank farm system (eight tanks) for storage, treatment, and ultimate disposal to the sanitary sewer system. Potential pollutants of concern in this area may be contained in water spilled from the storage tanks, including oil and grease.

The hazardous materials accumulation and storage area at the Facility is located directly adjacent to the tank farm and the main parking lot, in storm water control Area 6. The hazardous materials area is utilized for central accumulation of wastes such as paints, solvents, acids, and other regulated hazardous substances. The area receives waste from satellite accumulation points throughout the shipyard. Workers in this area consolidate and package the waste for off-site transportation, treatment, and disposal using appropriate manifests. Potential sources of pollutants include spills during transfer and insufficient secondary containment.

The steam cleaning pit is located in storm water containment Area 6. The steam cleaning pit area uses high-pressure steam to degrease and clean the surfaces of pumps, motors, pipes, and various metal parts. When the steam sump fills up to capacity, the wastewater is pumped into a dedicated 15,000 gallon holding tank. The wastewater is subsequently released to the municipal sewer system after it goes through the treatment tank farm and oil/waste separation system. The sludge that accumulates at the bottom of the sump is treated as a hazardous waste and hauled off-site for disposal with an appropriate manifest. Potential sources of pollution from the steam cleaning pit area include overspray that may deposit grime outside of the bermed area and excessive flows that may overflow the bermed area. Pollutants generated in this area include oily water, grease, solvents, and various petroleum products.

- f. Area 7 is an industrial storage area located adjacent to Area 4 and the grit blasting facilities. Grit blasting materials and equipment are staged in this area. Potential sources of pollutants include paint overspray, storm water runoff, airborne abrasive grit particles, and paint spills. Pollutants of concern include solvents, paint chips containing metals (copper, lead, zinc, etc.), and grease and oil.
- g. Area 8 includes the maintenance area where all production support equipment repairs are performed. Repairs include total engine rebuilding, tune-ups, working fluid changes, parts degreasing, painting and a wide assortment of maintenance activities. Potential sources of pollutants include accidental spills, improper labeling

or storage, and storm water overflow from the containment system. Pollutants used or stored in the maintenance area include oils, hydraulic fluids, solvents, wastewater, paints, coolants, and fuel.

- h. Area 9 consists of production roadways, roof-tops, and the recyclable materials collection area. The recyclable materials collection area at the Facility is where all ferrous and non-ferrous materials are collected for recycling. Overflow from this area is directed to storm water control Area 10. Sources of pollution include storm water contact of materials and wind conveyance of metal fragments and dust. Pollutants generated in this area include aluminum, copper, iron, and tin particles, and cutting oils and grease.
- i. Area 10 consists of the materials shipping and receiving area for the Facility. Materials shipped to and from the Facility are loaded/unloaded from trucks, staged, and stored for short periods of time in this location. Potential sources of pollutants may include general debris, fuel and hydraulic fluids from trucks and loading equipment, and material spills.
- j. Area 11 was turned into a non-industrial area when the north parking lot was built.
- k. Area 12 is used for material storage for the boiler shop with racks of metal parts. There is also a small lunch area. No chemical are stored in this area. Area 12 is a small area where storm water is pumped to an alley between the boiler shop and shipping and receiving in Area 10.

B. Discharge Points and Receiving Waters

1. The discharge points to San Diego Bay are summarized in Table F-3 below:

Table F-3. Discharge Points and Receiving Waters

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
003	Area 3 (Pier 7) Storm Water Runoff	32° 41' 38" N	-117° 8' 52" W	San Diego Bay
004	Area 1 (Pier 6) Storm Water Runoff	32° 41' 38" N	-117° 8' 53" W	San Diego Bay
005	Area 2, 4, 6, 9, and 10 Storm Water Runoff	32° 41' 42" N	-117° 8' 57" W	San Diego Bay
006	Area 2 (New Portion of Pier – West End) Storm Water Runoff	32° 41' 37" N	-117° 8' 3" W	San Diego Bay
007	Area 7 (West of North Parking Lot) Storm Water Runoff	32° 41' 43" N	-117° 8' 60" W	San Diego Bay
008	Municipal Storm Water Runoff from Coronado Bridge	32° 41' 44" N	-117° 8' 52" W	San Diego Bay
009	Area 5 (Outdoor Structural Area) Storm Water Runoff	32° 41' 44" N	-117° 8' 52" W	San Diego Bay
010	Area 8 (Vehicle Maintenance Area) Storm Water Runoff	32° 41' 42" N	-117° 8' 53" W	San Diego Bay

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
012	Area 8 (Maintenance Area) Storm Water Runoff	32° 41' 00" N	-117° 8' 00" W	San Diego Bay

2. Discharge Point No. 008 discharges municipal storm water runoff from the Coronado Bridge (owned and operated by Caltrans) to San Diego Bay and is not regulated under this Order. Industrial storm water from the Facility does not commingle with this discharge. The Discharger collects a water sample from the municipal storm drain at Discharge Point No. 008 when rainfall events exceed the capacity of the storm water diversion system to compare with the Facility's industrial storm water.
3. Discharge Point Nos. 001 and 002 at the Facility are noncontact fire protection system drains that no longer discharge wastewater as of February 26, 2004. Fire suppression water is no longer an authorized discharge under this Order.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

There has not been a large enough storm in the last 10 years to exceed the capacity of the storm water collection system; therefore, representative samples have not been collected from any of the storm water discharge points. The last discharge from a storm water runoff was from Discharge Point No. 005 on April 28, 2004.

D. Compliance Summary

1. The Discharger has reported 20 discharges of unauthorized waste in violation of the prohibitions in section A of Order No. R9-2008-0049 from August 13, 2008 through September 2014 including the following:
 - a. Seven discharges of diesel or oil;
 - b. Five discharges of abrasive blast media dust and grit;
 - c. Three discharges of paint chips or dust; and
 - d. Five miscellaneous discharges including Simple Green, canola oil, hydrochloric acid, soapy water, and sewage.
2. On September 24, 2013, the Facility was inspected by the San Diego Water Board to determine compliance with Order No. R9-2008-0049. The inspection concluded that the Chain of Custody requirements were not properly satisfied as set forth below:
 - a. Time of sampling was not included on the Chain of Custody form, as required by standard provision IV.B.1 of Attachment D to Order R9-2008-0049.
 - b. Name of individual collecting the samples was not included on the Chain of Custody form, as required by standard provision IV.B.2 of Attachment D to Order R9-2008-0049.
 - c. The analysts' names or initials were not included on the Chain of Custody form, as required by standard provision IV.B.4 of Attachment D to Order R9-2008-0049.
3. On May 17, 2012, the Facility was inspected by a U.S. EPA contractor to determine compliance with Order No. R9-2008-0049. Major findings reported from that inspection include the following:

- a. San Diego Water Board Order No. R9-2008-0049, Attachment G – Best Management Practices Program Requirements, section IV.D requires that the Best Management Practices (BMP) Program Manual include a site map showing locations where materials are directly exposed to precipitation and the locations where significant spills or leaks, identified in accordance with section VI.A.4 of Order No. R9-2008-0049, have occurred. Section VI.A.4 defines materials that have spilled or leaked significant quantities since April 17, 1994, including toxic chemicals and oil and hazardous substances in excess of reportable quantities as defined in 40 CFR parts 110, 117, and 302. The BMP Program Manual did not include a site map with information required by sections IV.D and VI.A.4.

This deficiency was also identified as a Major Finding identified in the previous inspection conducted on December 5, 2007.

E. Planned Changes – Not Applicable

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260). This Order is also issued pursuant to CWA section 402 and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). This Order shall serve as an NPDES permit for point source discharges from this facility to surface waters.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code, division 13, chapter 3 (commencing with section 21100).

C. State and Federal Laws, Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The San Diego Water Board adopted a Water Quality Control Plan for the San Diego Basin (Basin Plan) on September 8, 1994, which was last amended on April 25, 2007. The Basin Plan was approved by the State Water Board on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the San Diego Water Board and approved by the State Water Board. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Requirements of this Order implement the Basin Plan. Beneficial uses applicable to the San Diego Bay are as follows:

Table F-4. Basin Plan Beneficial Uses

Discharge Point(s)	Receiving Water Name	Beneficial Use(s)
003, 004, 005, 006, 007, 008, 009, 010, 012	San Diego Bay	<p><u>Existing:</u> Industrial service supply (IND); navigation (NAV); contact water recreation (REC1); non-contact water recreation (REC2); commercial and sport fishing (COMM); preservation of biological habitats of special significance (BIOL); estuarine habitat (EST); wildlife habitat (WILD); preservation of rare, threatened or endangered species (RARE); marine habitat (MAR); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); and, shellfish harvesting (SHELL).</p>

2. **Thermal Plan.** The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. Requirements of this Order implement the Thermal Plan.
3. **Sediment Quality.** The State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality* (Sediment Quality Plan) on September 16, 2008, and it became effective on August 25, 2009. The Sediment Quality Plan supersedes other narrative sediment quality objectives, and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries in California. Requirements of this Order implement sediment quality objectives of the Sediment Quality Plan.
4. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About 40 criteria in the NTR applied in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants. Requirements of this Order implement the NTR and CTR.
5. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the San Diego Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
6. **California Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, and 2012. The State Water Board adopted the latest amendment on October 16, 2012, and it became effective on August 19, 2013. Ocean Plan biological characteristic water quality

objectives have been included in this Order as receiving water limitations to protect the beneficial uses of BIOL, COMM, EST, WILD, RARE, MAR, MIGR, SPWN, and SHELL. It is appropriate to use these Ocean Plan objectives because San Diego Bay and the Pacific Ocean are contiguous, have similar salinities, and have many of the same aquatic species.

7. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The San Diego Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16.
8. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
9. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
10. **Uniform National Discharge Standards (UNDS).** In 1996, Congress passed legislation amending CWA section 312 to provide the Department Of Defense and the U.S.EPA authority to jointly establish UNDS for incidental discharges from vessels of the Armed Forces in state waters and the contiguous zone. This comprehensive, three-phase, regulatory program applies to vessels of the Armed Forces including, but not limited to, the Navy, Military Sealift Command, Marine Corps, Army, Air Force, and Coast Guard. UNDS is designed to enhance environmental protection of coastal waters by creating protective standards to reduce environmental impacts associated with vessel discharges, stimulate the development of improved pollution control devices, and advance the development of environmentally sound ships by the Armed Forces. The Phase I final rule and preamble language, including a summary of the Phase I process and findings (64 Fed. Reg. 25126; 40 CFR part 1700), was published in the Federal Register on May 10, 1999. Phase I of UNDS determines the types of vessel discharges that require control by a Marine Pollution Control Device (MPCD) and those that do not require control, based on consideration of the anticipated environmental effects of the discharge and other factors listed in the CWA. In Phase I, the U.S.EPA and the Department of Defense identified 25 discharges to be controlled by MPCDs. Phase II of UNDS development focuses on promulgating MPCD performance standards for those vessel discharges identified during Phase I as requiring an MPCD. In this Phase, the Department of Defense and U.S.EPA are establishing discharge performance standards for different classes, types, and sizes of vessels. These standards are specific to existing vessels as

well as future (new design) vessels and will be promulgated in batches for efficiency purposes. A draft rule proposing MPCD performance standards for the first batch of 11 discharges was promulgated on February 3, 2014. A final rule for this first batch of discharges is expected in December 2014. Phase III of UNDS development will focus on establishing requirements for the design, construction, installation, and use of MPCDs. After completion of Phase III, states will be prohibited from regulating these UNDS discharges. In anticipation of the completion of UNDS, this Order does not regulate naval vessel discharges with applicable MPCDs (as BMPs) identified in the draft UNDS rule.

11. **Vessel General Permit.** U.S.EPA issued the Vessel General Permit (VGP) on March 28, 2013, with an effective date of December 19, 2013. The VGP provides NPDES permit coverage for ballast water and for other discharges incidental to the normal operation of commercial vessels greater than or equal to 79 feet in length and operating as a means of transportation. The U.S.EPA issued a Small Vessel General Permit (sVGP) for discharges incidental to the normal operation of small vessels on August 21, 2014. The sVGP provides NPDES permit coverage for small vessels defined as non-military, non-recreational vessels less than 79 feet in length and operating as a means of transportation. This Order does not regulate discharges from commercial vessels.

D. Impaired Water Bodies on CWA 303(d) List

Under Section 303(d) of the 1972 CWA, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters identified on these lists do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. On October 11, 2011 U.S. EPA gave final approval to California's 2010 Section 303(d) List of Water Quality Limited Segments. The San Diego Bay, as a whole, is listed as impaired for polychlorinated biphenyls (PCBs). Additional portions of the San Diego Bay are listed as impaired for additional parameters. Portions of the San Diego Bay applicable to the Facility include, "San Diego Bay Shoreline, near Coronado Bridge", "San Diego Bay Shoreline, between Sampson and 28th Streets", and "San Diego Bay Shoreline, Tidelands Park". The table below lists the San Diego Bay impairments near the Facility. Applicable Total Maximum Daily Loads (TMDLs) for these segments of San Diego Bay have not yet been adopted by the San Diego Water Board and approved by U.S. EPA.

Table F-5. San Diego Bay 303(d) Impairments near the Facility

Waterbody	Location	Constituent
San Diego Bay	San Diego Bay	Polychlorinated biphenyls (PCB)
San Diego Bay	San Diego Bay Shoreline, near Coronado Bridge	Benthic Community Effects, Sediment Toxicity
San Diego Bay	San Diego Bay Shoreline, Tidelands Park ¹	Total Coliform, Enterococcus
San Diego Bay	San Diego Bay Shoreline, at Glorietta Bay ¹	Copper
San Diego Bay	San Diego Bay Shoreline, between Sampson and 28th Streets ¹	Copper, Mercury, Zinc, Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs).

¹ These impairments are not adjacent to the Facility, but are near the Facility.

E. Other Plans, Policies and Regulations

1. **Bays and Estuaries Policy.** The State Water Board adopted a Water Quality Control Policy for Enclosed Bays and Estuaries of California (Bays and Estuaries Policy) on May 16, 1974 (last amended in 1995). The Bays and Estuaries Policy establishes principles for management of water quality, quality requirements for waste discharges, discharge prohibitions, and general provisions to prevent water quality degradation and to protect the beneficial uses of waters of enclosed bays and estuaries. These principles, requirements, prohibitions and provisions have been incorporated into this Order.
 - a. The Bays and Estuaries Policy contains the following principle for management of water quality in enclosed bays and estuaries, including San Diego Bay:
 - i. The discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a San Diego Water Board only when the San Diego Water Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge. For the purpose of this policy, ballast waters and innocuous non-municipal wastewaters such as clear brines, wash water, and pool drains are not necessarily considered industrial process wastes, and may be allowed by San Diego Water Boards under discharge requirements that provide protection to the beneficial uses of the receiving water
 - ii. The Bays and Estuaries Policy also prohibits the discharge or by-passing of untreated wastes. This Order prohibits the discharge and by-passing of untreated waste.
 - b. The following Principles for the Management of Water Quality in Enclosed Bays and Estuaries, as stated in the Bays and Estuaries Policy, apply to all of California's enclosed bays and estuaries including San Diego Bay:
 - i. Persistent or cumulative toxic substances shall be removed from the waste to the maximum extent practicable through source control or adequate treatment prior to discharge.
 - ii. Bay or estuarine outfall and diffuser systems shall be designed to achieve the most rapid initial dilution practicable to minimize concentrations of substances not removed by source control or treatment.
 - iii. Wastes shall not be discharged into or adjacent to areas where the protection of beneficial uses requires spatial separation from waste fields.
 - iv. Waste discharges shall not cause a blockage of zones of passage required for the migration of anadromous fish.
 - v. Non-point sources of pollutants shall be controlled to the maximum practicable extent.

The San Diego Water Board has considered the Principles for the Management of Water Quality in Enclosed Bays in Estuaries, in adopting this Order. The terms and conditions of this Order are consistent with the Principles for the Management of Water Quality in Enclosed Bays and Estuaries.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The

control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

1. **Discharge Prohibitions III.A.** Ship repair and maintenance activities may result in the discharge of pollutants and wastes to waters of the U.S. Discharge Prohibition III.A prohibits the discharge of wastes associated with ship repair and maintenance activities. This prohibition is based on the requirements of the Enclosed Bays and Estuaries Policy and 40 CFR section 122.21(a) and Water Code section 13260 (described below).
2. **Discharge Prohibition III.B.** The prohibition on the discharge of liquids or materials other than storm water is based on 40 CFR section 122.21(a) and Water Code section 13260, which require filing an application and report of waste discharge before a discharge can occur. Discharges not described in the application and report of waste discharge, and in this Order, are prohibited. The prohibition of non-storm water discharges is also based on a Basin Plan Prohibition.
3. **Discharge Prohibition III.C.** The prohibition on the discharge of materials of petroleum origin in sufficient quantities to be visible is based on the requirements of the Bays and Estuaries Policy and is consistent with prohibitions established for similar facilities.
4. **Discharge Prohibition III.D.** The requirement for all discharges to comply with applicable water quality control plans is based on the requirements of Water Code section 13263 and the Basin Plan and is retained from the previous Order. Water Code section 13263 provides that waste discharge requirements must implement applicable water quality control plans, which include the beneficial uses to be protected for a given water body and the water quality objectives reasonably required for that protection.
5. **Discharge Prohibition III.E.** Waste discharges from ship repair and maintenance activities on ships, piers, and shore side facilities can cause high concentrations of copper, zinc, other metals, and oil and grease in industrial storm water runoff. High concentrations of these pollutants in the industrial storm water runoff can be toxic to aquatic organisms. Discharge Prohibition III.E is based on the toxicity requirements contained in the Basin Plan and prohibits the discharge of the first ¼ inch (first flush) of storm water runoff from areas identified as Industrial High Risk Areas unless the discharge can be demonstrated to meet the requirements of this Order.
6. **Discharge Prohibition III.F.** This Order prohibits the discharge of hazardous substances equal to or in excess of reportable quantities listed in 40 CFR part 117 and/or CFR part 302.
7. **Discharge Prohibition III.G.** The prohibition on the discharge of wastes and pollutants from underwater operations is based on the requirements of the Bays and Estuaries Policy and is consistent with prohibitions established for similar facilities and is retained from the previous Order.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 CFR section 122.44 require that permits include conditions meeting applicable technology-

based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR section 125.3.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 authorize the use of BPJ to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the San Diego Water Board must consider specific factors outlined in 40 CFR section 125.3.

2. **Applicable Technology-Based Effluent Limitations**

Industrial Storm Water. In accordance with 40 CFR section 122.44(k), the implementation of BMPs for the discharge of industrial storm water is appropriate in lieu of numeric technology-based effluent limitations. An NPDES permit is required for industrial type storm water discharges pursuant to 40 CFR section 122.26. Consistent with 40 CFR section 122.44(k), the previous Order, Order No. R9-2008-0049, determined that the implementation of BMPs for the discharge of industrial storm water discharges associated with ship construction, repair and maintenance activities are appropriate. To carry out the purpose and intent of the CWA, the previous Order required the Discharger to develop and implement a BMP plan, as authorized by CWA section 304(e) and section 402(p), for toxic pollutants and hazardous substances, and for the control of storm water discharges. This BMP plan is very similar to a Storm water pollution prevention plan (SWPPP).

The requirement to implement appropriate BMPs for areas associated with discharge of contact storm water associated from industrial activity remains applicable and is retained from the previous Order. This Order requires the incorporation of the BMPs into a SWPPP.

In addition to the retention of BMPs in a SWPPP, this Order establishes Numeric Action Levels (NALs) for storm water from areas identified as Industrial High Risk Areas.

The statewide Industrial Storm Water General Permit, *General Permit for Storm Water Discharges Associated with Industrial Activities*, Order No. 2014-00570DWQ, NPDES No. CAS000001, was adopted on April 1, 2014, by the State Water Board and became effective on July 1, 2015. This statewide Industrial Storm Water General Permit contains NALs based on benchmarks in *U.S. EPA's Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)* which became effective May 27, 2009. Consistent with the intent of the State Water Board, this Order establishes NALs with a tiered compliance strategy. The San Diego Water Board finds that the State Water Board's NALs serve as an appropriate set of technology-based, measureable criteria that demonstrate compliance with BAT/BCT.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA section 301(b) and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to the San Diego Bay contained in the Basin Plan are summarized in section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

The CTR promulgated toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. Priority pollutant water quality criteria in the CTR are applicable to discharges to San Diego Bay. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally

does not exist between freshwater and saltwater aquatic communities, the following apply: in accordance with 40 CFR section 131.38(c)(3), freshwater criteria apply to areas where salinities are at or below 1 part per thousand (ppt) 95 percent or more of the time. The San Diego Water Board has determined that because the discharges are to San Diego Bay, salt water CTR criteria are applicable.

3. **Determining the Need for WQBELS**

Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard.

The SIP procedures for the implementation of CTR and NTR criteria are not applicable to storm water discharges. However, the toxicity objectives contained in the Basin Plan and the Bays and Estuary Policy are applicable to the discharge of storm water from the Facility to the San Diego Bay.

The Basin Plan includes the following narrative water quality objective for toxicity:

"All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by the use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board.

The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with requirements specified in U.S. EPA, State Water Resources Control Board or other protocol authorized by the Regional Board. As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour acute bioassay. In addition, effluent limits based upon acute bioassays of effluents will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged."

Consistent with Order R9-2008-0049, sufficient data is not available to conclude that reasonable potential to exceed water quality criteria/objectives has been eliminated. Due to the lack of monitoring data, the types of industrial activities conducted on-site, the scale of these industrial activities, and the previous indication that reasonable potential for the Facility to exceed the WQBELS for toxicity exists, reasonable potential exists to exceed water quality objectives for whole effluent toxicity.

This Order establishes chronic toxicity effluent limitations for industrial storm water instead of the acute toxicity effluent limitations which were in Order R9-2008-0049 as discussed in section IV.C.5 of this Fact Sheet.

4. **WQBEL Calculations – Not Applicable**

5. **Whole Effluent Toxicity (WET)**

The Basin Plan defines toxicity as the adverse response of organisms to chemicals or physical agents.

The Basin Plan establishes a narrative water quality objective for toxicity:

“All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.”

Order No. R9-2008-0049 established acute toxicity effluent limitations for storm water discharges.

In discussions with U.S. EPA Region 9, U.S. EPA has informed San Diego Water Board staff that the application of chronic toxicity monitoring and effluent limitations for storm water runoff are more desirable than acute toxicity because chronic toxicity is more conservative and provides a better indicator of chronic effects to organisms in the receiving water, other than percent survival. Chronic effects, such as detrimental physiological responses (affecting fertilization, growth, reproduction, etc.) may be present, even when acute effects such as the death of an organism are not apparent.

The use of chronic toxicity allows for a more accurate determination of the narrative water quality objective, which specifies “detrimental physiological responses”. Many detrimental physiological responses are not addressed when the test is limited to simply percent survival.

Based on the U.S. EPA Region 9 guidance, chronic toxicity monitoring and effluent limitations are established in this Order for the discharge of storm water at the Facility. Because chronic toxicity is considered to be a more conservative indicator of toxicity, and the monitoring of all storm sample locations for both acute and chronic toxicity would be costly and redundant, the monitoring requirements and effluent limitations for acute toxicity have been removed based on the application of the more conservative chronic toxicity requirements. If the Discharger complies with effluent limitations for chronic toxicity, they will achieve water quality greater than that necessary to achieve compliance with acute toxicity effluent limitations. Because chronic toxicity testing is more sensitive than acute toxicity testing, establishing effluent limitations based on chronic toxicity is consistent with state and federal anti-backsliding requirements.

Chronic toxicity monitoring requirements and effluent limitations have been established for industrial storm water discharges with reasonable potential to have toxic pollutants in toxic concentrations.

This Order also requires the Discharger to implement BMPs to prevent or eliminate toxicity, investigate the causes of any toxicity, and identify and implement corrective actions to reduce or eliminate effluent toxicity.

The San Diego Water Board has considered the following information in developing toxicity monitoring and effluent limitations:

- The May 2006 storm water toxicity study performed by the Discharger;
- Comments received from the Discharger;
- Discussions with U.S.EPA Region 9;
- U.S.EPA’s June 2010 guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document, An Additional Whole Effluent Toxicity Statistical Approach for Analyzing Acute and Chronic Data* (EPA 833-R-10-003);
- U.S.EPA’s June 2010 guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document, An Additional Whole Effluent Toxicity Statistical Approach for Analyzing Acute and Chronic Data* (EPA 833-R-10-004);
- The narrative water quality for objective for toxicity contained in the Water Quality Control Plan for the San Diego Basin (Basin Plan); and

- An interpretation of applicable state and federal regulations.

The implementation of toxicity monitoring requirements and effluent limitations for discharges to San Diego Bay are based on a statistical approach developed by U.S.EPA that assesses the whole effluent toxicity measurement of wastewater effects on specific test organisms' ability to survive, grow, and reproduce called the Test of Significant Toxicity (TST). This approach is a statistical method that uses hypothesis testing techniques based on research and peer-reviewed publications. The approach examines whether an effluent at the critical concentration and a control within a WET test differ by an unacceptable amount (the amount that would have a measured detrimental effect on the ability of aquatic organisms to thrive and survive).

Organism response to the effluent and control are unlikely to be exactly the same, even if no toxicity is present. They might differ by such a small amount that even if statistically significant, it would be considered negligible biologically. A more useful approach could be to rephrase the null hypothesis, "Is the mean response in the effluent less than a defined biological amount?" The Food and Drug Administration has successfully used that approach for many years to evaluate drugs, as have many researchers in other biological fields. In that approach, the null hypothesis is stated as the organism response in the effluent is less than or equal to a fixed fraction (b) of the control response (e.g., 0.75 of the control mean response):

Null hypothesis: Treatment mean $\leq b * \text{Control mean}$

To reject the null hypothesis above means the effluent is considered non-toxic. To accept the null hypothesis means the effluent is toxic.

Before the TST null hypothesis expression could be recommended by U.S.EPA, certain Regulatory Management Decisions (RMDs) were needed, including what effect level in the effluent is considered unacceptably toxic and the desired frequency of declaring a truly negligible effect within a test non-toxic.

In the TST approach, the b value in the null hypothesis represents the threshold for unacceptable toxicity. For chronic toxicity, the U.S.EPA made the RMD that the b value is set at 0.75, which means that a 25 percent effect (or more) at the Instream Waste Concentration (IWC) is considered evidence of unacceptable chronic toxicity. For acute toxicity, the b value is set at 0.80.

U.S.EPA's RMDs for the TST method are intended to identify unacceptable toxicity most of the time when it occurs, while also minimizing the probability that the IWC is declared toxic when in fact it is truly acceptable. Additional RMDs by U.S.EPA to achieve this objective were made regarding acceptable maximum false positive (β using a TST approach) and false negative rates (α using a TST approach).

In the TST approach, the RMDs are defined as follows:

1. Declare a sample toxic between 75 – 95 percent of the time ($0.05 \leq \alpha \leq 0.25$) when there is unacceptable toxicity.
2. Declare an effluent non-toxic no more than 5 percent of the time ($\beta \leq 0.05$) when the effluent effect at the critical effluent concentration is 10 percent.

U.S.EPA used valid toxicity data from approximately 2,000 WET tests to develop and evaluate the TST approach. The TST approach was tested using nine different whole effluent toxicity test methods comprising twelve biological endpoints and representing most of the different types of WET test designs in use. More than one million computer

simulations were used to select appropriate alpha error rates for each test method that also achieved U.S.EPA's other RMDs for the TST approach.

Effluent limitations are established using the TST "pass" "fail" approach as well as a percent effect.

Chronic Pass: A test result that rejects the null hypothesis (Ho) below is reported as "Pass" in accordance with the TST approach:

$$\text{Ho: Mean response (100 percent effluent)} \leq 0.75 \times \text{Control mean response}$$

Chronic Fail: A test result that does not reject the null hypothesis (Ho) above is reported as "Fail" in accordance with the TST approach.

Percent Effect: The percent effect at the IWC is calculated for each test result using the following equation:

$$\% \text{ Effect at IWC} = \frac{\text{Mean Control Response} - \text{Mean IWC Response}}{\text{Mean Control Response}} * 100$$

Instream Waste Concentration (IWC): The concentration of a toxicant or effluent in the receiving water after mixing (the inverse of the dilution factor). A discharge of 100 percent effluent will be considered the IWC whenever mixing zones or dilution credits are not authorized by the applicable Water Board.

A Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is established for industrial storm water. The MDEL is exceeded and a violation will be flagged when a toxicity test during routine monitoring results in a "fail" in accordance with the TST approach and the percent effect is greater than or equal to 0.50.

A percent effect of 0.50 for chronic toxicity has been incorporated into the MDEL. The decision to conduct a Toxicity Identification Evaluation (TIE) is based upon consideration of multiple factors such as the magnitude and persistence of toxicity. The magnitude of toxicity present in storm water is an important consideration because a moderate to high level of toxicity typically yield more successful results. Usually, TIEs can be successfully conducted on samples producing at least 50 percent effect (e.g., >50% mortality or reduction in reproduction), and this value is recommended for general use in selecting samples for TIEs. Effective TIEs can also be conducted with less toxic samples (e.g., >25% effect), but there is a greater chance of the TIE being inconclusive due to changes in toxicity with storage or variability in response (Norberg-King et al. 2005). A percent effect of 0.50 for chronic toxicity has been incorporated into the MDEL to facilitate a successful TIE.

The IWC for these discharges are established at 100% effluent. Allowances for dilution and a different IWC may be made at the discretion of the San Diego Water Board. Because the San Diego Water Board has no documentation to support a different IWC, the IWC is defined as 100 percent effluent (undiluted). This definition of IWC is consistent with other San Diego Water Board's NPDES permitted discharges to San Diego Bay which do not allow dilution.

The San Diego Water Board finds that the application of U.S.EPA's TST method with the 50% effect for chronic toxicity is scientifically defensible and appropriate for the determination of compliance with the Basin Plan's narrative objective for toxicity. As such, toxicity monitoring requirements, analysis, and effluent limitations are established in this Order based on U.S.EPA's TST method and a 50% effect for chronic toxicity. Taken together, these refinements of using chronic toxicity instead of acute toxicity for industrial process wastewater and using the TST approach with the appropriate percent

effect clarifies the requirements for toxicity analyses, provides the Discharger with the positive incentive to generate high quality data, and affords greater protection of aquatic life.

D. Final Effluent Limitation Considerations

1. Discharges of pollutants in storm water discharges to waters of the U.S. shall maintain compliance with the MDEL for chronic toxicity. The MDEL is based on the outcome of the TST approach and the resulting percent effect at the IWC in accordance with section VII. of this Order.

2. Satisfaction of Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations, discharge prohibitions, and specifications in this Order are at least as stringent as the effluent limitations in Order No. R9-2008-0049 and meet state and federal anti-backsliding requirements. The only effluent limitation in Order No. R9-2008-0049 was acute toxicity for industrial storm water discharges. This Order changes the industrial storm water effluent limitation from acute toxicity to chronic toxicity. Chronic toxicity is at least as protective as acute toxicity as discussed in section IV.C.5 of this Fact Sheet.

3. Satisfaction of Antidegradation Policies

WDRs for the Discharger must conform with federal and state antidegradation policies provided at 40 CFR section 131.12 and in State Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. The antidegradation policies require that beneficial uses and the water quality necessary to maintain those beneficial uses in the receiving waters of the discharge shall be maintained and protected, and, if existing water quality is better than the quality required to maintain beneficial uses, the existing water quality shall be maintained and protected unless allowing a lowering of water quality is necessary to accommodate important economic and social development or is consistent with maximum benefit to the people of California. When a significant lowering of water quality is allowed by the San Diego Water Board, an antidegradation analysis is required in accordance with the State Water Board's Administrative Procedures Update (July 2, 1990), *Antidegradation Policy Implementation for NPDES Permitting*.

This Order changes the industrial storm water effluent limitation from acute toxicity to chronic toxicity. Chronic toxicity is at least as protective as acute toxicity as discussed in section IV.C.5 of this Fact Sheet. Therefore, the permitted discharge is consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

4. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based and water quality-based effluent limitations. The technology-based effluent limitations consist of the implementation of BMPs which are discussed in section IV.C.2 of this Fact Sheet.

The implementation of BMPs for the discharge of industrial wastes associated with ship construction, repair and maintenance activities are appropriate in accordance with 40 CFR section 122.44(k). To carry out the purpose and intent of the CWA, the Discharger is required to develop and implement BMPs as part of a SWPPP, as authorized by CWA

section 304(e) and section 402(p), for toxic pollutants and hazardous substances, and for the control of storm water discharges.

Numeric technology-based effluent limitations are not applicable to the discharges authorized under this Order and have not been established for discharges authorized under this Order. This Order's technology-based restrictions implement the minimum, applicable federal technology-based requirements. Technology based effluent-limitations contained in this Order are not more stringent than required by the CWA.

WQBELs of chronic toxicity effluent limitations for industrial storm water have been established in this Order. WQBELs have been scientifically derived to implement water quality objectives that protect that protect beneficial uses. Both beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 131.21(c)(1). The WQBEL for chronic toxicity is based on the Basin Plan toxicity objective and U.S.EPAs TST. This Order's restrictions are no more stringent than required to implement the requirements of the CWA.

E. Storm Water Risk Level Designations

All areas of the Facility have been designated as Industrial High Risk Areas due to the activities performed on-site and the potential for storm water to contact industrial activity-related pollutants within the areas of the Facility.

F. Industrial Storm Water Discharge Specifications

1. **Pollutant Reduction to BAT/BCT.** 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 best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards
2. **Storm Water Pollution Prevention Plan (SWPPP) for Industrial High Risk Areas.** This Order requires the Discharger to continue to implement and regularly update BMPs in an adequate SWPPP, as specified in Attachment G. The SWPPP requirement is explained in more detail in section IV.B.2 of this Fact Sheet.
3. **Numeric Action Levels (NALs).** Consistent with the direction of the State Water Board, and the Statewide Industrial Storm Water General Permit adopted on April 1, 2014, this Order establishes NALs based on U.S. EPA's benchmarks with a tiered compliance strategy. The Facility is designated as an Industrial High Risk Area. NALs are explained more in section IV.B.2 of the Order.
4. **Design Storm Standards for Storm Water Retention and Treatment Control BMPs.** The statewide Industrial Storm Water General Permit adopted on April 1, 2014, by the State Water Board requires dischargers to implement a set of minimum BMPs, in combination with any advanced BMPs (collectively BMPs) necessary to reduce or prevent pollutants in industrial storm water discharges. These BMPs serve as the basis for compliance with technology-based effluent limitations and water quality based

receiving water limitations. These BMPs are required to be based on the design storm standards including both volume- and flow-based criteria using the 85th percentile storm.

The volume of runoff produced from an 85th percentile storm event for the Facility as determined by San Diego County from local, historical rainfall records is 0.55 inch. The Facility can capture up to 2.3 inches of rainfall within a 24-hour period, enough to conservatively contain an 85th percentile storm event. Thus, the Discharger's storm water diversion system meets the minimum requirements of the volume-based design storm standards established in the state for similar facilities. Consistent with the design storm standards, the Discharger is required to maintain and operate the Facility's storm water diversion system to minimize the discharge of pollutants in storm water runoff and maintain the current design ability to capture and redirect the first 2.3 inches of rainfall from storm events.

G. Land Discharge Specifications – Not Applicable

H. Recycling Specifications – Not Applicable

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations in this Order are derived from the water quality objectives for bays and estuaries established by the Basin Plan (1994), the Bays and Estuaries Policy (1974), the CTR (2000), the State Implementation Policy (2005), the Ocean Plan (2012) and the Sediment Quality Plan (2008). San Diego Bay is listed as impaired for copper, mercury, zinc PCBs, PAHs, enterococcus, and total coliform in areas near the Facility. This 303(d) impairment and past elevated effluent toxicity demonstrates that there is reasonable potential to cause or contribute to an exceedance of the sediment quality objectives which have been included as receiving water limitations.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42.

Sections 122.41(a)(1) and (b) through (n) of 40 CFR establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) of 40 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

This Order includes a list of circumstances when this Order may be reopened.

2. Special Studies and Additional Monitoring Requirements

Requirements for a toxicity reduction evaluation/toxicity investigation evaluation TRE/TIE have been incorporated in Attachment E section III.C.

3. **Best Management Practices and Pollution Prevention**

To carry out the purpose and intent of the CWA, the previous Order required the Discharger to develop and implement a SWPPP, as authorized by CWA section 304(e) and section 402(p), for toxic pollutants and hazardous substances, and for the control of storm water discharges. This Order requires the Discharger to continue to implement and regularly update an adequate BMPs as part of a SWPPP as specified in Attachment G.

4. **Construction, Operation, and Maintenance Specifications – Not Applicable**

5. **Other Special Provisions – Not Applicable**

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the San Diego Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. **Influent Monitoring – Not Applicable**

B. **Effluent Monitoring – Not Applicable**

C. **Whole Effluent Toxicity Testing Requirements**

The WET testing is designed to address the following primary monitoring questions:

- (1) Does the effluent comply with permit effluent limitations for toxicity thereby ensuring that water quality standards are achieved in the receiving water?
- (2) If the effluent does not comply with permit effluent limitations for toxicity, are unmeasured pollutants causing risk to aquatic life?

Chronic toxicity effluent monitoring is established for industrial storm water based on U.S. EPA's TST with a 50% percent effect, as discussed above in section IV.C.5 of this Fact Sheet, in order to evaluate compliance with effluent limitations.

This Order requires the Discharger to conduct additional toxicity testing for exceedances of the toxicity effluent limitations. If the additional tests demonstrate toxicity, the Discharger is required to submit a Toxicity Reduction Evaluation (TRE) Workplan in accordance with U.S. EPA guidance which shall include further steps taken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharge will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. This provision also includes requirements to initiate the TRE/TIE process if the results of toxicity testing exceed the effluent limitation for chronic toxicity.

D. **Storm Water Monitoring**

1. The discharge of industrial contact storm water to San Diego Bay may contain pollutants from the surrounding area which could contribute to the exceedance of the water quality criteria/objectives of the receiving waters. Industrial storm water monitoring requirements have been modified from the previous Order to be consistent with the State Water Board's Statewide Industrial Storm Water Permit. The purpose of the monitoring is to determine the effects of storm water discharges on the receiving water and monitor the

effectiveness of the SWPPP to meet applicable effluent limitations, NALs, and receiving water limits.

2. Monitoring requirements for visual observations of non-storm water and storm water discharges have been carried over from MRP No. R9-2008-0049 to help determine the effectiveness of the SWPPP and ensure that appropriate BMPs are properly implemented.

E. Receiving Water Monitoring

Receiving water and sediment monitoring shall be designed and conducted to address the following primary monitoring questions:

- (1) Does the receiving water meet water quality standards listed in section V of this Order, Receiving Water Limitations?
- (2) Are the receiving water conditions getting better or worse over time?
- (3) Does the Facility cause or contribute to violations of the Receiving Water Limitations in Section V. of this Order?

1. Water and Sediment Monitoring Plan

The Discharger is required to submit a Water and Sediment Monitoring Plan within 12 months of the effective date of this Order. The Water and Sediment Monitoring Plan has all the elements required by the State Water Board's Sediment Quality Plan, which became effective on August 25, 2009, to be implemented for both water and sediment for consistency. A conceptual model, existing data, and ongoing monitoring must be considered in the development of the Water and Sediment Monitoring Plan.

2. Surface Water

- a. Monitoring of the receiving water is necessary to determine if the discharges from the Facility are impacting the applicable water quality objectives, applicable beneficial uses, and aquatic life in San Diego Bay.
- b. Monitoring locations will be determined in the Water and Sediment Monitoring Plan.
- c. Annual chronic toxicity monitoring during a QSE has been added to assess the impacts of storm water discharges on the receiving water.
- d. Annual monitoring of copper, mercury, nickel, zinc, temperature, and other pollutants identified by the Discharger has been established to help determine reasonable potential, as specified in section 1.3 of the SIP, for future permitting efforts and to provide data to help determine long-term trends in receiving water quality.

3. Sediment Monitoring

- a. This Order establishes monitoring and analysis requirements consistent with the Sediment Quality Plan.
- b. Monitoring locations will be determined in the Water and Sediment Monitoring Plan.
- c. Sediment chemistry, toxicity, and benthic community monitoring are required in accordance with, and at a minimum, the requirements under the Sediment Quality Control Plan.

4. Monitoring Coalitions

Monitoring coalitions enable the sharing of technical resources, trained personnel, and associated costs and create an integrated water and sediment monitoring program within

each water body. Focusing resources on water body issues and developing a broader understanding of pollutants effects in these water bodies enables the development of more rapid and efficient response strategies and facilitates better management of water and sediment quality.

To achieve maximum efficiency and economy of resources, the Discharger may establish or join a San Diego Bay water body monitoring coalition. If a San Diego Bay monitoring coalition is formed, revised monitoring requirements will be established to ensure that appropriate monitoring is conducted in a timely manner.

5. Water and Sediment Monitoring Reports

The Discharger or water body monitoring coalition is required to submit a Receiving Water Monitoring Report twice during the permit cycle and a Sediment Monitoring Report at least once during a permit cycle in accordance with the Water and Sediment Monitoring Plan unless otherwise directed by the San Diego Water Board. Receiving water sampling will be done annually and sediment sampling will be done once during the permit cycle so two reports during the permit cycle will allow more samples to be collected and reported in one report.

F. Regional Monitoring Requirements

The San Diego Water Board may modify the receiving waters monitoring and reporting requirements, regional monitoring requirements, and/or special studies requirements of this Order as necessary for cause, including but not limited to a) revisions necessary to implement recommendations from Southern California Coastal Water Research Project (SCCWRP); b) revisions necessary to develop, refine, implement, and/or coordinate a regional monitoring program; and/or c) revisions necessary to develop and implement improved monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9-2012-0069, Resolution in Support of a Regional Monitoring Framework.

G. Special Studies Requirements – Not Applicable

H. Other Monitoring Requirements

Spills and illicit discharges can pose a threat to water quality and are violations of this Order. A quarterly spill and illicit discharge log of these discharges is required to track these discharges. The summary report of spills and illicit discharges is required in the Annual Report.

VIII. PUBLIC PARTICIPATION

The San Diego Water Board has considered the issuance of WDRs that will serve as an NPDES permit for Continental Maritime of San Diego. As a step in the WDR adoption process, the San Diego Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The San Diego Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following: Published in the San Diego Union Tribune, posted on the San Diego Water Board website, and sent by e-mail on Monday, January 5, 2015.

The public had access to the agenda and any changes in dates and locations through the San Diego Water Board's website at: <http://www.waterboards.ca.gov/rwgcb9/>.

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the San Diego Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the San Diego Water Board, the written comments were due at the San Diego Water Board office by 5:00 p.m. on February 5, 2015

C. Public Hearing

The San Diego Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: Monday, March 16, 2015
Time: 9:00 a.m.
Location: Naval Training Center at Liberty Station
McMillin Companies Event Center
2875 Dewey Road
San Diego, California

Interested persons were invited to attend. At the public hearing, the San Diego Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the San Diego Water Board may petition the State Water Board to review action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. 30 calendar days after adoption of this Order. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

E. Information and Copying

The ROWD, other supporting documents, and comments received are on file and may be inspected at the San Diego Water Board address below at any time between 8:00 a.m. and 5:00p.m., Monday through Friday. To request a file review please contact the San Diego Water Board receptionist at (619) 516-1990, or email rb9_records@waterboards.ca.gov, or fax (619) 516-1994 or mail requests to:

California Regional Water Quality Control Board
San Diego Region
Attention: File Review Request
2375 Northside Drive, Suite 100
San Diego, CA 92108

The office is closed on weekends and on all state Holidays.

Before making a request to view public records in the San Diego Water Board office interested persons may wish to determine if the information is already available on the San Diego Water Board's website at <http://www.waterboards.ca.gov/sandiego> or the State Water Board's website at <http://www.waterboards.ca.gov>. For example the San Diego Water Board's website alphabetical index and the State Water Board's Website alphabetical index provide

links to many volumes of key documents on the State and Regional Water Board's water quality programs.

The following is a partial list of the documents available:

- Board Meeting Agendas
- Board Meeting Minutes
- Adopted Orders
- Tentative Orders
- Basin Plan
- Ocean Plan.

New and updated information is frequently added to these websites.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding this Order should contact the San Diego Water Board, reference this facility, and provide a name, address, and phone number. If possible, email address is preferred.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Kristin Schwall at (619) 521-3368 or kschwall@waterboards.ca.gov or to Ben Neill at (619) 521-3376 or bneill@waterboards.ca.gov.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS FOR INDUSTRIAL AREAS

I. IMPLEMENTATION SCHEDULE

The Discharger shall continue to implement the existing best management practices (BMPs) in a storm water pollution prevention plan (SWPPP) for all storm water outfalls from the Facility regulated by Order No. R9-2008-0049 until the Discharger has fully completed the implementation of the SWPPP requirements specified in section IV.C.2 and Attachment G of the Order. All storm water outfalls from the Facility are subject to the requirements of the SWPPP.

The Discharger shall implement any necessary revisions to its SWPPP to comply with the requirements of this Order within 1 year of the effective date of this Order.

II. SWPPP OBJECTIVES

- A.** The Discharger's SWPPP shall be prepared and implemented to achieve these objectives:
1. Reduce or prevent the discharge of pollutants from industrial activities to the technology –based standards of best available technology economically achievable (BAT) for toxic and non-conventional pollutants, and best conventional pollutant control technology (BCT) for conventional pollutants;
 2. Achieve and maintain compliance with the Receiving Water Limitations in section V of this Order;
 3. Identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of the Facility's industrial storm water discharges and authorized non-storm water discharges;
 4. Identify, describe, and implement site-specific Best Management Practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges; and
 5. Identify and implement timely revisions and/or updates to the SWPPP.
- B.** To achieve the SWPPP objectives, the Discharger shall prepare a written Facility-specific SWPPP in accordance with all applicable SWPPP requirements of this attachment. The SWPPP shall include all required maps, descriptions, schedules, checklists, and relevant copies or specific references to other documents that satisfy the requirements of this Attachment. The typical development and implementation steps necessary to achieve the described objectives are summarized in Item A-2, located at the end of this Attachment.

III. PLANNING AND ORGANIZATION

A. SWPPP Checklist

The SWPPP shall include a SWPPP Checklist (Example checklist is included as Item A-1 below) located at the end of this section. For each requirement listed, the Discharger shall identify the page number where the requirement is located in the SWPPP (or the title, page number, and location of any reference documents), the implementation date or last revision date, and any SWPPP requirements that may not be applicable to the Facility.

B. Pollution Prevention Team

1. The SWPPP shall identify specific individuals and their positions within the Facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the Facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Attachment E of this Order.
2. The SWPPP shall clearly identify the responsibilities, duties, and activities of each team member.
3. The SWPPP shall identify, as appropriate, alternative individuals to perform the required SWPPP and monitoring program activities when team members are temporarily unavailable (due to vacation, illness, out of town meetings, etc.).

C. Review Other Requirements and Existing Facility Plans

1. The SWPPP shall be developed, implemented, and revised as necessary to be consistent with any applicable municipal, State, and Federal requirement that pertains to the requirements of this Order. For example, a municipal storm water management agency may require specific BMP implementation activities.
2. The SWPPP may incorporate or reference the elements of the Discharger's existing plans, procedures, or regulatory compliance documents that contain storm water pollution control practices or otherwise relate to the requirements of this Order. For example, facilities subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials, or facilities subject to regional air quality emission controls may already have evaluated industrial activities that emit dust or particulate pollutants.

IV. SITE MAP

The SWPPP shall include a site map. The site map shall be provided on an 8 ½ x 11 inch or larger sheet and include notes, legends, north arrow, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, the Discharger may provide the required information on multiple site maps. The following information shall be included on the site map:

- A.** Outlines of the Facility boundary, storm water drainage areas within the Facility boundary, and portions of any drainage area impacted by discharges from surrounding areas. Include the flow direction of each drainage area; on-site surface water bodies; areas of soil erosion; and location(s) of near-by water bodies (such as rivers, lakes, wetlands, etc.) or municipal storm drain inlets that may receive the Facility's storm water discharges and authorized non-storm water discharges.
- B.** The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.
- C.** The outline of all impervious areas of the Facility, including paved areas, buildings, covered storage areas, or other roofed structures.
- D.** Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks, identified in accordance with section VI.A.4 below, have occurred.

- E. Areas of industrial activity. Identify all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and reusing areas, and other areas of industrial activity which are potential pollutant sources.
- F. Identify the boundaries of the High Risk areas and non-industrial areas, as defined in section IV.A of the Order.

V. LIST OF SIGNIFICANT MATERIALS

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, the locations where the material is stored, received, shipped, and handled, as well as the typical quantities and frequencies, shall be described. The materials list shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

VI. DESCRIPTION OF POTENTIAL POLLUTANT SOURCES

- A. For each area identified in section IV.E of this Attachment, the SWPPP shall include a narrative description of the Facility's industrial activities, potential pollutant sources, and potential pollutants that could be exposed to storm water or authorized non-storm water discharges. At a minimum, the following industrial activities shall be described as applicable:
 - 1. Industrial Processes
Describe each industrial process including the manufacturing, cleaning, maintenance, recycling, disposal, or other activities related to the process. Include the type, characteristics, and approximate quantity of significant materials used in or resulting from the process. Areas protected by containment structures and the corresponding containment capacity shall be identified and described.
 - 2. Material Handling and Storage Areas
Describe each handling and storage area including the type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Areas protected by a containment structure and the corresponding containment capacity shall be identified and described.
 - 3. Dust and Particulate Generating Activities
Describe all industrial activities that generate dust or particulates that may be deposited within the Facility's boundaries. Include their discharge locations and the type, characteristics, and quality of dust and particulate pollutants that may be deposited within the Facility's boundaries. Identify the primary areas of the Facility where dust and particulate pollutants would settle.
 - 4. Significant Spills and Leaks
Identify and describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges. Include toxic chemicals (listed in 40 CFR Part 302) that have been discharged to storm water as reported in U.S. EPA Form R, and oil and hazardous substances in excess of reportable quantities (see 40 CFR Parts 110, 117, and 302).

The description shall include the location, characteristics, and approximate quantity of the materials spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges; and the preventative measures taken to ensure spills or leaks of the material do not reoccur.

5. Non-Storm Water Discharges

- a. The Discharger shall inspect the Facility to identify all non-storm water discharges, sources, and drainage areas. All drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.
- b. All non-storm water discharges shall be described. The description shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area and shall identify whether the discharge is an authorized or unauthorized non-storm water discharge in accordance with section XIII below. Examples of unauthorized non-storm water discharges are rinse and wash water (whether detergents are used or not, contact and non-contact cooling water, boiler blow-down, etc.

6. Soil Erosion

Describe the Facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

VII. ASSESSMENT OF POTENTIAL POLLUTANT SOURCES

- A.** The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in accordance with section VI of this Attachment. To determine the likelihood that significant materials will be exposed to storm water or authorized non-storm water discharges, the assessment shall include consideration of the quantity, characteristics, and locations of each significant material handled, produced, stored, recycled, or disposed; the direct and indirect pathways that significant materials may be exposed to storm water or authorized non-storm water discharges; history of spills or leaks; non-storm water discharges; prior sampling; visual observation, and inspection records; discharges from adjoining areas; and the effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. At a minimum, the Discharger shall consider:
1. The quantity, physical characteristics (liquid, powder, solid, etc.), and locations of each significant material handled, produced, stored, recycled, or disposed;
 2. The degree pollutants associated with those materials are exposed to and mobilized by contact with storm water;
 3. The direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas;
 4. Sampling, visual monitoring, and inspection records; and
 5. Effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.
- B.** Based upon the assessment above, the SWPPP shall identify any areas of industrial activity and corresponding pollutant sources where significant materials are likely to be exposed to

storm water or authorized non-storm water discharges and where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

VIII. STORM WATER BEST MANAGEMENT PRACTICES

- A.** The SWPPP shall include a narrative description of BMPs implemented at the Facility. The BMPs, when developed and implemented, shall be effective in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges.

The BMPs narrative description shall include:

1. The type of pollutants the BMPs are designed to reduce or prevent;
2. The frequency, time(s) of day, or conditions when the BMPs are scheduled for implementation;
3. The locations within each area of industrial activity or pollutant source where the BMPs shall be implemented;
4. Identification of the person and/or position responsible for implementing the BMPs;
5. The procedures, including maintenance procedures, and/or instructions to implement the BMPs; and
6. The equipment and tools necessary to implement the BMPs.

B. Non-Structural BMPs

The Discharger shall consider non-structural BMPs for implementation at the Facility. Non-structural BMPs generally consist of processes, prohibitions, procedures, training, schedule of activities, etc., that prevent pollutants associated with industrial activity from contact with storm water discharges and authorized non-storm water discharges. Below is a list of non-structural BMPs that shall be considered:

1. Good Housekeeping
Good housekeeping generally consists of practical procedures to maintain a clean and orderly facility.
2. Preventative Maintenance
Preventative maintenance includes regular inspection and maintenance of storm water structural controls (i.e., catch basins, oil/water separators, etc.) as well as other facility equipment and systems.
3. Spill Response
This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.
4. Material Handling and Storage
This includes all procedures to minimize the potential for spills and leaks and to minimize exposure to significant materials to storm water and authorized non-storm water discharges.
5. Employee Training Program

This includes the development of a program to train personnel responsible for implementing the various compliance activities of this Order including BMPs implementation, inspections and evaluations, monitoring activities, and storm water compliance management. The training program shall include:

- a. A description of the training program and any training manuals or training materials;
- b. A discussion of the appropriate training frequency;
- c. A discussion of the appropriate personnel to receive training;
- d. A training schedule; and
- e. Documentation of all completed training classes and the personnel who received training.

6. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste or recyclable materials.

7. Record Keeping and Internal Reporting

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary to the appropriate Facility personnel.

8. Erosion Control and Site Stabilization

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices.

9. Inspections

Periodic visual inspections of the Facility are necessary to ensure that the SWPPP addresses any significant changes to the Facility's operations or BMP implementation procedures.

- a. A minimum of four quarterly visual inspections of all areas of industrial activity and associated potential pollutant sources shall be completed each reporting year. The annual comprehensive site compliance evaluation described in section IX below may substitute for one of the quarterly inspections.
- b. Tracking and follow-up procedures shall be described to ensure appropriate corrective actions and/or SWPPP revisions are implemented.
- c. A summary of the corrective actions and SWPPP revisions resulting from quarterly inspections shall be reported in the annual report.
- d. Dischargers shall certify in the annual report that each quarterly visual inspection was completed.
- e. All corrective actions and SWPPP revisions shall be implemented in accordance with sections XII.D and XII.E below.

10. Quality Assurance

This includes the management procedures to ensure that the appropriate staff adequately implements all elements of the SWPPP and Monitoring Program.

C. Structural BMPs

Where non-structural BMPs identified in section VIII.B above are not effective, structural BMPs shall be considered. Structural BMPs typically consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that shall be considered:

1. Overhead Coverage

This includes structures that protect materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

2. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc., that do not allow storm water to discharge from the Facility.

3. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

4. Secondary Containment Structures

This includes containment structures around storage tanks and other areas that collect any leaks or spills.

5. Treatment

This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc., which reduce the pollutants in storm water discharges and authorized non-storm water discharges.

- D.** The SWPPP shall include a summary identifying each area of industrial activity and associated pollutant sources, pollutants, and BMPs in a table similar to Item A-3 at the end of this Attachment.

IX. ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION

The Discharger shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1 – June 30). Evaluations shall be conducted no less than 8 months from each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

- A.** A review of all visual observation records, inspection records, and sampling and analysis results.
- B.** A visual inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system. A visual inspection of equipment needed to implement the SWPPP.
- C.** A review and evaluation of all BMPs, both structural and non-structural, for each area of industrial activity and associated potential pollutant sources to determine whether the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in storm water discharges and authorized non-storm water discharges.
- D.** An evaluation report that includes:
1. Identification of personnel performing the evaluation,
 2. Date(s) of the evaluation,

3. Summary and implementation dates of all significant corrective actions and SWPPP revisions for the reporting year,
4. Schedule for implementing any incomplete corrective actions and SWPPP revisions,
5. Any incidents of non-compliance and the corrective actions taken, and
6. A certification that the Discharger has completed the quarterly inspections specified in section VIII.B.9, above and that the Discharger is complying with this Order.
7. The evaluation report shall be submitted as part of the annual report, retained for at least 5 years, and signed and certified in accordance with Standard Provision V.B of Attachment D of this Order.

X. NUMERIC ACTION LEVELS (NALs) AND NUMERIC EFFLUENT LIMITATIONS (NELS)

- A. Numeric Action Levels (NALs) for all storm water discharges are appropriate numeric thresholds that allow a discharger to take corrective action when the Instantaneous Maximum or Annual Average NAL is exceeded. Exceedances of NAL values are not a violation of the Order. Dischargers that exceed one of the NAL values shall take the appropriate corrective action as set forth in section IV.C.3 of the Order.

NALs are specified as follows:

Table G-1. NALs for Storm Water

PARAMETER	TEST METHOD ¹	DETECTION LIMIT	REPORTING UNITS	ANNUAL NAL VALUE	INSTANTANEOUS MAXIMUM NAL
pH	Field test with calibrated portable instrument, or lab sample in accordance with 40 CFR § 136.		pH units	6.0-9.0	6.0-9.0
Suspended Solids (TSS), Total	EPA 160.2 SM2540-D or as specified in 40 CFR 136.3.	1.0	mg/L	100	400
Oil & Grease (TOG), Total	EPA 413.2 or EPA 1664 or as specified in 40 CFR 136.3.	1.0	mg/L	15	25
Biochemical Oxygen Demand	SM 5210B or as specified in 40 CFR 136.3.	3.0	mg/L	30	
Zinc, Total (H)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/L	0.26 ³	
Copper, Total (H)	See footnote 2	0.0005	mg/L	0.0332 ³	
Lead, Total (H)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/L	0.262 ³	
Chemical Oxygen Demand	SM 5220C or as specified in 40 CFR 136.3.	1.0	mg/L	120	
Aluminum, Total (pH 6.5-9.0)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/L	0.75	
Iron, Total	EPA200.8 or as specified in 40 CFR 136.3.	0.005	mg/L	1.0	
Nitrate + Nitrite Nitrogen	SM 4500-NO3- E or as specified in 40 CFR 136.3.	0.01	mg/L as N	0.68	
Total Phosphorus	SM 4500-P B+E or as specified in 40 CFR 136.3.	0.05	mg/L as P	2.0	
Ammonia	SM 4500-NH3 B+ C or E or as specified in 40 CFR 136.3.	0.1	mg/L	2.14	
Magnesium, total	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/L	0.064	
Arsenic, Total (c)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/L	0.15	
Cadmium, Total (H)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0002	mg/L	0.0053 ³	
Nickel, Total (H)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/l	1.02 ³	

PARAMETER	TEST METHOD ¹	DETECTION LIMIT	REPORTING UNITS	ANNUAL NAL VALUE	INSTANTANEOUS MAXIMUM NAL
Mercury, Total	EPA 245.1 or as specified in 40 CFR 136.3.	0.0001	mg/L	0.0014	
Selenium, Total	EPA 200.8 or as specified in 40 CFR 136.3.	0.0005	mg/L	0.005	
Silver, Total (H)	EPA 200.8 or as specified in 40 CFR 136.3.	0.0002	mg/L	0.0183 ³	

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

EPA – EPA test methods

¹ Test methods with lower detection limits may be necessary when discharging to impaired water bodies. Alternate test methods may be approved by the San Diego Water Board.

² Effluent samples shall be analyzed for copper according to method 40 CFR part 136.

³ The NAL is based on the highest hardness because the water near the mouth of the creeks is very saline.

B. At any time in Level 2 status the Discharger may evaluate industrial pollutant sources, the SWPPP, non-industrial pollutant sources, and the impact of storm water discharges to receiving waters, and prepare and submit a technical report supporting one of the following demonstrations as applicable:

1. Industrial Activity BMPs Demonstration The Industrial Activity BMPs Demonstration shall at a minimum, include the following:
 - a. A description of the industrial pollutant sources and corresponding industrial pollutants that are or may be related to the NAL exceedance(s);
 - b. An evaluation of all pollutant sources associated with industrial activity that are or may be related to the NAL exceedance(s);
 - c. Where all of the Discharger’s implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this Order and are expected to eliminate future NAL exceedance(s), the Discharger shall provide a description and analysis of all implemented BMPs specifically addressing the drainage areas where the NAL exceedance(s) occurred;
 - d. In cases where all of the Discharger’s implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the effluent limitations of this Order but are not expected to eliminate future NAL exceedance(s), the Discharger shall provide, in addition to a description and analysis of all implemented BMPs:
 - i. An evaluation of any additional BMPs that would reduce or prevent NAL exceedances;
 - ii. Estimated costs of the additional BMPs evaluated; and,
 - iii. An analysis describing the basis for the selection of BMPs implemented in lieu of the additional BMPs evaluated but not implemented.
 - e. If an alternative design storm standard for treatment control BMPs (in lieu of the design storm standard for treatment control BMPs in Section IV.C.4 of this Order) will achieve compliance with the effluent limitations of this Order, the Discharger shall provide an analysis describing the basis for the selection of the alternative design storm standard.
2. Non-Industrial Pollutant Source Demonstration The Non-Industrial Pollutant Source Demonstration Technical Report shall at a minimum, include the following:

- a. A statement that the Discharger has determined that the exceedance of the NAL is attributable solely to the presence of non-industrial pollutant sources. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance.) The sources shall be identified as either run-on from adjacent properties, aerial deposition from man-made sources, or as generated by on-site non-industrial sources;
 - b. A statement that the Discharger has identified and evaluated all potential pollutant sources which may have commingled with storm water associated with the Discharger's industrial activity and could be contributing to the NAL exceedance;
 - c. A description of the industrial pollutant sources and corresponding industrial pollutants that are or may be discharged;
 - d. An assessment of the relative contributions of the pollutant from (1) storm water run-on to the Facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition and (2) from the storm water associated with the Discharger's industrial activity;
 - e. A summary of the existing BMPs for that parameter; and
 - f. An evaluation of all on-site/off-site analytical monitoring data demonstrating that the NAL exceedances are caused by pollutants in storm water run-on to the Facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition.
3. Natural Background Source Demonstration The Natural Background Source Demonstration Technical Report shall at a minimum, include the following:
- a. A statement that the Discharger has determined that the exceedance of the NAL is attributable solely to the presence of the pollutant in the natural background that has not been disturbed by industrial activities (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance);
 - b. A summary of all data previously collected by the Discharger or others that describe the levels of natural background pollutants in the storm water discharge;
 - c. A summary of any research and published literature that relates the pollutants evaluated at the Facility as part of the Natural Background Source Demonstration;
 - d. Map showing the reference site location in relation to Facility along with available land cover information;
 - e. Reference site and test site elevation;
 - f. Available geology and soil information for reference and test sites;
 - g. Photographs showing site vegetation;
 - h. Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures; and
 - i. Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site.

XI. Monitoring Requirements

Monitoring shall be conducted as specified in the MRP. The SWPPP shall include a description of the following items:

- A. Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.
- B. Sampling locations and sample collection procedures. This shall include procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained.
- C. Identification of the analytical methods and related method detection limits (if applicable) used to detect pollutants in storm water discharges, including a justification that the method detection limits are adequate.

XII. SWPPP General Requirements

- A. The SWPPP shall be retained at the Facility and made available upon request of a representative of the San Diego Water Board, or U.S. EPA.
- B. Upon notification by the San Diego Water Board and/or U.S. EPA that the SWPPP does not meet one or more of the minimum requirements of this attachment, the Discharger shall revise the SWPPP and implement additional BMPs that are effective in reducing and eliminating pollutants in storm water discharges and authorized non-storm water discharges. As requested, the Discharger shall provide an implementation schedule and/or completion certification to the San Diego Water Board and/or U.S. EPA.
- C. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities, which
 - 1. May significantly increase the quantities of pollutants in storm water discharges; or
 - 2. Cause a new area of industrial activity at the Facility to be exposed to storm water; or
 - 3. Begin an industrial activity that would introduce a new pollutant source at the Facility.
- D. The Discharger shall revise the SWPPP and implement the appropriate BMPs in a timely manner and in no case more than 90 days after a Discharger determines that the SWPPP is in violation of any Order requirement.
- E. When any part of the SWPPP is infeasible to implement by the deadlines specified above due to proposed significant structural changes, the Discharger shall:
 - 1. Submit a report to the San Diego Water Board that:
 - a. Identifies the portion of the SWPPP that is infeasible to implement by the deadline;
 - b. Provides justification for a time extension, provides a schedule for completing and implementing that portion of the SWPPP; and
 - c. Describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.
 - 2. Comply with any request by the San Diego Water Board to modify the report required in section XII.E.1 above, or provide certification that the SWPPP revisions have been implemented.
- F. The SWPPP shall be provided, upon request, to the San Diego Water Board, U.S. EPA, local agency, or Compliance Inspection Designees. The San Diego Water Board under section

308(b) of the Clean Water Act considers the SWPPP a report that shall be available to the public.

XIII. Authorized Non-Storm Water Discharges Special Requirements – Not Applicable

Non-storm water discharges are not authorized under this Order.

ITEM A-1

**STORM WATER POLLUTION PREVENTION PLAN
 EXAMPLE CHECKLIST**

Facility Name _____

WDID# _____

FACILITY CONTACT

Name _____
 Title _____
 Company _____
 Street Address _____
 City, State _____
 ZIP _____

CONSULTANT CONTACT

Name _____
 Title _____
 Company _____
 Street Address _____
 City, State _____
 ZIP _____

Storm Water Pollution Prevention Plan	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Signed Certification			
Pollution Prevention Team			
Existing Facility Plans			
<i>Facility Site Map(s)</i>			
Facility Boundaries			
Drainage areas			
Direction of flow			
On-site water bodies			
Areas of soil erosion			
Nearby water bodies			
Municipal storm drain inlets			
Points of discharges			
Structural control measures			
Impervious areas (paved areas, buildings, covered areas, roofed areas)			
Location of directly exposed materials			
Location of significant spills and leaks			
Storage areas / Storage tanks			
Shipping and receiving areas			
Fueling areas			
Vehicle and equipment storage and maintenance			
Material handling / Material processing			
Waste treatment / Waste Disposal			
Dust generation / Particulate generation			
Cleaning areas / Rinsing areas			
Other areas of industrial activities			
For the NAVSTA, High Risk area			
<i>List of Significant Materials</i>			
For each material listed:			
Storage location			
Receiving and shipping location			
Handling location			
Quantity			
Frequency			

Storm Water Pollution Prevention Plan	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
<i>Description of Potential Pollution Sources</i>			
Industrial Processes			
Material handling and storage areas			
Dust and particulate generating activities			
Significant spills and leaks			
Non-storm water discharges			
Soil Erosion			
<i>Assessment of Potential Pollutant Sources</i>			
Areas likely to be sources of pollutants			
Pollutants likely to be present			
<i>Storm Water Best Management Practices</i>			
Non-Structural BMPs			
Good Housekeeping			
Preventative Maintenance			
Spill Response			
Material Handling and Storage			
Employee Training			
Waste Handling / Waste Recycling			
Recordkeeping and Internal Reporting			
Erosion Control and Site Stabilization			
Inspections			
Quality Assurance			
Structural BMPs			
Overhead Coverage			
Retention Ponds			
Control Devices			
Secondary Containment Structures			
Treatment			
Industrial Activity BMPs/Pollutant Summary			
<i>Annual Comprehensive Site Compliance Evaluation</i>			
Review of visual observations, inspections, and sampling analysis			
Visual inspection of potential pollution sources			
Review and evaluation of BMPs			
Evaluation Report			

ITEM A-2

**FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL
STORM WATER POLLUTION PREVENTION PLANS**

PLANNING AND ORGANIZATION

- *Form Pollution Prevention Team
- *Review other plans

ASSESSMENT PHASE

- *Develop a site map
- *Identify potential pollutant sources
- *Inventory of materials and chemicals
- *List significant spills and leaks
- *Identify non-storm water discharges
- *Assess pollutant risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

- *Non-structural BMPs
- *Structural BMPs
- *Select activity and site-specific BMPs

IMPLEMENTATION PHASE

- *Train employees
- *Implement BMPs
- *Collect and review records

EVALUATION/MONITORING

- *Conduct annual site evaluation
- *Review monitoring information
- *Evaluate BMPs
- *Review and revise SWPPP

**ITEM A-3
 EXAMPLE
 ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND
 CORRESPONDING BEST MANAGEMENT PRACTICES SUMMARY**

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery	fuel oil	<ul style="list-style-type: none"> - Use spill and overflow protection - Minimize run-on of storm water into the fueling area - Cover fueling area - Use dry cleanup methods rather than hosing down area - Implement proper spill prevention control program - Implement adequate preventative maintenance program to prevent tank and line leaks - Inspect fueling areas regularly to detect problems before they occur - Train employees on proper fueling, cleanup, and spill response techniques
		Spills caused by topping off fuel tanks	fuel oil	
		Hosing or washing down fuel area	fuel oil	
		Leaking storage tanks	fuel oil	
		Rainfall running off fuel area, and rainfall running onto and off fueling area	fuel oil	

ATTACHMENT H – DISCHARGE PROHIBITIONS CONTAINED IN THE BASIN PLAN**I. Basin Plan Discharge Prohibitions**

- A.** The discharge of waste to waters of the State in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in Water Code section 13050, is prohibited.
- B.** The discharge of waste to land, except as authorized by WDRs of the terms described in Water Code section 13264 is prohibited.
- C.** The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in Water Code section 13376) is prohibited.
- D.** Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless this San Diego Water Board issues an NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State of California Department of Public Health and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.
- E.** The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the San Diego Water Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
- F.** The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the San Diego Water Board.
- G.** The dumping, deposition, or discharge of waste directly into waters of the State, or adjacent to such waters in any manner which may permit it being transported into the waters, is prohibited unless authorized by the San Diego Water Board.
- H.** Any discharge to a storm water conveyance system that is not composed entirely of storm water is prohibited unless authorized by the San Diego Water Board. [The federal regulations, 40 CFR 122.26(b)(13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR 122.26(b)(2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to an NPDES permit and discharges resulting from fire fighting activities.] [Section 122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992.]
- I.** The unauthorized discharge of treated or untreated sewage to waters of the State or to a storm water conveyance system is prohibited.
- J.** The discharge of industrial wastes to conventional septic tank/ subsurface disposal systems, except as authorized by the terms described in Water Code section 13264, is prohibited.
- K.** The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the State is prohibited.
- L.** The discharge of any radiological, chemical, or biological warfare agent into waters of the State is prohibited.

- M.** The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the San Diego Water Board.
- N.** The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the State or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.
- O.** The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.
- P.** The discharge of untreated sewage from vessels to San Diego Bay is prohibited.
- Q.** The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at MLLW is prohibited.
- R.** The discharge of treated sewage from vessels, which do not have a properly functioning U.S. Coast Guard certified Type 1 or Type II marine sanitation device, to portions of San Diego Bay that are greater than 30 feet deep at MLLW is prohibited.

ATTACHMENT I – SEDIMENT CHEMISTRY ANALYTES

All samples shall be tested for the analytes specified in Table I-1. If other toxic pollutants are believed to pose risk to benthic communities, aquatic-dependent wildlife, or human health, those toxic pollutants shall be identified and included by the Discharger. Analytes not on Attachment A of the Sediment Quality Plan cannot be used in the exposure assessment in section V of the Sediment Quality Plan; however the data can be used to conduct more effective stressor identification studies as described in section VII.F of the Sediment Quality Plan.

Table I-1 Sediment Chemistry Analytes.

Chemical Name	Chemical Group	Chemical Name	Chemical Group
Total Organic Carbon ¹	General	2,2',3,3',4,4',5-Heptachlorobiphenyl ¹	PCB 170 - congener
Percent Fines ¹	General	2,2',3,4,4',5,5'-Heptachlorobiphenyl ¹	PCB 180 - congener
Cadmium ¹	Metal	2,2',3,4',5,5',6-Heptachlorobiphenyl ¹	PCB 187 - congener
Copper ¹	Metal	2,2',3,3',4,4',5,6-Octachlorobiphenyl ¹	PCB 195 - congener
Lead ¹	Metal	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl ¹	PCB 206 - congener
Mercury ¹	Metal	Decachlorobiphenyl ¹	PCB 209 - congener
Zinc ¹	Metal	2,3',6-Trichlorobiphenyl	PCB 27 - congener
Acenaphthene ¹	PAH	2,4,5-Trichlorobiphenyl	PCB 29 - congener
Anthracene ¹	PAH	2,4',5-Trichlorobiphenyl	PCB 31 - congener
Biphenyl ¹	PAH	2,3',4'-Trichlorobiphenyl	PCB 33 - congener
Naphthalene ¹	PAH	2,2',4,5'-Tetrachlorobiphenyl	PCB 49 - congener
2,6-dimethylnaphthalene ¹	PAH	2,3,3',4'-Tetrachlorobiphenyl	PCB 56 - congener
Fluorene ¹	PAH	2,3,4,4'-Tetrachlorobiphenyl	PCB 60 - congener
1-methylnaphthalene ¹	PAH	2,3,4',6-Tetrachlorobiphenyl	PCB 64 - congener
2-methylnaphthalene ¹	PAH	2,3',4',5-Tetrachlorobiphenyl	PCB 70 - congener
1-methylphenanthrene ¹	PAH	2,4,4',5-Tetrachlorobiphenyl	PCB 74 - congener
Phenanthrene ¹	PAH	3,3',4,4'-Tetrachlorobiphenyl	PCB 77 - congener
Benzo(a)anthracene ¹	PAH	2,2',3,4,5'-Pentachlorobiphenyl	PCB 87 - congener
Benzo(a)pyrene ¹	PAH	2,2',3,5',6-Pentachlorobiphenyl	PCB 95 - congener
Benzo(e)pyrene ¹	PAH	2,2',3,4',5'-Pentachlorobiphenyl	PCB 97 - congener
Chrysene ¹	PAH	2,2',4,4',5-Pentachlorobiphenyl	PCB 99 - congener
Dibenz(a,h)anthracene ¹	PAH	2,3,3',4',6-Pentachlorobiphenyl	PCB 110 - congener
Fluoranthene ¹	PAH	2,3,4,4',5-Pentachlorobiphenyl	PCB 114 - congener
Perylene ¹	PAH	3,3',4,4',5-Pentachlorobiphenyl	PCB 126 - congener
Pyrene ¹	PAH	2,2',3,4,4',5-Hexachlorobiphenyl	PCB 137 - congener
Alpha Chlordane ¹	Pesticide	2,2',3,4,5,5'-Hexachlorobiphenyl	PCB 141 - congener
Gamma Chlordane ¹	Pesticide	2,2',3,4',5,5'-Hexachlorobiphenyl	PCB 146 - congener
Trans Nonachlor ¹	Pesticide	2,2',3,4',5,6-Hexachlorobiphenyl	PCB 149 - congener
Dieldrin ¹	Pesticide	2,2',3,5,5',6-Hexachlorobiphenyl	PCB 151 - congener
o,p'-DDE ¹	Pesticide	2,3,3',4,4',5-Hexachlorobiphenyl	PCB 156 - congener
o,p'-DDD ¹	Pesticide	2,3,3',4,4',5'-Hexachlorobiphenyl	PCB 157 - congener
o,p'-DDT ¹	Pesticide	2,3,3',4,4',6-Hexachlorobiphenyl	PCB 158 - congener
p,p'-DDD ¹	Pesticide	3,3',4,4',5,5'-Hexachlorobiphenyl	PCB 169 - congener
p,p'-DDE ¹	Pesticide	2,2',3,3',4,5,6'-Heptachlorobiphenyl	PCB 174 - congener
p,p'-DDT ¹	Pesticide	2,2',3,3',4,5',6'-Heptachlorobiphenyl	PCB 177 - congener
2,4'-Dichlorobiphenyl ¹	PCB 8 - congener	2,2',3,4,4',5',6-Heptachlorobiphenyl	PCB 183 - congener
2,2',5-Trichlorobiphenyl ¹	PCB 18 - congener	2,3,3',4,4',5,5'-Heptachlorobiphenyl	PCB 189 - congener
2,4,4'-Trichlorobiphenyl ¹	PCB 28 - congener	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	PCB 194 - congener
2,2',3,5'-Tetrachlorobiphenyl ¹	PCB 44 - congener	2,2',3,3',4,5,5',6-Octachlorobiphenyl	PCB 198 - congener
2,2',5,5'-Tetrachlorobiphenyl ¹	PCB 52 - congener	2,2',3,3',4,5,5',6'-Octachlorobiphenyl	PCB 199 - congener
2,3',4,4'-Tetrachlorobiphenyl ¹	PCB 66 - congener	2,2',3,3',4,5,6,6'-Octachlorobiphenyl	PCB 200 - congener
2,2',4,5,5'-Pentachlorobiphenyl ¹	PCB 101 - congener	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	PCB 201 - congener

Chemical Name	Chemical Group
2,3,3',4,4'-Pentachlorobiphenyl ¹	PCB 105 - congener
2,3',4,4',5-Pentachlorobiphenyl ¹	PCB 118 - congener
2,2',3,3',4,4'-Hexachlorobiphenyl ¹	PCB 128 - congener
2,2',3,4,4',5'-Hexachlorobiphenyl ¹	PCB 138 - congener
2,2',4,4',5,5'-Hexachlorobiphenyl ¹	PCB 153 - congener

Chemical Name	Chemical Group
2,2',3,4,4',5,5',6-Octachlorobiphenyl	PCB 203 - congener

¹ From Attachment A of the Sediment Quality Plan