

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

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**TENTATIVE ORDER NO. R9-2017-0009
AMENDING**

**ORDER NO. R9-2013-0064, NPDES NO. CA0109169
WASTE DISCHARGE REQUIREMENTS
FOR THE UNITED STATES DEPARTMENT OF THE NAVY
NAVAL BASE SAN DIEGO COMPLEX
SAN DIEGO COUNTY**

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

Background

1. The U.S. Department of the Navy (Discharger) is the owner and operator of the Naval Base San Diego Complex (NBSD), a U.S. naval base complex discharging in accordance with Order No. R9-2013-0064, National Pollutant Discharge Elimination System (NPDES) No. CA0109169, adopted by the San Diego Water Board on August 14, 2013. The Naval Base San Diego Complex is comprised of four installations. These four installations are described in Attachment F, section II of Order No. R9-2013-0064.
2. The San Diego Water Board adopted Order No. R9-2010-0003, NPDES No. CAG679001, *General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems Within the San Diego Region* on September 8, 2010. The U.S. Navy Public Works Center is enrolled in Order No. R9-2010-0003 for discharges of hydrostatic test water and potable water from NBSD, the Naval Base Point Loma Complex (NBPL), and the Naval Base Coronado Complex (NBC).
3. The State Water Resources Control Board (State Water Board) adopted Order No. 2014-0194-DWQ, NPDES No. CAG140001, *Statewide National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges to Waters of the United States* on November 18, 2014. Naval Air Station North Island and Naval Amphibious Base Coronado, which are installations of NBC, are enrolled in Order WQ 2014-0194-DWQ for discharges of drinking water to surface water. The other NBC installations are covered by Order R9-2015-0117, an individual NPDES Permit covering NBC discharges. NBSD and NBPL have drinking water systems which are consecutive systems with the City of San Diego's drinking water system and are not eligible for separate enrollment in Order 2014-0194-DWQ. Discharges of hydrostatic test water and potable water from NBSD and NBPL are covered under the City of San Diego's enrollment.

Purpose of this Order

4. By email dated March 30, 2016, the Discharger requested that the San Diego Water Board add language to Order No. R9-2013-0064 to clarify how Storm Water Action Levels are calculated. The San Diego Water Board is amending section IV.E.1. of Order No. R9-2013-0064 in response to this request.
5. By email dated March 30, 2016, the Discharger requested that the San Diego Water Board correct the definition of Qualifying Storm Event in Order No. R9-2013-0064. The San Diego Water Board is amending Attachment A of Order No. R9-2013-0064 in response to this request.
6. By email dated March 30, 2016, the Discharger requested that the San Diego Water Board address an inconsistency regarding chronic toxicity testing requirements at NBSD (Order No. R9-2013-0064) as compared to the testing requirements at, NBC (Order No. R9-2015-0117), and NBPL (Order No. R9-2014-0037). The current chronic toxicity testing requirements are as follows:
 - a. Order No. R9-2013-0064 for NBSD requires a static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, (Embryo-larval Development Test Method);
 - b. Order No. R9-2015-0117 for NBC requires a static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0 or Embryo-larval Development Test Method); and
 - c. Order No. R9-2014-0037 for NBPL requires a static non-renewal chronic toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0).

The San Diego Water Board is addressing the inconsistency by amending Attachment E section V of Order No. R9-2013-0064 for NBSD to add the option to use the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0 or Embryo-larval Development Test Method).

7. By letter dated December 15, 2016, the Discharger submitted a Numeric Action Level (NAL) Level 2 Exceedance Progress Report (Progress Report) and a request to discontinue monitoring for magnesium and nitrate-nitrite-N in storm water at NBSD. The Progress Report documented that the source of magnesium is seawater and nitrate-nitrite-N may have several sources, some or all of which may be unrelated to the activities taking place at NBSD. The San Diego Water Board is amending Attachment E section IX.A.3.f, Table E-10 and Table E-11 of Order No. R9-2013-0064 to remove magnesium monitoring for storm water from high-risk industrial areas and to allow the San Diego Water Board Executive Officer to approve discontinuation of monitoring for parameters with sources determined to be natural background or non-industrial.
8. Section IV.G.1.i of Order No. R9-2013-0064 authorizes the following category of non-storm water discharge unless the Discharger or the San Diego Water Board identifies the discharge as a significant source of pollutants to Waters of the U.S.:

“Discharges from potable water sources not subject to NPDES Permit No. CAG679001 (General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems).”

The San Diego Water Board is amending section IV.G.1.i of Order No. R9-2013-0064 to incorporate a reference to the State Water Board's Order 2014-0194-DWQ (NPDES No. CAG140001) regarding drinking water discharges.

9. The San Diego Water Board is amending the following sections of Order No. R9-2013-0064 to correct errors related to toxicity percent effect: section IV.C, section VII.H.1, section VII.I.1, Attachment E section V, and Attachment F section IV.C.5.a.
10. The San Diego Water Board is amending the following sections of Order No. R9-2013-0064 to add the required analytical methods and minimum levels from the State Water Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*: Table of Contents, Attachment E section I.L, and Attachment N.

Legal Authorities

11. Section 13263(e) of the Water Code provides that the San Diego Water Board may, upon application by any affected person, or on its own motion, review and revise waste discharge requirements. Reopening and modification of an NPDES permit based upon new information is authorized pursuant to title 40 Code of Federal Regulations (40 CFR) section 122.62(a)(2), to correct technical mistakes pursuant to 40 CFR section 122.62(a)(15), and to correct typographical errors pursuant to section 40 CFR section 122.63(a).
12. Order No. R9-2013-0064 is not being reopened for any other purpose than the revisions contained herein. Except as contradicted or superseded by the findings and directives set forth in this Order, all of the previous findings and directives of Order No. R9-2013-0064 shall remain in full force and effect.
13. The San Diego Water Board is amending the following sections of Order No. R9-2013-0064 to be consistent with section V.F of the State Board's Sediment Quality Plan, Attachment E, section VIII.A.3.b.ii.b.2 of Order No. R9-2013-0064.
14. The San Diego Water Board is amending Attachment E section IV.C.2 of Order No. R9-2014-0037 to identify the preferred toxicity test method if local species are available.

California Environmental Quality Act

15. This action is exempt from the requirement of preparation of environmental documents under the California Environmental Quality Act (Public Resources Code, division 13, chapter 3, section 21000 et seq.) in accordance with Water Code section 13389.

Public Participation

16. The San Diego Water Board has notified all known interested parties of its intent to adopt Order No. R9-2017-0009.

17. The San Diego Water Board in a public meeting on December 13, 2017, heard and considered all comments pertaining to the adoption of Order No. R9-2017-0009.
18. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 *et seq.* The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the adoption date of Order No. R9-2017-0009. Copies of the law and regulations applicable to filing petitions may be found at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED:

1. This Order amends Order No. R9-2013-0064, NPDES No. CA0109169, as described in the revised version included as Attachment 1 to this Order. Added text to Order No. R9-2013-0064 is displayed in red-underline text and deleted text is displayed as ~~red-strikeout~~ text. Modifications to Order No. R9-2013-0064 were made to the following sections as shown below:

<u>Page No.</u>	<u>Section No.</u>
9	Table of Contents, List of Attachments
28	IV.C
29	Section IV.E.1.
37	Section IV.G.1.i
51	Section VII.H.1
52	Section VII.I.1
A-7	Attachment A - Definitions
D-5	Attachment D, Section III.B
E-4	Attachment E, Section I.L
E-14	Attachment E, Section V.A.3
E-15	Attachment E, Section V.A.4
E-15	Attachment E, Section V.A.5
E-16	Attachment E, Section V.B.2
E-17	Attachment E, Section V.B.3
E-18	Attachment E, Section V.B.4
E-18	Attachment E, Section V.B.5
E-19	Attachment E, Section V.D
E-20	Attachment E, Section V.E
E-24	Attachment E, section VIII.A.3.b.ii.b.2
E-29, E-30, E-31	Attachment E, Section IX.A.3.f, Tables E-10 and E-11
F-67, F-68, F-69	Attachment F, Section IV.C.5.a
N-1 through N-4	Attachment N

2. The amended version of Order No. R9-2013-0064 included as Attachment 1 to this Order shall become effective on December 13, 2017.
3. San Diego Water Board staff is directed to prepare and post a conformed copy of Order No. R9-2013-0064 incorporating the revisions made by this Order.

UNITED STATES DEPARTMENT OF THE NAVY
NAVAL BASE SAN DIEGO COMPLEX

TENTATIVE AMENDING ORDER NO. R9-2017-0009
NPDES NO. CA0109169

I, David W. Gibson, Executive Officer, do hereby certify that this Order is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on **December 13, 2017**.

TENTATIVE

David W. Gibson
Executive Officer

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

**TENTATIVE ORDER NO. R9-2013-0064
AS AMENDED BY ORDER NO. R9-2017-0009
 NPDES NO. CA0109169**

**WASTE DISCHARGE REQUIREMENTS
 FOR THE
 UNITED STATES DEPARTMENT OF THE NAVY
 NAVAL BASE SAN DIEGO COMPLEX
 SAN DIEGO COUNTY**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	United States Department of the Navy
Name of Facility	Naval Base San Diego Complex
Facility Address	3455 Senn Road, Building 72
	San Diego, CA 91236-5084
	San Diego County
The United States Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) have classified this discharge as a major discharge.	

Discharges by the United States Department of the Navy from the discharge points identified in Table 2 below are subject to waste discharge requirements as set forth in this Order. Administrative information is contained in Table 3 below.

Table 2. Discharge Locations

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
<i>Industrial Process Water Effluent Discharges</i>				
SC-001	Steam Condensate	32° 41' 9" N	-117° 7' 57" W	San Diego Bay
SC-002	Steam Condensate	32° 41' 8" N	-117° 7' 59" W	San Diego Bay
SC-003	Steam Condensate	32° 41' 7" N	-117° 8' 1" W	San Diego Bay
SC-004	Steam Condensate	32° 41' 7" N	-117° 8' 2" W	San Diego Bay
SC-005	Steam Condensate	32° 41' 5" N	-117° 8' 3" W	San Diego Bay
SC-006	Steam Condensate	32° 41' 5" N	-117° 8' 5" W	San Diego Bay
SC-007	Steam Condensate	32° 41' 4" N	-117° 8' 5" W	San Diego Bay
SC-008	Steam Condensate	32° 41' 3" N	-117° 8' 6" W	San Diego Bay
SC-009	Steam Condensate	32° 41' 4" N	-117° 8' 5" W	San Diego Bay
SC-010	Steam Condensate	32° 41' 5" N	-117° 8' 4" W	San Diego Bay
SC-011	Steam Condensate	32° 41' 5" N	-117° 8' 3" W	San Diego Bay
SC-012	Steam Condensate	32° 41' 6" N	-117° 8' 1" W	San Diego Bay

Table 2. Discharge Locations (Cont'd)

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
<i>Industrial Process Water Effluent Discharges</i>				
SC-013	Steam Condensate	32° 41' 7" N	-117° 8' 0" W	San Diego Bay
SC-014	Steam Condensate	32° 41' 8" N	-117° 7' 59" W	San Diego Bay
SC-015	Steam Condensate	32° 41' 9" N	-117° 7' 57" W	San Diego Bay
SC-016	Steam Condensate	32° 41' 7" N	-117° 7' 55" W	San Diego Bay
SC-017	Steam Condensate	32° 41' 4" N	-117° 7' 51" W	San Diego Bay
SC-018	Steam Condensate	32° 41' 2" N	-117° 7' 50" W	San Diego Bay
SC-019	Steam Condensate	32° 41' 1" N	-117° 7' 51" W	San Diego Bay
SC-020	Steam Condensate	32° 41' 1" N	-117° 7' 51" W	San Diego Bay
SC-021	Steam Condensate	32° 41' 0" N	-117° 7' 53" W	San Diego Bay
SC-022	Steam Condensate	32° 40' 58" N	-117° 7' 56" W	San Diego Bay
SC-023	Steam Condensate	32° 40' 58" N	-117° 7' 56" W	San Diego Bay
SC-024	Steam Condensate	32° 40' 56" N	-117° 7' 59" W	San Diego Bay
SC-025	Steam Condensate	32° 40' 56" N	-117° 7' 59" W	San Diego Bay
SC-026	Steam Condensate	32° 40' 57" N	-117° 7' 57" W	San Diego Bay
SC-027	Steam Condensate	32° 40' 57" N	-117° 7' 57" W	San Diego Bay
SC-028	Steam Condensate	32° 40' 59" N	-117° 7' 54" W	San Diego Bay
SC-029	Steam Condensate	32° 40' 59" N	-117° 7' 54" W	San Diego Bay
SC-030	Steam Condensate	32° 41' 0" N	-117° 7' 51" W	San Diego Bay
SC-031	Steam Condensate	32° 41' 2" N	-117° 7' 48" W	San Diego Bay
SC-032	Steam Condensate	32° 41' 2" N	-117° 7' 48" W	San Diego Bay
SC-033	Steam Condensate	32° 41' 3" N	-117° 7' 47" W	San Diego Bay
SC-034	Steam Condensate	32° 41' 1" N	-117° 7' 41" W	San Diego Bay
SC-035	Steam Condensate	32° 40' 58" N	-117° 7' 42" W	San Diego Bay
SC-036	Steam Condensate	32° 40' 56" N	-117° 7' 44" W	San Diego Bay
SC-037	Steam Condensate	32° 40' 56" N	-117° 7' 45" W	San Diego Bay
SC-038	Steam Condensate	32° 40' 55" N	-117° 7' 47" W	San Diego Bay
SC-039	Steam Condensate	32° 40' 53" N	-117° 7' 49" W	San Diego Bay
SC-040	Steam Condensate	32° 40' 52" N	-117° 7' 51" W	San Diego Bay
SC-041	Steam Condensate	32° 40' 51" N	-117° 7' 53" W	San Diego Bay
SC-042	Steam Condensate	32° 40' 52" N	-117° 7' 51" W	San Diego Bay
SC-043	Steam Condensate	32° 40' 53" N	-117° 7' 49" W	San Diego Bay
SC-044	Steam Condensate	32° 40' 54" N	-117° 7' 46" W	San Diego Bay
SC-045	Steam Condensate	32° 40' 56" N	-117° 7' 44" W	San Diego Bay
SC-046	Steam Condensate	32° 40' 57" N	-117° 7' 42" W	San Diego Bay
SC-047	Steam Condensate	32° 40' 58" N	-117° 7' 40" W	San Diego Bay
SC-048	Steam Condensate	32° 40' 57" N	-117° 7' 38" W	San Diego Bay
SC-049	Steam Condensate	32° 40' 55" N	-117° 7' 36" W	San Diego Bay
SC-050	Steam Condensate	32° 40' 53" N	117° 7' 35" W	San Diego Bay
SC-051	Steam Condensate	32° 40' 52" N	-117° 7' 36" W	San Diego Bay
SC-052	Steam Condensate	32° 40' 51" N	-117° 7' 38" W	San Diego Bay
SC-053	Steam Condensate	32° 40' 50" N	-117° 7' 39" W	San Diego Bay
SC-054	Steam Condensate	32° 40' 49" N	-117° 7' 40" W	San Diego Bay
SC-055	Steam Condensate	32° 40' 49" N	-117° 7' 41" W	San Diego Bay
SC-056	Steam Condensate	32° 40' 48" N	-117° 7' 42" W	San Diego Bay
SC-057	Steam Condensate	32° 40' 48" N	-117° 7' 43" W	San Diego Bay

Table 2. Discharge Locations (Cont'd)

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
<i>Industrial Process Water Effluent Discharges</i>				
SC-058	Steam Condensate	32° 40' 47" N	-117° 7' 44" W	San Diego Bay
SC-059	Steam Condensate	32° 40' 46" N	-117° 7' 45" W	San Diego Bay
SC-060	Steam Condensate	32° 40' 46" N	-117° 7' 46" W	San Diego Bay
SC-061	Steam Condensate	32° 40' 45" N	-117° 7' 46" W	San Diego Bay
SC-062	Steam Condensate	32° 40' 46" N	-117° 7' 45" W	San Diego Bay
SC-063	Steam Condensate	32° 40' 47" N	-117° 7' 44" W	San Diego Bay
SC-064	Steam Condensate	32° 40' 48" N	-117° 7' 41" W	San Diego Bay
SC-065	Steam Condensate	32° 40' 49" N	-117° 7' 40" W	San Diego Bay
SC-066	Steam Condensate	32° 40' 50" N	-117° 7' 39" W	San Diego Bay
SC-067	Steam Condensate	32° 40' 50" N	-117° 7' 38" W	San Diego Bay
SC-068	Steam Condensate	32° 40' 52" N	-117° 7' 35" W	San Diego Bay
SC-069	Steam Condensate	32° 40' 52" N	-117° 7' 35" W	San Diego Bay
SC-070	Steam Condensate	32° 40' 52" N	-117° 7' 35" W	San Diego Bay
SC-071	Steam Condensate	32° 40' 51" N	-117° 7' 33" W	San Diego Bay
SC-072	Steam Condensate	32° 40' 51" N	-117° 7' 33" W	San Diego Bay
SC-073	Steam Condensate	32° 40' 49" N	-117° 7' 31" W	San Diego Bay
SC-074	Steam Condensate	32° 40' 47" N	-117° 7' 30" W	San Diego Bay
SC-075	Steam Condensate	32° 40' 46" N	-117° 7' 31" W	San Diego Bay
SC-076	Steam Condensate	32° 40' 45" N	-117° 7' 33" W	San Diego Bay
SC-077	Steam Condensate	32° 40' 44" N	-117° 7' 34" W	San Diego Bay
SC-078	Steam Condensate	32° 40' 43" N	-117° 7' 35" W	San Diego Bay
SC-079	Steam Condensate	32° 40' 42" N	-117° 7' 37" W	San Diego Bay
SC-080	Steam Condensate	32° 40' 41" N	-117° 7' 36" W	San Diego Bay
SC-081	Steam Condensate	32° 40' 40" N	-117° 7' 40" W	San Diego Bay
SC-082	Steam Condensate	32° 40' 40" N	-117° 7' 40" W	San Diego Bay
SC-083	Steam Condensate	32° 40' 41" N	-117° 7' 38" W	San Diego Bay
SC-084	Steam Condensate	32° 40' 42" N	-117° 7' 36" W	San Diego Bay
SC-085	Steam Condensate	32° 40' 43" N	-117° 7' 35" W	San Diego Bay
SC-086	Steam Condensate	32° 40' 44" N	-117° 7' 34" W	San Diego Bay
SC-087	Steam Condensate	32° 40' 44" N	-117° 7' 32" W	San Diego Bay
SC-088	Steam Condensate	32° 40' 45" N	-117° 7' 31" W	San Diego Bay
SC-089	Steam Condensate	32° 40' 41" N	-117° 7' 24" W	San Diego Bay
SC-090	Steam Condensate	32° 40' 40" N	-117° 7' 26" W	San Diego Bay
SC-091	Steam Condensate	32° 40' 38" N	-117° 7' 28" W	San Diego Bay
SC-092	Steam Condensate	32° 40' 36" N	-117° 7' 32" W	San Diego Bay
SC-093	Steam Condensate	32° 40' 35" N	-117° 7' 34" W	San Diego Bay
SC-094	Steam Condensate	32° 40' 34" N	-117° 7' 36" W	San Diego Bay
SC-095	Steam Condensate	32° 40' 35" N	-117° 7' 33" W	San Diego Bay
SC-096	Steam Condensate	32° 40' 36" N	-117° 7' 31" W	San Diego Bay
SC-097	Steam Condensate	32° 40' 38" N	-117° 7' 28" W	San Diego Bay
SC-098	Steam Condensate	32° 40' 39" N	-117° 7' 26" W	San Diego Bay
SC-099	Steam Condensate	32° 40' 40" N	-117° 7' 24" W	San Diego Bay
SC-100	Steam Condensate	32° 40' 36" N	-117° 7' 21" W	San Diego Bay
SC-101	Steam Condensate	32° 40' 35" N	-117° 7' 19" W	San Diego Bay
SC-102	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay

Table 2. Discharge Locations (Cont'd)

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
<i>Industrial Process Water Effluent Discharges</i>				
SC-103	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
SC-104	Steam Condensate	32° 40' 33" N	-117° 7' 22" W	San Diego Bay
SC-105	Steam Condensate	32° 40' 32" N	-117° 7' 24" W	San Diego Bay
SC-106	Steam Condensate	32° 40' 31" N	-117° 7' 25" W	San Diego Bay
SC-107	Steam Condensate	32° 40' 30" N	-117° 7' 27" W	San Diego Bay
SC-108	Steam Condensate	32° 40' 29" N	-117° 7' 28" W	San Diego Bay
SC-109	Steam Condensate	32° 40' 28" N	-117° 7' 29" W	San Diego Bay
SC-110	Steam Condensate	32° 40' 27" N	-117° 7' 31" W	San Diego Bay
SC-111	Steam Condensate	32° 40' 27" N	-117° 7' 32" W	San Diego Bay
SC-112	Steam Condensate	32° 40' 26" N	-117° 7' 33" W	San Diego Bay
SC-113	Steam Condensate	32° 40' 25" N	-117° 7' 33" W	San Diego Bay
SC-114	Steam Condensate	32° 40' 26" N	-117° 7' 32" W	San Diego Bay
SC-115	Steam Condensate	32° 40' 28" N	-117° 7' 29" W	San Diego Bay
SC-116	Steam Condensate	32° 40' 29" N	-117° 7' 28" W	San Diego Bay
SC-117	Steam Condensate	32° 40' 30" N	-117° 7' 25" W	San Diego Bay
SC-118	Steam Condensate	32° 40' 31" N	-117° 7' 23" W	San Diego Bay
SC-119	Steam Condensate	32° 40' 32" N	-117° 7' 22" W	San Diego Bay
SC-120	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
SC-121	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
SC-122	Steam Condensate	32° 40' 30" N	-117° 7' 15" W	San Diego Bay
SC-123	Steam Condensate	32° 40' 28" N	-117° 7' 14" W	San Diego Bay
SC-124	Steam Condensate	32° 40' 28" N	-117° 7' 15" W	San Diego Bay
SC-125	Steam Condensate	32° 40' 26" N	-117° 7' 17" W	San Diego Bay
SC-126	Steam Condensate	32° 40' 25" N	-117° 7' 19" W	San Diego Bay
SC-127	Steam Condensate	32° 40' 24" N	-117° 7' 21" W	San Diego Bay
SC-128	Steam Condensate	32° 40' 23" N	-117° 7' 22" W	San Diego Bay
SC-129	Steam Condensate	32° 40' 22" N	-117° 7' 25" W	San Diego Bay
SC-130	Steam Condensate	32° 40' 20" N	-117° 7' 27" W	San Diego Bay
SC-131	Steam Condensate	32° 40' 20" N	-117° 7' 27" W	San Diego Bay
SC-132	Steam Condensate	32° 40' 21" N	-117° 7' 25" W	San Diego Bay
SC-133	Steam Condensate	32° 40' 23" N	-117° 7' 22" W	San Diego Bay
SC-134	Steam Condensate	32° 40' 24" N	-117° 7' 21" W	San Diego Bay
SC-135	Steam Condensate	32° 40' 25" N	-117° 7' 19" W	San Diego Bay
SC-136	Steam Condensate	32° 40' 26" N	-117° 7' 17" W	San Diego Bay
SC-137	Steam Condensate	32° 40' 27" N	-117° 7' 14" W	San Diego Bay
SC-138	Steam Condensate	32° 40' 26" N	-117° 7' 13" W	San Diego Bay
SC-139	Steam Condensate	32° 40' 24" N	-117° 7' 11" W	San Diego Bay
SC-140	Steam Condensate	32° 40' 11" N	-117° 7' 19" W	San Diego Bay
SC-141	Steam Condensate	32° 40' 11" N	-117° 7' 22" W	San Diego Bay
SC-142	Steam Condensate	32° 40' 9" N	-117° 7' 23" W	San Diego Bay
SC-143	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
SC-144	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
SC-145	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
SC-146	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
SC-147	Steam Condensate	32° 40' 2" N	-117° 7' 10" W	San Diego Bay

Table 2. Discharge Locations (Cont'd)

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
<i>Industrial Process Water Effluent Discharges</i>				
SC-148	Steam Condensate	32° 39' 58" N	-117° 7' 9" W	San Diego Bay
SC-149	Steam Condensate	32° 39' 58" N	-117° 7' 9" W	San Diego Bay
SC-150	Steam Condensate	32° 39' 58" N	-117° 7' 9" W	San Diego Bay
SC-151	Steam Condensate	32° 39' 52" N	-117° 7' 11" W	San Diego Bay
SC-152	Steam Condensate	32° 39' 50" N	-117° 7' 23" W	San Diego Bay
SC-153	Steam Condensate	32° 39' 52" N	-117° 7' 11" W	San Diego Bay
SC-154	Steam Condensate	32° 39' 48" N	-117° 7' 8" W	San Diego Bay
SC-155	Steam Condensate	32° 39' 46" N	-117° 7' 7" W	San Diego Bay
SC-156	Steam Condensate	32° 39' 45" N	-117° 7' 9" W	San Diego Bay
SC-157	Steam Condensate	32° 39' 45" N	-117° 7' 10" W	San Diego Bay
SC-158	Steam Condensate	32° 39' 45" N	-117° 7' 13" W	San Diego Bay
SC-159	Steam Condensate	32° 39' 45" N	-117° 7' 15" W	San Diego Bay
SC-160	Steam Condensate	32° 39' 45" N	-117° 7' 17" W	San Diego Bay
SC-161	Steam Condensate	32° 39' 45" N	-117° 7' 19" W	San Diego Bay
SC-162	Steam Condensate	32° 39' 44" N	-117° 7' 20" W	San Diego Bay
SC-163	Steam Condensate	32° 39' 44" N	-117° 7' 22" W	San Diego Bay
SC-164	Steam Condensate	32° 39' 43" N	-117° 7' 24" W	San Diego Bay
SC-165	Steam Condensate	32° 39' 43" N	-117° 7' 22" W	San Diego Bay
SC-167	Steam Condensate	32° 39' 43" N	-117° 7' 20" W	San Diego Bay
SC-168	Steam Condensate	32° 39' 43" N	-117° 7' 19" W	San Diego Bay
SC-169	Steam Condensate	32° 39' 44" N	-117° 7' 17" W	San Diego Bay
SC-170	Steam Condensate	32° 39' 44" N	-117° 7' 15" W	San Diego Bay
SC-171	Steam Condensate	32° 39' 44" N	-117° 7' 13" W	San Diego Bay
SC-172	Steam Condensate	32° 39' 44" N	-117° 7' 10" W	San Diego Bay
SC-173	Steam Condensate	32° 39' 44" N	-117° 7' 9" W	San Diego Bay
SC-174	Steam Condensate	32° 39' 44" N	-117° 7' 7" W	San Diego Bay
SC-175	Steam Condensate	32° 40' 49" N	-117° 7' 31" W	San Diego Bay
BC-001	Boom Cleaning ¹	32° 40' 24" N	-117° 7' 1" W	San Diego Bay
UV-001	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 55" W	San Diego Bay
UV-002	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 52" W	San Diego Bay
UV-003	Utility Vault & Manhole Dewatering ²	32° 41' 2" N	-117° 7' 48" W	San Diego Bay
UV-004	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 37" W	San Diego Bay
UV-005	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 30" W	San Diego Bay
UV-006	Utility Vault & Manhole Dewatering ²	32° 40' 52" N	-117° 7' 12" W	San Diego Bay
UV-007	Utility Vault & Manhole Dewatering ²	32° 40' 55" N	-117° 7' 8" W	Paleta Creek
UV-008	Utility Vault & Manhole Dewatering ²	32° 40' 41" N	-117° 7' 23" W	San Diego Bay

Table 2. Discharge Locations (Cont'd)

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
UV-009	Utility Vault & Manhole Dewatering ²	32° 40' 37" N	-117° 7' 19" W	San Diego Bay
<i>Industrial Process Water Effluent Discharges</i>				
UV-010	Utility Vault & Manhole Dewatering ²	32° 40' 30" N	-117° 7' 12" W	San Diego Bay
UV-011	Utility Vault & Manhole Dewatering ²	32° 40' 10" N	-117° 7' 14" W	San Diego Bay
UV-012	Utility Vault & Manhole Dewatering ²	32° 40' 16" N	-117° 6' 54" W	Paleta Creek
Weight Test Water	Weight Test Water	Various	Various	San Diego Bay
<i>Naval Graving Dock Industrial Process Water Effluent Discharges</i>				
NGD-001	Deflooding Water/ Salt Water Rinse	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
NGD-002	Deflooding Water/ Salt Water Rinse	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
NGD-003	Caisson Ballast Dewatering	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
NGD-004	Emergency Fire Suppression/ Saltwater Supply Water	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
NGD-005	Seawater Cooling Overboard Water	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
<i>Small Municipal Separate Storm Sewer System (MS4) Discharges</i>				
See Attachment M to this Order	Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order ³	See Attachment M to this Order ³	Chollas Creek, Paleta Creek, San Diego River, or San Diego Bay
<i>Industrial No Exposure Area Storm Water Discharges</i>				
See Attachment M to this Order	Industrial No Exposure Area Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order	See Attachment M to this Order	Chollas Creek, Paleta Creek, or San Diego Bay
<i>Industrial Low Risk Area Storm Water Discharges</i>				
See Attachment M to this Order	Industrial Low Risk Area Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order	See Attachment M to this Order	Chollas Creek, Paleta Creek, or San Diego Bay

Table 2. Discharge Locations (Cont'd)

Discharge Point	Discharge Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
<i>Industrial High Risk Area Storm Water Discharges</i>				
See Attachment M to this Order	Industrial High Risk Area Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order	See Attachment M to this Order	San Diego Bay

- ¹ Boom, mooring, and fender cleaning discharges to remove marine growth can occur at any pier where booms are installed. However, boom cleaning typically occurs along the quay wall in front of the Waterfront Operations facility. Oil booms contaminated with oil or fuel are removed from water for cleaning with no discharge to receiving waters. Security boom cleaning to remove marine growth is most often performed at the location where the boom is installed.
- ² The discharge points identified in the table represent electrical utility vaults with automatic sump pumps that could potentially discharge to San Diego Bay and Paleta Creek. Manhole dewatering is performed with manual pumps or pumper trucks and the water is discharged to the sanitary sewer or to adjacent manholes. A manhole dewatering discharge to a storm drain or receiving water would be very infrequent and only during emergencies. Discharge locations could occur at numerous locations within the Facility.
- ³ The discharge points identified in Attachment M are in NBSD—main base. Other MS4 discharge points are located at the Broadway Complex, Mission Gorge Recreational Facility, and the Naval Medical Center San Diego.

Table 3. Administrative Information

This Order was adopted by the San Diego Regional Water Quality Control Board on:	August 14, 2013
This Order shall become <u>originally became</u> effective on:	November 1, 2013
<u>This Order as amended by Order No. R9-2017-0009 became effective on:</u>	<u>December 13, 2017</u>
This Order shall expire on:	October 31, 2018
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	May 4, 2018

I, David Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on August 14, 2013 as amended by Order No. R9-2017-0009 on December 13, 2017.

TENTATIVE

David W. Gibson
 Executive Officer

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I. FACILITY INFORMATION

The following Discharger and Facility is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	United States Department of the Navy
Name of Facility	Naval Base San Diego Complex
Facility Address	3455 Senn Road, Building 72
	San Diego, CA 91236-5084
	San Diego County
Facility Contact, Title, and Phone	Mark Edson, Installation Environmental Program Director (619) 556-1532
Mailing Address	Same as Facility Address
Type of Facility	Naval Base
Facility Design Flow	Not Applicable

II. FINDINGS

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

A. Background. The United States Department of the Navy (hereinafter Discharger) is currently discharging under two separate National Pollution Discharge Elimination System (NPDES) permits at the Naval Base San Diego Complex.

1. Order No. R9-2002-0169, NPDES Permit No. CA0109169, regulates several types of wastewater discharges at numerous discharge locations within NBSD including industrial storm water; steam condensate; pier boom, fender, and mooring cleaning; utility vault and manhole dewatering; and miscellaneous discharges associated with facility maintenance. These discharges are regulated by application of technology based effluent limitations (TBELs), water quality based effluent limitations (WQBELs), and best management practices (BMPs) that apply to each discharge prior to mixing with the receiving water. The Discharger submitted a Report of Waste Discharge (ROWD), dated June 18, 2007, for renewal of Order No. R9-2002-0169. The application was deemed complete on March 27, 2008.
2. The second NPDES Permit, Order No. R9-2003-0265, NPDES Permit No. CA0107867, regulates the discharge of saltwater supply system water, graving dock flood dewater, graving dock caisson gate ballast water, and industrial storm water from several discharge locations at the United States (US) Navy Graving Dock, which is located within the Naval Base San Diego facility. These discharges are regulated through TBELs, WQBELs, and BMPs that apply to each discharge prior to mixing with the receiving water. The Discharger submitted a ROWD, dated July 2, 2008, for the renewal of Order No. R9-2003-0265.

Because the US Navy Graving Dock is located within the geographical boundaries of Naval Base San Diego and is owned and operated by the Discharger, the coverage of NPDES Permit No. CA0107867 for the US Navy Graving Dock is incorporated into this Order to achieve maximum efficiency and economy of resources, and minimize redundancy to the Discharger and the San Diego Water Board. All applicable requirements for the US Navy Graving Dock have been incorporated directly into this Order or revised as necessary.

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

B. Facility and Discharge Description. The Naval Base San Diego Complex is comprised of the following four installations: Naval Base San Diego – main base (NBSD), Broadway Complex, Mission Gorge Recreational Facility (MGRF; also known as Admiral Baker Field), and the Naval Medical Center, San Diego (NMCS). These four installations are hereinafter jointly referred to as “Facility”. This Order establishes requirements for the following categories of discharges from Naval Base San Diego Complex installations including:

1. Industrial process wastewater;
2. Industrial storm water runoff from NBSD including the US Navy Graving Dock; and
3. Municipal storm water runoff from all four installations.

The types of industrial process wastewaters discharged from the NBSD installation portion of the Facility to San Diego Bay, a water of the United States, are described in Table 5 below:

Table 5. Industrial Process Wastewater Discharges from NBSD

Types of Discharge	Discharge Point Nos.
Steam Condensate	SC-001 through SC-175
Pier Boom, Fender, and Mooring Cleaning Wastewater	BC-001
Utility Vault and Manhole Dewatering	UV-001 through UV-012
Graving Dock Deflooding Water / Salt Water Rinse	NGD-001 through NGD-002
Caisson Ballast Dewatering	NGD-003
Emergency Fire Suppression / Saltwater Supply	NGD-004
Seawater Cooling Overboard Water	NGD-005
Weight Test Water	At any pier

The seawater cooling overboard water discharges regulated under this Order are associated with vessels in the graving dock which draw water directly from San Diego Bay for cooling purposes. Water is pumped into the vessels in the graving dock and

routed through heat exchangers where it absorbs heat and is then discharged to San Diego Bay at higher temperatures.

Industrial storm water discharges occur from areas of NBSD identified as Industrial Areas in the maps submitted May 12, 2011, and included as Figures B-2 and B-3. Industrial areas are broken down into the following risk level designations: Industrial No Exposure Areas, Industrial Low Risk Areas, and Industrial High Risk Areas.

Storm water (wet weather) and non-storm water (dry weather) discharges occur through Small (Phase II) Municipal Separate Storm Sewer Systems (MS4s) at numerous locations throughout the Facility. This Order regulates the discharge of storm water (wet weather) and non-storm water (dry weather) from the Facility to waters of the United States (waters of the US), including the San Diego River, Chollas Creek, Paleta Creek, San Diego Bay, and other unnamed waters of the Lindbergh Hydrologic Subarea. This Order regulates these discharges pursuant to federal Clean Water Act (CWA) section 402(p) as discharges from a non-traditional Phase II MS4.

Industrial storm water discharges from areas at NBSD designated as Industrial High Risk Areas, described under section IV.B.1.d of this Order and including areas such as drydocks and piers where ship maintenance and repair activities are expected to occur, are subject to effluent limitations for acute toxicity. All industrial storm water discharges are subject to continued coverage under a Storm Water Pollution Prevention Plan (SWPPP). Industrial storm water from Industrial Low Risk Areas and Industrial High Risk Areas are subject to Numeric Action Levels (NALs) as described in section IV.B.1.c and IV.B.1.d of this Order.

Figure B-1 of Attachment B to this Order provides a vicinity map showing the locations of the installations that comprise the Facility. Attachment C to this Order provides flow schematics of industrial process wastewater discharges from the Facility. Section II.A of Attachment F (Fact Sheet) to this Order provides a description of each discharge. Attachment M provides a list of storm water discharges, the risk designations associated with each discharge, and the associated receiving waters.

C. Legal Authorities. This Order is issued pursuant to section 402 of the CWA and implementing regulations adopted by the US Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). This Order shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

D. 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 Order requirements, is hereby incorporated into this Order and constitutes part of the

Findings for this Order. Attachments A through E and G through M are also incorporated into this Order.

- E. 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 sections 21100-21177.
- F. Technology-based Effluent Limitations (TBELs).** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations (40 CFR 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 discharges authorized by this Order must meet minimum federal and State technology-based requirements based on Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3. A detailed discussion of the TBELs development is included in the Fact Sheet (Attachment F).
- G. Water Quality-based Effluent Limitations (WQBELs).** Section 301(b) of the CWA and NPDES permit regulations at 40 CFR 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. NPDES permit regulations at 40 CFR 122.44(d)(1)(i) mandate 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) USEPA 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 section 40 CFR 122.44(d)(1)(vi).
- H. Water Quality Control Plans and Policies.** The requirements of this Order implement the following applicable water quality control plans and policies:
- 1. Basin Plan.** The San Diego Water Board adopted a Water Quality Control Plan for the San Diego Region (hereinafter Basin Plan) on September 8, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for receiving waters addressed through the plan. Subsequent revisions to the Basin Plan have also been adopted by the San Diego Water Board and approved by the State Water Resources Control Board (State Water Board). Beneficial uses applicable to the waters of the US described as receiving waters under this Order and designated in the Basin Plan are as follows:

Table 6. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
SC-001 through SC-175, BC-001, UV-001 through UV-012, NGD-001 through NGD-005, Weight Test Water, and Storm Water Discharges as identified in Attachment M to this Order.	San Diego Bay	<u>Existing:</u> Industrial service supply (IND); navigation (NAV); contact water recreation (REC-1); non-contact water recreation (REC-2); 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); shellfish harvesting (SHELL)
Storm Water Discharges, as identified in Attachment M to this Order.	Chollas Creek	<u>Existing:</u> Non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD) <u>Potential:</u> Contact water recreation (REC-1)
Storm Water Discharges, as identified in Attachment M to this Order and BC-001.	Paleta Creek (Seventh Street Channel)	<u>Existing:</u> Non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD) <u>Potential:</u> Contact water recreation (REC-1)
Storm Water Discharges, as identified in Attachment M to this Order.	San Diego River	<u>Existing:</u> Municipal and domestic supply (MUN); agricultural (AGR); industrial service supply (IND); industrial process supply (PROC); contact water recreation (REC1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD)
Storm Water Discharges, as identified in Attachment M to this Order.	Lindberg Hydrologic Subarea	<u>Existing:</u> Non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD) <u>Potential:</u> Contact water recreation (REC-1)

2. Thermal Plan. The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters.

- 3. Bays and Estuaries Policy.** The State Water Board adopted the *Water Quality Control Policy for Enclosed Bays and Estuaries of California* (Bays and Estuaries Policy) on May 16, 1974. 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.
- 4. Sediment Quality Plan.** On September 16, 2008, the State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality* (Sediment Quality Plan). The Sediment Quality Plan became effective on August 25, 2009. The Sediment Quality Plan establishes: 1) narrative sediment quality objectives for benthic community protection from exposure to contaminants in sediment and to protect human health; and 2) a program of implementation using a multiple lines of evidence approach to interpret the narrative sediment quality objectives. This Order implements the requirements of the Sediment Quality Plan.
- 5. 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, and 2009 and the most recent amended Ocean Plan became effective on March 10, 2010. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. This Order includes TBELs based on Table A of the Ocean Plan. Since the San Diego Bay shares a strong hydraulic connection with the Ocean and shares many of the same characteristics of the Ocean, requirements and water quality objectives have been established as necessary to protect the beneficial uses of the Ocean.
- I. Water Quality Limited Segments.** Under section 303(d) of the Clean Water Act, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters 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 November 12, 2010 USEPA gave final approval to California's 2010 section 303(d) List of Water Quality Limited Segments. The impaired waterbody segments located near or adjacent to the NBSD Complex are identified in Table 7 below:

Table 7. Impaired Waterbodies near NBSD Complex

Waterbody	Impaired Segment Location	Constituent	Installation
San Diego Bay	Bay-wide	Polychlorinated biphenyls (PCBs)	NBSD and Broadway Complex
San Diego Bay	32 nd Street San Diego Naval Station	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, near Chollas Creek	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, North of 24 th Street Marine Terminal	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, 7 th Street Channel	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers	Benthic community effects, sediment toxicity, and total coliform	Broadway Complex
San Diego Bay	San Diego Bay, G Street Pier	Total coliform	Broadway Complex
Chollas Creek	From mouth of Chollas Creek at San Diego Bay to 4 miles inland	Copper, lead, zinc, diazinon, indicator bacteria, phosphorus, nitrogen, and trash	NBSD

The Basin Plan prescribes Total Maximum Daily Loads (TMDLs) for diazinon and metals (dissolved copper, lead, and zinc) in Chollas Creek, a tributary to San Diego Bay. This Order establishes no requirements for diazinon because Chollas Creek has achieved the numeric target for diazinon. The Chollas Creek Metals TMDL identifies NBSD as a point source contributor of copper, lead, and zinc and establishes a wasteload allocation for these metals. This Order establishes Stormwater Action Levels (SALs) for copper, lead, and zinc, consistent with the requirements and assumptions of the Chollas Creek Metals TMDLs.

J. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA 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, USEPA 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 water quality criteria for priority pollutants and are applicable to the discharges from the Facility.

K. 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 USEPA 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 USEPA 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 on industrial process wastewater discharge in this Order implement the SIP. The SIP is not applicable to storm water discharges regulated by this Order.

L. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (Title 40 Code of Federal Regulations section 131.21 (40 CFR § 131.21); 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains both TBELs and WQBELs for individual pollutants. The TBELs applied in the Order consist of: 1) restrictions on oil and grease, total suspended solids, settleable solids, turbidity, and pH derived from Table A of the Ocean Plan; 2) a requirement to continue to implement BMPs for utility vault and manhole dewatering discharges; 3) a requirement to develop and maintain a BMP Plan for discharges from pier boom, fender, and mooring cleaning; 4) a requirement to continue to implement a SWPPP for toxic pollutants and hazardous substances in industrial storm water runoff; 5) Numeric Action Levels (NALs) for industrial storm water runoff; and 6) a requirement to develop and implement a SWMP for the small MS4 areas. These restrictions and requirements are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal and State technology-based requirements.

WQBELs have been scientifically derived to implement applicable water quality objectives that protect beneficial uses established in water quality control plans. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR and the SIP. The WQBELs applied in the Order have also been calculated based on the Basin Plan. The Chollas Creek Metals TMDL was used to calculate water quality-based SALs.

Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "*applicable water quality standards for purposes of the CWA*" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

N. Antidegradation Policy. USEPA's NPDES permit regulations at 40 CFR 131.12 require 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 No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters 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. As discussed in detail in the Fact Sheet (Attachment F), the permitted discharges under this Order are consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16.

- O. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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 in this Order are at least as stringent as the effluent limitations and conditions of the previous orders.
- P. Endangered Species Act.** 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 USC sections 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- Q. Atomic Energy Act.** Pursuant to the *Atomic Energy Act*, the San Diego Water Board does not have jurisdictional authority to regulate the discharge of radioactive wastes from U.S. naval nuclear propulsion plants and their support facilities. Therefore, this Order does not regulate discharges of radioactive wastes from nuclear propulsion plants or from nuclear support facilities.
- R. Uniform National Discharge Standards.** In 1996 Congress passed legislation amending section 312 of the CWA to provide the Department of Defense and the USEPA authority to jointly establish Uniform National Discharge Standards (UNDS) for incidental discharges from vessels of the Armed Forces. The UNDS program establishes regulatory requirements for marine pollution control devices (MPCD) to mitigate adverse impacts on the marine environment. Therefore, the requirements in this Order do not apply to vessel discharges regulated under the UNDS program.
- S. Monitoring and Reporting.** USEPA's NPDES permit regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the San Diego Water Board to require technical and monitoring reports. The Monitoring and Reporting Program described in Attachment E of this Order establishes monitoring and reporting requirements to implement federal and State requirements. Sediment monitoring requirements have been revised from previous requirements based on the Sediment Quality Plan.

- T. Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 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 122.42. The San Diego Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).
- U. Pollution Prevention Plan.** Section 13263.3 of the Water Code provides that pollution prevention should be the first step in the hierarchy for reducing pollution and managing wastes. Water Code section 13263.3 (d)(1)(D) provides that the San Diego Water Board may require a Discharger to complete and implement a pollution prevention plan if the San Diego Water Board determines that pollution prevention is necessary to achieve a water quality objective. The results of a reasonable potential analysis detailed in the Fact Sheet of this Order (Attachment F) indicate the Discharge has reasonable potential to exceed water quality objectives for cadmium, copper, lead, mercury, nickel, silver, and zinc, and that pollution prevention is necessary to achieve water quality objectives for these constituents. This Order requires the Discharger to develop and implement a pollution prevention plan for cadmium, copper, nickel, silver, and zinc to help reduce pollutants in the wastewaters to levels below water quality criteria and obtain consistent compliance with effluent limitations.
- V. Provisions and Requirements Implementing State Law.** Some of the provisions and requirements in section VI.A.2. of this Order are included to implement State law only. These provisions and requirements are not required or authorized under the federal CWA; consequently, violations of these provisions and requirements are not subject to the enforcement remedies that are available for NPDES violations.
- W. 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.
- X. Notification of Interested Parties.** The San Diego Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.
- Y. Consideration of Public Comments.** 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 (Attachment F) of this Order.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R9-2002-0169 and Order No. R9-2003-0265 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.

III. DISCHARGE PROHIBITIONS

- A. The dumping, deposition or discharge of the following wastes directly into waters of the US, including but not limited to San Diego Bay, Chollas Creek, Paleta Creek, and the San Diego River, or adjacent to such waters in any manner which 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 abrasive blast materials, paint, oils, fuels, lubricants, solvents, or petroleum;
 6. hydro-blast water;
 7. tank cleaning water from tank cleaning to remove sludge and/or dirt;
 8. clarified water from oil and water separator, except for storm water discharges treated by an oil and water separator and having coverage under this Order;
 9. steam cleaning water;
 10. pipe and tank hydrostatic test water, unless regulated by an NPDES permit;
 11. saltbox water;
 12. hydraulic oil leaks and spills;
 13. fuel leaks and spills;
 14. trash;
 15. refuse and rubbish including but not limited to cans, bottles, paper, plastics, vegetable matter or dead animals;
 16. fiberglass dust;
 17. swept materials;
 18. ship repair and maintenance activity debris;
 19. waste zinc plates;
 20. demineralizer and reverse osmosis brine; and
 21. oily bilge water.

- B.** All discharges regulated under this Order shall comply with discharge prohibitions contained in the San Diego Water Board's Basin Plan and other applicable statewide water quality control plans described in the Findings of this Order. The San Diego Water Board's Basin Plan Waste Discharge Prohibitions are hereby incorporated in this Order by reference as if fully set forth herein and are listed in Attachment J to this Order.
- C.** Discharges of wastes to waters of the US, including but not limited to San Diego Bay, Chollas Creek, Paleta Creek, and the San Diego River, are prohibited except as specifically authorized by this Order or in a manner or location specifically described in this Order or another NPDES permit. This prohibition does not apply to non-contact cooling water and miscellaneous low volume water streams which comply with the requirements of this Order for elevated temperature waste discharges and which do not contain pollutants or waste other than heat.
- D.** Except as provided in Non-Storm Water Specification IV.G of this Order or as otherwise regulated by this Order, discharges of liquids or materials other than storm water (i.e. non-storm water discharges) either directly or indirectly to waters of the US, including but not limited to San Diego Bay, Chollas Creek, Paleta Creek, and the San Diego River, are prohibited. Non-storm water discharges that are not authorized under section IV.G of this Order or by separate NPDES permit are prohibited.
- E.** The discharge of the first ¼ inch of storm water runoff from all areas designated as Industrial High Risk areas under section IV.B.1 d of this Order is prohibited, except if the pollutants in the discharge are reduced to levels that comply with the effluent limitations in section IV.C. Effluent limitations contained in section IV.C remain applicable to discharges after the first ¼ inch of storm water runoff has been discharged or contained on-site.
- F.** The discharge of materials of petroleum origin in sufficient quantities to be visible is prohibited.
- G.** Discharges to waters of the US, including but not limited to San Diego Bay, Chollas Creek, Paleta Creek, and the San Diego River containing a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or CFR Part 302 are prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations for Industrial Process Wastewater

1. Effluent Limitations for Steam Condensate – Discharge Point Nos. SC-001 through SC-175

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point Nos. SC-001 through SC-175, with compliance measured at Monitoring Location Nos. SC-001 through SC-175 as described in Monitoring and Reporting Program (MRP), Attachment E of this Order:

Table 8. Effluent Limitations For Steam Condensate – Discharge Point Nos. SC-001 through SC-175

Parameter	Units	Effluent Limitations					
		Average Monthly	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants							
Total Suspended Solids	mg/L	60	--	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75	--
pH	pH units	--	--	--	7.0	9.0	--
Priority Pollutants							
Copper, Total Recoverable	µg/L	2.9	--	5.8	--	--	--
Lead, Total Recoverable	µg/L	7.0	--	14.0	--	--	--
Mercury, Total Recoverable	µg/L	0.051	--	0.102	--	--	--
Zinc, Total Recoverable	µg/L	47.4	--	95.1	--	--	--
Non-Conventional Pollutants							
Settleable Solids	ml/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	a	--	--	a

^a Compliance with the Maximum Daily Effluent Limitation and Monthly Median Effluent Limitation shall be based on the procedures specified in section V of the MRP.

2. Effluent Limitations for Naval Graving Dock Deflooding and Salt Water Rinse Water – Discharge Point Nos. NGD-001 and NGD-002

The Discharger shall maintain compliance with the following effluent limitations for graving dock deflooding water and salt water rinse water at Discharge Point Nos. 001 and 002, with compliance measured at Monitoring Location Nos. NGD-001 and NGD-002 as described in the MRP, Attachment E of this Order:

Table 9. Effluent Limitations for Graving Dock Deflooding Water and Salt Water Rinse Water - Discharge Point Nos. NGD-001 and NGD-002

Parameter	Units	Effluent Limitations					
		Average Monthly ^b	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants							
Total Suspended Solids	mg/L	60	--	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75	--
pH	pH units	--	--	--	7.0	9.0	--
Priority Pollutants							
Copper, Total Recoverable	µg/L	--	--	13.8	--	--	--
Non-Conventional Pollutants							
Settleable Solids	ml/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	^a	--		^a

^a. Compliance with the Maximum Daily Effluent Limitation and Monthly Median Effluent Limitation shall be based on the procedures specified in section V of the MRP, Attachment E, of this Order.

^b. The Average Monthly Effluent Limitation only applies if there is a discharge more than one day in a 30 day period or if there is no other effluent limitation for the parameter.

3. Effluent Limitations for Naval Graving Dock Caisson Ballast Dewatering – Discharge Point No. NGD-003

The Discharger shall maintain compliance with the following effluent limitations for caisson ballast dewatering at Discharge Point No. NGD-003, with compliance measured at Monitoring Location No. NGD-003 as described in the MRP, Attachment E of this Order:

Table 10. Effluent Limitations for Caisson Ballast Dewatering - Discharge Point No. NGD-003

Parameter	Units	Effluent Limitations					
		Average Monthly ^b	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants							
Total Suspended Solids	mg/L	60	--	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75	--
pH	pH units	--	--	--	7.0	9.0	--
Priority Pollutants							
Cadmium, Total Recoverable	µg/L	7.7	--	15.4	--	--	--
Copper, Total Recoverable	µg/L	--	--	13.8	--	--	--
Nickel, Total Recoverable	µg/L	6.8	--	13.6	--	--	--
Silver, Total Recoverable	µg/L	1.1	--	2.2	--	--	--
Zinc, Total Recoverable	µg/L	47.4	--	95.1	--	--	--
Non-Conventional Pollutants							
Settleable Solids	ml/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	a	--	--	a

- a. Compliance with the Maximum Daily Effluent Limitation and Monthly Median Effluent Limitation shall be based on the procedures specified in section V of the MRP, Attachment E, of this Order.
- b. The Average Monthly Effluent Limitation only applies if there is a discharge more than one day in a 30 day period or if there is no other effluent limitation for the parameter.

4. Effluent Limitations for Naval Graving Dock Emergency Fire Suppression Water and Salt Water Supply – Discharge Point No. NGD-004

The Discharger shall maintain compliance with the following effluent limitations for emergency fire suppression water and salt water supply water at Discharge Point No. 004, with compliance measured at Monitoring Location No. NGD-004 as described in the MRP, Attachment E of this Order:

Table 11. Effluent Limitations for Emergency Fire Suppression Water and Salt Water Supply Water - Discharge Point No. NGD-004

Parameter	Units	Effluent Limitations					
		Average Monthly ^b	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants							
Total Suspended Solids	mg/L	60	--	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75	--
pH	pH units	--	--	--	7.0	9.0	--
Priority Pollutants							
Copper, Total Recoverable	µg/L	--	--	13.8	--	--	--
Nickel, Total Recoverable	µg/L	6.8	--	13.6	--	--	--
Silver, Total Recoverable	µg/L	1.1	--	2.2	--	--	--
Zinc, Total Recoverable	µg/L	47.4	--	95.1	--	--	--
Non-Conventional Pollutants							
Settleable Solids	ml/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	a	--	--	a

- a. Compliance with the Maximum Daily Effluent Limitation and Monthly Median Effluent Limitation shall be based on the procedures specified in section V of the MRP, Attachment E, of this Order.
- b. The Average Monthly Effluent Limitation only applies if there is a discharge more than one day in a 30 day period.

B. Storm Water Risk Level Designations

1. Storm Water Risk Level Designation Definitions:

- a. ***Small Municipal (Military Base) Separate Storm Sewer System (MS4) Areas.*** Areas where no industrial activities occur. Areas designated as “Small MS4 Areas” shall be subject to the technology-based standard of maximum extent practicable (MEP) and Storm Water Management Program (SWMP) requirements contained in section IV.D of this Order.
- b. ***Industrial No Exposure Areas.*** Areas where all industrial materials and activities are protected by a “storm-resistant shelter”¹ to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials and activities include, but are not limited to, material handling² equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products.
- c. ***Industrial Low Risk Areas.*** All areas where wastes or pollutants from industrial activities are subject to precipitation, run-on, and/or runoff and which are not classified as Industrial No Exposure Areas or Industrial High Risk Areas.
- d. ***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.

2. **Annual Storm Water Risk Level Designation Report.** Annually, the Discharger shall conduct a complete and thorough survey of the Facility to identify and categorize all areas and the associated storm water drainage system(s) and outfall(s) (i.e. discharge point(s)) in accordance with the risk level designations. Storm water drainage systems and outfalls that receive storm water runoff from areas that have multiple risk levels shall be designated as having the highest risk level occurring in that area. The Discharger shall prepare and submit an Annual Storm Water Risk Level Designation Report by September 1 of each year containing

¹ “Storm-resistant shelters” include completely roofed and walled buildings or structures. They also include structures with only a top cover supported by permanent supports but with no side coverings provided material within the structure is not subject to wind dispersion (sawdust, powders, etc.), track-out, and there is no storm water discharged from within the structure that has come into contact with any materials.

² “Industrial materials and handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, or waste product.

the results of the surveys conducted in the previous July 1 through June 30 including the following information:

- a. **Master List.** An updated master list of all facility discharge locations containing discharge point identification numbers, summary activity descriptions of the drainage area(s) tributary to each discharge point, the storm water risk level designation, the longitude and latitude of the outfall location, and the name of the receiving water. The current Master Risk Designation List is included as Attachment M of this Order and the updated master list shall be in a format suitable for the replacement of Attachment M.
 - b. **Map.** A Facility map clearly labeled with (i) storm water discharge points, (ii) storm drain systems, features, drainage basin boundaries, and risk level designations, and (iii) land uses. The current Storm Water Risk Areas Map is included as Attachment B-10 of this Order and the updated map shall be in a format suitable for the replacement of Attachment B-10.
 - c. **Proposed Revisions.** A description of any proposed changes to the (i) storm water discharge points, (ii) storm drain systems, features, drainage basin boundaries, and risk levels, and (iii) land use designations from the previous year.
3. **Annual Storm Water Risk Level Designation Implementation.** The Discharger shall implement the results of the Annual Storm Water Risk Level Designation Report by October 1, unless directed otherwise in writing by the San Diego Water Board. The updated Master Storm Water Risk Designation List and Facility Map will supersede Attachments M and B-10 of this Order except for enforcement purposes, and shall become an enforceable condition of this Order on October 1, 2013, unless directed otherwise in writing by the San Diego Water Board. The San Diego Water Board retains the right to require revisions to the Discharger designated risk levels based on relevant evidence, whether direct or circumstantial, including but not limited to, evidence in the following categories:
- a. Site characteristics and location in relation to potential sources of a discharge;
 - b. Industry-wide operational practices that have led to discharges;
 - c. Evidence of poor management of materials or wastes, such as improper storage practices or inability to reconcile inventories;
 - d. Lack of documentation of responsible management of materials or wastes, such as lack of manifests or lack of documentation of proper disposal;
 - e. Physical evidence, such as analytical data, soil or pavement staining, or unusual odor or appearance;

- f. Reports and complaints;
 - g. Other agencies' records of possible or known discharges; and
 - h. Refusal or failure to respond to San Diego Water Board inquiries.
4. **Storm Water Risk Level Inspections.** The Discharger shall conduct periodic inspections throughout the year to ensure that storm water risk level designations remain applicable and on-site operations have not changed sufficiently to warrant a revised risk level. These inspections may be conducted simultaneously with inspections conducted pursuant to other sections of this Order. If at any time the Discharger identifies a necessary revision to an area's risk level, the Discharger shall implement BMPs and other requirements of the area's new risk level by the next storm event, unless additional time is approved by the San Diego Water Board. All risk level revisions shall be included in the Annual Storm Water Risk Level Designation Report.

C. Effluent Limitations for Industrial High Risk Storm Water Areas

Discharges of Industrial High Risk Storm Water to waters of the US from Discharge Points specified in Attachment M to this Order shall maintain compliance with the Maximum Daily Effluent Limitation (MDEL) for acute toxicity. The MDEL is based on the outcome of the Test of Significant Toxicity (TST) approach and the resulting percent effect at the Instream Waste Concentration (IWC). The MDEL is exceeded when a toxicity test results in a "fail," and the percent effect is greater than or equal to ~~0.40~~40% for acute toxicity tests in accordance with Compliance Determination, Section VII. of this Order.

D. Small Municipal (Military Base) Separate Storm Sewer System (MS4) Discharge Specifications

1. **Pollutant Reduction to MEP.** The Discharger shall reduce pollutants in storm water discharges from areas, designated under section IV.B.1.a of this Order as "Small Municipal (Military Base) MS4 Areas", to the technology-based standard of MEP to attain compliance with water quality standards set forth in section V, Receiving Water Limitations of this Order.
2. **Storm Water Management Plan (SWMP) Implementation.** The Discharger shall prepare and submit to the San Diego Water Board, an adequate SWMP no later than 18 months following the effective date of this Order. The Discharger shall implement the SWMP no later than 24 months following the effective date of this Order. The Discharger shall make revisions to the SWMP as necessary or required by the San Diego Water Board. The SWMP shall be designed 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. The SWMP shall serve as the framework for identification, assignment, and implementation of

measures and BMPs to control Small Municipal (Military Base) MS4 discharges. Existing programs that have storm water quality benefits should be identified in the SWMP and be a part of the Discharger's storm water program. The SWMP shall at a minimum contain the elements described in Attachment L of this Order.

E. Storm Water Action Levels (SALs) for Discharges to Chollas Creek

1. The Discharger shall attain compliance with the SALs derived from the Chollas Creek TMDL as described in the Fact Sheet and set forth in Table 12 below no later than October 22, 2018. Compliance with the SALs shall be measured by calculating the flow weighted average concentration for each pollutant in the discharges from Discharge Point Nos. NBSD-068, NBSD-070, NBSD-071, NBSD-120, and NBSD-121.

$$FWAC = \frac{\sum_{n=1}^{n=5} Q_n C_n}{\sum_{n=1}^{n=5} Q_n}$$

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 (sum of the flows from Discharge Point Nos. NBSD-068, NBSD-070, NBSD-071, NBSD-120, and NBSD-121.) For composite samples, storm water volume shall be used in the above formula instead of flow rate. Storm water volume shall be the same as reported under Table E-12 of the MRP, Attachment E to this Order.

2. Exceedances of a SAL are not violations of this Order. However, the Discharger is required under this Order to affirmatively augment and implement all necessary storm water controls and measures to reduce the discharge of the associated class of pollutant(s) towards complying with the SAL no later than October 22, 2018. Failure to appropriately consider and react to SAL exceedances in an iterative manner towards complying with the SAL no later than October 22, 2018, is a violation of this Order.

Table 12. Storm Water Action Levels for Discharges to Chollas Creek

Parameter	Units	Action Levels ^a				
		Average Monthly	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants						
Copper, Total Recoverable	µg/L	27	--	54	--	--
Lead, Total Recoverable	µg/L	16	--	33	--	--
Zinc, Total Recoverable	µg/L	210	--	420	--	--

^a. If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, these SALs will be multiplied by the appropriate WER.

3. By 12 months from the effective date of this Order, the Discharger shall submit a SAL Plan to comply with the SALs in Table 12. The SAL Plan shall include an evaluation of the source, source control BMPs to be implemented, Low Impact Development (LID) BMPs to be implemented, treatment control BMPs to be implemented, funding mechanisms, and a time schedule. The SAL Plan shall be updated each year in the annual storm water report required by the MRP and shall show measureable progress towards achieving compliance with the SALs.
4. SALs will become numeric effluent limitations on October 22, 2018 in conformance with the Waste Load Allocation applicable to NBSD and described in the Chollas Creek Metals TMDL.

F. Industrial Storm Water Discharge Specifications - No Exposure Areas, Industrial Low Risk Areas, and Industrial High Risk Areas

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 areas, designated under section IV.B.1 of this Order as Industrial No Exposure Areas, Industrial Low Risk Areas, and Industrial High Risk Areas to:
 - 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, Effluent Limitations and Discharge Specifications of this Order, and water quality standards set forth in section V, Receiving Water Limitations of this Order.

2. Storm Water Pollution Prevention Plan (SWPPP) Requirements

- a. The Discharger shall continue to maintain and implement an effective SWPPP designed to reduce or prevent the discharge of pollutants from industrial activities conducted in Industrial No Exposure Areas, Industrial Low Risk Areas, and 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 BMPs to control discharges from industrial activities in the Industrial No Exposure, Industrial Low Risk and Industrial High Risk Areas of the NBSD. The BMPs and measures shall be selected to achieve BAT/BCT and compliance with all receiving water limitations.
- c. At a minimum, the SWPPP shall contain the elements and be implemented in accordance with Attachment G of this Order.

3. Numeric Action Levels (NALs) for Industrial High Risk Areas, Industrial Low Risk Areas and Industrial No Exposure Areas

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. The Discharger shall implement corrective actions as described below.

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 sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data) and compare this to the corresponding annual NAL values in Table 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 USEPA *Industrial Stormwater Monitoring and Sampling Guide*.³ 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 discharge effluent data for the entire facility in the same manner as section IV.E of this Order to compare the corresponding annual NAL values in Table G-1;

³ USEPA. "Industrial Stormwater Monitoring and Sampling Guide." March 2009. EPA 832-B-09-003 Web 27 February 2013. <http://www.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf>.

- ii. **Instantaneous Maximum NAL Exceedance.** The Discharger shall compare all sampling and analytical results from each distinct sample (individual or combined) to the corresponding instantaneous maximum NAL values in Table G-1. An instantaneous maximum NAL exceedance occurs when two or more analytical results for 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. Exceedances of the Annual NAL or Instantaneous Maximum NAL are 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.
 - b) The Discharger with Level 1 or Level 2 (defined below) status will return to Baseline status upon eight (8) consecutive qualifying storm events resulting in no additional NAL exceedances.
 - c) The Discharger with Level 2 status will return to Baseline status upon certifying and submitting a Demonstration Technical Report pursuant to section X.B of Attachment G subject to San Diego Water Board review.
- ii. Level 1 Status - Operational Source Control
 - a) In the event that sampling results indicate a NAL exceedance, the Discharger shall immediately have Level 1 status for any and all parameters exceeded.
 - b) Within 60 days of obtaining Level 1 status, Dischargers shall complete an evaluation of the facility's SWPPP and all the industrial pollutant sources at the facility. The evaluation shall identify whether additional operational source control BMPs and/or SWPPP implementation measures are necessary to prevent or reduce all industrial pollutants in industrial storm water discharges in compliance with BAT/BCT. This evaluation shall not be limited to the parameter(s) exceeding a NAL(s).
 - c) Based upon the above evaluation, the Discharger shall, as soon as practicable, but no later than October 1 of the following reporting year:
 - 1) Implement any additional operational and/or source control BMPs and SWPPP implementation measures;
 - 2) Revise the SWPPP;
 - 3) Submit a NAL Level 1 Exceedance Report which includes the following items for each parameter that exceeded an NAL:

- (a) A summary of the Level 1 evaluation required in section IV.F.3.c.ii.b);
- (b) An implementation schedule and detailed description for additional operational and/or source control BMPs and SWPPP revisions for each parameter that exceeded a NAL; and
- (c) An implementation schedule and general description for additional operational and/or source control BMPs and SWPPP revisions for any other industrial pollutants identified in the Level 1 ERA evaluation.

iii. Level 2 Status – Treatment / Structural Control

- a) A Discharger's Level 1 status for any parameter(s) immediately and automatically changes to Level 2 status for the same parameter(s) if sampling results indicate a NAL exceedance in any subsequent reporting year for the same parameter(s).
- b) The Discharger with Level 2 status shall evaluate the facility's SWPPP and all the pollutant sources that may have contributed to the NAL exceedance(s) and identify whether additional structural and/or treatment control BMPs are necessary to prevent or reduce the industrial pollutants that exceeded the NAL(s) in industrial storm water discharges in compliance with BAT/BCT. The Discharger may limit this evaluation to the parameter(s) exceeding the NAL(s).
- c) The Discharger shall prepare, certify, and submit a NAL Level 2 Exceedance Report within 120 days of obtaining Level 2 status which shall include:
 - 1) Results of the Level 2 ERA evaluation required in section IV.F.3.b.iii.b);
 - 2) A detailed description of any additional structural and/or treatment control BMPs and SWPPP revisions for each parameter that exceeded a NAL;
 - 3) The implementation schedule for the design and construction of the identified treatment and/or structural source control BMPs; and
 - 4) If the Discharger intends to certify and submit a Demonstration Technical Report pursuant to section X.B of Attachment G in lieu of additional structural and/or treatment control BMPs and SWPPP revisions for each parameter that exceeded a NAL, the Discharger shall certify and submit a schedule and a detailed description of the tasks required to complete the Demonstration Technical Report.
- d) Based upon the above evaluation and Level 2 ERA Exceedance Report, the Discharger shall, as soon as practicable, but no later than one year from obtaining Level 2 status:
 - 1) Implement any additional structural and/or treatment control BMPs and SWPPP implementation measures;

- 2) Revise the SWPPP; and
 - 3) Complete the Demonstration Technical Report, if applicable.
- e) 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 a Level 2 ERA Demonstration Technical Report supporting a BAT/BCT Compliance Demonstration or Non-Industrial Pollutant Demonstration or Natural Background Demonstration as detailed in section X.B of Attachment G of this Order. A Demonstration Technical Report may address one or more pollutants and/or drainage areas.
- f) Once a Demonstration Technical Report is submitted, the Discharger automatically returns to Baseline status for that pollutant for NAL/ERA purposes. If a BAT/BCT Compliance Demonstration Technical Report is submitted, the Discharger remains responsible for compliance with receiving water limitations for the discharge identified in the demonstration. If a Non-Industrial Source Pollutant Demonstration Technical Report is submitted, the Discharger remains responsible for compliance with BAT/BCT and receiving water limitations for the discharge identified in the demonstration. If a Natural Background Demonstration Technical Report is submitted, the Discharger is not responsible for the identified parameter(s) in the drainage area(s) in the Demonstration Technical Report.
- g) The San Diego Water Board may review any Level 2 Exceedance Report or Demonstration Technical Report or other reporting requirements. Upon review of a Level 2 Exceedance Report or Demonstration Technical Report, the San Diego Water Board may reject the report and/or direct the Discharger to take further action(s) to comply with this Order.
- iv. Design Storm Standards for Treatment Control BMPs

All treatment control BMPs employed by the Discharger shall be designed to comply with minimum design storm standards as follows:

- a) Volume-based BMPs: The Discharger shall, at a minimum, design volume-based, treatment control BMPs to effectively treat the storm water volume generated from the 85th percentile 24-hour storm event. The Discharger shall calculate⁴ the volume to be treated using one of the following methods:

⁴ All hydrologic calculations shall be certified by a California licensed professional engineer in accordance with the Professional Engineers Act (Bus. & Prof. Code § 6700, et seq).

- 1) The volume of runoff produced from an 85th percentile storm event. Isopleth maps for the 85th percentile storm event are available on the internet;
 - 2) The volume of runoff produced by the 85th percentile storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice⁵; or
 - 3) The volume of annual runoff based on unit basin storage volume, to achieve 90% or more volume treatment by the method recommended in the latest edition of California Stormwater Best Management Practices Handbook⁶.
- b) Flow-based BMPs: Storm water flow-based BMPs shall be designed to treat an hourly flow of no less than two times the maximum hourly flow of an 85th percentile 24-hour storm. The Discharger shall calculate the flow needed to be treated using one of the following methods:
- 1) The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch/hr for each hour of a storm event;
 - 2) The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or
 - 3) The maximum flow rate of runoff, as determined using local historical rainfall records, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.
- c) In lieu of complying with the design storm standards for treatment control BMPs in this section, the Discharger may certify and submit a BAT/BCT Compliance Demonstration Technical Report (section X.B of Attachment G of this Order).
- d) The San Diego Water Board may revise the treatment design storm standard provided in this Order in writing based upon sampling data indicating that a revised design storm standard would be protective of water quality, or based upon the San Diego Water Board's determination that the treatment technology associated with the revised design storm standard meets BAT/BCT.
- v. BMP Implementation Extension Report (BIER)

⁵ Water Environment Federation (WEF). Manual of Practice No. 23 ASCE Manual of Practice No. 87, pg. 175 Equation 5.2 (1998).

⁶ California Stormwater Quality Association. Stormwater Best Management Practice New Development and Redevelopment Handbook. Web. 28 February 2013. <<http://www.cabmphandbooks.com/Development.asp>>.

- a) The Discharger may document the need for additional time to implement treatment and/or structural control BMPs required under ERA Level 2 and/or to complete a Demonstration Technical Report by certifying and submitting a BIER. The BIER shall include the following items, as applicable:
 - 1) Reasons for the time extension;
 - 2) A description and a schedule for implementing any BMPs subject to the BIER;
 - 3) A description of any additional operational source controls and/or temporary treatment/structural controls that will be implemented while permanent BMPs are being constructed; and
 - 4) A description and schedule for completing specific tasks necessary to support the Demonstration Technical Report.

- b) The San Diego Water Board may review BIERs for completeness and adequacy. The San Diego Water Board may reject a BIER, identify additional tasks necessary to complete the Demonstration Technical Report, require the Discharger to implement additional temporary BMPs, or revise the time allowed to construct and/or implement the BMPs.

G. Non-Storm Water Discharge Specifications

- 1. Non-Storm Water Discharges.** The following categories of non-storm water discharges from Small MS4s are authorized under this Order unless the Discharger or the San Diego Water Board identifies the discharge category as a significant source of pollutants to waters of the US as provided in section IV.G.3 below:
 - a. Diverted stream flows;
 - b. Rising ground waters;
 - c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
 - d. Uncontaminated pumped ground water, foundation drains, crawl space pumps and, footing drain discharges not subject to NPDES Permit No. CAG919001, (General Waste Discharge Requirements for Discharges from Temporary Groundwater Extraction and Similar Waste Discharges to San Diego Bay, Tributaries Thereto under Tidal Influence, and Storm Drains or Other Conveyance Systems Tributary Thereto);
 - e. Springs;
 - f. Drinking fountain water and emergency eye wash water;

- g. Atmospheric condensate including refrigeration, air conditioning and compressor condensate;
 - h. Flows from riparian habitats and wetlands;
 - i. Discharges from potable water sources not subject to an NPDES permit such as NPDES Permit No. CAG679001 (General Waste Discharge Requirements for Discharges of Hydrostatic Test Water and Potable Water to Surface Waters and Storm Drains or Other Conveyance Systems) or NPDES Permit No. CAG140001 (Statewide National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges to Waters of the United States) or subsequent superseding NPDES renewal permits;
 - j. Individual residential car washing;
 - k. Dechlorinated swimming pool discharges excluding saline swimming pool discharges;
 - l. Seawater infiltration where the seawater is discharged back into the seawater source;
 - m. Building fire suppression system maintenance discharges (e.g. sprinkler line flushing) not otherwise regulated by this Order; and
 - n. Non-storm water discharges explicitly authorized elsewhere in this Order.
- 2. Conditions for Authorized Non-storm Water Discharges.** The non-storm water discharges identified in section IV.G.1 above are authorized by this Order only if all of the following conditions are satisfied:
- a. The non-storm water discharges are not in violation of any San Diego Water Board requirement;
 - b. The non-storm water discharges are not in violation of any municipal or federal agency ordinance or requirement;
 - c. BMPs are included in the SWMP for MS4 areas and in the SWPPP for industrial areas that are designed to:
 - i. prevent or reduce the contact of non-storm water discharges with significant materials or equipment; and
 - ii. minimize, to the extent practicable, the flow or volume of non-storm water discharges;
 - d. The non-storm water discharges do not contain quantities of pollutants that may cause or contribute to an exceedance of a water quality standard(s);

- e. The non-storm water discharges and identified sources in industrial areas are visually inspected quarterly in accordance with the SWPPP to ensure adequate BMP implementation and effectiveness; and
 - f. The non-storm water discharges from Industrial Low Risk and Industrial High Risk Areas are reported in the Annual Report required under section IX.C of the MRP.
- 3. Identification of Non-Storm Water Significant Sources of Pollutants.** Where the Discharger or the San Diego Water Board identifies a category as a significant source of pollutants, the category must be addressed as an illicit discharge and prohibited through ordinance, order, or similar means unless the discharge is from a non-anthropogenic source. For a non-anthropogenic source determined to be a significant source of pollutants, the Discharger must either prohibit the discharge category or develop and implement appropriate control measures to prevent the discharge of pollutants to the MS4.
- 4. Fire Fighting Discharges.** Emergency fire-fighting flows (i.e., flows necessary for the protection of life or property) do not require BMPs and need not be prohibited. This does not include relief water from the emergency fire suppression system discharged through Discharge Point No. NGD-004.
- 5. Non-Fire Fighting Discharges.** As part of the SWMP, the Discharger must develop and implement a program to address pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes and maintenance activities) which are hereby identified as significant sources of pollutants to waters of the US.
- 6. Utility Vault & Manhole Dewatering Discharges.** The Discharger shall reduce or prevent pollutants associated with utility vault & manhole dewatering discharges through implementation of BAT for toxic and non-conventional pollutants, and BCT for conventional pollutants.
- 7. Seawater Cooling and Overboard Discharge.** To reduce the production and discharge of seawater cooling overboard discharges when vessels are in dry dock, the Discharger shall consider, and if practical and feasible, implement the use of shore-based power for vessels in dry dock if:
- a. Shore power is readily available for vessel owner/operators from utilities or port authorities;
 - b. Shore-based power supply systems are capable of providing all needed electricity required for vessel operations; and
 - c. The vessel is equipped to connect to shore-based power and such systems are compatible with the available shore power.

8. Incidental Runoff from Landscaped Areas. Incidental runoff is defined as unintended amounts (volume) that escapes the area of intended use. Incidental runoff, not controlled by the following requirements, is prohibited:

- a. Detect leaks (e.g. broken sprinkler heads) and correct the leaks within 72 hours of learning of the leak;
- b. Properly design and aim sprinkler heads; and
- c. Eliminate irrigation during precipitation events.

V. RECEIVING WATER LIMITATIONS

A. The receiving water limitations set forth below for waters of the US within the San Diego Region 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 regulated under this Order shall not cause or contribute to violations of these receiving water limitations.

1. The San Diego Water Board's Basin Plan, including beneficial uses, water quality objectives, and implementation plans;
2. State Water Board water quality control plans and policies including the:
 - a. Thermal Plan;
 - b. Bays and Estuaries Policy;
 - c. State Implementation Policy;
 - d. Sediment Quality Policy;
 - e. Ocean Plan; and
 - f. Antidegradation Policy (State Water Board Resolution No. 68-16).
3. Priority pollutant criteria promulgated by the USEPA through the:
 - a. NTR⁷ (promulgated on December 22, 1992 and amended on May 4, 1995); and

⁷ 40 CFR 131.36

b. CTR. ^{8,9}

B. Discharges from the Facility shall not by itself or jointly with any other discharge(s) cause or contribute to violations of the following receiving water limitations:

1. Physical Characteristics

- a.** 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]
- b.** The discharge of waste shall not cause aesthetically undesirable discoloration of the bay surface. [Ocean Plan - BPJ]
- c.** Natural light shall not be significantly reduced as the result of the discharge of waste. [Ocean Plan - BPJ]
- d.** The rate of deposition of inert solids and the characteristics of inert solids in bay sediments shall not be changed such that benthic communities are degraded. [Ocean Plan - BPJ]
- e.** Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses. [Basin Plan]
- f.** 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]
- g.** Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses. [Basin Plan]
- h.** Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. [Basin Plan]
- i.** 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 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.

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

⁹ If a water quality objective and a CTR criterion are in effect for the same priority pollutant, the more stringent of the two applies.

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]

- j. 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]

2. Chemical Characteristics

- a. 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]
- b. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions. [Ocean Plan - BPJ]
- c. 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]
- d. The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life. [Ocean Plan - BPJ]
- e. 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]
- f. 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]
- g. 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]

3. Biological Characteristics

- a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded. [Ocean Plan - BPJ]
- b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered. [Ocean Plan - BPJ]

- c. 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]

4. Radioactivity

- a. 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]
- b. The radioactivity in the receiving waters shall not exceed limits specified in Title 17, Division 5, Chapter 4, Group 3, Article 3, Section 32069 of the California Code of Regulations.

5. Toxicity

- a. 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]
- b. Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities. [Bays and Estuaries Plan - SQO]
- c. 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 - SQO]

C. Corrective Actions for Receiving Water Limitation Violations. Upon determination by the Discharger or written notification by the San Diego Water Board that discharges are causing or contributing to an exceedance of Receiving Water Limitations in section V.A. and B. of this Order, the Discharger shall implement the following corrective actions at a minimum:

1. Conduct a facility evaluation to determine whether there are pollutant source(s) within the Facility and whether BMPs described in the SWPPP, SWMP, BMP Plans, Pollution Prevention Plan (PPP), and other requirements of this Order have been properly implemented.
2. Conduct an assessment of the Facility's SWPPP, SWMP, BMP Plans, PPP, and other requirements of this Order to determine whether additional BMPs or implementation measures are necessary to prevent or reduce pollutants in storm water discharges to meet Receiving Water Limitations, section V of this Order.

3. Prepare a certification, based upon the Facility evaluation and assessment required above, that certifies either:
 - a. Additional BMPs and/or implementation measures have been identified and included in the appropriate plan to meet Receiving Water Limitations, as specified in section V of this Order; or
 - b. No additional BMPs or implementation measures are required to reduce or prevent pollutants in storm water discharges to meet Receiving Water Limitations, as specified in section V of this Order; or
 - c. There are no sources of the pollutants at the Facility.
4. If a certification states that no additional BMPs or implementation measures are required to reduce or prevent pollutants in storm water discharges to meet Receiving Water Limitations specified in section V of this Order, the certification must show why the exceedance occurred and why it will not occur again under similar circumstance(s).
5. Implement additional BMPs and corrective measures as soon as is practicable.
6. Prepare and submit a report, within 60 days, to the San Diego Water Board that:
 - a. Describes the facility evaluation;
 - b. Describes the assessment of the SWPPP, SWMP, BMP Plans, PPP, and other requirements of this Order;
 - c. Identifies the BMPs and corrective actions that are currently being implemented to assure compliance with Receiving Water Limitations;
 - d. Identifies additional BMPs and corrective actions that will be implemented to assure compliance with Receiving Water Limitations with an implementation schedule for any additional BMPs or corrective actions not yet implemented; and
 - e. Includes the certification required above. The implementation schedule shall not exceed 90 days from the date of the determination of the exceedance of Receiving Water Limitations as specified in section V of this Order.
7. Submit any modifications to the report required by the San Diego Water Board within 30 days of notification.
8. Within 30 days following submittal of the report or modifications to the San Diego Water Board, the Discharger shall revise the SWPPP, SWMP, BMP Plans, PPP, and other plans required by this Order and Monitoring Program to incorporate the

additional BMPs and corrective actions that have been and will be implemented, implementation schedule, and any additional monitoring required.

9. 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.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
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 13050.
 - b. This Order expires on October 31, 2018, after which, the terms and conditions of this permit are automatically continued pending issuance of a new Order, provided that all requirements of USEPA's NPDES regulations at 40 CFR 122.6 and the State's regulations at CCR Title 23, section 2235.4 regarding the continuation of expired Orders 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 USEPA personnel and/or their authorized representative at all times.

B. Monitoring and Reporting Program (MRP) Requirements

1. The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.
2. Reports required to be submitted to the San Diego Water Board shall be sent to the following address and phone numbers unless the San Diego Water Board office is relocated:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, CA 92108

Notifications required to be provided to the San Diego Water Board shall be made to:

Telephone – (619) 516-1990
Facsimile – (619) 516-1994

3. After notification by the State Water Board or the San Diego Water Board, the Discharger may be required to electronically submit self-monitoring reports. Until such time as electronic submission of self-monitoring reports is required, the Discharger shall submit discharge monitoring reports (DMRs) in accordance with the requirements described further below.

DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR to:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814

All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (USEPA Form 3320-1). Forms that are self-generated cannot be accepted unless they follow the exact same format of USEPA Form 3320-1.

C. Special Provisions

1. Reopener Provisions

- a. This Order may be re-opened and modified in accordance with NPDES regulations at 40 CFR Part 122 and 124, as necessary, to include additional conditions or limitations based on newly available information or to implement any USEPA approved, new, State water quality objective.
- b. This Order may be re-opened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- c. This Order may be re-opened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122, 124, and 125.
 - 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.
- d.** This Order may be re-opened and modified, to incorporate additional limitations, prohibitions, and requirements, based on the results of additional monitoring required by the MRP.
- e.** This Order may be reopened for modification of the receiving waters monitoring and reporting requirements and/or special studies requirements, at the discretion of the San Diego Water Board. Such modification(s) may include, but is (are) not limited to, revision(s): (i) to implement recommendations from Southern California Coastal Water Research Project (SCCWRP), (ii) to develop, refine, implement, and/or coordinate a regional monitoring program, and/or (iii) 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.
- f.** In accordance with 40 CFR Parts 122 and 124, this permit may be re-opened and modified to include effluent limitations or permit conditions to address acute or chronic toxicity in the effluent or receiving waterbody, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to acute or chronic toxicity.
- g.** The Discharger may submit a report as detailed in section 1.4.4 of the SIP demonstrating that the required conditions are met for intake water credits. Where the conditions stipulated for intake water credits in the SIP are satisfied, the San Diego Water Board may reopen this Order to modify effluent limitations allowing the Facility to discharge a mass and concentration of the intake water pollutant that is no greater than the mass and concentration found in the Facility's intake water.
- h.** 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.** Future Development of Chronic Toxicity Effluent Limitations for Storm Water Discharges from Industrial High Risk Areas

The San Diego Water Board may establish chronic toxicity effluent limitations for Industrial High Risk Areas storm water discharges in the future. In developing such effluent limitations, an instream waste concentration factor of 100 percent

will be assumed whenever mixing zones or dilution credits are not authorized by the San Diego Water Board.

The Discharger may, at their discretion, propose a work plan for a detailed study to support a Basin Plan Amendment on the possible application of chronic toxicity effluent limitations with mixing zones and dilution credits applicable to industrial storm water discharges to San Diego Bay. The study may also encompass the possible application of mixing zones and dilution credits applicable to municipal storm water discharges.

The work plan shall include the following elements:

- i. A detailed proposal describing the goals, technical approach, methods, data evaluation framework, and a schedule for completion of all study activities and submission of a draft Basin Plan Amendment for consideration of adoption by the San Diego Water Board;
- ii. Formation of a stakeholder advisory panel with the San Diego Water Board, USEPA, federal and state resource agencies, representatives of environmental non-governmental organizations, San Diego County Department of Health Services, and representatives of storm water dischargers to San Diego Bay. The panel shall be notified of proposed work and results; and the panel shall be provided opportunity for comment;
- iii. An analysis of storm water impacts to San Diego Bay that considers circulation and flushing, pollutant movement and accumulation, and fate to determine mixing zones and dilution factors appropriate for storm water discharges to San Diego Bay. The analysis shall include consideration of relevant State of California and USEPA polices and guidance pertaining to the establishment of mixing zones and dilution credits in receiving waters; and
- iv. Provisions for establishment of an external scientific peer review panel comprised of experts in the fields of plume dilution modeling, toxicology, and marine ecology to guide the technical approach, review the study results and make recommendations for a proposed Basin Plan Amendment and toxicity monitoring strategies for storm water discharges.

b. Toxicity Reduction Evaluations

See section V.E of the MRP (Attachment E) for an overview of Toxicity Reduction Evaluation (TRE) Requirements.

3. Best Management Practices and Pollution Prevention

- a. Best Management Practices and Pollution Prevention Plan for Utility Vault and Manhole Dewatering Discharges (Utility Vault Plan)**

The Discharger shall continue to implement a Utility Vault Plan for utility vault and manhole dewatering discharges that prevents the discharge of pollutants into the receiving waters at levels that would contribute to the degradation of the receiving waters or otherwise negatively affect the beneficial uses of the receiving water. At a minimum, the Utility Vault Plan shall be developed and implemented in accordance with Attachment H to prevent, or minimize the potential for, the release of pollutants to waters of the State and waters of the US.

b. BMP Plan for Pier Boom, Fender, Mooring Cleaning Discharges, Graving Dock Pre-flood Cleaning, and Weight Testing Water.

The Discharger shall develop and implement a BMP Plan for discharges from pier boom, fender, and mooring cleaning (Discharge Point No. BC-001) and weight testing water (various discharge locations) and shall continue to implement a BMP Plan for discharges from the Graving Dock (Discharge Point Nos. NGD-001 through NGD-004) that prevents the discharge of pollutants into the receiving waters at levels that would contribute to the degradation of the receiving waters or otherwise negatively affect the beneficial uses of the receiving water. At a minimum, the BMP Plan shall be developed and implemented in accordance with Attachment I to prevent, or minimize the potential for, the release of pollutants to waters of the State and waters of the US.

c. Pollution Prevention Plan

The Discharger shall prepare and implement a Pollution Prevention Plan for steam condensate discharges (Discharge Point Nos. SC-001 through SC-175) for copper, lead, mercury, zinc; and Graving Dock deflooding water and salt water rinse water (Discharge Point Nos. NGD-001 and NGD-002) for copper; for caisson ballast dewatering (Discharge Point No. NGD-003) for cadmium, copper, nickel, silver, and zinc; fire suppression water and salt water supply water (Discharge Point No. NGD-004) for copper, nickel, silver, and zinc; and high risk industrial storm water for acute toxicity (Discharge Points specified in Attachment M to this Order, as amended annually pursuant to section IV.B of this Order).

The Pollution Prevention Plan shall be developed in accordance with Water Code section 13263.3(d)(2). The minimum requirements for the Pollution Prevention Plan are outlined in the Fact Sheet (section VII.C.3.e of Attachment F of this Order). A work plan and time schedule for preparation of the Pollution Prevention Plan shall be completed and submitted to the San Diego Water Board within 3 months of the effective date of this Order. The Pollution Prevention Plan shall be completed and submitted to the San Diego Water Board within nine (9) months of the effective date of this Order.

4. Construction, Operation and Maintenance Specifications

- a. All waste treatment, containment, and disposal facilities shall be protected against 100-year peak stream flows as defined by the San Diego County Flood Control Agency.
- b. All waste treatment, containment, and disposal facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year frequency 24-hour storm.

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 Regional and State Water Boards, 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. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by section VII.B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, 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 only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by section VII.B above for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

E. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

F. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

G. Median Monthly Effluent Limit (MMEL)

If the median result of three independent toxicity tests, conducted within the same calendar month, and analyzed using the 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.

H. Acute Toxicity

1. The MDEL for acute 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 ~~0.40~~40%.
2. For this discharge, the determination of “Pass” or “Fail” from a single-effluent concentration acute toxicity test at the 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 (Ho) below is reported as “Pass” in accordance with the TST approach:

Ho: Mean response (100 percent effluent) \leq 0.80 × Control mean response

Fail

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

4. The presence or absence of acute toxicity shall be determined as specified in section V of the MRP.

I. Chronic Toxicity

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~~50%.
2. MMEL for chronic toxicity is exceeded and a violation will be flagged when the median results of three independent toxicity tests, conducted within the same calendar month, and analyzed using the TST, (i.e. two out of three) is a “fail.”
3. For this discharge, the determination of “Pass” or “Fail” from a single-effluent concentration chronic toxicity test at the 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).
4. 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 (Ho) below is reported as “Pass” in accordance with the TST approach:

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

Fail

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

5. The presence or absence of chronic toxicity shall be determined as specified in section V of the MRP.

J. Average Annual Effluent Limitation (AAEL)

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a 12-month period exceeds the AAEL for a given parameter, this will represent a single violation for the purpose of assessing mandatory minimum penalties under Water Code section 13385. Because the AAEL is a rolling average calculated once each month, 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. Each discharge day of the year is determined to be either in compliance or out of compliance for the AAEL only once, during the month in which the day falls. For any one calendar month

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during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month and no penalty assessed. Until there is 12 months of effluent and receiving water data under this Order, the effluent and receiving water samples collected under the previous Order shall be used to determine compliance with the AAEL. The Discharger may submit for San Diego Water Board review and approval, an alternative statistical method for calculating annual average effluent limits to demonstrate that the mass and concentration of the pollutant in the discharge does not exceed the mass and concentration of the pollutant in the intake water.

ATTACHMENT A – DEFINITIONS

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:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n 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 USC 1251 et seq.

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. [CWC § 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.

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.

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 USEPA 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 1/4 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.

Industrial Low Risk Areas

All areas where wastes or pollutants from industrial activities are subject to precipitation, run-on, and/or runoff which are not classified as Industrial No Exposure Areas or Industrial High Risk Areas.

Industrial No Exposure Areas

Areas where all industrial materials and activities are protected by a storm resistant shelter¹ to prevent exposure to rain, snow, snowmelt, and/or runoff. "Industrial materials and activities" include, but are not limited to, material handling² equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products.

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.

¹ "Storm-resistant shelters" include completely roofed and walled buildings or structures. They also include structures with only a top cover supported by permanent supports but with no side coverings provided material within the structure is not subject to wind dispersion (sawdust, powders, etc), track-out, and there is no storm water discharged from within the structure that has come into contact with any materials.

² "Material handling activities" include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, or waste product.

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 title 40 of the Code of Federal Regulations, 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. [CWC § 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).

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.” [CWC § 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 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 CWC section 13263.3(d)(2).

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 7 days without a storm water discharge.~~ A Qualifying Storm Event (QSE) is a precipitation event that produces a discharge for at least one drainage area; and is preceded by 48 hours with no discharge from any drainage area.

Reporting Level (RL)

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. 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.

Satellite Collection System

The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Seawater Cooling Overboard Discharge

The Discharge of seawater from a dedicated system that provides noncontact cooling water for other vessel systems.

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).

Small Municipal (Military Base) Separate Storm Sewer System (MS4) Areas

Areas where no industrial activities occur. Areas designated as "Small MS4 Areas" shall be applicable to the Storm Water Management Program (SWMP) requirements contained within section IV.D.2 of this Order.

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 Action Level (SAL)

Storm Water Action Levels (SALs) implement the TMDL for metals in Chollas Creek. The SALs were calculated using the Waste Load Allocation from the TMDL and the methodology from the State Implementation Plan (SIP).

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.

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.

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.)

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 – MAPS

Figure B-1. Facility Map

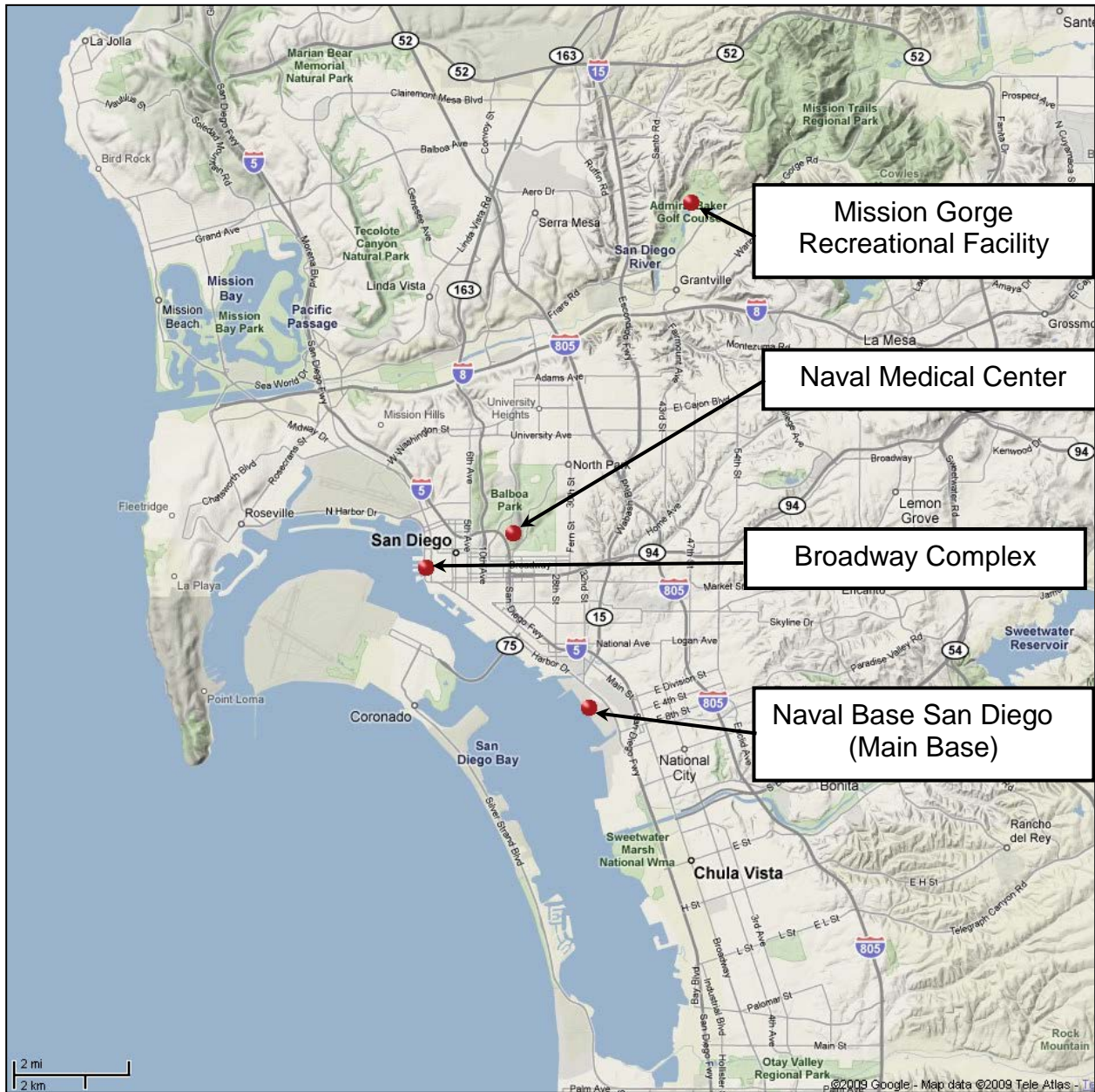


Figure B-2. Industrial Storm Water Discharges at NBSD and USN Graving Dock – North Outfalls

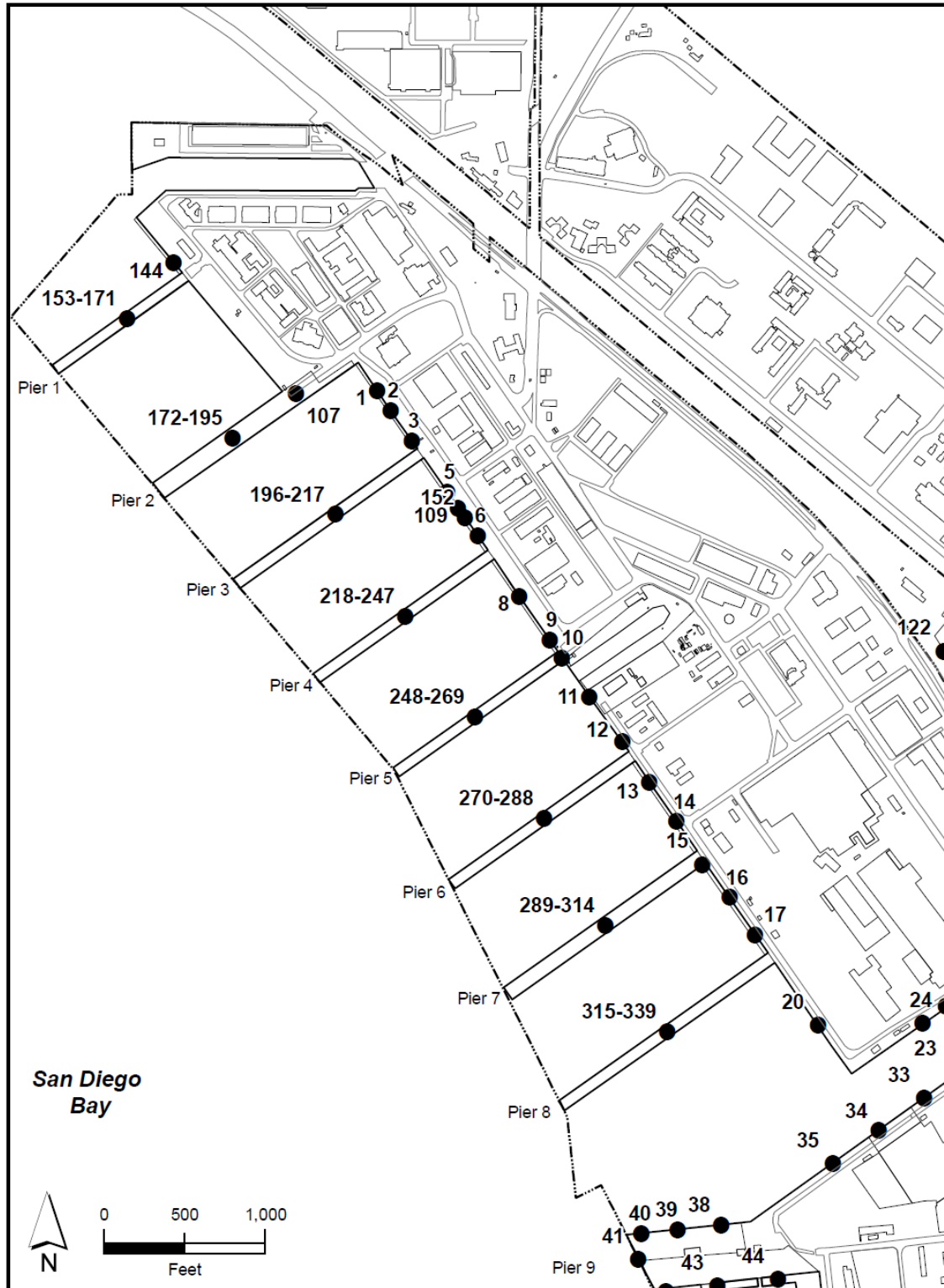


Figure B-3. Industrial Storm Water Discharges at NBSD and USN Graving Dock – South Outfalls

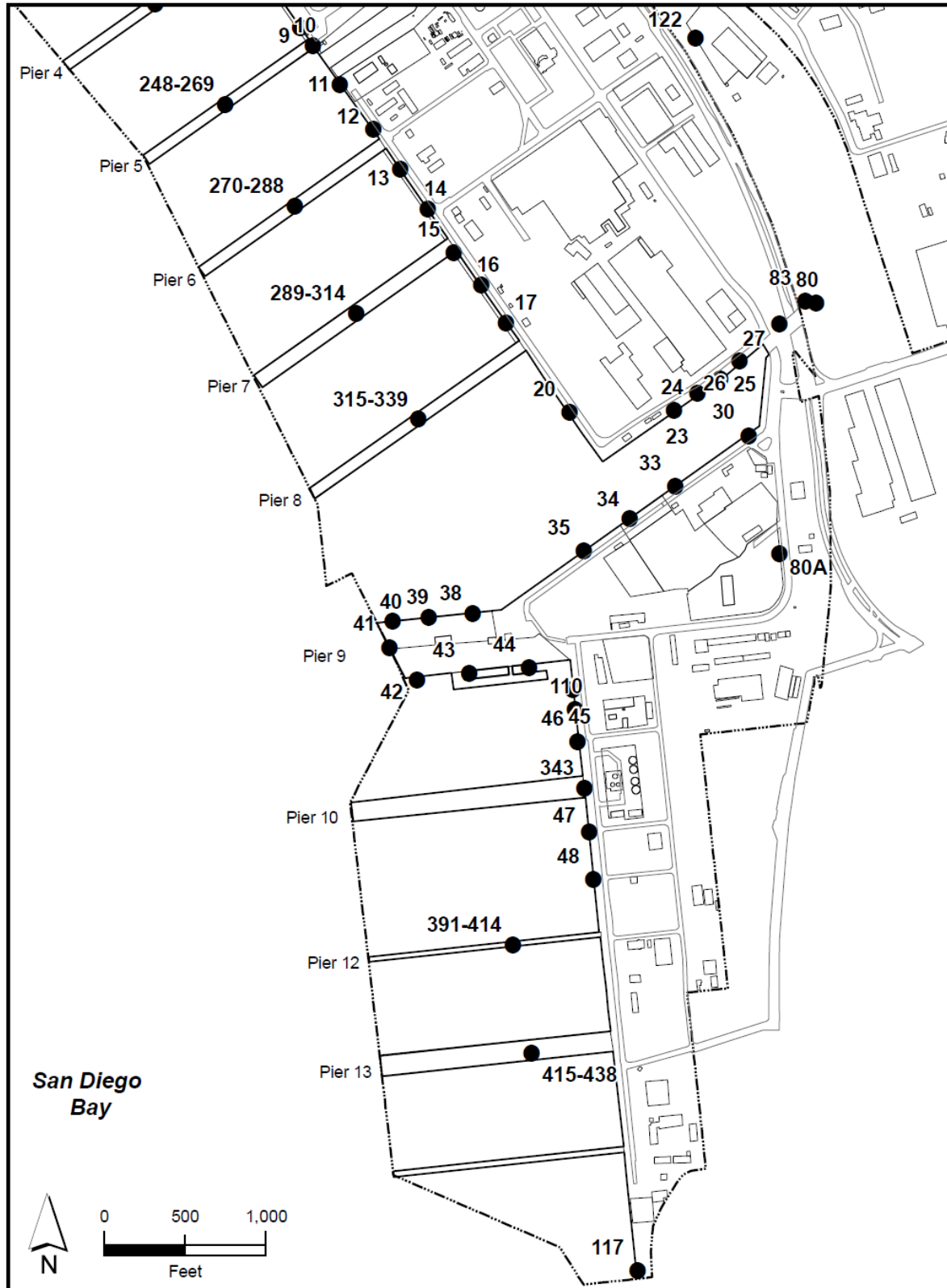


Figure B-4. Steam Condensate Discharges at NBSD – North Outfalls

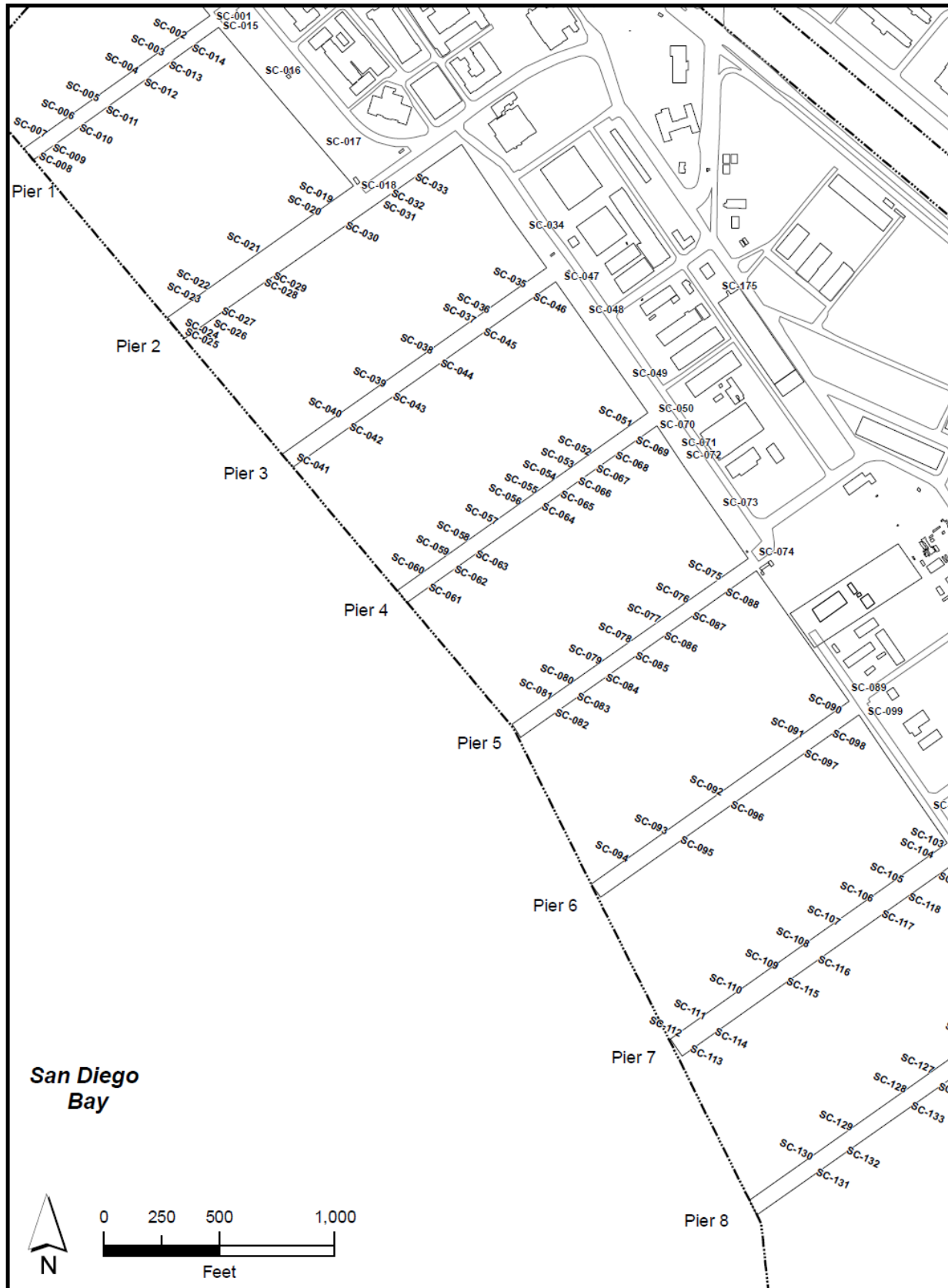


Figure B-5. Steam Condensate Discharges at NBSD – South Outfalls

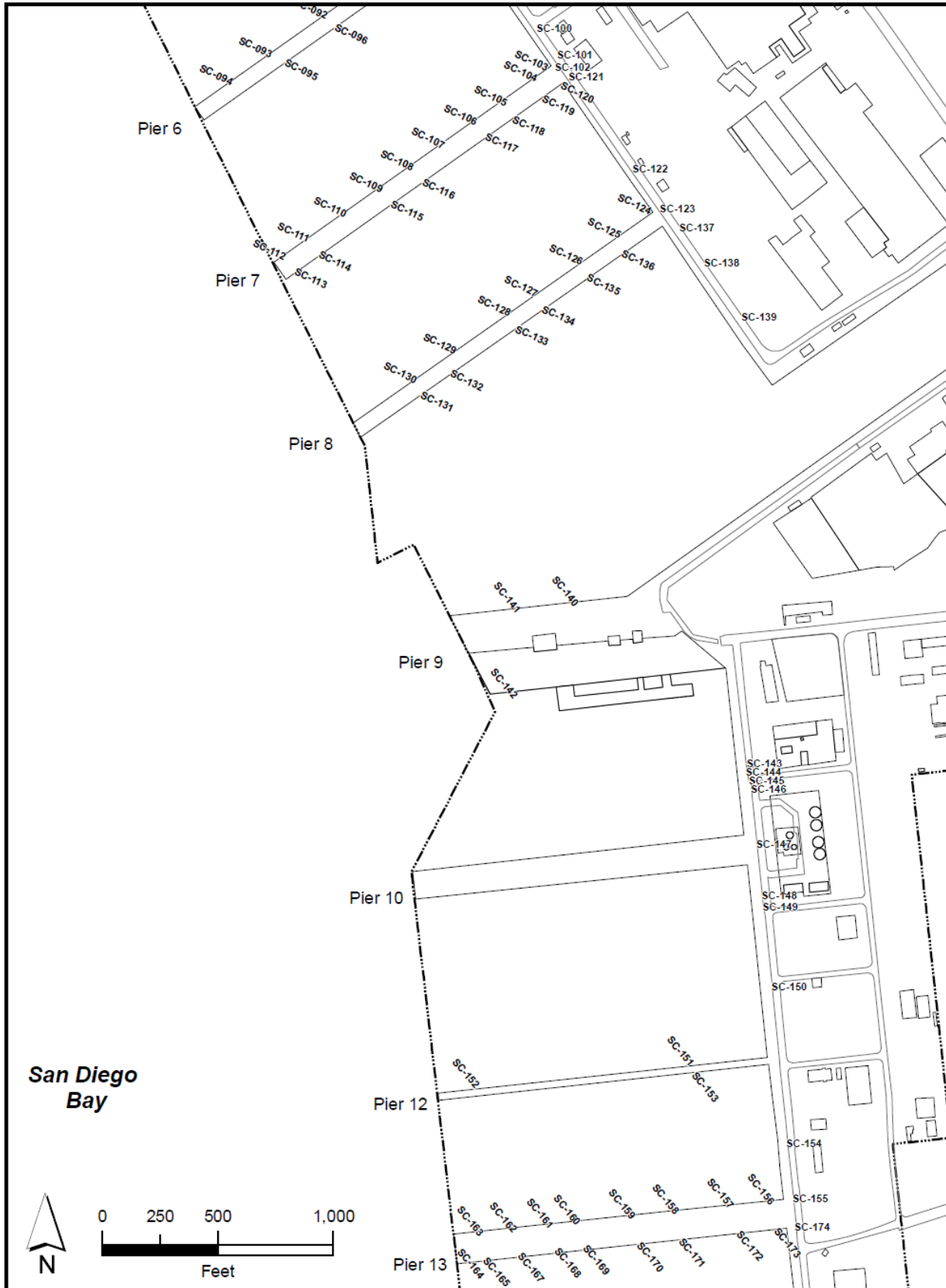


Figure B-6. Pier Boom, Fender, and Mooring Cleaning Discharges at NBSD

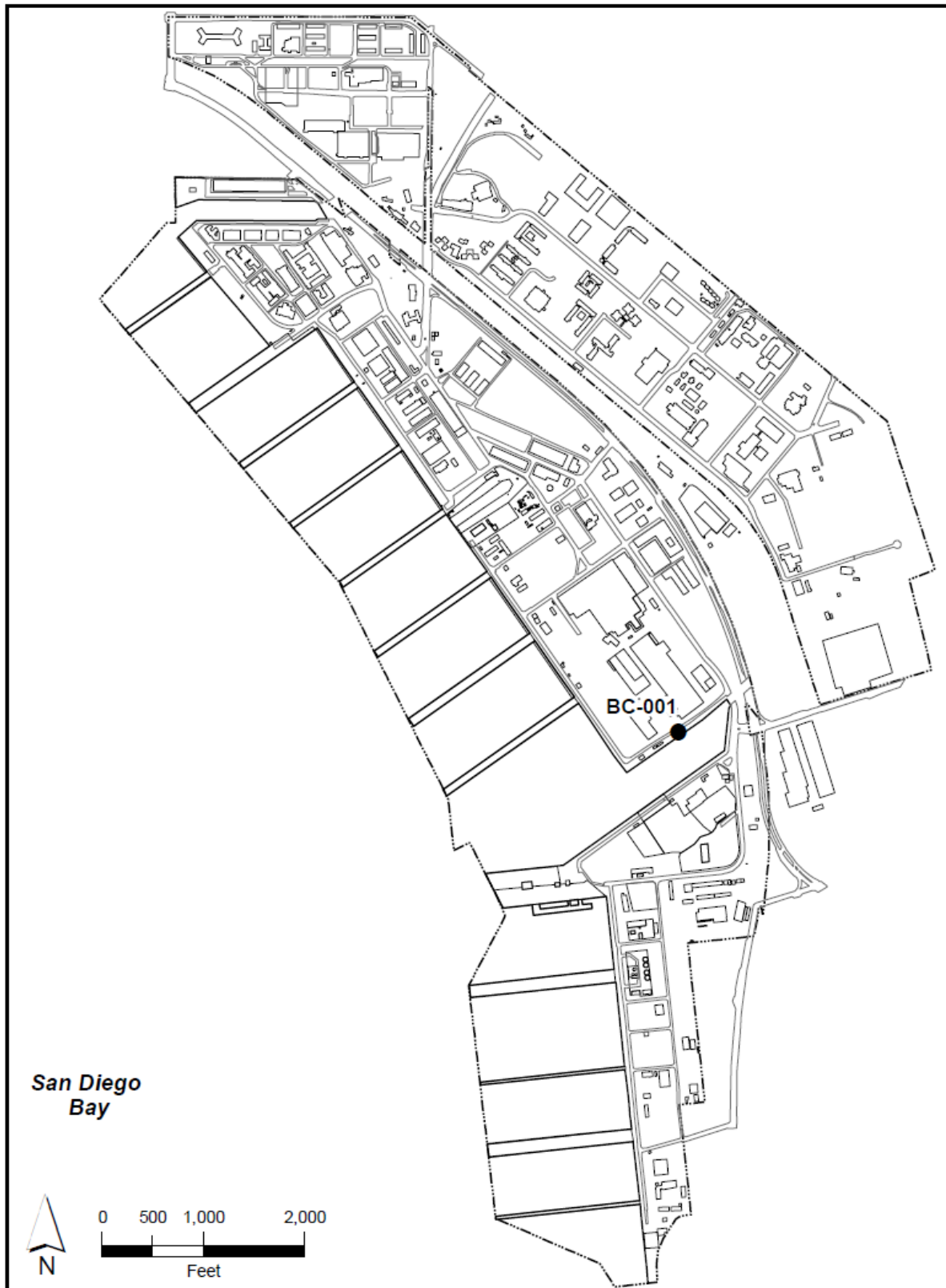


Figure B-7. Utility Vault and Manhole Dewatering Discharges at NBSD

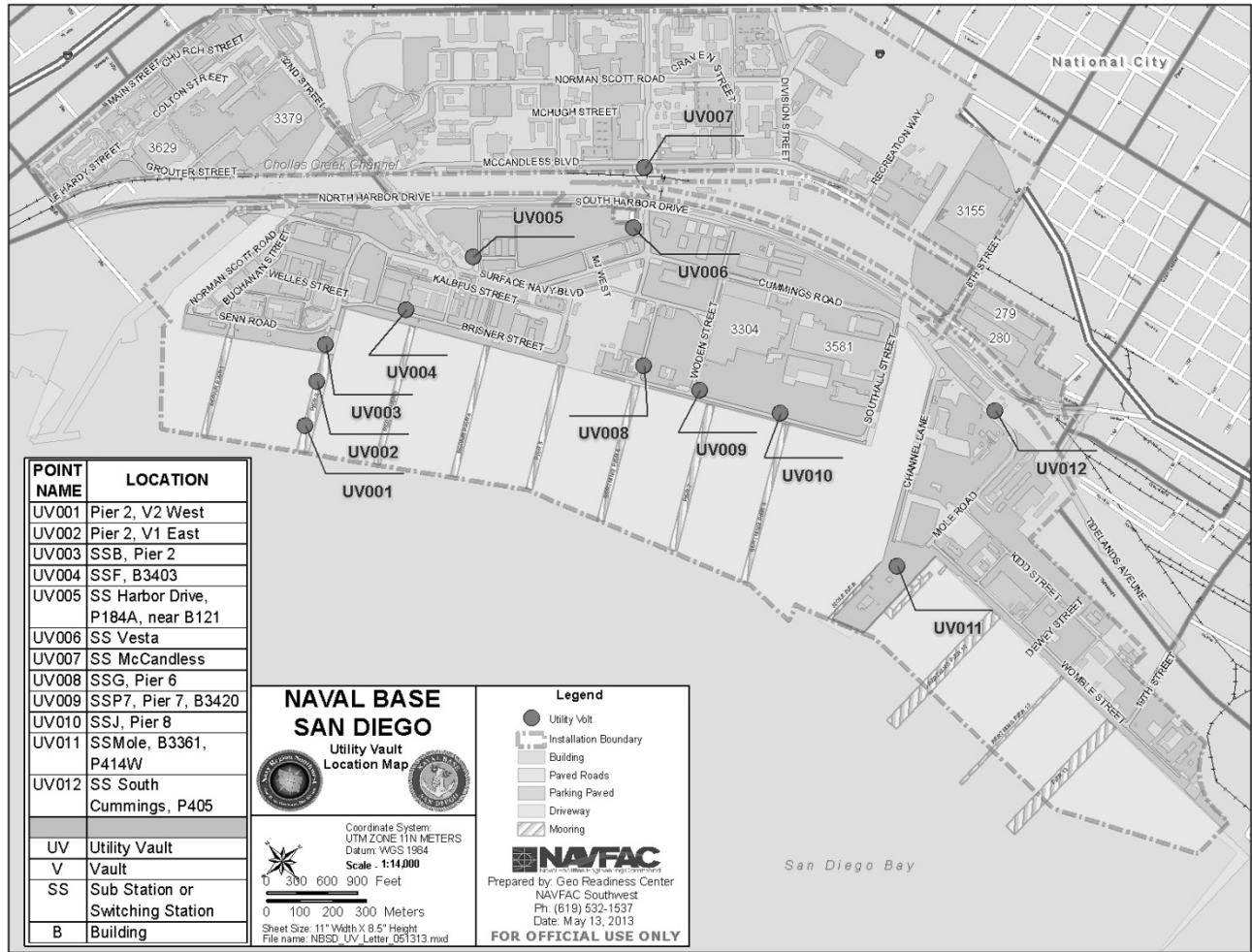


Figure B-8. USN Graving Dock at NBSD

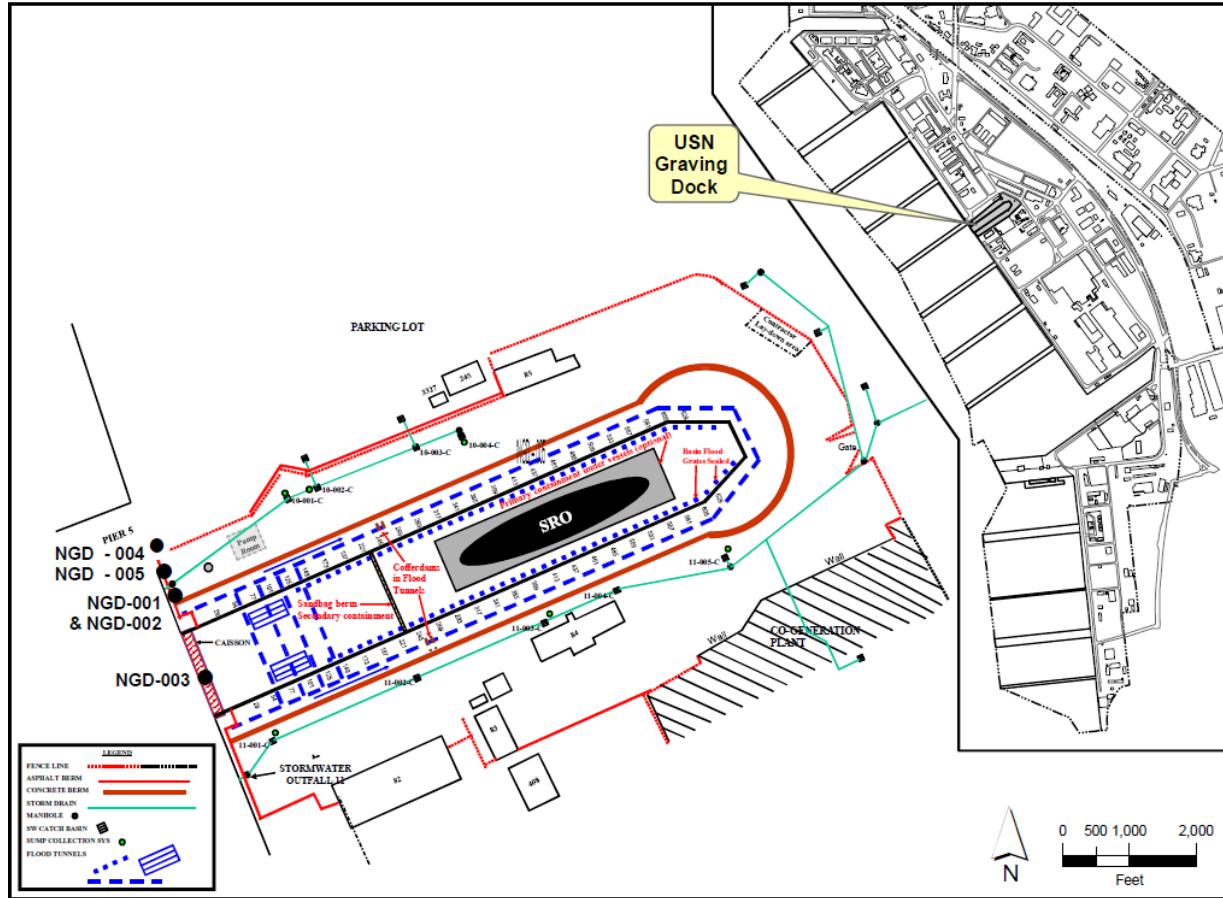
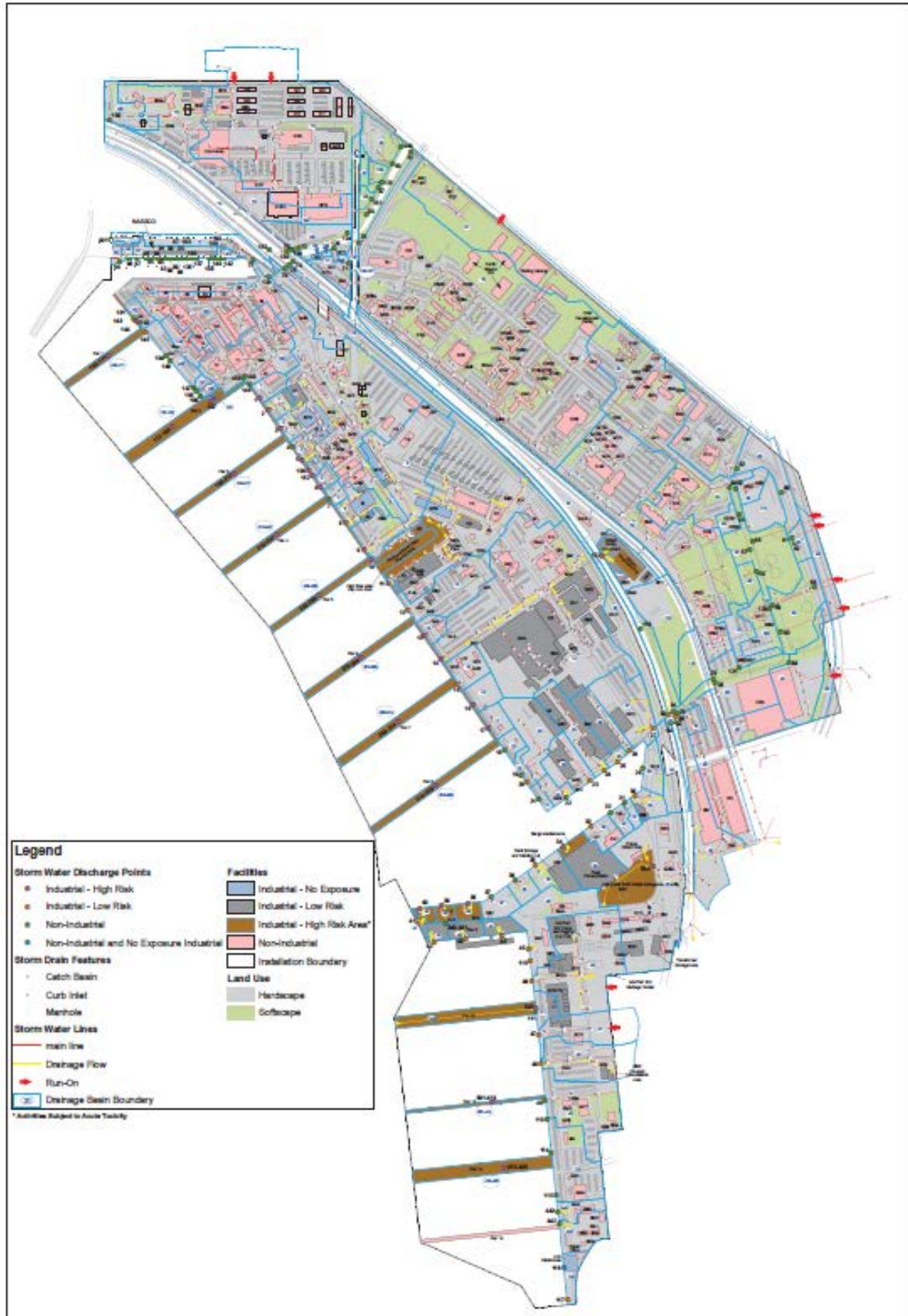


Figure B-9. USN Graving Dock at NBSD

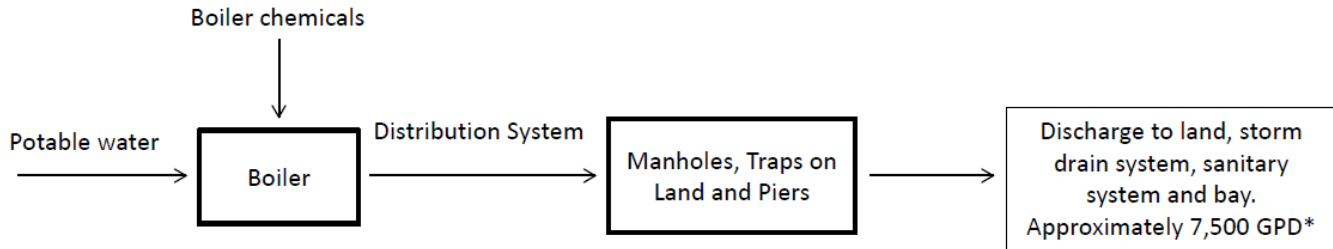


Figure B-10. Storm Water Risk Areas dated November 1, 2010



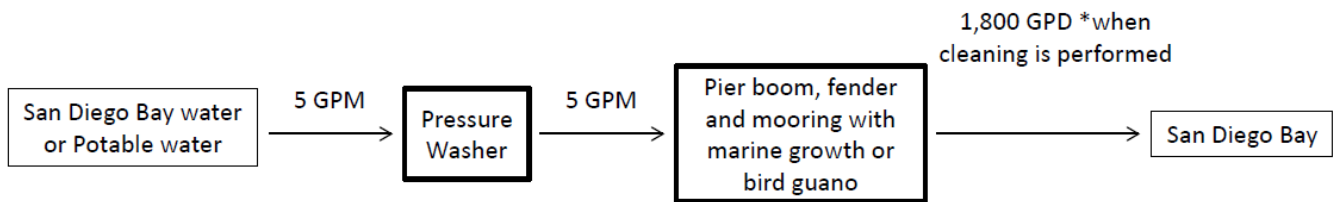
ATTACHMENT C – FLOW SCHEMATIC

Figure C-1. Steam Condensate Discharge Line Drawing



*Discharge approximation based on an estimate from field measurements at 15 discharge points. The total approximation of steam condensate discharge, from all 175 discharge points, is 7,500 gallons per day or 2.73 million gallons per year.

Figure C-2. Pier Boom, Fender, and Mooring Cleaning Line Drawing



*The pressure washer discharges 5 gallons per minute for 6 hours a day(1,800 GPD) when cleaning is performed. Cleaning is performed once per quarter for 2-3 weeks. Assuming 3 weeks of cleaning, the total discharge volume is estimated to be 108,000 gallons per year.

Figure C-3. Utility Vault and Manhole Dewatering Line Drawing

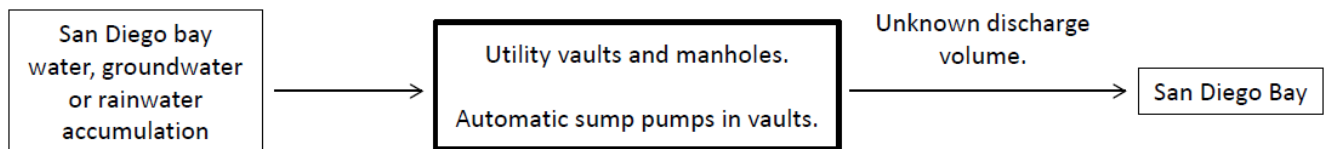
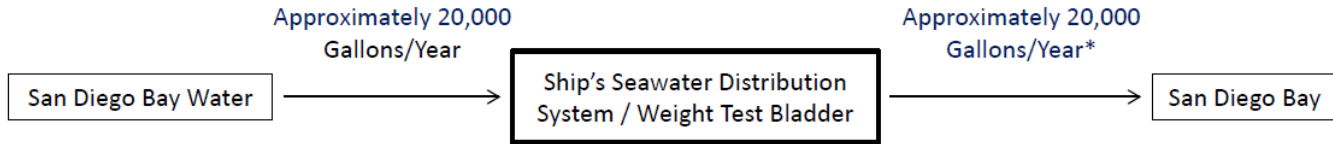
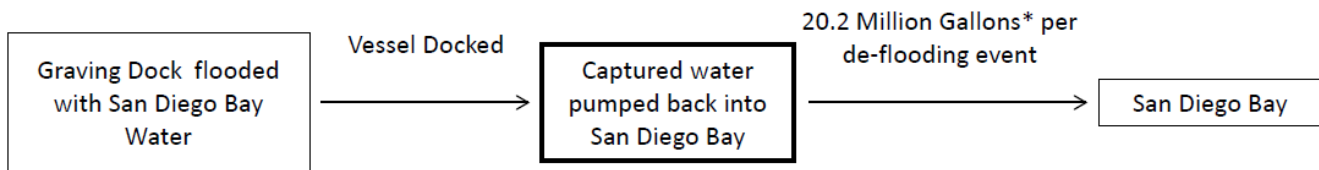


Figure C-4. Weight Test Water Line Drawing



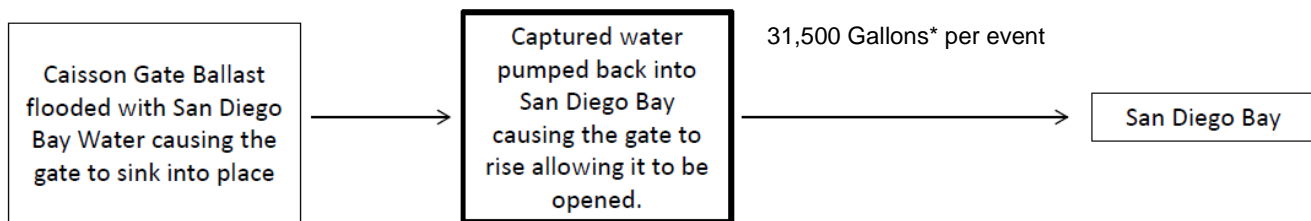
* Weight tests using bladders of approximately 2,648 gallons are performed approximately 4 times per year. A weight test using a bladder of approximately 9,166 gallons is performed approximately once per year. This amounts to a total estimated discharge of approximately 20,000 gallons per year of weight test water.

Figure C-5. Graving Dock De-Flooding Event Line Drawing



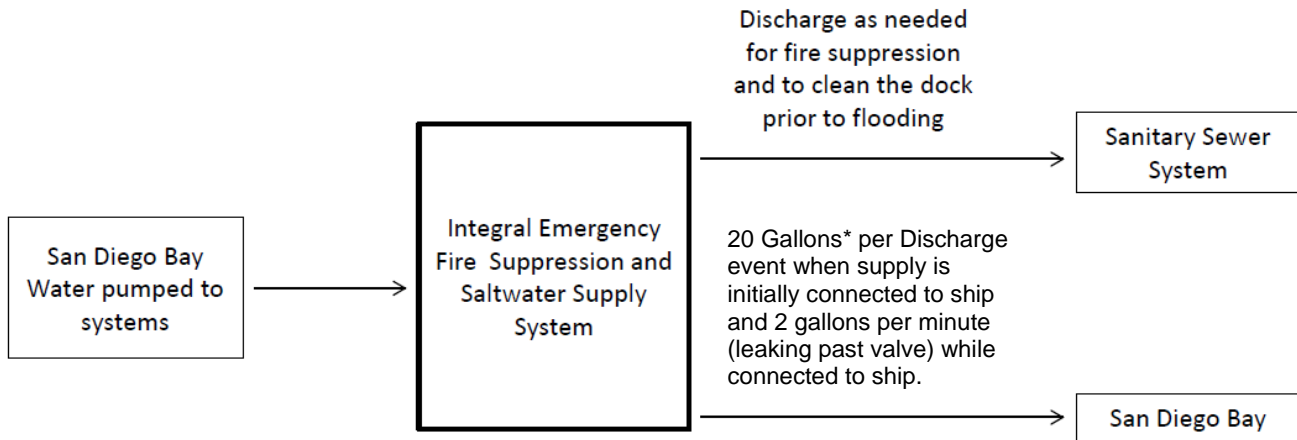
*The Graving Dock discharges 20.2 million gallons of captured bay-water per de-flooding event. The Graving Dock is de-flooded twice per vessel repair evolution. There may be as few as 2, and as many as 6, evolutions per year. The resulting estimated discharge ranges from 40.4 to 242.4 million gallons of captured bay-water per year.

Figure C-6. Graving Dock Caisson Gate De-Flooding Event Line Drawing



*The Caisson Gate discharges 31,500 gallons of captured bay-water per de-flooding event. The Caisson Gate is de-flooded twice per vessel repair evolution. There may be as few as 2, and as many as 6, evolutions per year. The resulting estimated Caisson Gate discharge ranges from 63,000 to 189,000 gallons of captured bay-water per year.

Figure C-7. Graving Dock Emergency Fire Suppression Water and Salt Water Supply Water Line Drawing



*When salt water supply is initially connected to the ship there is a short duration discharge from the system's relief valve to San Diego Bay. The discharge duration is approximately 45 seconds with a discharge volume of 20 gallons. After the initial discharge there is a 2 gallon per minute discharge of salt water that leaks past the valve. Based on an average of 3 docking events in a year and a vessel is in the dock for 6 months during the year, the annual discharge volume would be 518,460 gallons.

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, United States Environmental Protection Agency (USEPA), 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 Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 CFR § 122.41(j)(4); § 122.44(i)(1)(iv).) Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:~~

- ~~1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or~~
- ~~2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N for the measured pollutant or pollutant parameter.~~

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 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 USEPA within a reasonable time, any information which the San Diego Water Board, State Water Board, or USEPA 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 USEPA 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 USEPA 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 either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR §122.22(a)(3).)
3. All reports required by this Order and other information requested by the San Diego Water Board, State Water Board, or USEPA 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 § 122.22(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 Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as

specified in this Order, the results of this 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 General Order 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 USEPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

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**Table of Contents**

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

USEPA regulations at section 122.48, title 40 of the Code of Federal Regulations (40 CFR 122.48) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (San Diego Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement these federal regulations and Water Code requirements.

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 below and, unless otherwise specified, before the monitoring 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 this San Diego Water Board.
- B. Monitoring must be conducted according to USEPA 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 this MRP and/or this San Diego Water Board.
- C. A copy of the monitoring and reports signed, and certified as required by Attachment D, Standard Provisions V.B, of this Order, shall be submitted to the San Diego Water Board at the address listed in section X.C.5.c this MRP.
- 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 shall be maintained for a minimum of five years from the date of sample, measurement, report, or application. This period may be extended by request of this San Diego Water Board or by the USEPA at any time.
- E. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services or by a laboratory approved by the San Diego Water Board.
- F. 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.
- G. 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.

- H. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. When requested by USEPA or the San Diego Water Board, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger should have a success rate equal or greater than 80 percent.
- I. Monitoring results shall be reported at intervals and in a manner specified in this Order or in this Monitoring and Reporting Program.
- J. This Monitoring and Reporting Program may be modified by this San Diego Water Board as appropriate.
- K. This Order may be modified by the San Diego Water Board and USEPA to enable the discharger to participate in comprehensive regional monitoring activities conducted in the Regional Harbor Monitoring Program. Minor changes may be made without further public notice.

L. The Discharger shall ensure that analytical procedures used to evaluate compliance with effluent limitations established in this Order use minimum levels (ML) no greater than the applicable effluent limitation and are consistent with the requirements of 40 CFR part 136 or otherwise approved by USEPA and authorized by the San Diego Water Board. The MLs defined in Appendix 4 of the SIP are applicable to these discharges. If no authorized ML value is below the effluent limitation, then the method must achieve an ML no greater than the lowest ML value indicated in Attachment N of this Order (or if not listed in Attachment N of this Order, be the lowest ML provided for in 40 CFR part 136).

II. MONITORING LOCATIONS

A. Monitoring Station Locations

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order. Samples shall be collected at a point or prior to the point of discharge, at the designated NPDES sampling station for the effluent as specified in Table E-1 below:

Table E-1. Monitoring Station Locations

Discharge Location No.	Monitoring Location Name	Monitoring Location Description
--	INT-001	A location where a representative sample of the intake or source water for discharges from NGD-001, NGD-002, NGD-003, and NGD-004 can be obtained, prior to any contact with pollutants originating from operations at the Facility or any other point source discharge.

Discharge Location No.	Monitoring Location Name	Monitoring Location Description
SC-001 through SC-175	SC-001 through SC-175	A location where a representative sample of the steam condensate discharge can be obtained. For monitoring requirements established in this permit, the Discharger shall only be required to monitor three representative locations of steam condensate discharge for each monitoring event. Representative monitoring locations shall be established as described in section IV.A of the MRP. The Latitude and Longitude for Monitoring Locations SC-001 through SC-175 are identified in Table 2 of this Order.
NGD-001	NGD-001	A location where a representative sample of the graving dock deflooding and salt water rinse can be obtained just prior to, or during the discharge into the Bay: 30° 40' 45" N; -117° 7' 30" W
NGD-002	NGD-002	A location where a representative sample of the graving dock deflooding and salt water rinse can be obtained just prior to, or during the discharge into the Bay: 30° 40' 45" N; -117° 7' 30" W
NGD-003	NGD-003	A location where a representative sample of the caisson ballast dewatering can be obtained just prior to, or during the discharge into the Bay: 30° 40' 45" N; -117° 7' 30" W
NGD-004	NGD-004	A location where a representative sample of the emergency fire suppression and saltwater supply system can be obtained just prior to, or during the discharge into the Bay: 30° 40' 45" N; -117° 7' 30" W
BC-001	BC-001	A location where a representative sample of the pier boom, fender, and mooring cleaning discharge can be obtained just prior to, or during the discharge into the Bay: 32° 40' 24" N; -117° 7' 1" W
UV-001 through UV-012	UV-001 through UV-012	A location where a representative sample of the utility vault and manhole dewatering discharge can be obtained. The Latitude and Longitude for Monitoring Locations UV-001 through UV-012 are identified in Table 2 of this Order.
--	Industrial Storm Water See Attachment M	The Discharger shall identify storm water monitoring locations at a point prior to or at the point of discharge for all "Industrial High Risk Areas" and "Industrial Low Risk Areas), as identified in Attachment M of this Order. The Discharger shall establish monitoring locations as described in section II.B of the MRP. The Latitude and Longitude for Monitoring Locations NBSD-001 through NBSD-159 are identified in Attachment M to this Order.
--	Municipal Storm Water See Attachment M	The Discharger shall identify storm water monitoring locations at a point prior to or at the point of discharge for Small MS4 Areas. Municipal storm water discharge locations at NBSD are identified in Attachment M of this Order. Municipal storm water discharge locations at the Broadway Complex, Mission Gorge Recreational Facility (MGRF), and the Naval Medical Center shall also be identified. The Discharger shall establish monitoring locations as described in section IX.5.B of the MRP. The Latitude and Longitude for Monitoring Locations NBSD-001 through NBSD-159 are identified in Attachment M to this Order.

B. Industrial Storm Water Monitoring Location Report

1. The Discharger shall prepare and submit, no later than November 30, 2013, an Industrial Storm Water Monitoring Location Report to identify representative monitoring locations for industrial storm water discharges from Industrial High Risk

Areas, and Industrial Low Risk Areas. The Plan shall contain the following information:

2. The criteria and methods used to identify the representative monitoring locations.
3. A map of monitoring locations for each Industrial High Risk Area and Industrial Low Risk Area storm water discharge point. Where a single drainage area, or similar drainage areas to the same receiving water, discharge to multiple discharge points, the Discharger may propose a single monitoring location for that drainage area (or similar drainage areas), provided the Discharger submits supporting rationale demonstrating that a single monitoring location is representative for that drainage area (or similar drainage areas) (i.e., similar industrial activities and BMPs).
4. A tabulation of the proposed representative monitoring locations for industrial storm water discharges from Industrial High Risk Areas and Low Risk Areas. The tabulation shall include the discharge points, the representative monitoring locations for each discharge point, a brief description of the representative monitoring location (and drainage area for storm water discharges only), and the latitude and longitude for each representative monitoring location.
5. In the annual storm water monitoring report for industrial storm water discharges, the Discharger shall submit a summary of any proposed changes to the representative monitoring locations, a rationale for each change in monitoring location, and a certification that all monitoring locations are representative of their respective discharge locations.
6. The Discharger shall implement the Industrial Storm Water Monitoring Location Report unless otherwise directed in writing by the San Diego Water Board. The Discharger shall comply with any conditions set by the San Diego Water Board including modification of proposed monitoring locations.

III. INFLUENT MONITORING REQUIREMENTS

A. Intake Credit Monitoring (INT-001 through INT-004)

The Discharger shall monitor the intake water in the receiving water for total recoverable copper for Discharges NGD-001, NGD-002, NGD-003, and NGD-004 by monitoring intake/source water at Monitoring Location No. INT-001 as shown in Table E-2:

Table E-2. Intake Water Credits Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/event ³	1,2

¹ As specified in 40 CFR 136.

² Effluent samples shall be analyzed for copper according to method 1638 or 1640 unless authorized by this San Diego Water Board. The commonly used methods 6010B (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 6010B or 200.7 are known.

³ A USN Graving Dock event is a docking or undocking evolution of a ship in the dry dock.

IV. INDUSTRIAL PROCESS WASTEWATER EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations SC-001 through SC-175—Steam Condensate

1. The Discharger shall monitor discharges of steam condensate at a minimum of three representative monitoring locations from Monitoring Location Nos. SC-001 through SC-175 as shown in Table E-3. The three representative monitoring locations shall be chosen at random and may be different each year depending upon which steam systems are active.

Table E-3. Effluent Monitoring for Steam Condensate

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	GPD	Estimate ⁵	1/Month	Estimate
Conventional Pollutants				
Total Suspended Solids	mg/L	Grab	2/Year	1
Oil and Grease	mg/L	Grab	2/Year	1
pH	standard units	Grab	2/Year	6
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	2/Year	1
Lead, Total Recoverable	µg/L	Grab	2/Year	1
Mercury, Total Recoverable	µg/L	Grab	2/Year	1
Zinc, Total Recoverable	µg/L	Grab	2/Year	1
Remaining Priority Pollutants	µg/L	Grab	1/5 Years ³	1
Non-Conventional Pollutants				
Settleable Solids	mL/L	Grab	2/Year	1
Temperature	°F	Grab	2/Year	1
Turbidity	NTU	Grab	2/Year	1
Chronic Toxicity	Pass/Fail	Grab	2/5 Years ²	1,4

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
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- ¹ As specified in 40 CFR 136.
- ² The Discharger shall monitor for chronic toxicity within the first year of permit adoption and the fifth year following permit adoption.
- ³ The Discharger shall monitor for priority pollutants in the fifth year following permit adoption.
- ⁴ As specified in section V of this MRP.
- ⁵ The estimated daily flow for each month shall be reported in the semi-annual self-monitoring reports due on August 1 and February 1 of each year.
- ⁶ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

2. Annually, by September 1 the Discharger shall submit a list of the chemicals added to the steam boiler.

B. Monitoring Location Nos. NGD-001 and NGD-002

The Discharger shall monitor the discharge of graving dock deflooding and salt water rinse at Monitoring Location Nos. NGD-001 and NGD-002 as follows in Table E-4:

Table E-4. Effluent Monitoring for Graving Dock Deflooding & Salt Water Rinse Discharges

Parameter	Units	Sample Type	Minimum Sampling Frequency ⁴	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	GPD	Grab or Estimate	1/day	Estimate
Conventional Pollutants				
Total Suspended Solids	mg/L	Grab	1/Quarter	1
Oil and Grease	mg/L	Grab	1/Quarter	1
pH	pH units	Grab	1/Quarter	6
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/Quarter	1,2
Tributyltin, Total Recoverable	µg/L	Grab	1/Year	1
Remaining CTR Priority Pollutants	µg/L	Grab	2/5 Years ⁵	1
Non-Conventional Pollutants				
Settleable Solids	ml/L	Grab	1/Quarter	1
Turbidity	NTU	Grab	1/Quarter	1
Temperature	°F	Grab	1/Quarter	1
Chronic Toxicity	Pass/Fail	Grab	1/Year	1,3

- ¹ As specified in 40 CFR 136.
- ² Samples shall be analyzed for copper according to method 1638 or 1640. The commonly used methods 6010B (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 that is analyzed by methods 6010B or 200.7 are known.
- ³ As specified in section V of this MRP.

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- ⁴ No monitoring is required during any period where there is no discharge.
- ⁵ The Discharger shall monitor for priority pollutants in the first and fifth year following permit adoption.
- ⁶ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

C. Monitoring Location No. NGD-003

The Discharger shall monitor the discharge of caisson gate ballast water effluent at Monitoring Location No. NGD-003 as follows in Table E-5:

Table E-5. Effluent Monitoring for Caisson Gate Ballast Water Effluent

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	GPD	Grab or Estimate ⁶	1/Day	Estimate
Conventional Pollutants				
Total Suspended Solids	mg/L	Grab	1/Year	1
Oil and Grease	mg/L	Grab	1/Year	1
pH	pH units	Grab	1/Year	5
Priority Pollutants				
Cadmium, Total Recoverable	µg/L	Grab	1/Year	1
Copper, Total Recoverable	µg/L	Grab	1/Year	1,2
Nickel, Total Recoverable	µg/L	Grab	1/Year	1
Silver, Total Recoverable	µg/L	Grab	1/Year	1
Zinc, Total Recoverable	µg/L	Grab	1/Year	1
Remaining CTR Priority Pollutants	µg/L	Grab	2/5 Years ⁴	1
Non-Conventional Pollutants				
Settleable Solids	ml/L	Grab	1/Year	1
Turbidity	NTU	Grab	1/Year	1
Temperature	°F	Grab	1/Year	1
Chronic Toxicity	Pass/Fail	Grab	1/Year	1,3

¹ As specified in 40 CFR 136.

² Samples shall be analyzed for copper according to method 1638 or 1640. The commonly used methods 6010B (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 that is analyzed by methods 6010B or 200.7 are known.

³ As specified in section V of this MRP.

⁴ The Discharger shall monitor for priority pollutants in the first and fifth year following permit adoption.

⁵ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

⁶ The estimated daily flow for each month shall be reported in the annual self-monitoring reports due on September 1.

D. Monitoring Location No. NGD-004

The Discharger shall monitor the discharge of emergency fire suppression water and salt water supply water at Monitoring Location No. NGD-004 as follows in Table E-6:

Table E-6. Effluent Monitoring for Emergency Fire Suppression and Salt Water Supply Discharges

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
Flow	GPD	Grab or Estimate ⁶	1/day	Estimate
Conventional Pollutants				
Total Suspended Solids	mg/L	Grab	1/Year	1
Oil and Grease	mg/L	Grab	1/Year	1
pH	pH units	Grab	1/Year	5
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab	1/Year	1,2
Nickel, Total Recoverable	µg/L	Grab	1/Year	1
Silver, Total Recoverable	µg/L	Grab	1/Year	1
Zinc, Total Recoverable	µg/L	Grab	1/Year	1
Remaining CTR Priority Pollutants	µg/L	Grab	2/5 Years ³	1
Non-Conventional Pollutants				
Settleable Solids	ml/L	Grab	1/Year	1
Turbidity	NTU	Grab	1/Year	1
Temperature	°F	Grab	1/Year	1
Chronic Toxicity	Pass/Fail	Grab	1/Year	1,4

¹ As specified in 40 CFR 136.

² Samples shall be analyzed for copper according to method 1638 or 1640. The commonly used methods 6010B (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 that is analyzed by methods 6010B or 200.7 are known.

³ The Discharger shall monitor for priority pollutants within the first year of permit adoption and the fifth year following permit adoption.

⁴ As specified in section V of this MRP.

⁵ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

⁶ The estimated daily flow for each month shall be reported in the annual self-monitoring reports due on September 1.

E. Monitoring Location BC-001

1. The Discharger shall monitor the discharge from pier boom, fender, and mooring cleaning at Monitoring Location No. BC-001 as follows in Table E-7:

Table E-7. Effluent Monitoring for Pier Boom, Fender, and Mooring Cleaning

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	GPD	Estimate	1/Year	Estimate
Conventional Pollutants				
Total Suspended Solids	mg/L	Grab	1/Year	1
Oil and Grease	mg/L	Grab	1/Year	1
pH	standard units	Grab	1/Year	5
Priority Pollutants				
Benzo (b) Fluoranthene	µg/L	Grab	1/Year	1
Benzo (k) Fluoranthene	µg/L	Grab	1/Year	1
Chrysene	µg/L	Grab	1/Year	1
Copper, Total Recoverable	µg/L	Grab	1/Year	1,2
Remaining Priority Pollutants	µg/L	Grab	2/5 Years ³	1
Non-Conventional Pollutants				
Settleable Solids	mL/L	Grab	1/Year	1
Temperature	°F	Grab	1/Year	1
Turbidity	NTU	Grab	1/Year	1
Chronic Toxicity	Pass/Fail	Grab	1/Term of Permit	1,4

¹ As specified in 40 CFR 136.

² Effluent samples shall be analyzed for copper according to method 1638 or 1640. The commonly used methods 6010B (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 6010B or 200.7 are known.

³ The Discharger shall monitor for priority pollutants within the first year of permit adoption and the fifth year following permit adoption.

⁴ As specified in section V of this MRP.

⁵ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

2. Annually, by September 1, the Discharger shall submit a log of the pier boom, fender, and mooring cleaning activity including the duration, the personnel in charge of the cleaning, the quantity of the discharge, the date, a summary of any potential impacts to receiving water quality, and a summary regarding the description and location of any booms removed from the San Diego Bay to be cleaned because of oil or other pollutants.

F. Monitoring Locations UV-001 through UV-012 Utility Vault and Manhole Dewatering Monitoring

1. The Discharger shall monitor the discharge from utility vault and manhole dewatering at a minimum of three representative monitoring locations, including at least one electrical vault discharge, and one manhole discharge as shown in Table E-8. Monitoring is only required for each type of discharge if there is a discharge for that type during the monitoring period. The electrical vault representative monitoring location shall be chosen from Monitoring Location Nos. UV-001 through UV-012 and shall change each year. The manhole discharge monitoring location shall be chosen at random and may be different each year.

Table E-8. Effluent Monitoring for Utility Vault and Manhole Dewatering

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	GPD	Estimate	1/Year	Estimate
Conventional Pollutants				
Total Suspended Solids	mg/L	Grab	1/Year	1
Total Petroleum Hydrocarbons (TPH) ²	mg/L	Grab	1/Year	1
Oil and Grease	mg/L	Grab	1/Year	1
pH	standard units	Grab	1/Year	3

¹ As specified in 40 CFR 136.
² TPH as gasoline (TPH-g) – Report Benzene, Ethylbenzene, Toluene, and Xylene. Also analyze for TPH Diesel (TPH-d).
³ Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

2. Annually, by September 1, Discharger shall submit a log of the utility vault and manhole dewatering discharges. For vaults with automatic sump pumps, the log shall include the total volume of each discharge point for each calendar quarter. For vaults or manholes that are dewatered manually, the log shall describe the volume, flow rate, location of the discharge, date, and receiving water body.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity

1. Monitoring Frequency for Industrial High Risk Storm Water Discharges

The Discharger shall conduct acute toxicity monitoring at the frequencies specified in section IX.A.3.a of this MRP and Table E-11. For storm water sampling, sampling shall occur during storm events or if storm water is collected, prior to the release of storm water to the receiving water.

2. Marine and Estuarine Species and Test Methods

The Discharger shall conduct a species sensitivity screening for acute toxicity on a representative sample which shall include one vertebrate and one invertebrate 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 in-stream waste concentration (IWC) during a species sensitivity screening (i.e. the most sensitive species) shall be utilized for routine monitoring during the permit cycle. Routine toxicity test design shall, at a minimum, include a single-concentration analysis of the IWC compared to a control.

The Discharger shall follow the methods for acute toxicity tests as established in Code of Federal Regulations, title 40, section 136.3 using a single-concentration test design for routine monitoring, or a five-concentration test design for accelerated monitoring. The United States Environmental Protection Agency (U.S. EPA) method manuals referenced therein include *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition* (EPA-821-R-02-012).

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 Maximum Daily Effluent Limitation (MDEL) for acute 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 ~~0.40~~40%.

The determination of "Pass" or "Fail" from a single effluent concentration acute toxicity test at the IWC of 100 percent effluent shall be determined using the Test of Significant Toxicity (TST) approach described in 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

An acute 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) $\leq 0.80 \times$ Control mean response

Fail

An acute 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 acute 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. Acute Toxicity MDEL Exceedance Follow-up Action

An acute toxicity test result during routine monitoring indicating a “fail” with a percent effect at or above ~~0.40~~40% is an exceedance of the acute 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 acute toxicity test within the same calendar month that the exceedance occurred or, in the event laboratory monitoring results are not received during the same month when the sampling was performed, the next qualifying storm event after receiving results of an exceedance for storm water discharges.

5. Industrial Storm Water from High Risk Areas

If the additional test result for industrial storm water from high risk areas results in a “pass”, the Discharger may return to routine monitoring for the following monitoring period. If the verification test results in a “fail” at a percent effect greater than or equal to ~~0.20~~20%, the Discharger shall implement an approved Toxicity Reduction Evaluation (TRE) Work plan as set forth below in section V.E 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.

B. Chronic Toxicity

1. Monitoring Frequency for Chronic Toxicity

The Discharger shall conduct chronic toxicity monitoring at the frequencies specified in Tables E-3 through E-7 and Table E-11.

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 IWC during a species sensitivity screening (i.e. the most sensitive species) shall be utilized for routine monitoring during the permit cycle. Routine toxicity test design shall, at a minimum, include a single-concentration analysis of the IWC compared to a control.

The Discharger shall follow the methods for chronic toxicity tests as established in Code of Federal Regulations, title 40, section 136.3 using a single-concentration test design for routine monitoring, or a five-concentration test design for accelerated monitoring. The United States Environmental Protection Agency (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) and are the preferred methods if local species are available.

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 or Embryo-larval Development Test Method). For discharges to a fresh water 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 Maximum Daily Effluent Limitation (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~~50%.

The Median Monthly Effluent Limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median results of three independent toxicity tests, conducted within the same calendar month, and analyzed using the TST, (i.e. two out of three) is a “fail.”

The determination of “Pass” or “Fail” from a single effluent concentration chronic toxicity test at the IWC of 100 percent effluent shall be determined using the Test of Significant Toxicity (TST) approach described in 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 \times 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~~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 within the same calendar month that the exceedance occurred or, in the event laboratory monitoring results are not received during the same month when the sampling was performed, the next discharge event after receiving results of an exceedance.

5. Industrial Process Wastewater

If the additional test result for industrial process wastewater results in a “pass”, the Discharger may return to routine monitoring for the following monitoring period. If the verification test results in a “fail” at a percent effect greater than or equal to ~~0.25~~25%, the Discharger shall implement an accelerated monitoring schedule for chronic toxicity as set forth below in section V.D of this MRP.

6. High Risk Industrial Storm Water

The chronic toxicity test results shall be used in the US Navy’s study on chronic toxicity described in section VI.C.2.a of the Order. If both the chronic toxicity test results at the end of pipe for high risk industrial storm water and the concurrent receiving water chronic toxicity test result in a “fail”, the discharger shall conduct a toxicity reduction evaluation (TRE) as required in section V.E 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.

C. Quality Assurance

1. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.
2. This discharge is subject to a determination of “Pass” or “Fail” from a single-effluent concentration 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 and acute IWC for applicable discharges is 100 percent effluent.
3. Effluent dilution water and control water should be prepared and used as specified in the test methods manuals, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition* (EPA-821-R-02-012) and *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.

4. 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.).
5. All multi-concentration reference toxicant test results must be reviewed and reported according to USEPA guidance on the evaluation of concentration-response relationships found in Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR 136) (EPA 821-B-00-004, 2000).
6. 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).

D. Accelerated Chronic Toxicity Testing Monitoring Schedule

The Discharger shall implement an accelerated chronic toxicity monitoring schedule, as required by section V.B.5 of this MRP for industrial process wastewater discharges, consisting of four, five-concentration chronic toxicity tests, conducted at approximately two-week intervals, over an eight-week period. All toxicity tests conducted during an accelerated monitoring schedule shall, at a minimum, include the IWC and four additional concentrations. The additional effluent concentrations should provide useful information regarding the intensity and persistence of the toxic effect(s). If all of the additional tests result in a "pass", the Discharger may return to routine monitoring for the following monitoring period. If any one of the additional tests result in a "fail" and exhibit a percent effect equal to or greater than ~~0.2525%~~, the Discharger shall implement an approved Toxicity Reduction Evaluation (TRE) Work plan as set forth below in section V.E 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.

E. Toxicity Reduction Evaluation (TRE)

1. **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:
2. A TRE work plan is required by section V.D of this MRP for an industrial process wastewater discharge which had a chronic toxicity test result during accelerated monitoring that resulted in a "fail" and exhibited a percent effect greater than or

equal to ~~0.25~~25%; or

3. A TRE work plan is required by section V.A.5 of this MRP for a high risk industrial storm water discharge which had an additional acute toxicity test conducted following an MDEL exceedance that results in a “fail” and exhibits a percent effect greater than or equal to ~~0.20~~20%.
4. A TRE work plan is required by section V.B.6 of this MRP for a high risk industrial storm water discharge which had a chronic toxicity test and a concurrent receiving water sample test both result in a “fail” and exhibit a percent effect greater than or equal to ~~0.25~~25%.
5. **TRE Work Plan.** The TRE Work Plan shall be in conformance with the USEPA 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:
 - a. A description of the actions to be undertaken by the Discharger to investigate, identify, and correct the causes of toxicity;
 - b. If the MDEL noncompliance has not been corrected, the amount of time it is expected to continue;
 - c. A description of the steps taken or planned to reduce, eliminate and prevent recurrence of the MDEL noncompliance; and
 - d. A schedule for completion of all activities and submission of a final report.
6. **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.
7. **TRE Progress Reports.** The Discharger shall prepare and provide written semiannual progress reports which: (1) describe the actions that have been taken toward achieving compliance with the acute or 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 by the (15th) day of June and December of each year following the adoption of this Order. Submission of these progress reports shall continue until compliance with the MDEL

is achieved.

8. Toxicity Identification Evaluation. Based upon the magnitude and persistence of the acute and chronic toxicity, the Discharger may initiate a Toxicity Identification Evaluation (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:

- a. Criteria for initiating a TIE on a sample;
- b. Roles and responsibilities of the team conducting the TIE;
- c. Study design, sample treatments, and chemical analysis;
- d. Data evaluation and communication;
- e. Follow-up actions; and
- f. A schedule for completion of all activities and submission of a final report.

F. Violations

1. An exceedance of the MDEL or MMEL 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, a 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 or MMEL and may result in the initiation of an enforcement action.

G. Reporting of Toxicity Monitoring Results

1. 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; all results for effluent parameters monitored concurrently with the toxicity test(s).
2. 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.

3. 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.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

[Not Applicable]

VII. RECLAMATION MONITORING REQUIREMENTS

[Not Applicable]

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

A. Receiving Water and Sediment Monitoring

1. Receiving water and sediment monitoring shall be performed by the Discharger to assess compliance with receiving water limits. The receiving water monitoring requirements in Monitoring and Reporting Program No. R9-2002-0169 for NBSD and Monitoring and Reporting Program No. R9-2003-0265 shall continue to be implemented until the receiving water and sediment monitoring program in this Order below is implemented.
2. **Monitoring Coalition Reopener.** To achieve maximum efficiency and economy of resources, the San Diego Water Board encourages and may require San Diego Bay dischargers to establish or join a San Diego Bay water body monitoring coalition. If a San Diego Bay monitoring coalition is formed, revised monitoring requirements will likely be established.
3. **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 submitted within twelve (12) months of the effective date of this Order and shall contain the following elements:
 - a. **Quality Assurance Project Plan.** A Quality Assurance Project Plan (QAPP) describing the project objectives and organization, functional activities, and quality assurance/quality control protocols for the water and sediment monitoring.

b. Sampling and Analysis Plan. A Sampling and Analysis Plan must be proposed based on methods or metrics described in 40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants under the Clean Water Act* and the SWRCB 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.

i. Water Column Sampling

a) Frequency: The Sampling and Analysis Plan must propose the frequency and timing for water column sampling. The minimum frequency of sampling is shown in table E-9 below. The proposed sampling must be based upon results on the fate and transport of pollutants from the conceptual model (see c, 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-9 below:

Table E-9. Minimum Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Priority Pollutants				
Cadmium, Total Recoverable	µg/L	Grab	1/Year	1
Copper, Total Recoverable	µg/L	Grab	1/Year	1,2
Mercury, Total Recoverable	µg/L	Grab	1/Year	1
Nickel, Total Recoverable	µg/L	Grab	1/Year	1
Zinc, Total Recoverable	µg/L	Grab	1/Year	1
Remaining CTR Priority Pollutants	µg/L	Grab	1/5 Years	1, 3
Non-Conventional Pollutants				
Temperature	°F	Grab	1/Year	1
Chronic Toxicity	Pass/Fail	Grab	2/Year	4

¹ As specified in 40 CFR 136.

² Effluent samples shall be analyzed for copper according to method 1638 or 1640. The commonly used methods 6010B (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 6010B or 200.7 are known.

³ The Discharger shall monitor for priority pollutants within the first year following permit adoption.

⁴ The Discharger shall monitor chronic toxicity twice per year concurrently with the end of pipe high risk industrial storm water discharge monitoring required in Table E-11 of this MRP. The receiving water

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
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chronic toxicity sample shall be collected in the receiving water adjacent to the storm drain outfall sampled in Table E-11 during the storm event.

ii. Sediment Sampling

a) Frequency: Sediment chemistry, toxicity and benthic organism monitoring shall be done, at a minimum twice during the term of this Order.

b) 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 under the SWRCB Sediment Quality Plan. The proposal must also include the following:

1) Sediment Chemistry: Bulk sediment chemical analysis shall include at a minimum the pollutants identified in Attachment A of the SWRCB Sediment Quality Plan and listed in Attachment K of this Order.

2) Sediment Toxicity: Short term survival tests and sublethal tests shall be performed as specified in section V.F of the State Board’s Sediment Quality Plan. The results shall be recorded as “Percent of control response”.~~A 10-Day amphipod survival test shall be performed using a species tolerant of the sample salinity and grain size characteristics (e.g., *Hyalolla azteca* or *Eohaustorius estuaries*) as specified in the SWRCB Sediment Quality Plan. The results shall be recorded as “Percent of control survival”.~~

3) Benthic Community- Subtidal Habitat: For discharges to unvegetated subtidal, the benthic community shall be evaluated using the line of evidence approach in Section V.G of the SWRCB Sediment Quality Plan. For discharges to vegetated subtidal (*Zostera marina*), the proposed benthic community monitoring must be conducted in accordance with Section V.J of the SWRCB Sediment Quality Plan and utilize a reference site approach to assess the benthic invertebrate community and impacts to *Zostera marina* as a line of evidence. Assessment of *Zostera marina* must be done in accordance with the Southern California Eelgrass Mitigation Policy.

iii. 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 will serve as the basis for assessing the appropriateness of the Water and Sediment Monitoring Plan design. The Conceptual Model shall consider:

- 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.
- iv. 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.
- v. 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 other entities.
- vi. Strata. 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.
- vii. Index Period. All sediment stations shall be sampled between the months of June through September to correspond with the benthic community index period.
- viii. 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 Water and Sediment Monitoring Reports described in section VIII.A.5 of this MRP.
- 4. Water and Sediment Monitoring Plan Implementation.** The Discharger 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. Before beginning sample collection activities, the Discharger or water body monitoring coalition shall:
- a. Notify the San Diego Water Board at least 14 days in advance of the beginning of sample collection activities; and
 - b. Comply with any conditions set by the San Diego Water Board with respect to sample collection methods such as providing split samples.

5. **Water and Sediment Monitoring Reports.** The Discharger shall submit a Water and Sediment Monitoring Report at least twice during a permit cycle in accordance with the schedule contained in the Water and Sediment Monitoring Plan unless otherwise directed in writing by the San Diego Water Board. The Water and Sediment Monitoring Reports shall contain the following information:
 - a. **Analysis.** An evaluation, interpretation and tabulation of the water and sediment monitoring data including interpretations and conclusions as to whether applicable Receiving Water Limitations in this Order have been attained at each sample station.
 - b. **Sample Location Map.** The locations, type, and number of samples shall be identified and shown on a site map.

IX. OTHER MONITORING REQUIREMENTS

A. Storm Water Discharges from Industrial High Risk, Industrial Low Risk Areas, and Industrial No Exposure Areas

1. **Industrial Non-Storm Water Discharge (NSWD) Visual Observations**
 - a. The Discharger shall visually observe each industrial drainage area for the presence of, or for indications of prior unauthorized non-storm water discharges and their sources.
 - b. The Discharger shall visually observe the NBSD's authorized non-storm water discharges and their sources in industrial drainage areas.
 - c. One non-storm water visual observation shall be conducted quarterly in each of the following periods:
 - i. January – March,
 - ii. April – June,
 - iii. July – September, and
 - iv. October – December.
 - d. The Discharger shall select appropriate intervals when scheduling quarterly NSWD visual observations. For observation intervals that are greater than 16 weeks apart, a justification shall be included in the Annual Monitoring Report.

NSWD visual observations shall be conducted during daylight hours within scheduled facility operating hours¹ on days without precipitation.

- e. 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.
- f. 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.

2. Industrial Storm Water Discharge and Other Visual Observations

- a. Dischargers shall ensure that a visual observation is conducted of industrial storm water discharges from the first Qualifying Storm Event (QSE) as defined in section IX.A.2.b of this MRP for each month that produces a discharge from one or more discharge locations. Visual observations shall be conducted during scheduled facility operating hours and within the first four (4) hours of:
 - i. The start of discharge; or
 - ii. The start of facility operations if the QSE occurs within the previous 12 hour period (storms that begin the previous night).
- b. A Qualifying Storm Event (QSE) is a discharge of storm water that occurs:
 - i. From a storm event that has produced a minimum of 1/10 inch of rainfall within the preceding 24 hour period as measured by an on-site rainfall measurement device; and
 - ii. From a storm event that was preceded by three calendar days of dry weather. Dry weather shall be defined as three calendar days of combined rainfall of less than 1/10 inch as measured by an on-site rainfall measurement device.
- c. The Discharger shall ensure that visual observations of discharge from contained storm water² are conducted at the time of discharge. If the discharge is not likely to occur during scheduled facility operating hours (based upon rainfall forecasts

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.

² Contained storm water is storm water which is first collected in a containment structure and then discharged.

and containment freeboard), the visual observations of the contained storm water shall be conducted prior to the discharge.

- d. Visual observations shall include observation of 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. Prior to an anticipated precipitation event, visual observations of all storm water drainage and containment areas at Industrial High Risk Areas shall be conducted to identify any spills, leaks, or improperly controlled pollutant sources, and appropriate BMPs must be implemented prior to rainfall. The visual observations are required during scheduled facility operating hours and are not required more than once within in any 14 day period. An anticipated precipitation event is any weather pattern that is forecasted by the National Weather Service Forecast Office to have a 50% or greater probability of producing precipitation in the facility's weather zone. The Discharger is responsible for reviewing precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at <http://www.srh.noaa.gov/forecast>).
- f. In the event that the first QSE in a month does not produce a discharge that can be visually observed at one or more discharge locations, dischargers shall record which discharge locations were observed that did not discharge, and visually observe discharges from those locations from the next QSE(s) that produces a discharge in that month. The Discharger shall provide an explanation in the Annual Report for uncompleted monthly visual observations only for those months that at least one QSE occurs. The Discharger is not required to perform additional visual observations in subsequent months for any uncompleted monthly visual observations.
- g. The Discharger 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.

3. Industrial Storm Water Sampling and Analysis

- a. The Discharger shall collect storm water samples from one qualifying storm event (QSE) during each semiannual period (i.e. January –June, July-December). Representative storm water discharge locations for “Industrial High Risk” and “Industrial Low Risk” areas, as designated under section IV.B of the Order, shall be sampled as specified in Tables E-10 and E-11.
- b. Sampling of stored or contained storm water shall occur at the time the stored or contained storm water is discharged to surface waters. Samples shall be collected from the first QSE of the each semiannual period (i.e. January –June, July-December).

- c. Grab samples shall be collected from each representative storm water discharge location within four (4) hours of:
 - 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). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe.
- d. Composite samples shall be flow-weighted storm water samples for the duration of the storm. If composite samples are collected, all parameters identified in Tables E-10 and E-11 with a sample type of grab or composite must be analyzed using composite samples.
- e. In the event that the first QSE in a semi-annual period does not produce a discharge that can be sampled at one or more 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. For each discharge location, the maximum number of storm water samples required per reporting year is two (2).
- f. The industrial storm water discharges from the “Low Risk” and “High Risk” areas, as defined in section IV.B of the Order, shall be sampled and analyzed as shown in Table E-10 and Table E-11 respectively. ~~After four consecutive sample events where parameters are not detected or below the Annual NAL values, analysis for those parameters may be discontinued.~~

Table E-10. Monitoring Requirements for Storm Water Discharges from “Industrial Low Risk” Areas

Parameter	Unit	Sample Type	Minimum Frequency*	Required Analytical Test Method
Discharge Volume	gallons	Estimate ¹	One storm per semiannual period.	Estimate
Conventional Pollutants				
Oil and Grease	mg/L	Grab	One storm per semiannual period.	²
pH	pH Units	Grab	One storm per semiannual period.	²
Total Suspended Solids	mg/L	Grab	One storm per semiannual period.	²
Priority Pollutants				

Parameter	Unit	Sample Type	Minimum Frequency*	Required Analytical Test Method
Copper, Total Recoverable ⁴	mg/L	Grab or Composite	One storm per semiannual period.	2
Zinc, Total Recoverable ⁴	mg/L	Grab or Composite	One storm per semiannual period.	2
<i>Non-Conventional Pollutants</i>				
Other Pollutants ³	µg/L	Grab or Composite	One storm per semiannual period.	2

* Sampling shall occur during qualifying storm events each semiannual calendar period (January – June, July – December) prior to release to receiving water. If there are no qualifying storm events during the semiannual period, then sampling shall occur as soon as possible.

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 Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.

³ 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 section VII of 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.

⁴ After four consecutive sample events where parameters are not detected or below the Annual NAL values, analysis for those parameters may be discontinued at any affected outfall. The San Diego Water Board may approve discontinuation of analysis for parameters with sources attributable solely to the presence of 1) the parameters in the natural background that has not been disturbed by industrial activities or 2) non-industrial sources.

Table E-11. Monitoring Requirements for Storm Water Discharges from “Industrial High Risk” Areas.

Parameter	Unit	Sample Type	Minimum Frequency*	Required Analytical Test Method
Discharge Volume	gallons	Estimate ¹	One storms per semiannual period	Estimate
Conventional Pollutants				
Chemical Oxygen Demand	mg/L	Grab or Composite	One storm per semiannual period.	2
Oil and Grease	mg/L	Grab	One storm per semiannual period.	2
pH	pH Units	Grab	One storm per semiannual period.	2
Total Suspended Solids	mg/L	Grab	One storm per semiannual period.	2
Priority Pollutants				
Arsenic, Total Recoverable ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Cadmium, Total Recoverable ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Copper, Total Recoverable	mg/L	Grab or Composite	One storm per semiannual period.	2
Mercury, Total Recoverable ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Nickel, Total Recoverable ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Selenium, Total Recoverable	mg/L	Grab or Composite	One storm per semiannual period.	2
Silver, Total Recoverable ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Zinc, Total Recoverable	mg/L	Grab or Composite	One storm per semiannual period.	2
Lead, Total Recoverable ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Non-Conventional Pollutants				
Aluminum, Total Recoverable ⁶	µg/L	Grab or Composite	One storm per semiannual period.	2
Iron, Total Recoverable ⁶	µg/L	Grab or Composite	One storm per semiannual period.	2
Magnesium, Total Recoverable	µg/L	Grab or Composite	One storm per semiannual period.	2
Nitrate+Nitrite Nitrogen ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Phosphorus, Total ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2

TENTATIVE

Parameter	Unit	Sample Type	Minimum Frequency*	Required Analytical Test Method
Ammonia ⁶	mg/L	Grab or Composite	One storm per semiannual period.	2
Acute Toxicity ³	Pass or Fail	Grab or Composite	One storm per semiannual period.	2
Chronic Toxicity ^{3, 5}	Pass or Fail	Grab or Composite	One storm per semiannual period.	2
Other Pollutants ⁴	µg/L	Grab or Composite	One storm per semiannual period.	2

- * Sampling shall occur each semiannual calendar period (January – June, July – December) during qualifying storm events prior to release to receiving water. If there are no qualifying storm events during the semiannual period, then sampling shall occur as soon as possible during the following semiannual period.
- 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 Field test with pre and post calibrated portable instrument, or lab sample in accordance with 40 CFR 136.
- ³ The presence of acute or chronic toxicity in the storm water shall be determined as specified in section V 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 section VII of 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 Chronic toxicity will be sampled at one representative high risk industrial storm water discharge location.
- ⁶ After four consecutive sample events where parameters are not detected or below the Annual NAL values, analysis for those parameters may be discontinued at any affected outfall. The San Diego Water Board may approve discontinuation of analysis for parameters with sources attributable solely to the presence of 1) the parameters in the natural background that has not been disturbed by industrial activities or 2) non-industrial sources.

4. Chollas Creek Storm Water Sampling and Analysis

The discharge of storm water to Chollas Creek at Discharge Point Nos. NBSD-068, NBSD-070, NBSD-071, NBSD-120, and NBSD-121 shall be sampled and analyzed as follows:

Table E-12. Monitoring Requirements for Storm Water Discharges to Chollas Creek.

Parameter	Unit	Sample Type	Minimum Frequency*	Required Analytical Test Method
Discharge Volume	gallons	Estimate ¹	One storm per semiannual period.	Estimate
Priority Pollutants				
Copper, Total Recoverable	µg/L	Grab or Composite	One storm per semiannual period.	2
Lead, Total Recoverable	µg/L	Grab or Composite	One storm per semiannual period.	2
Zinc, Total Recoverable	µg/L	Grab or Composite	One storm per semiannual period.	2

* Sampling shall occur during qualifying storm events, or if collected, prior to release to receiving water. If there are no qualifying storm events 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.

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 136.3.

5. Visual Observation and Sample Collection Exceptions and Methods

The Discharger shall be prepared to collect samples and conduct visual observations at the beginning of the semi-annual period and throughout until the minimum requirements of sections IX.A.2 and IX.A.3. of this MRP 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 or electrical storms; or
 - ii. Outside of scheduled Facility operating hours. However, the Discharger is not precluded from collecting samples or conducting visual observations outside of scheduled facility operation hours if they choose to do so.
- b. If the Discharger does not collect the required samples or conduct the visual observations, then the Discharger shall include an explanation in the annual report 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. Dischargers 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 off-site areas or on-site non-industrial areas; or
 - ii. Specific sampling locations which are difficult to sample (e.g. submerged discharge outlets, dangerous discharge location accessibility).

B. Non-industrial Storm Water Monitoring for Small Municipal (Military Base) Separate Storm Sewer System (MS4) Areas

1. Within 24 months of the effective date of this Order, the Discharger shall prepare and submit to the San Diego Water Board a written plan for monitoring pollutants in non-industrial storm water discharges from Small Municipal (Military Base) Separate Storm Sewer System (MS4) Areas. The monitoring plan shall include the following information:
 - a. A list of pollutants in non-industrial storm water from MS4 areas which will be monitored for;
 - b. Specific monitoring procedures for pollutants identified by the Discharger, with the goal of evaluating SWMP implementation throughout the NBSD Complex;
 - c. A minimum subset of three representative monitoring locations for storm water and dry-weather discharges within the Small MS4 Areas of the NBSD Complex. These monitoring locations shall be sampled for pollutants identified by the Discharger; and
 - d. A schedule for monitoring. Pollutant monitoring shall be performed a minimum of twice per year at the representative monitoring locations for storm water, and twice per year for dry-weather discharges, beginning 24 months after the adoption date of this Order.
2. The Discharger shall implement the Small Municipal (Military Base) Separate Storm Sewer System Monitoring Plan unless otherwise directed in writing by the San Diego Water Board. The Discharger shall comply with any conditions set by the San Diego

Water Board including modification of proposed monitoring locations and constituents.

3. The Monitoring results shall be submitted annually with the Storm Water Annual Report, as specified in section IX.C of this MRP.

C. Storm Water Annual Report for Industrial High Risk Areas, Industrial Low Risk Areas, and Small MS4 Areas

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

1. Identification of any changes to “Industrial High Risk”, “Industrial Low Risk”, “Industrial No-Exposure”, and “Small MS4 Areas” at the Facility, as defined in section IV.B of the Order;
2. A summary of visual observations and sampling and analysis results;
3. An evaluation of the visual observation and sampling and analysis results;
4. Annual Comprehensive Site Compliance Evaluation Report as required by section IX of the SWPPP requirements contained in Attachment G;
5. Sample results and laboratory reports;
6. A list of authorized and non-authorized non-storm water discharges identified pursuant to section IX.A.1 of this MRP; and
7. Records specified in section IX.A of this MRP.

D. Graving Dock Flood Water Discharge

1. The Discharger shall provide written notification to the San Diego Water Board 48 hours prior to the flooding of its graving dock. If the graving dock has to be flooded on short notice and the 48 hour notification time cannot be met, the Discharger shall notify the San Diego Water Board as early as possible and include information on why the notification time could not be met.
2. The Discharger shall document the condition of the graving dock prior to each flooding. The conditions will be digitally documented either by video or photographs. The video must be in computer file format compatible with MS Windows such as mpg (Moving Picture Experts Group), avi (Audio Video Interleave), or wmv (Windows Media Video), and the photographs must be digital photographs that show date and time on each picture. Video or photographs shall document conditions at the initial flooding of the facilities. If flooding is to occur at night, video or photographs shall be taken during daylight hours as close to the flooding event as possible.
3. The Discharger shall submit documentation on the graving dock flooding conditions quarterly to the San Diego Water Board in accordance with Table E-13. If the drydock was not flooded during the quarter, the Discharger shall document in the quarterly monitoring report that no flooding occurred during that period.

E. Spill and Illicit Discharge Log (within all industrial storm water risk areas)

The Discharger shall log and report all spills of significant quantities to surface water and all illicit discharges of any quantity within industrial storm water risk areas of the Facility including spills and illicit discharges from vessels that are at the Facility for service. The spill / illicit discharge reports shall identify:

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, graving dock, 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; and
11. The measures taken to prevent or minimize future spills or illicit discharges.

The reports shall be submitted annually to the San Diego Water Board in accordance with Table E-13 of this MRP.

The Discharger shall include in its annual report, a summary of the spills and illicit discharges that occurred in or on industrial storm water risk areas of the Facility to surface water. 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 indicate the efforts the Discharger used in the year to prevent or minimize spills.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall initially submit Self-Monitoring Reports (SMRs) by hard copy to the San Diego Water Board office and electronically using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The San Diego Water Board shall notify the Discharger when they may stop submitting hard copy

SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit quarterly and annual SMRs including the results of all required monitoring using USEPA-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-13. 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
1/Month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last day of calendar month	Submit with quarterly SMR
1/Quarter	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
2/Year	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
1/Year	Permit effective date	July 1 through June 30	September 1
Annual Storm Water Report (IX.C of this MRP)	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 submitted with Annual Report

C. Reporting Protocols.

1. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

2. 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 reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).**
- b. Sample results less than the Reporting Level (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 as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). 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 (+ 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.**
- 3. 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 Regional and State Water Boards, 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).
- 4. 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 "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:
- 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.
5. 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. Hard copy SMRs must be submitted to the San Diego Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board
San Diego Region
Attention: Core Regulatory Unit
2375 Northside Drive, Suite 100
San Diego, CA 92108

If the San Diego Water Board office is moved, the San Diego Water Board shall provide a new address for report submittal.

D. Discharge Monitoring Reports (DMRs)

1. At any time during the term of this permit, the State or San Diego Water Board may notify the Discharger to electronically submit Discharge Monitoring Reports (DMRs) that will satisfy federal requirements. Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR to the address listed below:

STANDARD MAIL	FEDEX/UPS/ OTHER PRIVATE CARRIERS
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814

All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of USEPA Form 3320-1.

E. Other Reports

Special Reports. As specified in this Order, special reports or program components shall be submitted in accordance with the following reporting requirements.

Table E-14. Reporting Requirements for Other Reports

Report Name	Section No.	Report Due Date
Industrial Storm Water Monitoring Location Report	MRP section II.B.1	November 30, 2013
Toxicity Reduction Evaluation (TRE) Work Plan	MRP section V.E.1	See Section V.E.1 of MRP
Water and Sediment Monitoring Plan	MRP section VIII.A.3	Within 12 months of the effective date of this Order
Notify the San Diego Water Board before sediment and receiving water sampling	MRP section VIII.A.4.a	At least 14 days in advance of the beginning of sample collection activities
Annual Storm Water Risk Level Designation Report	Order section IV.B.2	Annually by September 1 st
Small Municipal Separate Storm Sewer System – Storm Water Management Program	Order section IV.D.2	Within 12 months of the effective date of this Order
Chollas Creek Storm Water Action Level (SAL) Plan	Order section IV.E.3	Within 12 months of the effective date of this Order
Pollution Prevention Plan Work Plan and Time Schedule	Order section VI.C.3.c	Within 3 months of the effective date of this Order
Pollution Prevention Plan Work Plan and Time Schedule	Order section VI.C.3.c	Within 9 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 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.** The United States Department of the Navy (hereinafter Discharger) is the owner and operator of Naval Base San Diego Complex (hereinafter Facility), a U.S. naval base. The Naval Base San Diego Complex is comprised of the following four installations: Naval Base San Diego – main base (NBSD), Broadway Complex, Mission Gorge Recreational Facility (MGRF; also known as Admiral Baker Field), and the Naval Medical Center, San Diego (NMCSD). These four installations are described in Section II and are hereinafter jointly referred to as the “Facility”.

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 000000497
Discharger	United States Department of the Navy
Name of Facility	Naval Base San Diego Complex
Facility Address	3455 Senn Road, Building 72
	San Diego, CA 92136-5084
	San Diego County
Facility Contact, Title and Phone	Mark Edson, Installation Environmental Program Director, (619) 556-1532
Authorized Person to Sign and Submit Reports	Installation Environmental Program Manager or Water Program Manager
Mailing Address	Same as Facility Address
Billing Address	Same as Facility Address
Type of Facility	Naval Base
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Not Applicable
Reclamation Requirements	Not Applicable

Facility Permitted Flow	Not Applicable
Facility Design Flow	Not Applicable
Watershed	San Diego Bay, San Diego River
Receiving Water	San Diego Bay, Chollas Creek, Paleta Creek (Seventh Street Channel), the San Diego River, and surface water in the Lindberg Hydrologic Subarea.
Receiving Water Type	Enclosed Bay and Inland Surface Waters

- B.** The Facility is currently regulated by Order Nos. R9-2002-0169 and R9-2003-0365 for discharges from multiple discharge points to San Diego Bay and San Diego River, waters of the United States (US).

Order No. R9-2002-0169, National Pollutant Discharge Elimination System (NPDES) No. CA0109169, currently regulates several types of wastewater discharges at numerous discharge locations within the Facility including industrial storm water; steam condensate; pier boom, fender, and mooring cleaning; utility vault and manhole dewatering; and miscellaneous discharges associated with facility maintenance. Order No. R9-2003-0265, NPDES No. CA0107867, regulates the discharge of saltwater supply system water, graving dock flood dewater, graving dock caisson gate ballast water, and industrial storm water from several discharge locations from the US Navy Graving Dock (Graving Dock), which is located within the Naval Base San Diego main base portion of the Facility.

Order No. R9-2002-0169, an NPDES permit for the Facility, was adopted on November 13, 2002 and expired on November 13, 2007. Order No. R9-2003-0365 for the Graving Dock was adopted on August 13, 2003 and expired on August 13, 2008. The terms and conditions of these Orders have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and NPDES permits are adopted pursuant to this Order.

In 1976, the San Diego Unified Port District was issued an NPDES permit for the United States Navy (USN) Graving Dock. The NPDES permit was reissued in 1981. During this time the surrounding NBSD installation did not have an NPDES permit. In 1986, the USN Graving Dock permit was amended to transfer responsibility for compliance with the NPDES permit from San Diego Unified Port District to the Discharger. A year later, in 1987, the NPDES permit for the USN Graving Dock was reissued to the Discharger.

In 1992, the Discharger enrolled in the State Water Resource Control Board's (State Water Board's) General Permit to Discharge Storm Water Associated with Industrial Activity Order No. 91-13-DWQ for the Facility. The enrollment in the Industrial Stormwater General Permit did not include the USN Graving Dock because the Discharger had an individual NPDES permit for the USN Graving Dock.

In 1997, the State Water Board reissued the Industrial Stormwater General NPDES Permit Order No. 97-03-DWQ, and the Discharger continued enrollment in the Industrial Stormwater General Permit.

In 1998, the individual NPDES permit for the USN Graving Dock was reissued to the Discharger.

In 2002, an individual NPDES permit for the NBSD Complex (Order No. R9-2002-0169) was issued for storm water and additional industrial wastewater discharges from the Facility; this individual permit did not include the USN Graving Dock. In 2003, the individual NPDES permit for the USN Graving Dock was reissued again as a separate permit (current Graving Dock Order; Order No. R9-2003-0365 for the Graving Dock).

Order No. R9-2002-0169 for the Naval Base San Diego (NBSD) Complex expired in 2007. Order No. R9-2003-0365 for the USN Graving Dock expired in 2008. Both NPDES permits have been automatically continued and remain in effect.

While, historically the Discharger was initially issued a NPDES permit for the USN Graving Dock, and then a separate permit for the remainder of the Facility, it is appropriate for the USN Graving Dock to be combined with the remainder of the Facility for NPDES coverage because the USN Graving Dock is located within the geographical boundaries of NBSD and is owned and operated by the same Discharger. The coverage of Order Nos. R9-2002-0169 for NBSD and R9-2003-0365 for the USN Graving Dock is incorporated into this Order to achieve maximum efficiency and economy of resources, and minimize redundancy to the Discharger and the San Diego Water Board. All applicable requirements for the USN Graving Dock and Naval Base San Diego Complex have been incorporated directly into this Order or revised as necessary. Municipal storm water requirements have also been incorporated into this Order.

The San Diego Water Board recently concluded proceedings to issue a Cleanup and Abatement Order (CAO) for discharges of metals and other pollutant wastes to San Diego Bay marine sediment and waters located along the eastern shore of central San Diego Bay extending approximately from the Sampson Street Extension to the northwest and Chollas Creek to the southeast, and from the shoreline out to the San Diego Bay main shipping channel to the west. This area is collectively referred to as the "Shipyard Sediment Site." The CAO finds that the Discharger, along with National Steel and Shipbuilding Company (NASSCO); BAE Systems San Diego Ship Repair, Inc.; City of San Diego; Campbell Industries, Inc.; San Diego Gas and Electric and the San Diego Unified Port District are responsible for the sediment impairment and accountable for the cleanup of contaminated sediments in San Diego Bay at the Shipyard Sediment Site.

- C. The Discharger filed a Report of Waste Discharge (ROWD) and submitted an application for reissuance of its WDRs and NPDES permit for the Naval Base San Diego Complex (Order No. R9-2002-0169) on June 18, 2007. The Discharger also filed a ROWD and submitted an application for renewal of its WDRs and NPDES permit for the USN Graving Dock on July 2, 2008. Additional information to support the NPDES permit reissuance was provided by the Discharger on February 25, 2010 and March 2, 2010. Site visits were conducted by the United States Environmental Protection Agency's (USEPA's) consultant, PG Environmental, LLC, on April 26, 2010 and June 7, 2011, and to observe operations and collect additional data to develop permit limitations and conditions.

II. FACILITY DESCRIPTION

The Discharger manages several military installations in the San Diego area. These installations are aligned into three major naval bases, including the Naval Base San Diego Complex (referred to as the Facility in this Order), Naval Base Coronado (NBC), and Naval Base Point Loma (NBPL). NBSD Complex is the largest of the three major naval base complexes operated by the Discharger. The mission of NBSD Complex is to provide logistical support for the operating forces of the U.S. Navy and for dependent activities and other commands as assigned. NBSD Complex forms the major West Coast logistics base for the surface operating forces of the U.S. Navy and for dependent activities and other commands. The Facility known as Naval Base San Diego Complex is comprised of the following installations:

- Naval Base San Diego – main base (NBSD; formerly known as Naval Station San Diego or NAVSTA),
- Broadway Complex,
- Mission Gorge Recreational Facility (MGRF; also known as Admiral Baker Field), and
- The Naval Medical Center, San Diego (NMCSD).

Of the four installations comprising the Facility, only NBSD has industrial process wastewater and industrial storm water discharges subject to regulation under an NPDES permit. All four installations have discharges of storm water from Small (Phase II) Municipal Separate Storm Sewer Systems (MS4s) subject to regulation under this NPDES permit.

Naval Base San Diego — main base: NBSD is located at 32nd Street and Harbor Drive approximately 3 miles southeast of downtown San Diego on the eastern edge of San Diego Bay. It is bordered by the City of San Diego to the north and east and National City to the south and east and San Diego Bay to the west. NBSD includes over 45 tenant activities, including the following major commands: Fleet Training Center

(FTC), Naval Facilities Engineering Command Southwest (NAVFAC SW), Southwest Regional Maintenance Center (SWRMC), and Naval Supply Center (NSC). Personnel support activities at NBSD include Regional Commissary Store, Naval Dental and Medical Clinics, Naval Legal Service Office Trial Judiciary, Environmental Preventative Medicine Unit Five, Personnel Support Detachment, and Navy Resale and Service Support Office.

NBSD is homeport to approximately 55 Pacific Fleet ships and provides in-port berthing services for 56 surface force ships and 51 service craft.

NBSD occupies 1,049 acres of land and 326 water acres at a site lying east and west of Harbor Drive. The wet side consists of the Bay front area west of Harbor Drive, while the dry side consists of the community facilities east of Harbor Drive.

The wet side is intensively developed and supports waterfront operations, ship berthing and maintenance, station maintenance, training, administration, and logistics functions. Operational facilities include piers, quay walls, small craft berthing facilities, fueling facilities, armories, and waterfront operations buildings. The straight-line map measurement of the shoreline at NBSD is 1.6 miles. NBSD contains 12 berthing piers, a mole pier, two channels, and various quay walls that have a total shoreline measurement of approximately 5 miles. Also included is the USN Graving Dock.

The 12 piers at NBSD are used to berth surface ships, support vessels, and barges. Supplies and equipment are loaded onto the vessels at these piers, and berth-side ship maintenance is also performed (i.e., maintenance while vessels are docked at the pier). Berth-side ship maintenance may include abrasive blasting, hydroblasting, metal grinding, painting tank cleaning, removal of bilge and ballast water, removal of anti-fouling paint, sheet metal work, electrical work, mechanical repair, engine repair, hull repair, and sewage disposal. Berth-side ship repair activities are generally less complex than those conducted at commercial shipyards or at the Discharger's USN Graving Dock.

Ship maintenance may also be conducted on the piers. Boats, ship sections, or parts can be placed on the piers or adjacent lands for repairs. The ship maintenance activities on piers, land, or berth side may be conducted by Naval personnel, civil service personnel, or by civilian contractors. The breadth of work performed by the civilian contractors is typically greater than the work performed by Naval personnel. The most complex ship repair work at the NBSD-mainbase is performed at Pier 13. Typically, civilian contractors will store materials and supplies on the piers while working aboard the ships.

The USN Graving Dock is used to conduct repair and maintenance activity which cannot normally be conducted while the vessel is waterborne. These activities generally include exterior: hull repair; welding; grinding; abrasive blasting; hydroblasting; and painting; the repair or replacement of shafts, propellers, and rudders; and the repair or replacement of valves and fittings below the waterline. Utility services

provided to a docked vessel may include electrical, steam, fresh (potable) water, salt water (from the Bay), and sewage disposal. Wastes generated during ship repair include spent abrasives, paint, rust, petroleum products, marine growth and general refuse and debris.

NBSD also has several shore-side industrial maintenance repair shops onsite. Personnel at these shops repair various vessel parts such as antenna or ship mechanics.

Two land parcels within the NBSD perimeter are not under the direct control of the Commander Navy Region Southwest (CNRSW) or Executive Officers at the NBSD. A 25.8-acre compound is owned by the Naval Supply Center and 40 acres of railroad right-of-way is owned by the Burlington Northern and Santa Fe Railway (BNSF) and the Metropolitan Transit Development Board (MTDB). Finally, 54.51 acres of the NBSD parcel are occupied under easement or permit and contain Interstate 5, Harbor Drive, and various public utilities.

Industrial activities at NBSD are classified as fuel storage and dispensing, hazardous substance storage, material handling/loading docks, materials storage, metal fabrication, painting, recycling collection center, repair and maintenance (general), sandblasting, scrap yard, ship support services, and fleet vehicle repair and maintenance.

Wastewaters and storm water discharged from NBSD to waters of the United States include:

Table F-2. Discharges from the Facility

Types of Discharge	Discharge Point Nos.
Steam Condensate	SC-001 through SC-175
Pier Boom, Fender, and Mooring Cleaning Wastewater	BC-001
Utility Vault and Manhole Dewatering	UV-001 through UV-012
Graving Dock Deflooding Water/Salt Water Rinse	NGD-001 through NGD-002
Caisson Ballast Dewatering	NGD-003
Emergency Fire Suppression/Saltwater Supply	NGD-004
Weight Test Water	At any Pier
Seawater Cooling Overboard Discharges	NGD-005
Miscellaneous Dischargers	Various Locations
Storm Water	1

¹ Various locations as discussed in section II.A.1 of this Fact Sheet.

The Discharger discharges storm water through numerous storm water conveyance systems and outfalls located throughout NBSD. This Order regulates the discharge of storm water from NBSD to waters of the US pursuant to Clean Water Act (CWA) section 402(p) as a Phase II MS4. In addition, storm water discharges from areas of NBSD associated with industrial activity are regulated pursuant to CWA section 402(p)(3)(A). Industrial storm water discharges from areas classified as "Industrial High Risk" under this Order, including drydocks and piers where ship maintenance/repair activities are expected to occur, are subject to effluent limitations for acute toxicity. All industrial storm water discharges, regardless of the risk classification under this Order, are subject to continued coverage under a Storm Water Pollution Prevention Plan.

Order No. R9-2002-0169 for NBSD regulated the salt water system as a point source discharge. This Order, no longer regulates the salt water system point source discharge. The Discharger has installed a separate salt water system pumping station at the USN Graving Dock which enabled it to deactivate the pumps that produced discharges at Pier 13 and the Mole Pier.

Broadway Complex: The Broadway Complex is located in downtown San Diego at 937 North Harbor Drive on the corner of North Harbor Drive and Broadway. The Broadway Complex is within the Lindbergh Hydrologic Subarea (908.21) of the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00). The commands located at this installation include the offices of CNRSW, Personnel Support Activity, Navy Computer & Telecommunications Station, Reserve Readiness Command, and Fleet and Industrial Supply Center. Historically this installation served as a supply depot, but it has operated only minimally in that capacity since the middle 1990s. The site on which the Broadway Complex is located is slated for redevelopment. It is anticipated the Broadway Complex will be demolished and redeveloped within the permit period. The Navy will obtain a permit for and comply with the California General Construction Storm Water Permit for this work as a separate permit. Broadway Complex has Phase II MS4 storm water discharges.

Mission Gorge Recreational Facility (MGRF; also known as Admiral Baker Field): MGRF also referred to locally as Admiral Baker Field, is located in the city of San Diego along the San Diego River and is within the Mission San Diego Hydrologic Subarea (907.11) of the Lower San Diego Hydrologic Area (907.10) of the San Diego Hydrologic Unit (907.00). The 440-acre installation is located east of Interstate 15, north of Friars Road, and west of Mission Gorge Road. The installation primarily consists of cultivated or landscaped habitat with various ornamental trees and shrubs planted on the golf course and surrounding areas. Natural habitat onsite includes riparian woodland along the San Diego River and coastal sage scrub adjacent to the golf course on the north and northwestern edges of the property. Most of the natural habitat onsite either occurs within the San Diego River or along very steep slopes (25-50 percent or greater).

The majority of the land use at MGRF consists of two 18-hole golf courses and a driving range. Support facilities include a dance pavilion, snack bar, and coffee shop. Other recreational facilities include tennis courts, volleyball courts, a swimming pool, baseball fields, and a recreation vehicle (RV) camping area located on the southwestern edge of MGRF. The primary mission of MGRF is to provide for maximum participation in programs that are designed to enhance physical, mental, and social health of all active duty personnel and their dependents. Both planned and spontaneous sports programs receive priority compensation within this department.

MGRF has Phase II MS4 storm water discharges and no industrial storm water discharges.

The Naval Medical Center, San Diego (NMCS D): NMCS D is located within Balboa Park and occupies 79 acres in Florida Canyon. NMCS D is within the Lindbergh Hydrologic Subarea (908.21) of the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00). The hospital complex is approximately 500,000 square feet and provides service to approximately 3,800 patients on an average day.

NMCS D provides medical care to active duty personnel, their dependents, and retirees. The hospital is one of only two teaching hospitals in the Navy. It provides training for enlisted hospital corpsmen and junior medical officers and nurses. The Medical Center Commander is also responsible for all Navy and Marine Corps medical facilities in California, Nevada, and Arizona.

NMCS D has Phase II MS4 storm water discharges and no industrial storm water discharges.

A. Description of Wastewater

Discharges at the Facility consist of the following:

1. Storm Water Discharges

A total of 157 known storm water discharge points drain storm water runoff from NBSD. In a May 12, 2011 submittal, the Discharger indicated that there are 58 known industrial storm water outfalls and 99 non-industrial storm water outfalls identified throughout NBSD. The Discharger identified 33 outfalls as receiving storm water flows from Industrial High Risk Areas, or areas associated with outdoor ship maintenance.

This Order establishes requirements for storm water discharges from industrial and non-industrial areas of the Facility (including Industrial High Risk Areas, Industrial Low Risk Areas, Industrial No Exposure Areas, and Small MS4 Areas).

a. Small MS4s

Section 402(p) of the CWA establishes a framework for regulating storm water discharges under the NPDES Program. In 1990, USEPA promulgated regulations for permitting storm water discharges from industrial sites and from municipal separate storm sewer systems (MS4s) serving a population of 100,000 people or more. These regulations, known as the Phase I regulations, require operators of medium and large MS4s to obtain storm water permits. On December 8, 1999, USEPA promulgated regulations, known as Phase II, requiring permits for storm water discharges from Small MS4s.

As defined by 40 CFR 122.26(b)(8), a MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying storm water; (ii) which is not a combined sewer; and (iii) which is not part of a publicly owned treatment works (POTW).

A Small MS4 is an MS4 that is not permitted under the municipal Phase I regulations, and which is owned or operated by the United States, a state, city, town, borough, county, parish, district, association, or other public body having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes. Small MS4s include systems similar to separate storm sewer systems in large municipalities, such as systems at military bases. In this Order, Small MS4s are also referred to as Small (Military Base) MS4s or Phase II MS4s.

The Facility has a number of storm water outfalls, storm water collection systems, and varying types of activities at the Facility. Storm water runoff from non-industrial portions of the Facility such as administrative buildings, roads, parking lots, and other municipal type discharges will be regulated under Phase II MS4 requirements.

This Order establishes requirements for Small MS4 storm water discharges from the Facility based on Phase II MS4 requirements, similar to those established in the California Waste Discharge Requirements for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems General Permit (State Water Board Order No. 2013-0001-DWQ), adopted by the State Water Board on February 5, 2013.

b. Industrial Storm Water

Order No. R9-2002-0169 for NBSD regulated industrial storm water runoff from “Industrial High Risk Areas” through the implementation of a storm water pollution prevention plan (SWPPP), copper and zinc bench mark values, a toxicity effluent limitation, and first flush diversion requirements.

High risk areas are defined in Attachment A as, *“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.”*

This Order establishes requirements for the discharge of storm water runoff from “Industrial High Risk Areas”.

This Order also establishes requirements for storm water runoff from industrial areas not associated with ship construction, modification, repair, and maintenance activities, designated as “Industrial Low Risk Areas”, and from “Industrial No Exposure Areas” where all industrial materials and activities are protected from contact with storm water.

Section IV.B.1 of the Order defines Small MS4 Areas, Industrial No Exposure Areas, Industrial Low Risk Areas, and Industrial High Risk Areas. Section IV.B.2 of this Order requires that the risk level of storm water discharges shall be categorized annually by the Discharger based on the drainage area for each outfall.

Pollutants that may be present in the discharge include pollutants that storm water is likely to contact, including, but not limited to sediment, solids, oil and grease, and metals.

2. Non-Storm Water

A list of authorized non-storm water discharges is in section IV.G.1 of this Order including diverted stream flows, rising ground water, uncontaminated ground water, springs, drinking fountain water, emergency eye wash water, condensate, and several others. These discharges are authorized unless they are a significant source of pollutants and if they meet the conditions in section IV.G.2 of the Order. Best Management Practices (BMPs) are required for these discharges.

3. Seawater Cooling Overboard Discharge Water

The seawater cooling system draws water directly from San Diego Bay to cool ship engines. Water is pumped through heat exchangers where it absorbs heat and is then discharged to San Diego Bay at higher temperatures. While on the water, this discharge is regulated by the Uniform Naval Discharge System. This Order authorizes this discharge while a ship is in dry dock, unless they are a significant source of pollutants and if they meet the conditions in section IV.G.7 of the Order. BMPs are required for this discharge.

4. Utility Vault and Manhole Dewatering

NBSD has electrical and steam utility vaults and manholes, and discharges may occur from these point sources to surface waters. Utility companies, or agencies, such as the NAVFAC SW Public Works (formerly known as the Public Works Center or PWC) for the Discharger, supplies resources, as necessary, for day-to-day living and operations. This includes, but is not limited to, supplies of natural gas, electricity, and telephone service. Electrical and steam utilities are owned and maintained by the NAVFAC SW. Discharges from the utility vaults and manholes are short-term and intermittent.

Typically, utility companies must dewater the vaults and underground structures prior to performing any repair, maintenance, and/or installation of equipment when the volume of water interferes with safety or quality of the work to be done. The volume of discharge could vary from a few gallons to thousands of gallons. The duration of discharge and pump rates for the discharge could also vary greatly.

NBSD requires electrical power for both its shore and afloat operations. On-base electrical power is carried through an extensive underground conduit system. Electrical utility vaults and manholes contain high voltage electrical equipment, transformers, switchgear, and/or below grade cables. NBSD had 15 electrical vaults identified under Order No. R9-2002-0169. The Discharger has reported that only 12 of the 15 electrical vaults are subject to flooding and have the potential to discharge wastewater. Two (2) of the 12 vaults are located under Pier 2 and are subject to Bay water intrusion and storm water. Automatic sump pumps are installed in each vault and discharge the accumulated water directly to San Diego Bay.

The remaining 10 vaults are located on land, inside buildings, and are associated with electrical switching or substations. Similar to the pier vaults, the vaults on land can accumulate ground water and storm water, and they are dewatered using automatic sump pumps. The sump pumps discharge the water onto the ground surface around the vault buildings. These discharges have the potential to reach a storm drain inlet and discharge to San Diego Bay, depending on the volume of the discharge.

The 12 utility vaults that have been identified as having the potential to discharge include: Pier 2, Vault 2 West (UV-001); Pier 2, Vault 1 East (UV-002); B Substation, Pier 2 (UV-003); F Substation, Bldg. 3403 (UV-004); Harbor Drive Substation, Bldg. P184A, near Bldg. 121 (UV-005); Vesta Substation (UV-006); McCandless Substation (UV-007); G Substation, Pier 6 (UV-008); P7 Substation, Pier 7, Bldg. 3420 (UV-009); J Substation, Pier 8 (UV-010); Mole Substation, Bldg. 3361, P414W (UV-011); and South Cummings Substation, Bldg. P405 (UV-012).

In addition to the vaults, electrical and steam utility manholes are located at all Facility installations, except at MGRF. These manholes can accumulate groundwater and storm water. They can also accumulate steam condensate water. High-pressure steam lines are located in underground conduit systems and are accessed through utility manholes. Water in the manholes must be removed when maintenance or emergency work on the utility services to NBSD is required.

All manholes at NBSD are manually dewatered using a portable pump or pump truck. The Discharger has implemented procedures to eliminate dewatering discharges to surface waters from vaults without sump pumps and manholes. The Discharger either pumps the water into an adjacent utility manhole or transfers the water to the sanitary sewer system. However, there could be rare emergency situations that would require dewatering vaults without sump pumps or manholes onto the ground surface.

Prior to the adoption of Order No. R9-2002-0169 for NBSD, discharges from utility vaults and manholes were regulated by the statewide General Order for Discharges from Utility Vaults and Underground Structures to Surface Waters (Order No. 96-12-DWQ, NPDES No. CAG990002). At the time of adoption of Order No. R9-2002-0169, the State Water Board was awaiting USEPA approval of the re-issued General Order (Order No. 2001-11-DWQ). In order to regulate all of the discharges at the Facility under one order, the San Diego Water Board incorporated the pertinent specifications, limitations, and monitoring requirements of Order No. 2001-11-DWQ into Order No. R9-2002-0169. The State Water Board has since re-issued the General Order again, the most recent version being Order No. 2006-0008-DWQ *General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters*. To be consistent with the

requirements applied to other discharges from utility vaults in the San Diego region, the monitoring requirements in the Order are identical to the monitoring requirements in State Water Board Order R9-2006-0008-DWQ.

Pollutants that may be found in the discharge include contaminants in the San Diego Bay water that accumulates in pier vaults, contaminants in groundwater that accumulates in shore side vaults and manholes, pollutants in storm water that accumulates in the utility vaults and manholes, and pollutants from electrical and steam equipment (e.g., oils, grease, metals) located in the vaults and manholes. A map of the utility vault and manhole dewatering discharge locations at NBSD is shown in Attachment B (Figure B-7). A line drawing for the utility vault and manhole dewatering discharges is shown in Attachment C (Figure C-3).

5. Industrial Process Wastewater

a. Steam Condensate

The Discharger uses a pressurized steam system for its shore and afloat operations. The steam is produced at an on-site cogeneration plant operated by Sithe Energy, a contractor. Chemicals are injected into the boiler feed water and directly into the boilers. The chemicals that may be present in the steam condensate as a result of the additives include cyclohexylamine (20%), diethylaminoethanol, diethylhydroxylamine, hydroquinone, and morpholine.

The produced steam is distributed to buildings and surface ships through a system made up of high and low pressure steam lines, pressure reducing valve stations, and expansion joints. The system traps steam condensate to ensure that the steam supplied meets user quality assurance specifications. When water collects in the steam lines, it is essential for the system to remove the water as soon as possible.

Order No. R9-2002-0169 regulated steam condensate from 190 discharge points with an approximate discharge volume of 2,150 gallons per day (GPD). During the term of Order No. R9-2002-0169, the Discharger demolished Piers 10 and 11, which were replaced with a new replacement Pier 10. Additionally, the Discharger is in the process of demolishing Pier 12 in order to construct a replacement pier. These activities have resulted in the elimination of outfalls P10ST1 through P10ST11 and P11ST1 through P11ST5 (as identified in Order No. R9-2002-0169) and the addition of Discharge Point Nos. SC-150 through SC-153. This Order regulates 175 steam condensate discharge points, as identified in the Discharger's application. All but two of these points are located along the piers or quay walls. The pier discharge points, in addition to releasing steam, drip small amounts of water to the Bay between steam discharges. The estimated discharge rate for the steam lines is 1 ounce per minute. The estimated total discharge volume per day is 2,000 gallons per day (GPD).

The steam condensate discharges are typically from the traps. The discharges consist of steam clouds, with temperatures in excess of 100°C. A portion of the steam evaporates prior to condensing and discharging to San Diego Bay or ground surface, depending on the location of the steam trap, through Discharge Point Nos. SC-001 through SC-175.

Pollutants that may be found in the discharge include contaminants in the potable water supplied to the steam boilers, chemical additives injected into the boiler feed water, and any contaminants that the steam condensate comes into contact with as it circulates steam distribution. A map of the steam condensate discharge locations at NBSD is shown in Attachment B (Figure B-4 and B-5). A line drawing flow schematic for the steam condensate discharges is shown in Attachment C (Figure C-1).

b. USN Graving Dock Deflooding Water.

The discharge of dry dock deflooding water through Discharge Point Nos. NGD-001 and NDG-002 occurs during vessel docking and undocking. San Diego Bay water captured in the dry dock is pumped back into the San Diego Bay. Approximately 20.2 million gallons of graving dock deflooding water and salt water rinse is discharged per event.

Pollutants that may be found in the discharge may include but are not limited to any contaminants that the water from San Diego Bay comes into contact with as it enters the dry dock, any contaminants already in the water from San Diego Bay, and any contaminants that leach off a docking/undocking vessel's anti-fouling paint.

c. USN Graving Dock Caisson Ballast Dewatering.

To dock and undock a vessel, the caisson is raised approximately 4 feet by pumping a portion of the caisson ballast water to the San Diego Bay through Discharge Point No. NGD-003. Approximately 0.032 million gallons of caisson ballast water is discharged per event.

d. Emergency Fire Suppression Water and Salt Water Supply Water.

Water from the San Diego Bay is supplied to an emergency fire suppression system and saltwater supply system at the dry dock. Relief water from the systems is discharged through Discharge Point No. NGD-004.

e. Pier Boom, Fender, and Mooring Cleaning

Security booms, oil containment booms, moorings, and fender systems are placed around vessels and piers at NBSD. The security and oil containment boom placed around the vessels and piers, and the pier mooring and fender systems accumulate marine growth and bird guano over time. The marine growth can cause the booms, moorings, and fender systems to sink, and the accumulated bird guano presents a potential human health hazard. The marine growth and bird guano is washed off with high-pressure potable water or seawater. The booms, moorings, and fender systems are usually removed from the water during the cleaning process.

Typically, the booms, moorings, and fenders are cleaned twice per year on a quarterly rotational basis. The high-pressure washer discharges 5 gallons per minute (GPM) and operates 6 hours per day for 2 to 3 weeks per quarter for a total annual discharge of approximately 108,000 gallons.

After a response to an oil spill, the oily booms are removed from the San Diego Bay by barge and transported to a designated cleaning area on Paleta Creek, north of Pier 8, at NBSD for cleaning. The cleaning water from the designated cleaning area discharges to the bilge and oily water treatment system (BOWTS) and then to the sanitary sewer system.

Boom, mooring, and fender cleaning discharges at NBSD can occur at any pier where these are installed. However, cleaning typically occurs along the quay wall in front of the Waterfront Operations facility.

Pollutants that may be found in the discharge include contaminants in the potable water or San Diego Bay water used in the pressure wash, any contaminants that the water comes into contact with as it passes through the pressure-wash equipment, and contaminants washed from the surfaces of the pier booms. A map of the pier boom, fender, and mooring cleaning discharge locations at NBSD is shown in Attachment B (Figure B-6). A line drawing for the pier boom, fender, and mooring cleaning discharges is shown in Attachment C (Figure C-2).

f. Weight Test Water

Weight testing is performed on shipboard cranes and rigging to ensure they are operating properly and safely. Testing is typically performed after new systems are installed; repairs are performed on existing systems, or as part of recurring maintenance. The testing ensures cranes and rigging can safely perform their essential functions such as loading supplies and equipment, or on and off loading life rafts. The testing is performed by placing a pre-determined load on the cranes using water filled bags. After testing is completed, the bags are drained to San Diego Bay.

The weight test bags are filled utilizing the ship's salt water system. Discharges associated with the salt water system are incidental to the normal operations of the ship and are regulated under the Uniform National Discharge Standards (UNDS) program. This system takes in ambient water where it passes through pumps, pipes, and heat exchangers before being discharged. Use of the ship's salt water system to fill the bags does not result in a new discharge, but one that would occur with or without weight testing. The bags are thoroughly cleaned after every use so no contaminants are added and the only discharge is the same water as the ship's salt water system which is regulated by the UNDS program. This Order requires the implementation of BMPs to ensure that no pollutants are added by the weight test bags.

6. Ship Repair and Maintenance Activities

The diverse discharges from ship repair and maintenance activities could occur at several locations, including aboard ship when docked, on the piers, or on shore locations. Ship repair and maintenance activities include abrasive blasting, hydroblasting, metal grinding, painting, tank cleaning, removal of bilge and ballast water, removal of anti-fouling paint, sheet metal work, electrical work, mechanical repair, engine repair, hull repair, and sewage disposal. Discharges associated with these activities include water contaminated with abrasive blast materials, paint, oils, fuels, lubricants, solvents, or petroleum; hydroblast water; tank cleaning water from tank cleaning to remove sludge and/or dirt; clarified water from oil/water separator; steam cleaning water; demineralizer and reverse osmosis brine; oily bilge water; vessel wash-down water; pipe and tank hydrostatic test water; miscellaneous low-volume water; saltbox water; paint chips; paint over spray; paint spills; hydraulic oil leaks and spills; fuel leaks and spills; abrasive blast materials; trash; miscellaneous refuse and rubbish; fiberglass dust; swept materials; and ship repair and maintenance activity debris. This Order prohibits discharges from ship repair and maintenance activities.

B. Discharge Points and Receiving Waters

1. A Facility Map is provided in Attachment B (Figure B-1).
2. NBSD is located on the eastern edge of the San Diego Bay, bordered by the cities of San Diego to the north and east and National City to the south and east. NBSD is about three miles southeast of downtown San Diego and 10 miles north of the international border with Mexico. NBSD is a large facility located within three hydrologic subareas: the *Chollas Hydrologic Subarea (908.22) of the San Diego Mesa Hydrologic Area (908.20)*, the *El Toyon Hydrologic Subarea (908.31)* and the *Paradise Hydrologic Subarea (908.32) of the National City Hydrologic Area (908.30)*. The three hydrologic subareas are in the *Pueblo San Diego Hydrologic Unit (908.00)*.

3. Broadway Complex is located on the north eastern edge of San Diego Bay in downtown San Diego at 937 North Harbor Drive on the corner of North Harbor Drive and Broadway. The Broadway Complex is within the Lindbergh Hydrologic Subarea (908.21) of the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00).
4. MGRF, also referred to locally as Admiral Baker Field, is located in the city of San Diego along the San Diego River and is within the Mission San Diego Hydrologic Subarea (907.11) of the Lower San Diego Hydrologic Area (907.10) of the San Diego Hydrologic Unit (907.00).
5. Naval Medical Center, San Diego is located within Balboa Park and occupies 79 acres in Florida Canyon within the Lindbergh Hydrologic Subarea (908.21) of the San Diego Mesa Hydrologic Area (908.20) of the Pueblo San Diego Hydrologic Unit (908.00).
6. Industrial wastewater is discharged into the San Diego Bay as summarized below:

Table F-3. Discharge Locations

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P1ST1	SC-001	Steam Condensate	32° 41' 9" N	-117° 7' 57" W	San Diego Bay
P1ST2	SC-002	Steam Condensate	32° 41' 8" N	-117° 7' 59" W	San Diego Bay
P1ST3	SC-003	Steam Condensate	32° 41' 7" N	-117° 8', 1" W	San Diego Bay
P1ST4	SC-004	Steam Condensate	32° 41' 7" N	-117° 8' 2" W	San Diego Bay
P1ST5	SC-005	Steam Condensate	32° 41' 5" N	-117° 8' 3" W	San Diego Bay
P1ST6	SC-006	Steam Condensate	32° 41' 5" N	-117° 8' 5" W	San Diego Bay
P1ST7	SC-007	Steam Condensate	32° 41' 4" N	-117° 8' 5" W	San Diego Bay
P1ST8	SC-008	Steam Condensate	32° 41' 3" N	-117° 8' 6" W	San Diego Bay
P1ST9	SC-009	Steam Condensate	32° 41' 4" N	-117° 8' 5" W	San Diego Bay
P1ST10	SC-010	Steam Condensate	32° 41' 5" N	-117° 8' 4" W	San Diego Bay
P1ST11	SC-011	Steam Condensate	32° 41' 5" N	-117° 8' 3" W	San Diego Bay
P1ST12	SC-012	Steam Condensate	32° 41' 6" N	-117° 8' 1" W	San Diego Bay
P1ST13	SC-013	Steam Condensate	32° 41' 7" N	-117° 8' 0" W	San Diego Bay
P1ST14	SC-014	Steam Condensate	32° 41' 8" N	-117° 7' 59" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P1ST15	SC-015	Steam Condensate	32° 41' 9" N	-117° 7' 57" W	San Diego Bay
QW1 2ST1	SC-016	Steam Condensate	32° 41' 7" N	-117° 7' 55" W	San Diego Bay
QW1 2ST2	SC-017	Steam Condensate	32° 41' 4" N	-117° 7' 51" W	San Diego Bay
QW1 2ST3	SC-018	Steam Condensate	32° 41' 2" N	-117° 7' 50" W	San Diego Bay
P2ST1	SC-019	Steam Condensate	32° 41' 1" N	-117° 7' 51" W	San Diego Bay
P2ST2	SC-020	Steam Condensate	32° 41' 1" N	-117° 7' 51" W	San Diego Bay
P2ST3	SC-021	Steam Condensate	32° 41' 0" N	-117° 7' 53" W	San Diego Bay
P2ST4	SC-022	Steam Condensate	32° 40' 58" N	-117° 7' 56" W	San Diego Bay
P2ST5	SC-023	Steam Condensate	32° 40' 58" N	-117° 7' 56" W	San Diego Bay
P2ST6	SC-024	Steam Condensate	32° 40' 56" N	-117° 7' 59" W	San Diego Bay
P2ST7	SC-025	Steam Condensate	32° 40' 56" N	-117° 7' 59" W	San Diego Bay
P2ST8	SC-026	Steam Condensate	32° 40' 57" N	-117° 7' 57" W	San Diego Bay
P2ST9	SC-027	Steam Condensate	32° 40' 57" N	-117° 7' 57" W	San Diego Bay
P2ST10	SC-028	Steam Condensate	32° 40' 59" N	-117° 7' 54" W	San Diego Bay
P2ST11	SC-029	Steam Condensate	32° 40' 59" N	-117° 7' 54" W	San Diego Bay
P2ST12	SC-030	Steam Condensate	32° 41' 0" N	-117° 7' 51" W	San Diego Bay
P2ST13	SC-031	Steam Condensate	32° 41' 2" N	-117° 7' 48" W	San Diego Bay
P2ST14	SC-032	Steam Condensate	32° 41' 2" N	-117° 7' 48" W	San Diego Bay
P2ST15	SC-033	Steam Condensate	32° 41' 3" N	-117° 7' 47" W	San Diego Bay
QW2 3ST1	SC-034	Steam Condensate	32° 41' 1" N	-117° 7' 41" W	San Diego Bay
P3ST1	SC-035	Steam Condensate	32° 40' 58" N	-117° 7' 42" W	San Diego Bay
P3ST2	SC-036	Steam Condensate	32° 40' 56" N	-117° 7' 44" W	San Diego Bay
P3ST3	SC-037	Steam Condensate	32° 40' 56" N	-117° 7' 45" W	San Diego Bay
P3ST4	SC-038	Steam Condensate	32° 40' 55" N	-117° 7' 47" W	San Diego Bay
P3ST5	SC-039	Steam Condensate	32° 40' 53" N	-117° 7' 49" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P3ST6	SC-040	Steam Condensate	32° 40' 52" N	-117° 7' 51" W	San Diego Bay
P3ST7	SC-041	Steam Condensate	32° 40' 51" N	-117° 7' 53" W	San Diego Bay
P3ST8	SC-042	Steam Condensate	32° 40' 52" N	-117° 7' 51" W	San Diego Bay
P3ST9	SC-043	Steam Condensate	32° 40' 53" N	-117° 7' 49" W	San Diego Bay
P3ST10	SC-044	Steam Condensate	32° 40' 54" N	-117° 7' 46" W	San Diego Bay
P3ST11	SC-045	Steam Condensate	32° 40' 56" N	-117° 7' 44" W	San Diego Bay
P3ST12	SC-046	Steam Condensate	32° 40' 57" N	-117° 7' 42" W	San Diego Bay
P3ST13	SC-047	Steam Condensate	32° 40' 58" N	-117° 7' 40" W	San Diego Bay
QW3 4ST1	SC-048	Steam Condensate	32° 40' 57" N	-117° 7' 38" W	San Diego Bay
QW3 4ST2	SC-049	Steam Condensate	32° 40' 55" N	-117° 7' 36" W	San Diego Bay
P4ST1	SC-050	Steam Condensate	32° 40' 53" N	-117° 7' 35" W	San Diego Bay
P4ST2	SC-051	Steam Condensate	32° 40' 52" N	-117° 7' 36" W	San Diego Bay
P4ST3	SC-052	Steam Condensate	32° 40' 51" N	-117° 7' 38" W	San Diego Bay
P4ST4	SC-053	Steam Condensate	32° 40' 50" N	-117° 7' 39" W	San Diego Bay
P4ST5	SC-054	Steam Condensate	32° 40' 49" N	-117° 7' 40" W	San Diego Bay
P4ST6	SC-055	Steam Condensate	32° 40' 49" N	-117° 7' 41" W	San Diego Bay
P4ST7	SC-056	Steam Condensate	32° 40' 48" N	-117° 7' 42" W	San Diego Bay
P4ST8	SC-057	Steam Condensate	32° 40' 48" N	-117° 7' 43" W	San Diego Bay
P4ST9	SC-058	Steam Condensate	32° 40' 47" N	-117° 7' 44" W	San Diego Bay
P4ST10	SC-059	Steam Condensate	32° 40' 46" N	-117° 7' 45" W	San Diego Bay
P4ST11	SC-060	Steam Condensate	32° 40' 46" N	-117° 7' 46" W	San Diego Bay
P4ST12	SC-061	Steam Condensate	32° 40' 45" N	-117° 7' 46" W	San Diego Bay
P4ST13	SC-062	Steam Condensate	32° 40' 46" N	-117° 7' 45" W	San Diego Bay
P4ST14	SC-063	Steam Condensate	32° 40' 47" N	-117° 7' 44" W	San Diego Bay
P4ST15	SC-064	Steam Condensate	32° 40' 48" N	-117° 7' 41" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P4ST16	SC-065	Steam Condensate	32° 40' 49" N	-117° 7' 40" W	San Diego Bay
P4ST17	SC-066	Steam Condensate	32° 40' 50" N	-117° 7' 39" W	San Diego Bay
P4ST18	SC-067	Steam Condensate	32° 40' 50" N	-117° 7' 38" W	San Diego Bay
P4ST19	SC-068	Steam Condensate	32° 40' 52" N	-117° 7' 35" W	San Diego Bay
P4ST20	SC-069	Steam Condensate	32° 40' 52" N	-117° 7' 35" W	San Diego Bay
P4ST21	SC-070	Steam Condensate	32° 40' 52" N	-117° 7' 35" W	San Diego Bay
QW4 5ST1	SC-071	Steam Condensate	32° 40' 51" N	-117° 7' 33" W	San Diego Bay
QW4 5ST2	SC-072	Steam Condensate	32° 40' 51" N	-117° 7' 33" W	San Diego Bay
QW4 5ST3	SC-073	Steam Condensate	32° 40' 49" N	-117° 7' 31" W	San Diego Bay
QW4 5ST4	SC-074	Steam Condensate	32° 40' 47" N	-117° 7' 30" W	San Diego Bay
P5ST1	SC-075	Steam Condensate	32° 40' 46" N	-117° 7' 31" W	San Diego Bay
P5ST2	SC-076	Steam Condensate	32° 40' 45" N	-117° 7' 33" W	San Diego Bay
P5ST3	SC-077	Steam Condensate	32° 40' 44" N	-117° 7' 34" W	San Diego Bay
P5ST4	SC-078	Steam Condensate	32° 40' 43" N	-117° 7' 35" W	San Diego Bay
P5ST5	SC-079	Steam Condensate	32° 40' 42" N	-117° 7' 37" W	San Diego Bay
P5ST6	SC-080	Steam Condensate	32° 40' 41" N	-117° 7' 36" W	San Diego Bay
P5ST7	SC-081	Steam Condensate	32° 40' 40" N	-117° 7' 40" W	San Diego Bay
P5ST8	SC-082	Steam Condensate	32° 40' 40" N	-117° 7' 40" W	San Diego Bay
P5ST9	SC-083	Steam Condensate	32° 40' 41" N	-117° 7' 38" W	San Diego Bay
P5ST10	SC-084	Steam Condensate	32° 40' 42" N	-117° 7' 36" W	San Diego Bay
P5ST11	SC-085	Steam Condensate	32° 40' 43" N	-117° 7' 35" W	San Diego Bay
P5ST12	SC-086	Steam Condensate	32° 40' 44" N	-117° 7' 34" W	San Diego Bay
P5ST13	SC-087	Steam Condensate	32° 40' 44" N	-117° 7' 32" W	San Diego Bay
P5ST14	SC-088	Steam Condensate	32° 40' 45" N	-117° 7' 31" W	San Diego Bay
QW5 6ST1	SC-089	Steam Condensate	32° 40' 41" N	-117° 7' 24" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P6ST1	SC-090	Steam Condensate	32° 40' 40" N	-117° 7' 26" W	San Diego Bay
P6ST2	SC-091	Steam Condensate	32° 40' 38" N	-117° 7' 28" W	San Diego Bay
P6ST3	SC-092	Steam Condensate	32° 40' 36" N	-117° 7' 32" W	San Diego Bay
P6ST4	SC-093	Steam Condensate	32° 40' 35" N	-117° 7' 34" W	San Diego Bay
P6ST5	SC-094	Steam Condensate	32° 40' 34" N	-117° 7' 36" W	San Diego Bay
P6ST6	SC-095	Steam Condensate	32° 40' 35" N	-117° 7' 33" W	San Diego Bay
P6ST7	SC-096	Steam Condensate	32° 40' 36" N	-117° 7' 31" W	San Diego Bay
P6ST8	SC-097	Steam Condensate	32° 40' 38" N	-117° 7' 28" W	San Diego Bay
P6ST9	SC-098	Steam Condensate	32° 40' 39" N	-117° 7' 26" W	San Diego Bay
P6ST10	SC-099	Steam Condensate	32° 40' 40" N	-117° 7' 24" W	San Diego Bay
QW6 7ST1	SC-100	Steam Condensate	32° 40' 36" N	-117° 7' 21" W	San Diego Bay
QW6 7ST2	SC-101	Steam Condensate	32° 40' 35" N	-117° 7' 19" W	San Diego Bay
P7ST1	SC-102	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
P7ST2	SC-103	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
P7ST3	SC-104	Steam Condensate	32° 40' 33" N	-117° 7' 22" W	San Diego Bay
P7ST4	SC-105	Steam Condensate	32° 40' 32" N	-117° 7' 24" W	San Diego Bay
P7ST5	SC-106	Steam Condensate	32° 40' 31" N	-117° 7' 25" W	San Diego Bay
P7ST6	SC-107	Steam Condensate	32° 40' 30" N	-117° 7' 27" W	San Diego Bay
P7ST7	SC-108	Steam Condensate	32° 40' 29" N	-117° 7' 28" W	San Diego Bay
P7ST8	SC-109	Steam Condensate	32° 40' 28" N	-117° 7' 29" W	San Diego Bay
P7ST9	SC-110	Steam Condensate	32° 40' 27" N	-117° 7' 31" W	San Diego Bay
P7ST10	SC-111	Steam Condensate	32° 40' 27" N	-117° 7' 32" W	San Diego Bay
P7ST11	SC-112	Steam Condensate	32° 40' 26" N	-117° 7' 33" W	San Diego Bay
P7ST12	SC-113	Steam Condensate	32° 40' 25" N	-117° 7' 33" W	San Diego Bay
P7ST13	SC-114	Steam Condensate	32° 40' 26" N	-117° 7' 32" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P7ST15	SC-115	Steam Condensate	32° 40' 28" N	-117° 7' 29" W	San Diego Bay
P7ST16	SC-116	Steam Condensate	32° 40' 29" N	-117° 7' 28" W	San Diego Bay
P7ST18	SC-117	Steam Condensate	32° 40' 30" N	-117° 7' 25" W	San Diego Bay
P7ST19	SC-118	Steam Condensate	32° 40' 31" N	-117° 7' 23" W	San Diego Bay
P7ST20	SC-119	Steam Condensate	32° 40' 32" N	-117° 7' 22" W	San Diego Bay
P7ST21	SC-120	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
P7ST22	SC-121	Steam Condensate	32° 40' 34" N	-117° 7' 19" W	San Diego Bay
QW7 8ST1	SC-122	Steam Condensate	32° 40' 30" N	-117° 7' 15" W	San Diego Bay
P8ST1	SC-123	Steam Condensate	32° 40' 28" N	-117° 7' 14" W	San Diego Bay
P8ST2	SC-124	Steam Condensate	32° 40' 28" N	-117° 7' 15" W	San Diego Bay
P8ST3	SC-125	Steam Condensate	32° 40' 26" N	-117° 7' 17" W	San Diego Bay
P8ST4	SC-126	Steam Condensate	32° 40' 25" N	-117° 7' 19" W	San Diego Bay
P8ST5	SC-127	Steam Condensate	32° 40' 24" N	-117° 7' 21" W	San Diego Bay
P8ST6	SC-128	Steam Condensate	32° 40' 23" N	-117° 7' 22" W	San Diego Bay
P8ST7	SC-129	Steam Condensate	32° 40' 22" N	-117° 7' 25" W	San Diego Bay
P8ST8	SC-130	Steam Condensate	32° 40' 20" N	-117° 7' 27" W	San Diego Bay
P8ST9	SC-131	Steam Condensate	32° 40' 20" N	-117° 7' 27" W	San Diego Bay
P8ST10	SC-132	Steam Condensate	32° 40' 21" N	-117° 7' 25" W	San Diego Bay
P8ST11	SC-133	Steam Condensate	32° 40' 23" N	-117° 7' 22" W	San Diego Bay
P8ST12	SC-134	Steam Condensate	32° 40' 24" N	-117° 7' 21" W	San Diego Bay
P8ST13	SC-135	Steam Condensate	32° 40' 25" N	-117° 7' 19" W	San Diego Bay
P8ST14	SC-136	Steam Condensate	32° 40' 26" N	-117° 7' 17" W	San Diego Bay
QW8 9ST1	SC-137	Steam Condensate	32° 40' 27" N	-117° 7' 14" W	San Diego Bay
QW8 9ST2	SC-138	Steam Condensate	32° 40' 26" N	-117° 7' 13" W	San Diego Bay
QW8 9ST3	SC-139	Steam Condensate	32° 40' 24" N	-117° 7' 11" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P9ST1	SC-140	Steam Condensate	32° 40' 11" N	-117° 7' 19" W	San Diego Bay
P9ST2	SC-141	Steam Condensate	32° 40' 11" N	-117° 7' 22" W	San Diego Bay
P9ST3	SC-142	Steam Condensate	32° 40' 9" N	-117° 7' 23" W	San Diego Bay
QW9 10ST1	SC-143	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
P10ST1	SC-144	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
P10ST11	SC-145	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
QW10 11ST1	SC-146	Steam Condensate	32° 40' 4" N	-117° 7' 10" W	San Diego Bay
QW10 11ST2	SC-147	Steam Condensate	32° 40' 2" N	-117° 7' 10" W	San Diego Bay
QW10 11ST3	SC-148	Steam Condensate	32° 39' 58" N	-117° 7' 9" W	San Diego Bay
P11ST5	SC-149	Steam Condensate	32° 39' 58" N	-117° 7' 9" W	San Diego Bay
Q11 12ST2	SC-150	Steam Condensate	32° 39' 58" N	-117° 7' 9" W	San Diego Bay
P12ST1	SC-151	Steam Condensate	32° 39' 52" N	-117° 7' 11" W	San Diego Bay
P12ST2	SC-152	Steam Condensate	32° 39' 50" N	-117° 7' 23" W	San Diego Bay
P12ST3	SC-153	Steam Condensate	32° 39' 52" N	-117° 7' 11" W	San Diego Bay
QW12 13ST1	SC-154	Steam Condensate	32° 39' 48" N	-117° 7' 8" W	San Diego Bay
QW12 13ST2	SC-155	Steam Condensate	32° 39' 46" N	-117° 7' 7" W	San Diego Bay
P13ST1	SC-156	Steam Condensate	32° 39' 45" N	-117° 7' 9" W	San Diego Bay
P13ST2	SC-157	Steam Condensate	32° 39' 45" N	-117° 7' 10" W	San Diego Bay
P13ST3	SC-158	Steam Condensate	32° 39' 45" N	-117° 7' 13" W	San Diego Bay
P13ST4	SC-159	Steam Condensate	32° 39' 45" N	-117° 7' 15" W	San Diego Bay
P13ST5	SC-160	Steam Condensate	32° 39' 45" N	-117° 7' 17" W	San Diego Bay
P13ST6	SC-161	Steam Condensate	32° 39' 45" N	-117° 7' 19" W	San Diego Bay
P13ST7	SC-162	Steam Condensate	32° 39' 44" N	-117° 7' 20" W	San Diego Bay
P13ST8	SC-163	Steam Condensate	32° 39' 44" N	-117° 7' 22" W	San Diego Bay
P13ST9	SC-164	Steam Condensate	32° 39' 43" N	-117° 7' 24" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
P13ST10	SC-165	Steam Condensate	32° 39' 43" N	-117° 7' 22" W	San Diego Bay
P13ST11	SC-167	Steam Condensate	32° 39' 43" N	-117° 7' 20" W	San Diego Bay
P13ST12	SC-168	Steam Condensate	32° 39' 43" N	-117° 7' 19" W	San Diego Bay
P13ST13	SC-169	Steam Condensate	32° 39' 44" N	-117° 7' 17" W	San Diego Bay
P13ST14	SC-170	Steam Condensate	32° 39' 44" N	-117° 7' 15" W	San Diego Bay
P13ST15	SC-171	Steam Condensate	32° 39' 44" N	-117° 7' 13" W	San Diego Bay
P13ST16	SC-172	Steam Condensate	32° 39' 44" N	-117° 7' 10" W	San Diego Bay
P13ST17	SC-173	Steam Condensate	32° 39' 44" N	-117° 7' 9" W	San Diego Bay
P13ST18	SC-174	Steam Condensate	32° 39' 44" N	-117° 7' 7" W	San Diego Bay
IL01	SC-175	Steam Condensate	32° 40' 49" N	-117° 7' 31" W	San Diego Bay
Boom Cleaning	BC-001	Boom Cleaning ¹	32° 40' 24" N	-117° 7' 1" W	San Diego Bay
Pier 2, Vault 2 West	UV-001	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 55" W	San Diego Bay
Pier 2, Vault 1 East	UV-002	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 52" W	San Diego Bay
B Substation, Pier 2	UV-003	Utility Vault & Manhole Dewatering ²	32° 41' 2" N	-117° 7' 48" W	San Diego Bay
F Substation, Bldg. 3403	UV-004	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 37" W	San Diego Bay
Harbor Drive Substation, Bldg. P184A near Bldg. 121	UV-005	Utility Vault & Manhole Dewatering ²	32° 40' 59" N	-117° 7' 30" W	San Diego Bay
Vesta Substation	UV-006	Utility Vault & Manhole Dewatering ²	32° 40' 52" N	-117° 7' 12" W	San Diego Bay
McCandless Substation	UV-007	Utility Vault & Manhole Dewatering ²	32° 40' 55" N	-117° 7' 8" W	Paleta Creek
G Substation, Pier 6	UV-008	Utility Vault & Manhole Dewatering ²	32° 40' 41" N	-117° 7' 23" W	San Diego Bay
P7 Substation, Pier 7, Bldg. 3420	UV-009	Utility Vault & Manhole Dewatering ²	32° 40' 37" N	-117° 7' 19" W	San Diego Bay
J Substation, Pier 8	UV-010	Utility Vault & Manhole Dewatering ²	32° 40' 30" N	-117° 7' 12" W	San Diego Bay
Mole Substation, Bldg. 3361, P414W	UV-011	Utility Vault & Manhole Dewatering ²	32° 40' 10" N	-117° 7' 14" W	San Diego Bay

Application Name	Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
South Cummings Substation, Bldg. P405	UV-012	Utility Vault & Manhole Dewatering ²	32° 40' 16" N	-117° 6' 54" W	Paleta Creek
001	NGD-001	Deflooding water/Salt water rinse	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
002	NGD-002	Deflooding water/Salt Water Rinse	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
003	NGD-003	Caisson ballast dewatering	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
004	NGD-004	Emergency fire suppression/Saltwater supply	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
005	NGD-005	Seawater Cooling Overboard Water	32° 40' 45" N	-117° 7' 30" W	San Diego Bay
Weight Test Water	Various Locations	Weight Test Water	Various	Various	San Diego Bay
Small Municipal Separate Storm Sewer System (MS4) Discharges					
--	See Attachment M to this Order for NBSD ³	Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order for NBSD ³	See Attachment M to this Order for NBSD ³	Chollas Creek, San Diego River, or San Diego Bay
Industrial No Exposure Area Storm Water Discharges					
--	See Attachment M to this Order	Industrial No Exposure Area Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order	See Attachment M to this Order	Chollas Creek, Paleta Creek or San Diego Bay
Industrial Low Risk Area Storm Water Discharges					
--	See Attachment M to this Order	Industrial Low Risk Area Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order	See Attachment M to this Order	Chollas Creek, Paleta Creek, or San Diego Bay
Industrial High Risk Area Storm Water Discharges					
--	See Attachment M to this Order	Industrial Low Risk Area Storm Water (wet weather) and Non-Storm Water (dry weather)	See Attachment M to this Order	See Attachment M to this Order	San Diego Bay

¹ Boom, mooring, and fender cleaning discharges can occur at any pier where booms are installed. However, boom cleaning typically occurs along the quay wall in front of the Waterfront Operations facility. The discharge point identified in the table is located at the Waterfront Operations facility. Oil booms contaminated with oil or fuel are removed from water for cleaning with no discharge to receiving waters. Security boom cleaning to remove marine growth is most often performed at the location where the boom is installed.

- ² The discharge points identified in the table represent electrical utility vaults that could potentially discharge to San Diego Bay and Paleta Creek. Manhole dewatering is performed with manual pumps or pumper trucks and the water is discharged to the sanitary sewer or to adjacent manholes. A manhole dewatering discharge to a storm drain or receiving water would be very infrequent and only during emergencies. Discharge locations could occur at numerous locations within the Facility.
- ³ The MS4 discharge points identified in Attachment M are in NBSD. Other MS4 discharge points are located in Broadway Complex, Mission Gorge Recreational Facility, and the Naval Medical Center San Diego

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

1. Order No. R9-2002-0169 for NBSD and Order No. R9-2003-0265 for the Graving Dock prohibited the discharge of the following:
 - a. paint chips;
 - b. blasting materials
 - c. paint over spray;
 - d. paint spills;
 - e. water contaminated with abrasive blast materials, paint, oils, fuels, lubricants, solvents, or petroleum;
 - f. hydro-blast water;
 - g. tank cleaning water from tank cleaning to remove sludge and/or dirt;
 - h. clarified water from oil and water separator, except for storm water discharges treated by an oil and water separator and reported by the Discharger to the San Diego Water Board;
 - i. steam cleaning water;
 - j. pipe and tank hydrostatic test water, unless regulated by an NPDES permit;
 - k. saltbox water;
 - l. hydraulic oil leaks and spills;
 - m. fuel leaks and spills;
 - n. trash;
 - o. refuse and rubbish;
 - p. fiberglass dust;
 - q. swept materials;
 - r. ship repair and maintenance activity debris;
 - s. waste zinc plates;
 - t. marine fouling organisms;
 - u. demineralizer and reverse osmosis brine; and
 - v. oily bilge water.
2. Compliance with the waste discharge prohibitions contained in the Basin Plan and as listed in Attachment C to Order No. R9-2002-0169 for NBSD and Order No. R9-2003-0265 for the USN Graving Dock was required as a condition of the Orders.
3. The waste discharge prohibitions contained in the Bays and Estuary Policy were included in Order Nos. R9-2002-0169 and R9-2003-0265.

4. Discharges of wastes that have not been described in the ROWD and Fact Sheet for Order No. R9-2002-0169 for NBSD, and discharges of waste in a manner or to a location that had not been specifically described in the ROWD and Fact Sheet for Order No. R9-2002-0169 for NBSD were prohibited unless regulated by applicable waste discharge requirements.
5. Except as allowed in the SWPPP requirements of Order No. R9-2002-0169 for NBSD, non-storm water discharges that discharge either directly or indirectly to waters of the US were prohibited. Prohibited non-storm water discharges were required to be either eliminated or permitted by a separate NPDES permit.
6. Order No. R9-2003-0265 for the USN Graving Dock prohibited the discharge of wastes and pollutants from underwater operations, such as underwater paint and/or coating removal and underwater hull cleaning (e.g. "scamping"). This prohibition did not apply to the discharge of marine fouling organisms removed from unpainted and uncoated surfaces by underwater operations, or to discharges that result from the cleaning of floating booms that were installed for "Force Protection" purposes.
7. First Flush of Storm Water
 - a. Order No. R9-2002-0169 for NBSD required the Discharger to terminate the first flush (first ¼ inch of storm water runoff) from all Industrial High Risk Areas within 2 years of the adoption of the Order.

Addendum No. 1 to Order No. R9-2002-0169 for NBSD was adopted on November 10, 2004 to specify that the Discharger may develop and implement storm water treatment technology that provides equivalent or greater water quality protection as an alternative to diversion. A storm water treatment system using filter-absorption technology is installed at one facility, the Navy Regional Recycling Center. All storm water runoff at this facility drains through the treatment unit before discharge. Pollutants such as metals and sediment are removed as storm water flows through a multi-media filter treatment unit comprised of gravel, bone char, and activated alumina. The maximum design flow rate through the system is 250 GPM

Effective 4 years after the adoption of Order No. R9-2002-0169 for NBSD, compliance with an acute toxicity effluent limitation was required for the discharge of storm water. The acute toxicity effluent limitation provided that in a 96-hour static or continuous flow bioassay (toxicity) test, undiluted storm water runoff associated with industrial activity shall not produce less than 90 percent survival, 50 percent of the time, and not less than 70 percent, ten percent of the time.

- a. Effluent limitations for saltwater supply system water, graving dock deflooding dewatering, and graving dock caisson gate ballast dewatering water included:

Table F-4. Historic Numeric Effluent Limitations for Graving Dock discharges

Parameter	Units	Effluent Limitations		
		Monthly Average	Weekly Average	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	pH units	Within limits of 6.0 – 9.0 at all times.		
Temperature	°F	Not more than 20°F greater than natural temperature of receiving waters.		

- b. The following acute and chronic toxicity effluent limitations apply to the discharges of saltwater supply system and caisson gate ballast water in Order No. R9-2003-0265 for the USN Graving Dock:
- i. Acute toxicity: Undiluted discharges to the San Diego Bay shall not produce less than 90% survival, 50% of the time, and not less than 70% survival, 10% of the time, except where the percent survival in San Diego Bay Water at the intake location is less than these levels. Where the percent survival in San Diego Bay water at the intake location is less than these levels, the percent survival in undiluted discharges to San Diego Bay which consist of water taken from San Diego Bay shall not be less than the percent survival in San Diego Bay water at the intake location. In the absence of test results demonstrating otherwise, it will be assumed that the percent survival in San Diego Bay water at the intake location is not less than these levels.
 - ii. Chronic toxicity: Undiluted discharges to San Diego Bay which consist of water taken from San Diego Bay shall not exceed 1 TUc, except where the chronic toxicity of San Diego Bay water at the intake location exceeds 1 TUc. Where the chronic toxicity of San Diego Bay water at the intake location exceeds 1 TUc, the chronic toxicity of undiluted discharges to San Diego Bay which consists of water taken from San Diego Bay shall not exceed the chronic toxicity of San Diego Bay water at the intake location. In the absence of test results demonstrating otherwise, it will be assumed that the chronic toxicity in San Diego Bay water at the intake location does not exceed 1 TUc.
- c. A summary of the available monthly monitoring data for regulated parameters under Order No. R9-2003-0265 for the USN Graving Dock for saltwater supply system water and caisson ballast water are summarized below:

Table F-5. Discharge Data Summary

Parameters	Units	Highest Reported Value	
		Saltwater Supply System	Caisson Ballast Water
Oil and Grease	mg/L	<5	<5
Settleable Solids	ml/L	<0.2	<0.2
Turbidity	NTU	3.8	0.6
pH	pH units	6.3 – 7.93	6.7 – 7.83
Temperature	°F	68.2	70.5
Acute Toxicity ¹	% survival	98	100
Chronic Toxicity	TU _c	1	1

NA – Not Available

¹ Lowest survival percentage. However only one value was available for toxicity for each discharge during the period of review.

D. Compliance Summary

1. The 2010/2011 Annual Report for Storm Water Discharges Associated with Industrial Activities for Naval Base San Diego contains the following statements indicating copper and zinc are present in the storm water:

Outfalls 5, 8, 9, 11, 14, 24, 27, 30, 34, 35, 46, 48, 80, 122, 218-247 (Pier No. 4), 289-314 (Pier No. 7), 343 (Pier No. 10), and 415-438 (Pier No. 13) exceeded copper and/or zinc benchmarks.

2. The 2009/2010 Annual Report for Storm Water Discharges Associated with Industrial Activities for Naval Base San Diego contains the following statements indicating toxicity, copper, and zinc are present in the storm water:

Toxicity samples were collected from the 21 industrial outfalls during the December 7, 2009 storm event and were analyzed as required by EPA/821/R-02/012. Considering only samples that were statistically different from controls, of the 21 first-flush outfall samples tested for toxicity, only six samples, or 29 percent, had survivals of less than 90 percent. Therefore, the NBSD NPDES permit primary toxicity requirement was considered to have been met: However, four samples, or 19 percent had survivals less than 70 percent. Therefore, the NBSD NPDES permit secondary toxicity requirement was considered to have not been met.

Outfalls 5, 8, 9, 11, 14, 22, 24, 27, 30, 34, 35, 39, 45, 46, 48, 80, 80A, 122, 167-171 (pier No.1), 172-195 (pier No.2), and 415-438 (pier No. 13) exceeded copper and/or zinc benchmarks.

3. The Discharger has reported the following non-compliance events at Naval Base San Diego Complex to the San Diego Water Board:

- a. On June 7, 2011, a mixture of water and activated alumina desiccant (97% aluminum oxide) were spilled onto the pier. Spill containment measures were implemented so an estimated 1-2 gallons of mixture reached San Diego Bay.
 - b. On March 7 and 8, 2011, paint dust/ chips were discharged to San Diego Bay.
 - c. On March 20 and 21, 2011, at the Defense Reutilization Marketing Organization (DRMO) Scrap Yard Compound, NBSD Environmental Personnel noticed that the storm water containment basin was leaking. The berm on northwest side of the high risk area was leaking and discharging storm water out of the bermed area to Outfall 122.
 - d. On September 30, 2010, first flush storm water from the Wharf Builder site, an Industrial High Risk Area, was not diverted and was discharged to San Diego Bay.
 - e. On March 29, 2010, approximately 0900, about 1 cup of oil and water mixture in the compressed air hose was discharged to San Diego Bay at Pier 8 when a pump was turned on. (ECM)
4. On April 26, 2010, the Facility was inspected by a USEPA contractor to determine compliance with Order No. R9-2002-0169 for NBSD Complex. Major findings reported from that inspection include:

San Diego Water Board Order No. R9-2002-0169, Discharge Specification B.4.a specifies that a toxicity test of “undiluted storm water runoff associated with industrial activity shall not produce less than 90% survival, 50% of the time, and *not less than 70% survival, 10% of the time* [emphasis added].” Toxicity samples were collected from 41 industrial discharge outfalls during the November 4, 2008 qualifying storm event. Survival not less than 90% was not met in 26 of the 41 samples, or 63% of the time, and survival of at least 70% was not met in 18 of the 41 samples, or 44% of the time (refer to Exhibit 4). The Discharger reported this issue in its 2008/2009 Annual Report, Section 2.0, Storm Water Sampling and Analysis Evaluation. This Major Finding was also identified during the previous inspection conducted on May 4, 2009.

5. The April 26, 2010, inspection report also included the following information about copper and zinc benchmark exceedances:

San Diego Water Board Order No. R9-2002-0169, Discharge Specification B.2 states "Whenever the analyses of an industrial storm water discharge from any industrial activity contains a copper concentration greater than 63.6 µg/L or a zinc concentration greater than 117 µg/L, the Discharger must comply with Discharge Specification B.2, which contains specifications to modify the SWPPP and sample the industrial storm water discharge for two

additional storm events." A number of samples exceeded the benchmark action levels specified in the Order. Specifically, Outfalls 5, 8, 9, 11, 14, 22, 24, 27, 30, 34, 35, 39, 45, 46, 48, 80, 80A, 122, 167-171 (Pier No. 1), 172-195 (Pier No. 2), and 415-438 (Pier No. 13) exceeded copper and/or zinc benchmarks. The Discharger reported these results in its 2008/2009 Annual Report, Section 2.0, Storm Water Sampling and Analysis Evaluation. In addition, the Discharger had prepared an Evaluation and Minimization Plan for Copper and Zinc to evaluate major sources of copper and zinc and consider alternatives to minimize receiving water impacts. The inspector conducted spot checks of SWPPP modifications and it appeared that the Discharger completed the follow-up actions required by Discharge Specification B.2.

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

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt a NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100 through 21177.

C. State and Federal 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 (hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Water Resources Control Board (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-6. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
SC-001 through SC-175, BC-001, UV-001 through UV-006, UV-008 through UV-011; NBSD-001 through NBSD-266, and NGD-001; NGD-002; NGD-003; NGD-004; NGD-005	San Diego Bay	<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); shellfish harvesting (SHELL)
Storm Water Discharges, as identified in Attachment K to this Order.	Chollas Creek	<u>Existing:</u> Non-contact water recreation (REC2); warm freshwater habitat (WARM); wildlife habitat (WILD) <u>Potential:</u> Contact water recreation (REC1)
Storm Water Discharges, as identified in Attachment K to this Order.	Paleta Creek (Seventh Street Channel)	<u>Existing:</u> Non-contact water recreation (REC2); warm freshwater habitat (WARM); wildlife habitat (WILD) <u>Potential:</u> Contact water recreation (REC1)
Storm Water Discharges, as identified in Attachment K to this Order.	San Diego River	<u>Existing:</u> Municipal and domestic supply (MUN); agricultural (AGR); industrial service supply (IND); industrial process supply (PROC); Contact Water Recreation (REC1); Non-contact water recreation (REC2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD)
Storm Water Discharges, as identified in Attachment K to this Order.	Lindberg Hydrologic Subarea	<u>Existing:</u> Non-contact water recreation (REC2); warm freshwater habitat (WARM); wildlife habitat (WILD) <u>Potential:</u> Contact water recreation (REC1)

Requirements of this Order implement the Basin Plan.

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975.

The Thermal Plan defines *elevated temperature waste* as “*liquid, solid, or gaseous material including thermal waste discharged at a temperature higher than the natural temperature of receiving water.*” The Thermal Plan also defines a *new discharge* as “*any discharge (a) which is not presently taking place unless waste discharge requirements have been established and construction as defined in Paragraph 10 has commenced prior to adoption of this plan or (b) which is presently taking place and for which a material change is proposed but no construction as defined in Paragraph 10 has commenced prior to adoption of this plan.*” Because the discharges of steam condensate with temperatures in excess of 100°C meet the criteria of an elevated temperature waste, and because these discharges commenced prior to adoption of the Thermal Plan, discharges of steam condensate are considered existing discharges of elevated temperature waste for the purposes of this Order.

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. The Sediment Quality Plan became effective on August 25, 2009. The Sediment Quality Plan establishes sediment quality objectives, identifies beneficial uses, and integrates chemical and biological measures to determine if the sediment dependent biota are protected or degraded as a result of exposure to toxic pollutants. Beneficial uses for sediment include: Estuarine Habitat, Marine Habitat, Commercial and Sport Fishing, Aquaculture, and Shellfish Harvesting. Requirements of this Order implement the Sediment Quality Plan.

- 2. National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA 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, USEPA 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 water quality criteria for priority pollutants which are discharged to inland surface waters, bays, and estuaries.

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 USEPA 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 USEPA 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.

- 3. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- 4. Antidegradation Policy.** 40 CFR 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 No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 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 131.12 and State Water Board Resolution No. 68-16.
- 5. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations¹ section 122.44(l) prohibit 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. All effluent limitations in this Order are at least as stringent as the effluent limitations and conditions of the previous orders.

¹ All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

- 6. Atomic Energy Act.** Pursuant to the *Atomic Energy Act*, the San Diego Water Board does not have jurisdictional authority to regulate the discharge of radioactive wastes from U.S. naval nuclear propulsion plants and their support facilities. The Fact Sheets for Order No. R9-2002-0002 for NBPL and Order No. R9-2003-0008 for NBC included an attached memorandum dated July 22, 2002 which was written for the Fact Sheet for Order No. R9-2002-0002. The memorandum specifies that radioactive discharges are not subject to regulation by the San Diego Water Board and that the United States Department of the Navy and the Department of Energy have jurisdiction for discharges of radioactive material. The memorandum also specified that radioactivity monitoring was not to be included in the Order. The San Diego Water Board finds that the memorandum is applicable to the Facility. Consistent with the memorandum, this Order does not regulate the discharge of radioactive wastes and does not include monitoring for radioactivity.
- 7. Uniform National Discharge Standards (UNDS).** In 1996 Congress passed legislation amending Section 312 of the Clean Water Act to provide the Department Of Defense and the USEPA 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 for previously unregulated discharges, encourage environmentally sound management practices on current vessels, help establish standardized training for crews to perform missions, and help determine the way future ships will be built. The Phase I final rule and preamble language, including a summary of the Phase I process and findings (64 FR 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 Clean Water Act. In Phase I, the Environmental Protection Agency (EPA) and The Department of Defense (DoD) identify 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, DoD and 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. Phase III of UNDS development will focus on establishing requirements for the design, construction, installation, and use of MPCDs. The requirements of this Order do not apply to vessel discharges identified in the Uniform National Discharge Standards.

8. Vessel General Permit. USEPA signed the 2013 Vessel General Permit (VGP) on March 28, 2013. The VGP will become effective on December 19, 2013 and regulates discharges incidental to the normal operation of vessels operating in a capacity as a means of transportation. Vessels in a dry dock are not operating in a capacity as a means of transportation and are not covered by the VGP. Floating drydocks have been determined to be operating as a means of transportation when it is docking or undocking a vessel inclusive of the transition from that operation. Discharges from vessels at the Facility which are not operating as a means of transportation are regulated by this Order.

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

Under section 303(d) of the 1972 Clean Water Act, states, territories and authorized tribes are required to develop lists of water quality limited segments. The waters 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 November 12, 2010 USEPA 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). Portions of the San Diego Bay including the 32nd Street San Diego Naval Station; San Diego Bay Shoreline, near Chollas Creek; San Diego Bay Shoreline, North of 24th Street Marine Terminal; and San Diego Bay Shoreline, 7th Street Channel are adjacent to NBSD. These portions of the San Diego Bay are listed in the 303(d) list as impaired for benthic community effects and sediment toxicity. In addition, portions of the San Diego Bay including the San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers and the San Diego Bay, G Street Pier are adjacent to the Broadway Complex. The San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers is listed in the 303(d) list as impaired for benthic community effects, sediment toxicity, and total coliform. The San Diego Bay Shoreline, G Street Pier is listed in the 303(d) list as impaired for total coliform. The impairments for NBSD Complex are summarized in the table below.

Table F-7. San Diego Bay 303(d) Impairments for NBSD

Waterbody	Location	Constituent	Facility
San Diego Bay	Whole bay	Polychlorinated biphenyls (PCBs)	NBSD and Broadway Complex
San Diego Bay	32 nd Street San Diego Naval Station	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, near Chollas Creek	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, North of 24 th Street Marine Terminal	Benthic community effects and sediment toxicity	NBSD

Waterbody	Location	Constituent	Facility
San Diego Bay	San Diego Bay Shoreline, 7 th Street Channel	Benthic community effects and sediment toxicity	NBSD
San Diego Bay	San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers	Benthic community effects, sediment toxicity, and total coliform	Broadway Complex
San Diego Bay	San Diego Bay, G Street Pier	Total coliform	Broadway Complex
Chollas Creek	From San Diego Bay to 4 miles inland	Copper, lead, zinc, diazinon, indicator bacteria, phosphorus, nitrogen, and trash	NBSD

Storm water is discharged to Chollas Creek from NBSD. Chollas Creek is listed in the 303(d) list as impaired for copper, diazinon, indicator bacteria, lead, phosphorus, total nitrogen, trash, and zinc. On August 14, 2002 the San Diego Water Board adopted the Chollas Creek Diazinon TMDL (Resolution No. R9-2002-0123). The State Water Board subsequently approved the TMDL on July 16, 2003, and the Office of Administrative Law (OAL) and USEPA approved the TMDL on September 11, 2003, and November 3, 2003 respectively. The Chollas Creek Diazinon TMDL identifies specific MS4s within the Chollas Creek watershed as significant contributors. The significant contributors specified do not include NBSD; USEPA has banned diazinon; and monitoring of Chollas Creek has shown dramatic decreases in diazinon concentrations. This Order establishes no requirements for diazinon because Chollas Creek has achieved the numeric target for diazinon.

The San Diego Water Board adopted the Chollas Creek Metals TMDLs on June 13, 2007 (Resolution No. 2008-0043). The TMDL was subsequently approved by the State Water Board on July 15, 2008. The OAL and USEPA approved the TMDL on October 22, 2008 and December 18, 2008 respectively. The Chollas Creek Metals TMDL identifies NBSD as a point source contributor of water quality criteria exceedances for copper, lead, and zinc. This Order establishes Stormwater Action Levels (SALs) for copper, lead, and zinc, consistent with the requirements of the Chollas Creek Metals TMDLs.

E. Other Plans, Polices 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, which includes the 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, deflooding 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 except for steam condensate; pier boom, fender, and mooring cleaning; utility vault and manhole dewatering; graving dock deflooding water; salt water rinse water; graving dock caisson ballast dewatering; and emergency fire suppression water and salt water supply water. For the purpose of the Bays and Estuaries Policy and the Order, the discharges of steam condensate; pier boom, fender, and mooring cleaning; utility vault and manhole dewatering; graving dock deflooding water; salt water rinse water; graving dock caisson ballast dewatering; and emergency fire suppression water and salt water supply water will be considered innocuous non-municipal wastewaters and, as such, will not be considered industrial process wastes.

- 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.

This San Diego Water Board has considered the Principle 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 (CFR): 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 (WQBEL) 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 Prohibition III.A.** Ship repair and maintenance activities may result in the discharge of pollutants and wastes to waters of the United States. Discharge Prohibition III.A prohibits the discharge of wastes from ship repair and maintenance activities. This prohibition is based on the requirements of the Enclosed Bays and Estuaries Policy and is retained from Order No. R9-2002-0169 and Order No. R9-2003-0265.
- 2. Discharge Prohibitions III.B, III.C, and III.D.** The Basin Plan prohibitions are incorporated by reference in the Order. Discharge Prohibitions III.B, III.C, and III.D. are retained from Order No. R9-2002-0169 and require the Discharger to comply with the Basin Plan prohibitions.
- 3. 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 Industrial High Risk Areas unless the discharge can be demonstrated to meet the limits of this Order.
- 4. Discharge Prohibition III.F.** This Prohibition is based on the requirements of the Bays and Estuaries Policy and is consistent with prohibitions established for similar facilities.
- 5. Discharge Prohibition III.G.** 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.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA's NPDES permit regulations at section 122.44, title 40 of the Code of Federal Regulations, 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 discharges 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 (TBELs) be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants 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 BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- 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 USEPA 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 125.3 authorize the use of BPJ to derive TBELs 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 permit writer must consider specific factors outlined in 40 CFR 125.3.

2. Applicable Technology-Based Effluent Limitations (TBELs)

- a. The State Water Board adopted a revised Water Quality Control Plan for Ocean Waters of California (Ocean Plan) on September 15, 2009, which became effective on March 10, 2010. Although the Ocean Plan is not directly applicable to enclosed bays, such as San Diego Bay, the salinity and beneficial uses of San Diego Bay are similar to those of the ocean waters of the State. Therefore, in order to protect the beneficial uses of San Diego Bay, the Ocean Plan can be used as a reference for developing discharge specifications, receiving water prohibitions, and narrative limitations and to supplement the provisions contained in the CTR, the SIP, and the Bays and Estuaries Policy.

Table A of the Ocean Plan establishes TBELs for industrial discharges for which ELGs have not been established pursuant to sections 301, 302, 304, or 306 of the federal CWA. Because of the similar salinity and beneficial uses and because there are no ELGs for shipyards, the San Diego Water Board finds that the TBELs in Table A of the Ocean Plan are applicable to industrial process discharges to San Diego Bay. These TBELs have been established in NPDES permits for boatyards and shipyards discharging to San Diego Bay. These effluent limitations were previously established in Order No. R9-2003-0265 for the USN Graving Dock.

Numeric effluent limitations based on Table A of the Ocean Plan are being established in this Order for discharges of steam condensate, and USN Graving Dock discharges from Discharge Point Nos. SC-001 through SC-175, and NGD-001 through NGD-004.

The effluent limitation established in Table A of the Ocean Plan for suspended solids states, *“Dischargers shall, as a 30-day average, remove 75 percent of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.”*

Because the industrial discharges from the Facility do not receive treatment prior to discharge, an effluent limitation of 60 mg/L for total suspended solids has been established.

The applicable TBELs are summarized below:

Table F-8. Numeric Technology-based Effluent Limitations for Discharge Point Nos. SC-001 through SC-175, and NGD-001 through NGD-004

Parameter	Units	Effluent Limitations		
		Average Monthly	Weekly Average	Instantaneous Maximum
Oil and Grease	mg/L	25	40	75
Suspended Solids	mg/L	60	--	--
Settleable Solids	ml/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
pH	standard units	--	--	1

¹ Within limits of 6.0 – 9.0 at all times.

- b. Utility Vaults.** The State Water Board found in Section V.B.2 of the Fact Sheet to Order No. 2006-0008-DWQ that it is not feasible to establish numeric effluent limitations for pollutants in discharges from utility vaults and underground structures. Instead, the State Water Board included a provision in Order No. 2006-0008-DWQ requiring implementation of pollution prevention practices to control and abate the discharge of pollutants to surface waters, achieve compliance utilizing BAT and BCT requirements, and achieve compliance with applicable water quality standards. Federal Regulations at 40 CFR 122.44(k)(3) and (4) authorize the San Diego Water Board to require BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible and when the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. Consistent with the requirements of State Water Board Order No. 2006-0008-DWQ and Order No. R9-2002-0169 for NBSD Complex, and as described in section VII.B.3.a of this Fact Sheet, this Order includes a provision requiring the Discharger to continue the implementation and maintenance of their Best Management Practices and Pollution Prevention Plan for Utility Vault and Manhole Dewatering Discharges (Utility Vault PLAN) includes BMPs to reduce the discharge of pollutants from utility vault and manhole dewatering. The Utility Vault PLAN requirements have been revised from Order No. R9-2002-0169 to reflect the requirements in Order No. 2006-0008-DWQ.
- c. Boom Cleaning.** Due to the nature of activities associated with discharges from pier boom, fender, and mooring cleaning, it is impractical to collect and treat the associated wastewaters prior to discharge. Therefore, the San Diego Water Board finds that it is not feasible to establish numeric effluent limitations for pollutants in discharges from pier boom, fender, and mooring cleaning. In accordance with 40 CFR 122.44(k)(3) and (4), the San Diego Water Board finds that the implementation of BMPs in lieu of numeric effluent limitations are appropriate. This Order includes a provision requiring the implementation of BMPs to control and abate the discharge of pollutants from pier boom, fender, and mooring cleaning.
- d. Graving Dock.** Order No. R9-2003-0265 required the Discharger to reduce or prevent the discharge of pollutants through the implementation of BAT [CWA §301(b)(2)(A)] for toxic and non-conventional pollutants and BCT [CWA §301(b)(2)(E)] for conventional pollutants. In accordance with 40 CFR 122.44(k), Order No. R9-2003-0265 determined that the implementation of BMPs for the discharge of conventional, non-conventional, and toxic pollutants via industrial discharges and storm water were appropriate. Order No. R9-2003-0265 required the Discharger to develop and implement a BMP plan for pollutants and wastes associated with ship construction, modification, repair, and maintenance. This Order carries over the requirement for the Discharger to develop and implement a BMP Plan for pollutants and wastes from the Graving Dock.

- e. Small (Military Base) Municipal Separate Storm Sewer System (MS4).** In accordance with 40 CFR 122.44(k), the inclusion of BMPs in lieu of numeric effluent limitations is appropriate in storm water permits. The Discharger must implement BMPs that reduce pollutants in storm water runoff to the technology-based standard of Maximum Extent Practicable (MEP) to protect water quality. This Order requires the Discharger to develop and implement a Storm Water Management Plan (SWMP) that describes BMPs, measurable goals, and timetables for implementation in six minimum control measures. This approach is consistent with the requirements of the current State-wide Phase II MS4 Permit (State Water Board Order No. 2013-0001-DWQ).
- f. Industrial Storm Water.** In accordance with 40 CFR 122.44(k), Order No. R9-2002-0169 for NBSD Complex determined that the implementation of BMPs for the discharge of industrial storm water were appropriate. To carry out the purpose and intent of the CWA, Order No. R9-2002-0169 for NBSD Complex 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. The requirement to implement an appropriate SWPPP for areas associated with industrial activity is retained from Order No. R9-2002-0169.

In addition to the retention of a SWPPP, this Order establishes Numeric Action Levels (NALs) for storm water from Industrial High Risk Areas and Industrial Low Risk Areas in lieu of benchmarks.

The draft State-wide Industrial Storm Water General Permit (July 18, 2012), contains NALs based on benchmarks in USEPA's Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) which became effective May 27, 2009. Consistent with the direction of the State Water Board, this Order establishes NALs with a tiered compliance strategy. The San Diego Water Board finds that the USEPA benchmarks serve as an appropriate set of TBELs that demonstrate compliance with BAT/BCT.

Consistent with the direction of the State Water Board in the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002, this Order requires all treatment BMPs to be designed for no less than a 5-year, 24-hour storm event. Because pollutants contained within storm water may negatively impact the receiving water if not properly controlled, and NALs are technology-based and not necessarily protective of water quality, corrective actions for Receiving Water Limitations violations have also been included within the Order.

- g. Non-storm water Discharges.** Non-storm water discharges include a wide variety of sources and may contribute significant pollutant loads to receiving waters. Measures to control spills, leakage, and dumping, and to prevent illicit connections must be addressed through structural as well as non-structural BMPs. The San Diego Water Board recognizes, however, that certain non-storm water discharges may be necessary for general operation. Therefore, this Order authorizes such discharges provided they meet certain conditions that will minimize the discharge of pollutants to the receiving waters.
- h. Graving Dock Pre-flood Cleaning.** In addition to numeric TBELs for discharge NGD-001 and 002, the Discharger is required to implement BMPs to ensure that no wastes are discharged during the flooding and de-flooding of the graving dock in accordance with 40 CFR 122.44(k)(4).
- i. Weight Test Water.** Due to the nature of activities associated with discharges from weight test water, it is impractical to collect and treat the associated wastewaters prior to discharge. The weight test bags are filled utilizing the ship's salt water system which is regulated under the UNDS program. The bags are thoroughly cleaned after every use so no contaminants are added and the only discharge is the same water as the ship's salt water system which is regulated by the UNDS program. Therefore, the San Diego Water Board finds that it is not feasible to establish numeric effluent limitations for pollutants in discharges from weight test water. In accordance with 40 CFR 122.44(k)(3) and (4), the San Diego Water Board finds that the implementation of BMPs in lieu of numeric effluent limitations are appropriate. This Order includes a provision requiring the implementation of BMPs to control and abate the discharge of pollutants from weight test water.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

40 CFR 122.44(d)(1)(i) mandates 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) USEPA 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 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

- a. 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, Chollas Creek, Paleta Creek, and San Diego River 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 waters.

The CTR promulgated toxics criteria for California and, in addition, incorporated the previously adopted National Toxics Rule criteria that were applicable in the State. Priority pollutant water quality criteria in the CTR are applicable to discharges to the San Diego Bay, Chollas Creek, Paleta Creek, and the San Diego River too. 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 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 determined that because the discharges are within a bay, saltwater CTR criteria are applicable. The CTR criteria for saltwater aquatic life or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the San Diego Bay, a water of the US in the vicinity of the discharges.

The SIP procedures for 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 Facility to the San Diego Bay. The applicable toxicity limitations are discussed in this section of the Fact Sheet.

The SIP procedures for implementation of CTR and NTR criteria are applicable to non-storm water discharges. The non-storm water discharges from the Facility to San Diego Bay include steam condensate; pier boom, fender, and mooring cleaning; utility vault and manhole dewatering; graving dock deflooding; caisson ballast dewatering; and saltwater supply system water.

Representative monitoring of the steam condensate discharges was conducted at five locations and submitted in the annual reports for years 2003 through 2009. Monitoring of the San Diego Bay in the vicinity of the discharges was submitted in the application.

Representative monitoring of utility vault and manhole dewatering discharges was conducted at nine locations and submitted in the annual reports for years 2003, 2004, 2005, and 2006 and in the Discharger's *Case Study for Utility Vault and Manhole Dewatering Discharges at Naval Base Point Loma, Naval Base San Diego, and Naval Base Coronado*. Additional monitoring results from 2007 through 2009 were provided by the Discharger in annual reports. Receiving water in the vicinity of the discharges was not conducted.

Representative monitoring of the pier boom cleaning, fender, and mooring cleaning discharge was conducted and submitted in the application for a total of one sampling event. Monitoring of the San Diego Bay in the vicinity of the discharges was also submitted in the application.

Data for the caisson ballast dewatering, the saltwater supply system water, and the receiving water was available from 2004 through 2009. Data for the graving dock deflooding water was only available for August 8, 2003.

A Reasonable Potential Analysis (RPA) was conducted for industrial process wastewaters to the San Diego Bay using all the available data. The table below summarizes the applicable water quality criteria/objectives for priority pollutants reported in detectable concentrations in the effluent or receiving water. These criteria were used in conducting the RPAs for this Order.

Table F-9. Applicable CTR/NTR Water Quality Criteria

Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
		Freshwater		Saltwater		Human Health for Consumption of:	
		Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms Only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Antimony, Total Recoverable	4,300	Not Applicable		--	--	Not Applicable	4,300
Arsenic, Total Recoverable	36.00	Not Applicable		69.00	36.00	Not Applicable	--

Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
		Freshwater		Saltwater		Human Health for Consumption of:	
		Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms Only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Beryllium, Total Recoverable	No Criteria			--	--		--
Cadmium, Total Recoverable	9.36			42.25	9.36		--
Chromium (III)	No Criteria			--	--		--
Chromium (VI)	50			1,100	50		--
Copper, Total Recoverable	3.73			5.78	3.73		--
Cyanide, Total Recoverable	1.00			1.00	1.00		--
Lead, Total Recoverable	8.52			220.82	8.52		--
Mercury, Total Recoverable	0.051			--	--		0.051
Nickel, Total Recoverable	8.28			74.75	8.28		4,600
Silver, Total Recoverable	2.24			2.24	--		--
Selenium, Total Recoverable	71			290	71		--
Thallium, Total Recoverable	6.3			--	--		6.3
Zinc, Total Recoverable	85.62			95.14	85.62		--
TCDD-Equivalents	1.40 x 10 ⁻⁸			--	--		1.40 x 10 ⁻⁸
Bromoform	360			--	--		360
Chlorodibromomethane	34			--	--		34
Chloroform	No Criteria			--	--		--
Dichlorobromomethane	46			--	--		46
Methyl Chloride	No Criteria			--	--		--
Methylene Chloride	1,600			--	--		1,600
Phenol	4,600,000			--	--		4,600,000
Acenaphthene	2,700			--	--		2,700
Acenaphthylene	No Criteria			--	--		--
Anthracene	110,000			--	--		110,000
Benzo (a) Anthracene	0.049			--	--		0.049
Benzo (a) Pyrene	0.049			--	--		0.049
Benzo (b) Fluoranthene	0.049			--	--		0.049
Benzo (ghi) Perylene	No Criteria			--	--		--
Benzo (k) Fluoranthene	0.049			--	--		0.049
Bis (2-ethylhexyl) Phthalate	5.9			--	--		5.9

Constituent	Selected Criteria	CTR/NTR Water Quality Criteria					
		Freshwater		Saltwater		Human Health for Consumption of:	
		Acute	Chronic	Acute	Chronic	Water & Organisms	Organisms Only
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Butylbenzyl Phthalate	5,200			--	--		5,200
Chrysene	0.049			--	--		0.049
Dibenzo (a,h) Anthracene	0.049			--	--		0.049
Diethyl Phthalate	120,000			--	--		120,000
Dimethyl Phthalate	2,900,000			--	--		2,900,000
Di-n-butyl Phthalate	12,000			--	--		12,000
Di-n-octyl Phthalate	No Criteria			--	--		--
1,2-Diphenylhydrazine	0.54			--	--		0.54
Fluoranthene	370			--	--		370
Fluorene	14,000			--	--		14,000
Indeno (1,2,3-cd) Pyrene	0.049			--	--		0.049
Naphthalene	No Criteria			--	--		--
Nitrobenzene	1,900			--	--		1,900
Phenanthrene	No Criteria			--	--		--
Pyrene	11,000			--	--		11,000
1,2,4-Trichlorobenzene	No Criteria			--	--		--

b. Dilution Credits. Section 1.4.2 of the SIP establishes procedures for granting mixing zones and the assimilative capacity of the receiving water. Before establishing a dilution credit for a discharge, it must first be determined if, and how much, receiving water is available to dilute the discharge.

The worst-case dilution is assumed to be zero to provide protection for the receiving water beneficial uses. The impact of assuming zero assimilative capacity within the receiving water is that discharge limitations are applied end-of-pipe with no allowance for dilution within the receiving water.

3. Determining the Need for WQBELs

a. 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 San Diego Water Board conducted the RPA in accordance with section 1.3 of the SIP. A summary of the results for the parameters which demonstrated reasonable potential, for each applicable discharge, is provided in the tables below.

Table F-10. Summary of RPA Results¹

Discharge Location No.	Parameter	MEC ¹	B ²	C ³	Reason
		µg/L	µg/L	µg/L	
Steam Condensate (SC-001 through SC-175)	Copper, Total Recoverable	130	4.42	3.73	MEC & B > C
	Lead, Total Recoverable	18.78	0.361	8.52	MEC > C
	Mercury, Total Recoverable	0.15	<0.01	0.051	MEC > C
	Zinc, Total Recoverable	249.82	10.31	85.62	MEC > C
Pier Boom, Fender, and Mooring Cleaning (BC-001)	Copper, Total Recoverable	10.16	5.22	3.73	MEC & B > C
	Benzo (b) Fluoranthene	0.071	0.0031	0.049	MEC > C
	Benzo (k) Fluoranthene	0.057	0.0023	0.049	MEC > C
	Chrysene	0.1264	0.0032	0.049	MEC > C
Utility Vault and Manhole Dewatering (UV-001 through UV-012)	Arsenic, Total Recoverable	210	NA	36	MEC > C
	Cadmium, Total Recoverable	22	NA	9.36	MEC > C
	Chromium, Total Recoverable	100	NA	50.35	MEC > C
	Copper, Total Recoverable	5,300	NA	3.73	MEC > C
	Lead, Total Recoverable	400	NA	8.52	MEC > C
	Mercury, Total Recoverable	8.3	NA	0.051	MEC > C
	Nickel, Total Recoverable	82	NA	8.28	MEC > C
	Silver, Total Recoverable	25	NA	2.24	MEC > C
	Zinc, Total Recoverable	1,500	NA	85.62	MEC > C
	Benzo (a) Anthracene	0.11	NA	0.049	MEC > C
	Benzo (a) Pyrene	0.066	NA	0.049	MEC > C
	Benzo (b) Fluoranthene	0.072	NA	0.049	MEC > C
	Chrysene	0.094	NA	0.049	MEC > C
	Indeno (1,2,3-cd) Pyrene	0.13	NA	0.049	MEC > C
Deflooding Water (NGD-001 and NGD-002)	Copper, Total Recoverable	11.1	16.7	3.73	MEC & B > C
Caisson Ballast Dewatering (NGD-003)	Cadmium, Total Recoverable	30	0.0752	9.36	MEC > C
	Copper, Total Recoverable	40	16.7	3.73	MEC & B > C
	Nickel, Total Recoverable	50	0.844	8.28	MEC > C
	Silver, Total Recoverable	10.1	45.1	2.24	MEC & B > C
	Zinc, Total Recoverable	165	21.3	85.62	MEC > C
Saltwater System Supply Water (NGD-004)	Copper, Total Recoverable	213	16.7	3.73	MEC & B > C
	Nickel, Total Recoverable	79.7	0.844	8.28	MEC > C
	Silver, Total Recoverable	5.65	45.1	2.24	MEC & B > C
	Zinc, Total Recoverable	771	21.3	85.62	MEC > C

¹ MEC = Maximum Effluent Concentration

² B = Background Concentration

³ C = Criterion

⁴ NA – Not Available

4. WQBEL Calculations

- a. Utility Vaults.** As shown in Table F-10, the San Diego Water Board finds that discharges from utility vault and manhole dewatering have the reasonable potential to exceed water quality criteria for several priority pollutants. However, section V.C.3 of the Fact Sheet to State Water Board Order No. 2006-0008-DWQ states that “*establishment of numeric effluent limitations for pollutants from utility vaults and underground structures is not*

feasible because: (1) utility companies have numerous short duration intermittent releases of water to surface waters from many different locations, and (2) treatment of all these releases to meet numeric effluent limitations would be impractical. Consistent with State Water Board Order No. 2006-0008-DWQ and Order No. R9-2002-0169 for NBSD Complex, the San Diego Water Board is not establishing numeric effluent limitations for utility vaults and manholes in this Order. However, as described in section VII.C.3.a of this Fact Sheet, this Order includes a provision requiring the Discharger to continue the implementation and maintenance of their Utility Vault PLAN which includes BMPs to reduce the discharge of pollutants from utility vault and manhole dewatering.

- b. Boom Cleaning.** As shown in Table F-10, the San Diego Water Board finds that discharges from pier boom, fender, and mooring cleaning exhibit reasonable potential to exceed water quality criteria for a number of priority pollutants. However, as discussed in section IV.B.2.c of this Fact Sheet, the San Diego Water Board finds that it is not feasible to establish numeric effluent limitations for pollutants in discharges from pier boom, fender, and mooring cleaning. In lieu of numeric effluent limitations, the San Diego Water Board finds that the implementation of BMPs is appropriate. As described in section VII.C.3.b of this Fact Sheet, this Order includes a provision requiring the implementation of BMPs to control and abate the discharge of pollutants from pier boom, fender, and mooring cleaning.
- c.** The Basin Plan states, *“In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0.”*

WQBELs have been established based on the water quality objectives established in the Basin Plan.

- d.** The Thermal Plan establishes the following water quality objectives for existing discharges to enclosed bays:

“Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses.”

Steam condensate discharges are considered discharges of elevated temperature wastes and must comply with the water quality objective. The Discharger installed the steam condensate system prior to the adoption of the Thermal Plan on May 18, 1972 so this steam condensate discharge is an existing discharge. A numeric effluent limitation is not provided for existing discharges. The Thermal Plan water quality objective has been applied as a narrative receiving water effluent limitation.

Due to the low discharge rate of steam condensate into the receiving water, the discharge is not expected to degrade beneficial uses due to elevated temperatures.

- e. Effluent limitations for cadmium, copper, lead, mercury, nickel, silver, and zinc were calculated in accordance with section 1.4 of the SIP. The paragraphs below describe the methodology used for calculating effluent limitations for these parameters.

f. Effluent Limitation Calculations.

In calculating maximum effluent limitations, the ECAs were set equal to the criteria/standards/objectives.

$$ECA_{acute} = CMC \qquad ECA_{chronic} = CCC$$

For the human health, agriculture, or other long-term criterion/objective, a dilution credit can be applied. The ECA is calculated as follows:

$$ECA_{HH} = HH + D(HH - B)$$

where:

ECA_{acute} = effluent concentration allowance for acute (1-hour average) toxicity criterion

$ECA_{chronic}$ = effluent concentration allowance for chronic (4-day average) toxicity criterion

ECA_{HH} = effluent concentration allowance for human health, agriculture, or other long-term criterion/objective

CMC = criteria maximum concentration (1-hour average)

CCC = criteria continuous concentration (4-day average, unless otherwise noted)

HH = human health, agriculture, or other long-term criterion/objective

D = dilution credit

B = maximum receiving water concentration

Acute and chronic toxicity ECAs were then converted to equivalent long-term averages (LTA) using statistical multipliers and the lowest is used. Additional statistical multipliers were then used to calculate the maximum daily effluent limitation (MDEL) and the average monthly effluent limitation (AMEL).

Human health ECAs are set equal to the AMEL and a statistical multiplier is used to calculate the MDEL.

$$\begin{aligned}
 & \overbrace{\min(M_A ECA_{acute}, M_C ECA_{chronic})}^{LTA_{acute}} \\
 AMEL &= mult_{AMEL} [\min(M_A ECA_{acute}, M_C ECA_{chronic})] \\
 \\
 & \overbrace{\min(M_A ECA_{acute}, M_C ECA_{chronic})}^{LTA_{chronic}} \\
 MDEL &= mult_{MDEL} [\min(M_A ECA_{acute}, M_C ECA_{chronic})]
 \end{aligned}$$

$$MDEL_{HH} = \left(\frac{mult_{MDEL}}{mult_{AMEL}} \right) AMEL_{HH}$$

where: $mult_{AMEL}$ = statistical multiplier converting minimum LTA to AMEL

$mult_{MDEL}$ = statistical multiplier converting minimum LTA to MDEL

M_A = statistical multiplier converting CMC to LTA

M_C = statistical multiplier converting CCC to LTA

WQBELs were calculated for cadmium, copper, lead, mercury, nickel, silver, and zinc as follows in Tables F-11 through F-17, below.

Table F-11. WQBEL Calculations for Cadmium

	Acute	Chronic
Criteria (µg/L) ¹	42.25	9.36
Dilution Credit	No Dilution	No Dilution
ECA	42.25	9.36
ECA Multiplier	0.32	0.53
LTA	13.57	4.94
AMEL Multiplier (95 th %)	2	1.55
AMEL (µg/L)	2	7.7
MDEL Multiplier (99 th %)	2	3.11
MDEL (µg/L)	2	15.4

¹ CTR Aquatic Life Criteria

² Limitations based on chronic LTA (Acute LTA > Chronic LTA)

Table F-12. WQBEL Calculations for Copper

	Acute	Chronic
Criteria (µg/L) ¹	5.78	3.73
Dilution Credit	No Dilution	No Dilution
ECA	5.78	3.73
ECA Multiplier	0.32	0.53
LTA	1.86	1.97
AMEL Multiplier (95 th %)	1.55	²
AMEL (µg/L)	2.9	²
MDEL Multiplier (99 th %)	3.11	²
MDEL (µg/L)	5.8	²

¹ CTR Aquatic Life Criteria

² Limitations based on acute LTA (Acute LTA < Chronic LTA)

Table F-13. WQBEL Calculations for Lead

	Acute	Chronic
Criteria (µg/L) ¹	220.82	8.52
Dilution Credit	No Dilution	No Dilution
ECA	220.82	8.52
ECA Multiplier	0.32	0.53
LTA	70.90	4.49
AMEL Multiplier (95 th %)	²	1.55
AMEL (µg/L)	²	7.0
MDEL Multiplier (99 th %)	²	3.11
MDEL (µg/L)	²	14.0

¹ CTR Aquatic Life Criteria

² Limitations based on chronic LTA (Chronic LTA < Acute LTA)

Table F-14. WQBEL Calculations for Mercury

	Human Health
Criteria (µg/L) ¹	0.051
Dilution Credit	No Dilution
ECA	0.051
AMEL (µg/L)²	0.051
MDEL/AMEL Multiplier ³	2.01
MDEL (µg/L)	0.102

¹ CTR Criteria for Human Health (for Consumption of Organisms Only)

² AMEL = ECA per section 1.4.B, Step 6 of SIP

³ Assumes sampling frequency n<=4. Calculated multiplier based on Step 6 of section 1.4 of the SIP.

Table F-15. WQBEL Calculations for Nickel

	Acute	Chronic
Criteria (µg/L) ¹	74.75	8.28
Dilution Credit	No Dilution	No Dilution
ECA	74.75	8.28
ECA Multiplier	0.32	0.53
LTA	24.00	4.37
AMEL Multiplier (95 th %)	²	1.55
AMEL (µg/L)	2	6.8
MDEL Multiplier (99 th %)	²	3.11
MDEL (µg/L)	2	13.6

¹ CTR Aquatic Life Criteria

² Limitations based on chronic LTA (Chronic LTA < Acute LTA)

Table F-16. WQBEL Calculations for Silver

	Acute	Chronic
Criteria (µg/L) ¹	2.24	No Criteria
Dilution Credit	No Dilution	--
ECA	2.24	--
ECA Multiplier	0.32	--
LTA	0.72	--
AMEL Multiplier (95 th %)	1.55	--
AMEL (µg/L)	1.1	--
MDEL Multiplier (99 th %)	3.11	--
MDEL (µg/L)	2.2	--

¹ CTR Aquatic Life Criteria

Table F-17. WQBEL Calculations for Zinc

	Acute	Chronic
Criteria (µg/L) ¹	95.14	85.62
Dilution Credit	No Dilution	No Dilution
ECA	95.14	85.62
ECA Multiplier	0.32	0.53
LTA	30.55	45.16
AMEL Multiplier (95 th %)	1.55	²
AMEL (µg/L)	47.4	2
MDEL Multiplier (99 th %)	3.11	²
MDEL (µg/L)	95.1	2

¹ CTR Aquatic Life Criteria

² Limitations based on acute LTA (Acute LTA < Chronic LTA)

g. A summary of the applicable WQBELs are provided below:

Table F-18. Applicable WQBELs

Discharge Type (Discharge Point Nos.)	Parameter	Units	Effluent Limitations	
			Average Monthly	Maximum Daily
Steam Condensate (SC-001 through SC-175)	Copper, Total Recoverable	µg/L	2.9	5.8
	Lead, Total Recoverable	µg/L	7.0	14.0
	Mercury, Total Recoverable	µg/L	0.051	0.102
	Zinc, Total Recoverable	µg/L	47.4	95.1
	pH	pH units	--	1
Graving Dock Deflooding Water and Salt Water Rinse Water (NGD-001 through NGD-002)	Copper, Total Recoverable	µg/L	2.9	5.8
	pH	pH units	--	1
Graving Dock Caisson Ballast Dewatering (NGD-003)	Cadmium, Total Recoverable	µg/L	7.7	15.4
	Copper, Total Recoverable	µg/L	2.9	5.8
	Nickel, Total Recoverable	µg/L	6.8	13.6
	Silver, Total Recoverable	µg/L	1.1	2.2
	Zinc, Total Recoverable	µg/L	47.4	95.1
	pH	pH units	--	1
Graving Dock Emergency Fire Suppression Water and Salt Water Supply Water (NGD-004)	Copper, Total Recoverable	µg/L	2.9	5.8
	Nickel, Total Recoverable	µg/L	6.8	13.6
	Silver, Total Recoverable	µg/L	1.1	2.2
	Zinc, Total Recoverable	µg/L	47.4	95.1
	pH	pH units	--	1

¹ To be applied as an instantaneous effluent limitation, the discharge shall at all times be between 7.0 and 9.0 standard pH units.

h. On September 8, 2010, the Discharger submitted a request for intake water credits pursuant to Section 1.4.4 of the SIP. The Discharger has requested intake water credits for total recoverable copper for the following discharges:

- Graving dock deflooding and salt water rinse water (Discharge Point Nos. NGD-001 and NGD-002)
- Caisson ballast dewatering (Discharge Point No. NGD-003)
- Emergency fire suppression water and salt water supply water (Discharge Point No. NGD-004)

Section 1.4.4 of the SIP establishes the following minimum requirements before intake credits may be granted:

- i. The observed maximum ambient background concentration, as determined in section 1.4.3.1, and the intake water concentration of the pollutant exceeds the most stringent applicable criterion/objective for that pollutant.

The Discharger has provided receiving water sample data for the San Diego Bay water adjacent to the USN Graving Dock for the time frame of 2004 through 2010. Nine (9) of twelve (12) samples collected in this time frame resulted in concentrations that exceed the saltwater chronic criteria for copper of 3.73 µg/L, and 10 of the results exceed the calculated AMEL.

The Discharger has demonstrated compliance with this requirement for the application of intake credits.

- ii. The intake water credits provided are consistent with any TMDL applicable to the discharge that has been approved by the San Diego Regional Board, the State Water Board, and the USEPA.

The receiving water is on the 303(d) list as impaired for benthic community effects and sediment toxicity, however a TMDL has not been completed and is not scheduled for completion until 2019. Thus, the application of intake credits is not currently restricted by a TMDL. It should be noted that intake credits that are granted prior to TMDL completion may be revised in the future upon adoption of a TMDL for the receiving water.

The Discharger has demonstrated compliance with this requirement for the application of intake credits.

- iii. The intake water is from the same water body as the receiving water body.

The intake water for all the requested discharges is the receiving water directly adjacent to the Graving Dock.

The Discharger has demonstrated compliance with this requirement for the application of intake credits.

- iv. The NBSD does not alter the intake water pollutant chemically or physically in a manner that adversely affects water quality and beneficial uses.

No available information indicates that the Discharger will alter the intake water pollutant in any manner that would increase the concentrations of copper discharged to the receiving water.

Further, the application of intake credits for copper based on current receiving water data encourages the Discharger to ensure effective methods for maintaining the same water quality as the intake water are implemented, and would likely result in effluent limitation exceedances if the Discharger negatively altered the water quality of the intake prior to discharge.

By maintaining the discharges at similar water quality to the intake, no additional negative effects to the receiving water are expected to occur.

- v. The timing and location of the discharge does not cause adverse effects on water quality and beneficial uses that would not occur if the intake water pollutant had been left in the receiving water body.

There is no reason to believe the timing and location of the discharges for which intake credits have been requested would cause adverse effects on water quality and beneficial uses that would not occur if the intake water pollutant had been left in the receiving water body.

The Discharger appears to be in compliance with this requirement for the application of intake credits.

- vi. Section 1.4.4 of the SIP requires that the permit specify how compliance with effluent limitations with intake water credits will be assessed. The SIP states that this may be done by basing the effluent limitation on the ambient background concentration data or by simultaneously monitoring the pollutant concentrations in the intake water and in the effluent.

To account for variation of concentrations of total recoverable copper in intake water and the effluent that might occur during operations (i.e., concentration of pollutant may vary slightly from hour to hour in both the intake and effluent), and the inherent accuracy limitations of laboratory analyses, compliance with the intake credit-based effluent limitation has been determined based on the 90th percentile of all available ambient background data submitted between April 8, 2004 through March 3, 2010. The resulting intake credit for total recoverable copper at NGD-001 through NGD-004 is 13.8 µg/L.

- vii. The AMEL is calculated based on a discharge of waste for every day during the month. Dischargers are allowed to exceed the AMEL during a day as long as the discharge is below the MDEL or the instantaneous maximum effluent limit for the day and as long as the average for the month is below the AMEL. The discharges from the graving dock deflooding water and caisson ballast dewatering only occur very infrequently, only one day every several months. It is not appropriate to apply an AMEL to a discharge that occurs only one time during the month. A footnote has been added to the AMEL for the graving dock deflooding water and caisson ballast dewatering which states "The AMEL only applies if there is a discharge more than one day in a 30 day period or if there is no other effluent limitation for the parameter."

5. Whole Effluent Toxicity (WET)

a. Background and Rationale

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, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.”

Order No. R9-2002-0169 and Order No. R9-2003-0265 established acute toxicity effluent limitations for storm water discharges. Survival rates reported by the Discharger for two storm water sampling events conducted in December 2006 and April 2007 range from 0 to 100 percent, indicating the presence and reasonable potential for acute toxicity in the discharge of storm water from the Facility.

In discussions with USEPA Region 9, the USEPA has informed San Diego Water Board staff that the application of chronic toxicity monitoring and effluent limitations for storm water runoff are generally 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 USEPA Region 9 guidance, chronic toxicity monitoring and effluent limitations are established in this Order for the discharge of industrial process water at the Facility. Because chronic toxicity is considered to be a more conservative indicator of toxicity, and the monitoring of all industrial wastewater 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 for industrial wastewater discharges based on the application of the more conservative chronic toxicity requirements. If the Discharger complies with the effluent limitations for chronic toxicity, they will achieve water quality greater than that necessary to achieve compliance with acute toxicity effluent limitations.

The State Water Board has not adopted a policy or plan for regulating toxicity in storm water discharges. NBSD currently has acute toxicity effluent limitations for industrial storm water discharges which they have not been able to achieve. An acute toxicity effluent limitation from Order R9-2002-0169 has been carried over to this Order and been revised to incorporate USEPA's guidance on the TST method. This Order also requires further study on chronic toxicity in industrial storm water discharges through a study on an appropriate in-stream waste concentration for discharges to San Diego Bay. Because there is no established policy and the potential effects on receiving waters from chronic toxicity in industrial storm water discharges are not well understood, this Order maintains the acute toxicity effluent limitation for Industrial High Risk Areas storm water discharges. The San Diego Water Board may choose to establish end-of-pipe chronic toxicity effluent limitations for Industrial High Risk Areas storm water discharges in the future. In developing such a limitation an instream waste concentration factor of 100 percent will be assumed whenever mixing zones or dilution credits are not authorized by the San Diego Water Board.

Navy Acute Toxicity Effluent Limitation Challenge

During the renewal of the Discharger's NPDES permits for the Facility, NBC, and NBPL, the Discharger challenged the acute toxicity limitation and has asserted that the acute toxicity limitation is not based on scientific data, that it is overly stringent for protecting water quality, and that diversion of all storm water runoff to the sanitary sewer is the only effective BAT/BCT for meeting the effluent limitation. This Order maintains an acute toxicity effluent limitation for Industrial High Risk Areas storm water discharges. Although this Order is establishing chronic toxicity effluent limitations instead of acute toxicity effluent limitations for industrial process wastewater discharges, the Discharger's challenge to the acute toxicity effluent limitations is addressed below because some of the concerns can be applied to chronic toxicity.

The acute toxicity effluent limitation established in Order No. R9-2002-0169 for NBSD Complex and Order No. R9-2003-0265 for the USN Graving Dock was established to implement the Basin Plan water quality objective for toxicity in receiving waters. The effluent limitation was derived from, and is essentially the same as, the acute toxicity discharge standard contained in the 1974 Bays and Estuaries Policy.

The Discharger's NPDES permits contained provisions which allowed the Discharger to recommend, after conducting a required study, alternative scientifically valid survival rates for acute exposure to discharges of storm water from industrial areas at the Discharger's facilities. The Discharger conducted a study to develop a scientifically defensible, and appropriate, toxicity limitation for industrial storm water discharges from Naval facilities to San Diego Bay. The results of the study were summarized in a Final Report,

Storm Water Toxicity Evaluation Conducted at: Naval Station San Diego, Naval Submarine Base San Diego, Naval Amphibious Base Coronado, and Naval Air Station North Island, dated May 2006.

The Discharger's final recommendations included in the report are summarized below:

- The use of appropriate USEPA WET test methods and data evaluation when declaring a test result as toxic.
- Acknowledge of WET method variable and the minimum significant difference that laboratory testing can provide in declaring a toxic result.
- Consideration of realistic exposure conditions when using WET testing to infer toxicity in the receiving water.

In addition, the Discharger has submitted comments regarding the current acute toxicity requirements. Comments of significant importance are summarized below:

- The Discharger has requested that the existing storm water toxicity testing language be revised to require a statistical comparison of discharge toxicity results with control sample toxicity results using a student t-test, to determine whether a discharge is toxic or not.
- The Discharger has requested that the existing storm water toxicity testing language be revised to require the use of percent minimum significant difference, using the 10th and 75th percentiles as lower and upper bounds, respectively, to account for inherent variability of toxicity testing procedures to determine whether a discharge is toxic or not.
- The Discharger has requested that the existing storm water toxicity discharge specification language be revised according to two proposed alternatives that presumably consider realistic exposure conditions to infer toxicity in the receiving water.

San Diego Water Board staff stated in a memorandum to the Executive Officer dated August 22, 2006 that the Discharger's proposed toxicity alternatives should not be adopted in their entirety and, "*Toxicity in storm water discharges should not be ignored just because the causative agent is diluted in bay water. Testing times should not be shortened to ensure that the variability inherent to storm water discharges is not causing low level toxicity that may be missed in an acute test.*"

Toxicity Rationale

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

- The study performed by the Discharger,
- Comments received from the Discharger,
- Discussions with USEPA Region 9,
- USEPA'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),
- USEPA'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), and
- The interpretation of State regulations.

The implementation of toxicity monitoring requirements and effluent limitations are based on a new statistical approach developed by USEPA that assesses the WET measurement of wastewater effects on specific test organisms' ability to survive, grow, and reproduce called the Test of Significant Toxicity (TST). This new 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 USEPA, 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 USEPA made the RMD that the b value is set at 0.75, which means that a 25 percent effect (or more) at the IWC is considered evidence of unacceptable chronic toxicity. For acute toxicity, the b value is set at 0.80.

USEPA'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 in-stream waste concentration (IWC) is declared toxic when in fact it is truly acceptable. Additional RMDs by USEPA 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:

- 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.

USEPA 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 whole effluent toxicity 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 USEPA's other RMDs for the TST approach.

Effluent limitations are established using the TST "pass" "fail" approach as well as a percent effect. A MDEL for chronic toxicity for industrial process wastewater is established in this Order and is exceeded when a toxicity test results in a "fail," and the percent effect is greater than or equal to ~~0.50~~50% for chronic toxicity tests in accordance with Compliance Determination section VII of this Order.

Chronic Pass

A 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) $\leq 0.75 \times$ 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.

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

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

A MMEL for chronic toxicity is established for industrial process wastewaters. The MMEL is exceeded when the median results of three independent toxicity tests, conducted within the same calendar month, and analyzed using the TST, (i.e. two out of three) is a “fail”.

A MDEL for acute toxicity is established for Industrial High Risk Areas storm water discharges and is exceeded 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 ~~0.40~~0.50%.

Acute Pass

An acute toxicity test result that does not reject the null hypothesis (Ho) below is reported as “pass” in accordance with the TST approach:

Ho: Mean response (100 percent effluent) $\leq 0.80 \times$ Control mean response

Acute Fail

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

A percent effect of ~~0.40~~0.50% for chronic toxicity and ~~0.40~~0.50% for acute 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. However, 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~~50% for chronic toxicity and ~~0.40~~40% for acute 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. This Order requires further study on the appropriate in-stream waste concentration for chronic toxicity observed in industrial storm water discharges to San Diego Bay.

The San Diego Water Board finds that the application of USEPA's TST method with the 50% effect for chronic toxicity and 40% effect for acute 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 USEPA's TST method and a 50% effect for chronic toxicity and 40% effect for acute 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, provide Dischargers with the positive incentive to generate high quality data, and afford greater protection to aquatic life.

b. Acute Toxicity

As discussed previously, acute toxicity limitations have not been carried over and have been replaced with chronic toxicity limitations for industrial process waste water discharges. Acute toxicity effluent limitations have been maintained for industrial high risk storm water discharges and have been updated to use the USEPA's TST method to evaluate the tests with a percent effect of 40%. Where acute toxicity limitations had previously been applied in conjunction with chronic toxicity effluent limitations for industrial process wastewater discharges, the acute limitations have also been removed to reduce duplicative monitoring to implement the narrative toxicity water quality objective. Chronic toxicity monitoring and effluent limitations provide a more conservative indicator and more protective effluent limitation for water quality, and do not constitute back sliding.

c. Chronic Toxicity

As previously discussed, chronic toxicity monitoring requirements and effluent limitations have been established for industrial process wastewater discharges demonstrated to have toxic pollutants in toxic concentrations (See Table F-10), consistent with USEPA’s TST approach.

For compliance with the Basin Plan’s narrative toxicity objective, this Order requires the Discharger to conduct WET testing for chronic toxicity, as specified in the Monitoring and Reporting Program (Attachment E section V). This Order also requires the Discharger to implement BMPs to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

D. Final Effluent Limitations

1. Final Effluent Limitations

- a. Applicable TBELs and WQBELs for pH, described in sections IV.B and IV.C of this Fact Sheet, have been applied in this Order. Both TBELs and WQBELs were applicable to the discharges (6.0 – 9.0 standard units and 7.0 – 9.0 standard units, respectively). To ensure the protection of water quality, the more stringent lower and upper limitations for pH have been applied as the final effluent limitations in this Order.
- b. Discharges of steam condensate to San Diego Bay from Discharge Point Nos. SC-001 through SC-175 shall not exceed the effluent limitations summarized below:

Table F-19. Effluent Limitations for Discharges of Steam Condensate from Discharge Point Nos. SC-001 through SC-175

Parameter	Units	Effluent Limitations					
		Average Monthly	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants							
Total Suspended Solids	mg/L	60	--	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75	--
pH	pH units	--	--	--	7.0	9.0	--
Priority Pollutants							
Copper, Total Recoverable	µg/L	2.9	--	5.8	--	--	--
Lead, Total Recoverable	µg/L	7.0	--	14.0	--	--	--
Mercury, Total Recoverable	µg/L	0.051	--	0.102	--	--	--
Zinc, Total Recoverable	µg/L	47.4	--	95.1	--	--	--

Parameter	Units	Effluent Limitations					
		Average Monthly	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Non-Conventional Pollutants							
Settleable Solids	ml/L	1.0	1.5	--	--	3.0	--
Turbidity	NTU	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	1	--	--	1

¹ Compliance with the MDEL and Monthly Median Effluent Limitation (MMEL) shall be based on the procedures specified in section V of the MRP. ²

- c. The Discharge of graving dock deflooding water and salt water rinse water at Discharge Point Nos. NGD-001 and NGD-002, shall not exceed the effluent limitations summarized below:

Table F-20. Effluent Limitations for Graving Dock Deflood Water and Salt Water Rinse Water at Discharge Point Nos. NGD-001 and NGD-002

Parameter	Units	Effluent Limitations						
		Annual Average	Average Monthly ²	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants								
Total Suspended Solids	mg/L	--	60	--	--	--	--	--
Oil and Grease	mg/L	--	25	40	--	--	75	--
pH	pH units	--	--	--	--	7.0	9.0	--
Priority Pollutants								
Copper, Total Recoverable	µg/L	--	--	--	13.8	--	--	--
Non-Conventional Pollutants								
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0	--
Turbidity	NTU	--	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	--	1	--	--	1

¹ Compliance with the MDEL and MMEL shall be based on the procedures specified in section V of the MRP.

² The AMEL only applies if there is a discharge more than one day in a 30 day period or if there is no other effluent limitation for the parameter.

d. The Discharge of caisson ballast dewatering at Discharge Point No. NGD-003, shall not exceed the effluent limitations summarized below:

Table F-21. Effluent Limitations For Caisson Ballast Dewatering – Discharge Point No. NGD-003

Parameter	Units	Effluent Limitations						
		Annual Average	Average Monthly ²	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants								
Total Suspended Solids	mg/L	--	60	--	--	--	--	--
Oil and Grease	mg/L	--	25	40	--	--	75	--
pH	pH units	--	--	--	--	7.0	9.0	--
Priority Pollutants								
Cadmium, Total Recoverable	µg/L	--	7.7	--	15.4	--	--	--
Copper, Total Recoverable	µg/L	--	--	--	13.8	--	--	--
Nickel, Total Recoverable	µg/L	--	6.8	--	13.6	--	--	--
Silver, Total Recoverable	µg/L	--	1.1	--	2.2	--	--	--
Zinc, Total Recoverable	µg/L	--	47.4	--	95.1	--	--	--
Non-Conventional Pollutants								
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0	--
Turbidity	NTU	--	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	--	1	--	--	1

- ¹ Compliance with the MDEL and MMEL shall be based on the procedures specified in section V of the MRP.
- ² The AMEL only applies if there is a discharge more than one day in a 30 day period or if there is no other effluent limitation for the parameter.

- e. The Discharge of emergency fire suppression water and salt water supply water at Discharge Point No. 004, shall not exceed the effluent limitations summarized below:

Table F-22. Effluent Limitations for Emergency Fire Suppression Water and Salt Water Supply – Discharge Point No. NGD-004

Parameter	Units	Effluent Limitations						
		Average Annual	Average Monthly	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Monthly Median
Conventional Pollutants								
Total Suspended Solids	mg/L	--	60	--	--	--	--	--
Oil and Grease	mg/L	--	25	40	--	--	75	--
pH	pH units	--	--	--	--	7.0	9.0	--
Priority Pollutants								
Copper, Total Recoverable	µg/L	--	--	--	13.8	--	--	--
Nickel, Total Recoverable	µg/L	--	6.8	--	13.6	--	--	--
Silver, Total Recoverable	µg/L	--	1.1	--	2.2	--	--	--
Zinc, Total Recoverable	µg/L	--	47.0	--	95.1	--	--	--
Non-Conventional Pollutants								
Settleable Solids	ml/L	--	1.0	1.5	--	--	3.0	--
Turbidity	NTU	--	75	100	--	--	225	--
Chronic Toxicity	Pass/Fail	--	--	--	1	--	--	1

¹ Compliance with the MDEL and MMEL shall be based on the procedures specified in section V of the MRP.

- f. In addition to numeric technology-based limitations, the previous Orders required the Discharger to develop and implement a BMP plan for Pier Boom, Fender, Mooring Cleaning Discharger, utility vaults, and the Graving Dock, and a SWPPP for storm water discharges throughout the Facility, as authorized by CWA section 304(e) and section 402(p). An individual discussion for each plan is provided in section IV.B.2 of this Fact Sheet. The requirements to update and implement BMP plans and a SWPPP are carried over from the previous Orders.
- g. The discharge of storm water from designated “Industrial High Risk Areas,” as defined in section IV.B.1.d of the Order, shall achieve a rating of “Pass” for acute toxicity based on the procedures in section V of the MRP.

2. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R9-2002-0169 and Order No. R9-2003-0265 and meet State and federal anti-backsliding requirements.

3. Satisfaction of Antidegradation Policy

WDRs for the Discharger must conform to federal and state antidegradation policies provided at 40 CFR 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 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.

The Discharger has requested that four additional steam condensate discharges be authorized to discharge to the San Diego Bay (Discharge Point Nos. SC-150 through SC-153). Order No. R9-2002-0169 regulated 190 steam condensate discharge locations. Previous discharges of steam condensate were estimated up to 2,150 gallons per day (GPD). However, due to the demolition of Piers 10 and 11 and replacement of Pier 10, and the demolition and replacement of Pier 12, there are now only 175 steam condensate discharge locations. The estimated discharge of steam condensate is now 2,000 GPD. Considering the reduction in volume of steam condensate discharged to the receiving water, and the fact that the additional effluent streams are similar to the current steam condensate discharges, the addition of Discharge Point Nos. SC-150 through SC-153 for steam condensate discharges is not expected to negatively affect/impact the receiving water.

The limitations and requirements of this Order are more stringent than established in Order No. R9-2002-0169 and Order No. R9-2003-0265. The permitted discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

4. Stringency of Requirements for Individual Pollutants

This Order contains both TBELs and WQBELs for individual pollutants. The TBELs applied in the Order consist of restrictions on oil and grease, suspended solids, settleable solids, turbidity, and pH as specified in Table A of the Ocean Plan; a requirement to continue to implement a PPP for utility vault and manhole dewatering discharges; a requirement to develop and maintain a BMP Plan for discharges from pier boom, fender, and mooring cleaning; and a requirement to continue to implement a SWPPP for toxic pollutants and hazardous substances in storm water runoff. These restrictions and requirements are discussed in section IV.B.2. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR 131.38. The scientific procedures for calculating the individual WQBELs for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "*applicable water quality standards for purposes of the CWA*" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Storm Water Risk Level Designations

This Order addresses storm water discharges from various locations throughout the Facility, with varying degrees of industrial activity and potential to impact water quality. As such, a tiered approach has been applied in the Order to control storm water discharges, including MS4 requirements, industrial storm water requirements, and effluent limitations. To apply the appropriate controls for storm water, the Discharger is required to identify all storm water outfalls located at the Facility, and designate the outfalls as either: Industrial High Risk Area, Industrial Low Risk Area, Industrial No Exposure Area, or Small MS4 Area.

Because operations at the Facility are subject to change, areas currently designated as Small MS4 Areas may be used for industrial activities at some time in the life of this permit or areas once used for industrial purposes may no longer be used for industrial uses. As such, annual site surveys are necessary to account for any operational changes that may occur at the Facility to ensure that appropriate regulatory mechanisms are being applied.

F. Small (Military Base) Municipal Separate Storm Sewer System (MS4) Discharge Specification

As discussed in section II.A.1.a of the Fact Sheet, the San Diego Water Board finds that Phase II MS4 requirements are applicable to storm water discharges from non-industrial portions of the Facility. As such, applicable requirements of the Phase II MS4 program, consistent with the requirements of the current State-wide Phase II MS4 Permit (State Water Board Order No. 2013-0001-DWQ) have been applied to ensure discharges of storm water from Non-industrial Areas meet the minimum requirement of MEP. Specific requirements have been established where necessary to increase the tracking and enforceability of the Discharger’s SWMP.

G. Storm Water Action Levels (SALs) - Chollas Creek Metals TMDL Implementation

1. Waste Load Allocations for Metals in Chollas Creek

The Chollas Creek Metals TMDLs contain the following Waste Load Allocations (WLA) applicable to storm water discharges to Chollas Creek shown in Table F-23. The WLAs are based on the CTR values for freshwater. The Criteria Maximum Concentration is the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects. The Criteria Continuous Concentration is the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. These WLAs apply to Chollas Creek upstream of Harbor Drive.

Table F-23. Waste Load Allocations for Chollas Creek Storm Water Discharges

Metal	Numeric Target for Acute Conditions: Criteria Maximum Concentration	Numeric Target for Chronic Conditions: Criteria Continuous Concentration
Dissolved Copper	$(0.9) * (0.96) * \{e^{[0.9422 * \ln(\text{hardness}) - 1.700]}\} * \text{WER}$	$(0.9) * (0.96) * \{e^{[0.8545 * \ln(\text{hardness}) - 1.702]}\} * \text{WER}$
Dissolved Lead	$(0.9) * \{1.46203 - [0.145712 * \ln(\text{hardness})]\} * \{e^{[1.273 * \ln(\text{hardness}) - 1.460]}\} * \text{WER}$	$(0.9) * \{1.46203 - [0.145712 * \ln(\text{hardness})]\} * \{e^{[1.273 * \ln(\text{hardness}) - 4.705]}\} * \text{WER}$

Metal	Numeric Target for Acute Conditions: Criteria Maximum Concentration	Numeric Target for Chronic Conditions: Criteria Continuous Concentration
Dissolved Zinc	$(0.9) * (0.978) * \{e^{[0.8473 * \ln(\text{hardness}) + 0.884]}\} * \text{WER}$	$(0.9) * (0.986) * \{e^{[0.8473 * \ln(\text{hardness}) + 0.884]}\} * \text{WER}$

The Water-Effect Ratio (WER) is the ratio of the toxicity of the metal in the site water to the toxicity of the same metal in standard laboratory water. The WER is assumed to be 1.0 unless there is a site-specific and chemical-specific WER incorporated into the Basin Plan. The WER is multiplied by the criteria to adjust for site specific conditions.

The WLA in the Chollas Creek TMDLs are based on the hardness of the receiving water which is Chollas Creek. Because the part of Chollas Creek where the Facility discharges storm water is heavily influenced by salt water from San Diego Bay, the hardness is at or above 400 mg/L. Pursuant to the Chollas Creek TMDLs, at times when the hardness concentration exceeds 400 mg/L, a value of 400 mg/L will be used for hardness no matter what the extent of the exceedance. This is because the CTR caps the allowable hardness value that can be used to calculate the resulting water quality criteria. The WLA calculated for a hardness of 400 mg/L are required to be met by October 22, 2028 and are shown below in Table F-24:

Table F-24. Final Waste Load Allocations for Chollas Creek Storm Water Discharges for a Harness of 400 mg/L

Metal	WLAs Acute Conditions: Criteria Maximum Concentration ¹	WLAs for Chronic Conditions: Criteria Continuous Concentration ¹
Dissolved Copper	45 µg/L	26 µg/L
Dissolved Lead	253 µg/L	10 µg/L
Dissolved Zinc	341 µg/L	344 µg/L

¹ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, these WLA will be multiplied by the appropriate WER.

2. TMDL Implementation Schedule

The Chollas Creek Metals TMDLs contain the following implementation schedule for achieving the WLAs. The WLAs became effective October 22, 2008

Table F-25. Implementation Schedule for Chollas Creek Metals TMDLs.

Allowable Exceedance of the WLAs (allowable percentage above)			
Compliance Year	Copper	Lead	Zinc
1 = 2008	--	--	--
10 = 2018	20%	20%	20%
20 = 2028	0%	0%	0%

The first compliance date is 2018 with an allowable exceedance of the WLAs of 20% exceedance above the WLA. This date is outside the term of this Order. The WLA in 2018 are identified below in Table F-26:

Table F-26. Interim WLAs for Chollas Creek Storm Water Discharges for a Harness of 400 mg/L in 2018 with 20% exceedance - Dissolved

Metal	Interim WLAs for Acute Conditions: Criteria Maximum Concentration ¹	Interim WLAs for Chronic Conditions: Criteria Continuous Concentration ¹
Dissolved Copper	54 µg/L	32 µg/L
Dissolved Lead	303 µg/L	12 µg/L
Dissolved Zinc	410 µg/L	413 µg/L

¹ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, these WLA will be multiplied by the appropriate WER.

Effluent limitations are expressed in terms of total recoverable metals. The SIP requires the use of USEPA conversion factors in Appendix 3 of the SIP to convert dissolved criterion to total recoverable criterion. The dissolved criterion is divided by the USEPA conversion factor to calculate a total recoverable criterion. The conversion factors and resulting total recoverable criterion are shown in Table F-27 below:

Table F-27. Interim WLAs for Chollas Creek Storm Water Discharges for a Harness of 400 mg/L in 2018 with 20% exceedance – Total Recoverable

Metal	Conversion Factor - Fresh Water Acute	Conversion Factor – Fresh Water Chronic	Interim WLA for Acute Conditions: Criteria Maximum Concentration ¹	Interim WLA for Chronic Conditions: Criteria Continuous Concentration ¹
Copper, Total Recoverable	0.96	0.96	56 µg/L	33 µg/L
Lead, Total Recoverable	0.589002	0.589002	515 µg/L	20 µg/L
Zinc, Total Recoverable	0.978	0.986	419 µg/L	419 µg/L

¹ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, these WLA will be multiplied by the appropriate WER.

3. Storm Water Action Levels (SALs) Calculations

Storm water Action Levels (SALs) for storm water discharges from the Facility to Chollas Creek were calculated using the interim WLAs shown in Table F-27 for a hardness of 400 mg/L in 2018. The methodology from the SIP and described above in section IV.C.4.f of the Fact Sheet was used to convert Criteria Maximum Concentration and the Criteria Continuous Concentration to MDELs and AMELs as shown in tables F-28 through F-30 below. These MDEL and AMEL will be implemented as SALs until 2018 when the TMDL requires compliance with these numbers.

Table F-28. SAL Calculations for Total Copper in Discharges of Storm Water to Chollas Creek.

	Acute ³	Chronic ³
Criteria (µg/L) ¹	56	33
Dilution Credit	No Dilution	No Dilution
ECA	56	33
ECA Multiplier	0.321	0.527
LTA	18	17
AMEL Multiplier (95 th %)	2	1.55
AMEL (µg/L)	2	27
MDEL Multiplier (99 th %)	2	3.11
MDEL (µg/L)	2	54

¹ Chollas TMDL WLA

² Limitations based on chronic LTA (Chronic LTA < Acute LTA)

³ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, this SAL will be multiplied by the appropriate WER.

Table F-29. SAL Calculations for Total Lead in Discharges of Storm Water to Chollas Creek.

	Acute ³	Chronic ³
Criteria (µg/L) ¹	515	20
Dilution Credit	No Dilution	No Dilution
ECA	515	20
ECA Multiplier	0.321	0.527
LTA	165	11
AMEL Multiplier (95 th %)	2	1.55
AMEL (µg/L)	2	16
MDEL Multiplier (99 th %)	2	3.11
MDEL (µg/L)	2	33

¹ Chollas TMDL WLA

² Limitations based on chronic LTA (Chronic LTA < Acute LTA)

³ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, this SAL will be multiplied by the appropriate WER.

Table F-30. SAL Calculations for Zinc in Discharges of Storm Water to Chollas Creek.

	Acute ³	Chronic ³
Criteria (µg/L) ¹	419	419
Dilution Credit	No Dilution	No Dilution
ECA	419	419
ECA Multiplier	0.321	0.527
LTA	135	221
AMEL Multiplier (95 th %)	1.55	²
AMEL (µg/L)	210	2
MDEL Multiplier (99 th %)	3.11	²
MDEL (µg/L)	420	2

¹ Chollas TMDL WLA

² Limitations based on chronic LTA (Chronic LTA < Acute LTA)

³ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, this SAL will be multiplied by the appropriate WER.

4. Storm Water Action Levels (SAL) Requirements

- a. The flow weighted average concentration of all discharges from Discharge Point Nos. NBSD-068, NBSD-070, NBSD-071, NBSD-120, and NBSD-121 shall not exceed the SALs listed in Table F-31 as of October 22, 2018, at which time the SALs listed in Table F-31 will be prescribed in the NPDES Permit as numerical effluent limits and the final WLAs for Chollas Creek prescribed as SALs. Samples can be collected from all points and a flow weighted average can be used to compare with the SAL. This will allow BMPs to be implemented at the most advantageous locations. Exceedances of a SAL are not violations of this Order. However, failure to evaluate and/or improve BMPs between wet seasons if SALs are not met is a violation of this Order.

Table F-31. Storm water Action Levels for Discharges to Chollas Creek

Parameter	Units	Action Levels ¹				
		Average Monthly ¹	Weekly Average	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants						
Copper, Total Recoverable	µg/L	27	--	54	--	--
Lead, Total Recoverable	µg/L	16	--	33	--	--
Zinc, Total Recoverable	µg/L	210	--	420	--	--

¹ If a site-specific and chemical-specific WER is incorporated into the San Diego Basin Plan, these SALs will be multiplied by the appropriate WER.

- b.** The Discharger is required to develop and implement a Storm Water Action Level Plan (SAL Plan) to achieve the SALs by 2018. The TMDL requires compliance with the SALs by 2018; therefore numeric effluent limitations will be established and replace action levels in an NPDES permit at that time.

The “San Diego Bay Watershed Urban Runoff Management Program 2009-2010 Annual Report” contains a table titled “Chollas Creek Dissolved Metals TMDL Implementation Plans Updates.” This table has a section titled “United States Navy Watershed Activities Reporting Phase I of the Chollas Creek Dissolved Metals TMDL Implementation Plan.” The Navy has three activities; an Evaluation and Minimization Plan for Copper and Zinc in Storm Water, an MS4 Storm Water Management Plan, and a Creek Trash Removal Program. These activities are not adequate to achieve compliance with the TMDL so a new SAL Plan is required by the Order.

The initial plan submitted by 12 months from the effective date of this Order is expected to be a rough plan with some short term actions with clear implementation dates and longer term actions with dates that may change over time. The SAL Plan shall include identification of the sources of copper, lead, and zinc in storm water discharges, as well as source control BMPs to be implemented, Low Impact Development (LID) BMPs to be implemented, and treatment control BMPs to be implemented. The SAL Plan shall also identify funding mechanisms and a time schedule for BMP implementation. The SAL Plan will be updated each year in the annual storm water report required by the MRP to incorporate changes and refinements in the plan from year to year. The annual storm water report updates should also show measureable progress towards meeting the SALs in the form of decreasing metals concentrations or iterative BMP implementation. If SALs are not met in one wet season, the discharger shall reevaluate existing BMPs and enhance or improve as needed. The SAL Plan shall affirmatively augment and implement all necessary storm water controls and measures to reduce the discharge of the associated class of pollutants(s) to levels below the SALs. Failure to take action between wet seasons if SALs are exceeded is a violation of this Order.

H. 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 BAT and 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 Areas.** Prior to the adoption of Order No. 2002-0169, the storm water discharges at the Facility were regulated by the State Water Board's General Order for Discharges of Storm Water Associated with industrial Activities Excluding Construction Activities (Order No. 97-03-DWQ, NPDES No. CAG000001). To carry out the purpose and intent of the CWA, Order No. 97-03-DWQ and subsequently Order No. R9-2002-0169 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. Consistent with Order No. 97-03-DWQ and Order No. R9-2002-0169, this Order requires the Discharger to continue to implement and regularly update an adequate SWPPP as specified in Attachment G. This is explained in more detail in section IV.B.2.f of this Fact Sheet.
- 3. Numeric Action Levels (NALs).** Consistent with the direction of the State Water Board, this Order establishes NALs based on USEPA's benchmarks with a tiered compliance strategy. This is explained in more detail in section IV.B.2.f of this Fact Sheet.

I. Non-Storm Water Discharge Specifications

Discharge Specifications for the discharge of exempted non-storm water discharges are based on the requirements of 40 CFR 122.26(d). These discharge specifications exempt the discharge of certain wastes from prohibition that are not currently expected to be a significant source of pollutants to the receiving waters.

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 California Toxics Rule (2000), the State Implementation Policy (2005), and the Sediment Quality Plan (2008). San Diego Bay is listed as impaired for sediment toxicity and benthic community in the area directly off shore of the facility. The facility will need a Time Schedule Order to meet some of the effluent limitations for steam condensate and caisson gate ballast dewatering. This 303(d) impairment and elevated effluent concentrations 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.

B. Groundwater

[Not Applicable]

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the San Diego Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Industrial Storm Water Monitoring Location Study and Annual Report

In order to determine compliance with effluent limitations and evaluate the effectiveness of BMPs specified in the SWPPP, this order establishes monitoring requirements for industrial storm water. The San Diego Water Board recognizes that establishing monitoring requirements at all discharge locations would be redundant and an inefficient use of resources. Monitoring is only necessary at representative discharge locations for industrial storm water. This directive requires the discharger to identify representative monitoring locations for these discharges, and verify these monitoring locations annually.

B. Influent Monitoring

Influent monitoring has been established for the intake/source water for USN Graving Dock deflooding water and salt water rinse water, caisson gate ballast dewatering, emergency fire suppression water, and salt water supply water for total recoverable copper so that intake credits may be appropriately applied to discharges from the USN Graving Dock.

C. Effluent Monitoring

Pursuant to the requirements of 40 CFR §122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of BMPs and pollution prevention plans, and to assess the impacts of the discharge on the receiving water.

1. Steam Condensate Monitoring (Monitoring Locations SC-001 through SC-175)

- a. Annual effluent flow monitoring has been revised to monthly to more accurately determine the volume of effluent being discharged from the Facility into the San Diego Bay.

- b. Annual effluent monitoring of total suspended solids has been revised to quarterly in order to better characterize the discharge of steam condensate from the Facility into the San Diego Bay.
 - c. Annual effluent monitoring for oil and grease, settleable solids, turbidity, and pH has been revised to quarterly in order to determine compliance with effluent limitations based on Table A of the Ocean Plan
 - d. Annual monitoring for temperature in the steam condensate discharges has been revised to quarterly to determine the effects of the discharge to the beneficial uses of the San Diego Bay.
 - e. Quarterly monitoring using grab samples for copper, lead, mercury, and zinc is required to determine compliance with the applicable effluent limitations.
 - f. Monitoring once in Year One and once in Year Five of steam condensate discharges for the remaining CTR priority pollutants has been included to determine if reasonable potential exists for the discharges to exceed water quality criteria, as specified in section 1.3 of the SIP. Monitoring for arsenic, cadmium, chromium, nickel, and silver are included in this annual CTR monitoring and are no longer specified individually in the MRP.
 - g. Monitoring once per year for steam condensate discharges for chronic toxicity has been included to determine compliance with the applicable chronic toxicity effluent limitation, as specified in this Order.
 - h. Consistent with Order No. R9-2002-0169, this Order requires the Discharger to submit a log of chemicals added to the steam boiler annually.
- 2. Graving Dock Deflooding Water and Salt Water Rinse Water (Monitoring Location Nos. NGD-001 and NGD-002)**
- a. Daily Flow monitoring has been established (increased from annually) so that the volume of effluent being discharged from the Facility into the San Diego Bay can be determined and the approximate amount of pollutants discharged can be accurately calculated.
 - b. Quarterly monitoring for oil and grease, settleable solids, turbidity, pH, copper has been established to determine compliance with applicable effluent limitations.
 - c. Quarterly monitoring for temperature has been established to characterize the discharge.

- d. Annual monitoring for tributyltin and the remaining CTR priority pollutants has been established to evaluate reasonable potential for the discharge to exceed water quality objectives/criteria in future permitting efforts as specified in section 1.3 of the SIP.
- e. Annual monitoring for chronic toxicity has been included to determine compliance with chronic toxicity effluent limitations, as specified in this Order.

3. Caisson Gate Ballast Dewatering (Monitoring Location No. NGD-003)

- a. Daily effluent flow monitoring has been established (increased from annually) so that the volume of effluent being discharged from the Facility into the San Diego Bay can be determined and the approximate amount of pollutants discharged can be accurately calculated.
- b. Annual monitoring requirements for total suspended solids, oil and grease, turbidity, settleable solids, pH, and temperature from MRP No. R9-2003-0265 have been carried over.
- c. Annual monitoring for cadmium, copper, nickel, silver, and zinc have been included to determine compliance with effluent limitations contained in the Order.
- d. Annual monitoring for tributyltin and the remaining CTR priority pollutants has been established to evaluate reasonable potential for the discharge to exceed water quality objectives/criteria in future permitting efforts as specified in section 1.3 of the SIP. Monitoring for lead, mercury, and PAHs are included under the requirement to monitor for the remaining CTR Priority Pollutants.
- e. Annual monitoring for chronic toxicity has been included to determine compliance with chronic toxicity effluent limitations, as specified in this Order.

4. Emergency Fire Suppression Water and Salt Water Supply Water (Monitoring Location No. NGD-004)

- a. Daily effluent flow monitoring has been established (increased from annually) so that the volume of effluent being discharged from the Facility into the San Diego Bay can be determined and the approximate amount of pollutants discharged can be accurately calculated.
- b. Annual monitoring requirements for total suspended solids, oil and grease, turbidity, settleable solids, pH, and temperature from MRP No. R9-2003-0265 have been carried over.
- c. Annual monitoring for copper, nickel, silver, and zinc have been included to determine compliance with effluent limitations contained in the Order.

- d. Annual monitoring for the tributyltin and the remaining CTR priority pollutants has been established to evaluate reasonable potential for the discharge to exceed water quality objectives/criteria in future permitting efforts as specified in section 1.3 of the SIP. Monitoring for lead, mercury, and PAHs are included under the requirement to monitor for the remaining CTR Priority Pollutants.
- e. Monitoring once Year One and Year Five of the permit term for chronic toxicity has been included to determine compliance with chronic toxicity effluent limitations and to evaluate reasonable potential, as specified in this Order.

5. Pier Boom, Fender, and Mooring Cleaning Monitoring (Monitoring Location BC-001)

- a. Annual effluent flow monitoring has been established to determine the volume of effluent being discharged from the Facility into the San Diego Bay.
- b. Table A of the Ocean Plan includes technology-based requirements for oil and grease, settleable solids, turbidity, and pH. In order to determine the effectiveness of the BMPs, annual monitoring for the Table A parameters is established in this Order.
- c. Monitoring data submitted by the Discharger for pier boom, fender, and mooring cleaning indicates that the discharge has the reasonable potential to exceed water quality criteria for copper, benzo (b) fluoranthene, benzo (k) fluoranthene, and chrysene. Annual monitoring using grab samples is required to determine the effectiveness of the Discharger's BMPs.
- d. Monitoring once in Year One and once in Year Five of pier boom, fender, and mooring cleaning discharges for the remaining CTR priority pollutants has been included to determine if reasonable potential exists for the discharges to exceed water quality criteria, as specified in section 1.3 of the SIP.
- e. Monitoring once in the five year permit cycle of pier boom, fender, and mooring cleaning discharges for acute and chronic toxicity has been included to determine if reasonable potential exists for the discharges to exceed the water quality criteria, as specified in this Order.
- f. Consistent with Order No. R9-2002-0169, this Order requires the Discharger to submit a log of pier boom, fender, and mooring activity annually.

6. Utility Vault and Manhole Dewatering Monitoring (Monitoring Locations UV-001 through UV-012)

- a. Annual effluent flow monitoring has been established to determine the volume of effluent being discharged from the Facility into the San Diego Bay.
- b. Annual effluent monitoring of total petroleum hydrocarbons, oil and grease, pH, and total suspended solids has been incorporated from State Water Board General Order No. 2006-008-DWQ to characterize the discharge of utility vault and manhole dewatering from the Facility into the San Diego Bay.
- c. Consistent with Order No. R9-2002-0169, this Order requires the Discharger to submit a log of the utility vault and manhole dewatering discharges annually.

D. Whole Effluent Toxicity Testing Requirements

As discussed above in section IV.C.5 of this Fact Sheet, chronic and acute toxicity effluent limitations established in this order are based on USEPA's TST method and percent effect. The chronic toxicity effluent limitations are replacing acute toxicity effluent limitations for industrial process wastewater discharges established in Order No R9-2002-0169 for NBSD and Order No R9-2003-0265 for the USN Graving Dock. Acute toxicity effluent limitations are maintained for industrial storm water discharges. Chronic and acute toxicity monitoring is required because there are effluent limitations.

Past sampling of industrial storm water at the Facility shows the presence and reasonable potential for toxicity in the discharge of industrial storm water from the Facility. Survival rates reported by the Discharger for two storm water sampling events conducted in December 2006 and April 2007 range from 0 to 100 percent. In December 2009 and November 2008, the Discharger did not meet the effluent limitation of more than 70% survival more than 10% of the time. In November 2008, the Discharger did not meet the effluent limitation of more than 90% survival more than 50% of the time.

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 Workplan in accordance with USEPA 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 conduct the TRE/TIE process in accordance with the workplan if the results of toxicity testing exceed the effluent limitation for toxicity.

E. Receiving Water Monitoring

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 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 will 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 San Diego Bay, applicable beneficial uses, and aquatic life.
- b.** Monitoring locations will be determined in the Water and Sediment Monitoring Plan.
- c.** Annual monitoring of cadmium, copper, mercury, nickel, and zinc in the San Diego Bay has been established to determine compliance with receiving water limitations and to help determine reasonable potential, as specified in section 1.3 of the SIP, for future permitting efforts.
- d.** Annual temperature monitoring has been established in order to determine compliance with the effluent limitations for temperature for discharges of steam condensate.
- e.** Monitoring once during the permit cycle for the CTR priority pollutants has been added to help determine reasonable potential, as specified in section 1.3 of the SIP, for future permitting efforts and 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 Condition: Sediment chemistry, toxicity and benthic community monitoring are required in accordance with, at a minimum, the requirements under the Sediment Quality Control Plan.

4. Monitoring Coalitions.

To achieve maximum efficiency and economy of resources, the San Diego Water Board encourages and may require San Diego Bay dischargers to establish or join a San Diego Bay water body monitoring coalition. 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.

5. Water and Sediment Monitoring Report

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

F. Other Monitoring Requirements

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 retained from Order No. R9-2002-0169 to determine the effects of storm water discharges on the receiving water and monitor the effectiveness of the SWPPP to meet applicable effluent limitations, numeric action levels and receiving water limits.
2. Monitoring requirements for storm water discharges to Chollas Creek have been added to allow comparison of storm water samples to the SALs established to implement the Chollas Creek Metals TMDLs. Monitoring is required for 2 storms per year for copper, lead, and zinc.
3. The discharger is required to submit a sampling plan for MS4 storm water discharges within 12 months of the effective date of this Order. A minimum of five representative monitoring locations must be identified to reduce the number of samples required. Sampling and analysis is required twice per year for storm water and twice per year for dry-weather.
4. Monitoring requirements for graving dock deflooding water discharges have been updated to reflect modern technology and carried over from MRP No. R9-2003-0265 to ensure that appropriate BMPs are properly implemented.

5. Monitoring requirements for spill and illicit discharges have been carried over from MRP No. R9-2003-0265 to help determine the effectiveness of the BMP Plan and ensure that appropriate BMPs are properly implemented.
6. The requirement for a Chemical Utilization Audit from MRP No. R9-2003-0265 has not been retained and instead chemical information will be obtained through the California Environmental Reporting System (CERS). CERS is a publically accessible statewide web-based system used to electronically collect and report Emergency Planning and Community Right-to-Know Act (EPCRA) hazardous chemical storage information and various hazardous materials data as mandated by the California Health and Safety Code and AB 2286. The discharger will be using CERS to submit all business information regarding hazardous material regulatory activities, chemical inventories, underground and aboveground storage tanks, hazardous waste generation as well as emergency contact information.

VII. 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.

40 CFR section 122.41(a)(1) and (b) through (n) 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) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in 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. Monitoring and Reporting Program (MRP) Requirements

Language in this section requires the Discharger to properly implement and submit self-monitoring reports (SMRs) to the San Diego Water Board and Discharge Monitoring Reports (DMRs) for USEPA to the State Water Board. Addresses, telephone and fax numbers are also provided. The San Diego Water Board office may be relocated. Dischargers will be notified of new contact information.

C. Special Provisions

1. Reopener Provisions

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

2. Special Studies and Additional Monitoring Requirements

The TRE/TIE requirements have been moved to the MRP.

3. Best Management Practices and Pollution Prevention

- a. **Best Management Practices and Pollution Prevention Plan for Utility Vault and Manhole Dewatering Discharges (Utility Vault PLAN).** As discussed in sections IV.B.2.b and IV.C.4.a of this Fact Sheet, the San Diego Water Board finds that numerical effluent limitations are not feasible for discharges from utility vault and manhole dewatering discharges. Federal Regulations at 40 CFR 122.44(k)(3) and (4) authorize the San Diego Water Board to require BMPs to control or abate the discharge of pollutants when numeric effluent limitations are infeasible and when the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

The development of a PPP provides the flexibility necessary to establish controls which can appropriately address the various utility vault and manhole dewatering discharges. The pollution prevention practices have two major objectives:

- i. To identify situations which allow water to collect in the vault or underground structure and lead to a discharge; and
- ii. To describe and ensure the implementation of practices that will reduce pollutants in the discharge from normal operations of utility companies.

Similar to BMPs, pollution prevention practices are designed to prevent or control the discharge of pollutants. They may include a schedule of activities, prohibition of practices, maintenance procedures, or other management practices. The Best Management Practices and Pollution Prevention Practices Plan for Utility and Manhole Dewatering Discharges (Utility Vault PLAN) is a written document that describes the operator's activities to comply with the requirements of this Order. The Utility Vault PLAN is intended to evaluate potential pollutant sources at the site and select and implement appropriate measures designed to prevent or control the discharge of pollutants. Order No. R9-2002-0169 incorporated the pertinent requirements of Order No. 2001-11-DWQ, including the requirement to develop and implement a Utility Vault PLAN that included BMPs to achieve BAT and BCT. According to the *Case Study for Utility Vault and Manhole Dewatering*

Discharges at Naval Base Point Loma, Naval Base San Diego, and Naval Base Coronado submitted by the Discharger in May 2007, the Discharger has maintained and implemented the *Pollution Prevention Plan for Utility Vault Dewatering Discharges* as required by Order No. R9-2002-0169, which describes the types of discharges, prohibited discharges, pollution prevention practices and BMPs, and monitoring and inspections of utility vault and manhole discharges. Additionally, the case study states that the Discharger has implemented procedures to eliminate manhole dewatering discharges to surface waters and either pumps the water into an adjacent utility manhole or transfers the water to the sanitary sewer system. However, the Discharger acknowledges the potential for rare emergency situations that would require dewatering of a utility vault or manhole onto the ground surface.

Order No. 2006-0008-DWQ includes additional specifications for PPPs for Utility and Manhole Dewatering Discharges for dischargers of utility and manhole dewatering discharges. This Order incorporates the additional specifications from Order No. 2006-0008-DWQ. The Discharger is required to maintain and implement their Utility Vault PLAN in accordance with the requirements of Provision VI.C.3.a of this Order. For assistance in developing the Utility Vault PLAN, the Discharger may refer to the *California Stormwater BMP Handbook – Industrial/Commercial (January 2003 Edition)*, published by the California Stormwater Quality Association, which includes references the Discharger may find useful.

- b. BMP Plan for Pier Boom, Fender, and Mooring Cleaning Discharges, and Graving Dock Pre-flood Cleaning, and Weight Testing Water.** Due to the nature of activities associated with discharges from pier boom, fender, and mooring cleaning, weight testing water, and operations at the USN Graving Dock, it is impractical to collect and treat the associated wastewaters prior to discharge. The San Diego Water Board finds that it is not feasible to establish numeric effluent limitations for pollutants in discharges from pier boom, fender, and mooring cleaning and weight testing water. In accordance with 40 CFR 122.44(k)(3) and (4), the San Diego Water Board finds that the implementation of BMPs in lieu of numeric effluent limitations are appropriate. Further, the San Diego Water Board finds that the implementation of BMPs are necessary to achieve effluent limitations established for the USN Graving Dock, and carries over the requirement for a BMP plan, based on the requirements from Order No. R9-2003-0265.

This Order requires the Discharger to develop and implement a BMP Plan that includes, at a minimum, the requirements contained in Attachment I to prevent, or minimize the potential for, the release of pollutants to waters of the State and waters of the United States.

- c. BMP Plan for Seawater Cooling Overboard Discharges.** USEPA's Vessel General Permit determined that numeric effluent limitations were infeasible for many vessel discharges. While the Vessel General Permit is not applicable to this Order it is appropriate to incorporate BMP requirements for discharges of Seawater Cooling Overboard Discharges (Including Non-Contact Engine Cooling Water; Hydraulic System Cooling Water, Refrigeration Cooling Water) consistent with the Vessel General Permit. This Order requires that adequate BMPs for vessel cooling water discharges are incorporated into the BMP Plan.
- d. CWC section 13263.3(d)(2) Pollution Prevention Plans.** Section 13263.3 of the California Water Code states that pollution prevention should be the first step in the hierarchy for reducing pollution and managing wastes. Further, section 13263.3 (d)(1)(D) states that a Regional Water Board may require a Discharger to complete and implement a PPP if the Regional Water Board determines that pollution prevention is necessary to achieve a water quality objective. The results of the RPAs detailed in Table F-10 of this Fact Sheet indicate the Discharger has the reasonable potential to exceed water quality objectives for cadmium, copper, lead, mercury, nickel, silver, and zinc, and that pollution prevention is necessary to achieve water quality objectives for these constituents. The Discharger is required to prepare and implement a Pollution Prevention Plan for steam condensate discharges (Discharge Point Nos. SC-001 through SC-175) for copper, lead, mercury, zinc; and USN Graving Dock deflooding water and salt water rinse water (Discharge Point Nos. NGD-001 and NGD-002) for copper; for caisson ballast dewatering (Discharge Point Nos. NGD-003) for cadmium, copper, nickel, silver, and zinc; and fire suppression water and salt water supply water (Discharge Point No. NGD-004) for copper, nickel, silver, and zinc.
- e.** The PPP shall, at a minimum, meet the requirements outlined in CWC section 13263.3(d)(2) in this Order, for each applicable discharge. The minimum requirements for the PPPs include the following:
- i. An analysis of one or more of the pollutants, as directed by the State Water Board, a San Diego Water Board, or a POTW, that the Facility discharges into water or introduces into POTWs, a description of the sources of the pollutants, and a comprehensive review of the processes used by the discharger that result in the generation and discharge of the pollutants.
 - ii. An analysis of the potential for pollution prevention to reduce the generation of the pollutants, including the application of innovative and alternative technologies and any adverse environmental impacts resulting from the use of those methods.

- iii. A detailed description of the tasks and time schedules required to investigate and implement various elements of pollution prevention techniques.
- iv. A statement of the Discharger's pollution prevention goals and strategies, including priorities for short-term and long-term action.
- v. A description of the Discharger's existing pollution prevention methods.
- vi. A statement that the Discharger's existing and planned pollution prevention strategies do not constitute cross media pollution transfers unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Board, the San Diego Water Board, or the POTW, and information that supports that statement.
- vii. Proof of compliance with the Hazardous Waste Source Reduction and Management Review Act of 1989 (Article 11.9 (commencing with Section 25244.12) of Chapter 6.5 of Division 20 of the Health and Safety Code) if the Discharger is also subject to that act.
- viii. An analysis, to the extent feasible, of the relative costs and benefits of the possible pollution prevention activities.
- ix. A specification of, and rationale for, the technically feasible and economically practicable pollution prevention measures selected by the Discharger for implementation.

4. Construction, Operation, and Maintenance Specifications

The construction, operation, and maintenance specifications have been retained from Order No. R9-2002-0169.

5. Other Special Provisions – Not Applicable

VIII. PUBLIC PARTICIPATION

The San Diego Water Board is considering the issuance of WDRs that will serve as a NPDES permit for the United States Department of the Navy, Naval Base San Diego Complex. As a step in the WDR adoption process, the San Diego Water Board staff has developed tentative WDRs. The San Diego Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The San Diego Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following: Published in the San Diego Union-Tribune on Friday, June 7, 2013, posted on the San Diego Water Board website on Friday, June 7, 2013, and sent by mail on Friday, June 7, 2013.

B. Written Comments

The staff determinations are tentative. Interested persons were invited to submit written comments concerning these tentative WDRs. Comments were required to be submitted 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, written comments were required to be received at the San Diego Water Board offices by 5:00 p.m. on Monday, July 8, 2013.

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: **August 14, 2013**
Time: **9:00 A.M.**
Location: **Regional Water Quality Control Board, San Diego Region
Board Meeting Room
9174 Sky Park Court, Suite 100
San Diego, CA 92123**

Interested persons were invited to attend. At the public hearing, the San Diego Water Board heard testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony was heard; however, for accuracy of the record, important testimony was requested to be provided in writing.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the San Diego Water Board regarding the final WDRs. The petition must be submitted within 30 days of the San Diego Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the San Diego Water Board's address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the San Diego Water Board by calling (858) 467-2952.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the San Diego Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Ben Neill at (858) 467-2952 or email: bneill@waterboards.ca.gov or to Kristin Schwall at (858) 467-2345 or kschwall@waterboards.ca.gov.

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

I. IMPLEMENTATION SCHEDULE

The Discharger shall continue to implement the existing storm water pollution prevention plan (SWPPP) for all storm water outfalls from the Facility regulated by Order No. R9-2002-0169 and Order No. R9-2003-0265 until the Discharger has fully completed the implementation of the Storm Water Management Program Requirements specified in section IV.F.2 of the Order. Following full compliance with section IV.F.2 of the Order, the Discharger may phase out coverage of areas designated as “Small MS4 Area”, as defined in section IV.F.2 of the Order that are adequately addressed under the Storm Water Management Program (SWMP). All storm water outfalls from the Facility are subject to either the SWPPP or the SWMP.

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 to achieve these objectives:

1. To 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. To achieve compliance with the Receiving Water Limitations in section V of this Order;
3. To 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. To 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. To 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, Low Risk areas, No-Exposure areas, and non-industrial areas, as defined in section IV.B.1 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 USEPA 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 XI. 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.** 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 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 X.D and X.E.

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.F.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
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	
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	

Table G-1 NALs for Storm Water (Cont'd)

PARAMETER	TEST METHOD ¹	DETECTION LIMIT	REPORTING UNITS	ANNUAL NAL VALUE	INSTANTANEOUS MAXIMUM NAL
Biochemical Oxygen Demand	SM 5210B or as specified in 40 CFR 136.3.	3.0	mg/L	30	

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 Regional 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. BAT/BCT Compliance Demonstration The BAT/BCT Compliance Demonstration Technical Report shall at a minimum, include the following:

- a.** An evaluation of each of the following factors from 40 CFR Part 125.3(d):
 - i. The total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application;
 - ii. The age of equipment and facilities involved;
 - iii. The process employed;
 - iv. The engineering aspects of the application of various types of control techniques;
 - v. Process changes; and
 - vi. Non-water quality environmental impact (including energy requirements).
- b.** A statement that the Discharger has identified and evaluated all pollutant source(s) associated with industrial activity that are causing an NAL exceedance;
- c.** A statement that the Discharger has already designed, installed, and implemented operational source control, treatment, and/or structural source control BMPs that are required to reduce or prevent pollutants in industrial storm water discharges in compliance with BAT/BCT;
- d.** A description of the industrial pollutant sources and corresponding industrial pollutants that are or may be discharged;

- e. An evaluation of all alternative BMPs needed to meet the applicable NAL including costs;
 - f. A description of all implemented BMPs that constitute BAT/BCT for the specific identified parameter(s) in the drainage area(s); and
 - g. Alternate NALs, if applicable, that correspond to the identified treatment/structural BMPs and reflect BAT/BCT level of control.
2. Non-Industrial Pollutant Demonstration The Non-Industrial Source Pollutant Demonstration Technical Report shall at a minimum, include the following:
- a. 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;
 - b. A statement that the Discharger has determined that the pollutants causing the exceedances are solely attributable to storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition;
 - c. A description of the industrial pollutant sources and corresponding industrial pollutants that are or may be discharged;
 - d. A quantification 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; and
 - f. An evaluation of all on-site/off-site analytical monitoring data demonstrating that the NAL exceedances are solely attributable to 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 Demonstration The Natural Background 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;
 - 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 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 USEPA.
- B. Upon notification by the San Diego Water Board and/or USEPA 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 USEPA.
- 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 Subsection VII.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, USEPA, 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

- A. The SWPPP shall address authorized non-storm water discharges and incorporate the requirements of section IV.G of 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			

Storm Water Pollution Prevention Plan	Not Applicable	SWPPP Page # or Reference Location	Date Implemented or Last Revised
Quantity			
Frequency			
<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	- Use spill and overflow protection
		Spills caused by topping off fuel tanks	fuel oil	- Minimize run-on of storm water into the fueling area
		Hosing or washing down fuel area	fuel oil	- Cover fueling area
		Leaking storage tanks	fuel oil	- Use dry cleanup methods rather than hosing down area
		Rainfall running off fuel area, and rainfall running onto and off fueling area	fuel oil	- Implement proper spill prevention control program

ATTACHMENT H – BEST MANAGEMENT PRACTICES AND POLLUTION PREVENTION PLAN FOR UTILITY VAULT AND MANHOLE DEWATERING DISCHARGES (UTILITY VAULT PLAN)

I. IMPLEMENTATION

The Discharger shall develop and implement a Best Management Practices and Pollution Prevention Plan for Utility Vault and Manhole Dewatering Discharges (Utility Vault Plan) which achieves the objectives and the specific requirements listed below. The existing Utility Vault Plan shall continue to be implemented. The revised Utility Vault Plan shall be implemented as soon as possible but no later than 1 year from the effective date of this Order.

II. OBJECTIVE

Through implementation of the Utility Vault Plan, the Discharger shall prevent or minimize the generation and the potential for the release of pollutants from the Facility to the waters of the United States through normal operations and ancillary activities.

III. The Utility Vault Plan shall include, to the extent possible, at least the following items:

- A.** Provisions for scheduled discharges, unscheduled discharges, reservoir discharges (if any), and emergency operation discharges.
- B. Pollution Prevention Team** The Utility Vault PLAN shall identify a specific individual or individuals as members of a Pollution Prevention Team that are responsible for developing the Utility Vault PLAN and assisting in its implementation, maintenance, and revision. The Utility Vault PLAN shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the Utility Vault PLAN.
- C. Description of Potential Pollutant Sources** The Utility Vault PLAN shall provide a description of potential sources that may add significant amounts of pollutants to discharges. The Utility Vault PLAN shall identify all activities and significant materials that may potentially be significant pollutant sources. The Utility Vault PLAN shall include at a minimum:
 - 1. Drainage Map** Provide a map showing the essential features of the distribution system for the service area within this San Diego Water Board's boundary and showing the corresponding surface waters to which water may be discharged.
 - 2. Inventory of Exposed Materials** Include an inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a description of significant materials that have been handled, treated, stored, or disposed of in a manner to allow exposure to storm water from the

previous 3 years and the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff from the previous 3 years and the present; the location and description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

3. Spills and Leaks Include a list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas exposed to precipitation or that otherwise enter the discharge stream from the previous 3 years through the present. The list shall be updated as appropriate.

4. Risk Identification and Summary of Potential Pollutant Sources Include a narrative description of the potential pollutant sources, such as from significant dust or particulate generating processes. The description shall specifically list any significant potential source of pollutants at the site and, for each potential source; any pollutant or pollutant parameter (e.g., oil and grease) of concern shall be identified.

D. Measures and Controls The Discharger shall develop a description of BMPs appropriate for the site(s), and implement such controls. The appropriateness and priorities of BMPs in a Utility Vault PLAN must reflect identified potential sources of pollutants at the site. Also, the Discharger should discuss the advantages and limitations of the Utility Vault PLAN. If relevant, include a structural diagram. The description of wastewater management controls shall address the following minimum components, including a schedule for implementing such controls:

1. Good Housekeeping Maintain areas that may contribute pollutants to discharges so that they are kept clean and orderly. Store and contain liquid materials in such a manner that if the container is ruptured, the contents will not discharge, flow, or be washed into the storm drainage system, surface water, or groundwater.

2. Preventative Maintenance Inspect and maintain wastewater management devices as well as inspect and test site equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters, and ensure appropriate maintenance of such equipment and systems.

3. Spill Prevention and Response Procedures Identify areas where potential spills, which can contribute pollutants to discharge, can occur and their accompanying drainage points. Specify material handling procedures, storage requirements, and use of equipment. Make accessible to the appropriate personnel the procedures for cleaning up spills identified in the Utility Vault PLAN. Note that if the spilled material is hazardous, then the cleanup materials used are also hazardous and should be disposed of properly. For large spills, a private spill cleanup company or Hazmat may be necessary.

- 4. Inspections** Identify qualified personnel, by name or by job title, to inspect designated equipment and areas of the site, and ensure that appropriate actions are taken in response to the inspections. Maintain records of inspections. Inventory and inspect each discharge point during dry weather.
 - 5. Employee Training** Train employees to implement activities identified in the Utility Vault PLAN. Address topics such as spill response, good housekeeping, and material management practices. Identify how often training will take place.
 - 6. Record Keeping and Internal Reporting Procedures** Federal Regulations require that any oil spill to a water body be reported to the National Response Center at (800) 424-8802 (24 hours). The Discharger shall report spills to the appropriate local agency, such as the fire department, to assist in cleanup. Provide a description of incidents (such as spills or other discharges), along with other information describing the quality and quantity of discharges. Document patterns in time of occurrence, mode of dumping, responsible parties, date and time of incident, weather conditions, duration and cause of spill/leak/discharge, response procedures, resulting environmental problems, and persons notified. Document inspections and maintenance activities and maintain records of such activities. Include the date and time the inspection was performed, the name of the inspector, and the items inspected. If problems are noted, include the corrective action required and the date the action was taken.
 - 7. Sediment and Erosion Control** Identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identify structural, vegetative, and/or stabilization measures to be used to limit erosion.
 - 8. Management Runoff** Include a narrative consideration of the appropriateness of traditional storm water management practices (practices other than those that control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage runoff in a manner that reduces pollutants in discharges from the site. The Utility Vault PLAN shall provide measures that the Discharger determines to be reasonable and appropriate measures.
- E. Comprehensive Site Compliance Evaluation** Qualified personnel shall conduct site compliance evaluations upon each discharge event. Such evaluations shall provide:
- 1.** The Discharger shall visually inspect for evidence of, or the potential for, pollutants entering the receiving water. Evaluate measures to reduce pollutant loadings to determine whether they are adequate and properly implemented in accordance with the terms of this Order or whether additional control measures are needed. Ensure that structural wastewater management measures, sediment and erosion control measures, and other structural BMPs identified in the Utility Vault PLAN are operating correctly. Perform a visual inspection of equipment needed to implement the Utility Vault PLAN, such as spill response equipment.

2. Based on the results of the evaluation, the Discharger shall revise, as appropriate, the description of potential pollutant sources identified in the Utility Vault PLAN in accordance with section III.C above and BMPs identified in the Utility Vault PLAN with section III.D within 2 weeks of such evaluation and shall provide timely implementation of any changes to the Utility Vault PLAN.
3. Write and retain for 3 years, a report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the Utility Vault PLAN, and actions taken in accordance with section III.D.2, above. Identify any incidents of noncompliance or certify that the site(s) is in compliance with the Utility Vault PLAN and this Order. The report shall be signed in accordance with the signatory requirements of Standard Provision V.B. of Attachment D.

F. Additional requirements include:

1. The Utility Vault PLAN shall be designed to comply with BAT/BCT and to ensure compliance with water quality standards.
2. The Discharger shall amend the Utility Vault PLAN whenever there is a change in construction, operation, or maintenance, when such amendment is necessary to ensure compliance with BAT/BCT and receiving water limitations. The Utility Vault PLAN shall also be amended if it is in violation of any conditions of this Order or has not achieved the general objective of controlling pollutants in discharges to surface waters. The Discharger shall submit the amended the Utility Vault PLAN to the San Diego Water Board.
3. The Utility Vault PLAN and any amendments thereto shall be certified in accordance with the signatory requirements of Standard Provision V.B. of Attachment D.

IV. If an exceedance(s) of a receiving water limitation defined in section V. of this Order, expressed either narrative or numerically, has been identified by the Discharger or the San Diego Water Board as a result of a discharge from utility vault or manhole dewatering, either of the following actions shall be undertaken to ensure compliance with this Order:

- A.** The Discharger shall submit to the San Diego Water Board with the next quarterly report documentation that 1) the Discharger has addressed the cause of the exceedance, 2) the Discharger is now fully in compliance with the provision contained in section VI.C.3.a of this Order, and 3) implementation of the Utility Vault PLAN will prevent future exceedance(s) of the receiving water limitations; or
- B.** The Discharger shall develop and implement a revised Utility Vault PLAN with new or revised BMPs to prevent future exceedance(s). The Discharger shall implement such BMPs and document the progress of implementation and the effectiveness thereof in the annual report.

ATTACHMENT I – BEST MANAGEMENT PRACTICES PLAN FOR PIER BOOM, FENDER, AND MOORING CLEANING, USN GRAVING DOCK PRE-FLOOD CLEANING, SEAWATER COOLING AND OVERBOARD DISCHARGE AND WEIGHT TESTING WATER

I. Implementation

The Discharger shall develop and implement a Best Management Practices (BMP) Plan which achieves the objectives and the specific requirements listed below for the activities of pier boom, fender, and mooring cleaning, US Navy graving dock pre-flood cleaning, seawater cooling and overboard discharge, and weight testing water. Existing BMP Plans for these activities shall continue to be implemented. The revised BMP Plan for these activities shall be implemented as soon as possible but no later than 1 year from the effective date of this Order.

II. Purpose

Through implementation of the BMP Plan, the Discharger shall prevent or minimize the generation and the potential for the release of pollutants from the Facility to the waters of the United States through normal operations and ancillary activities. The BMP Plan shall address at a minimum pier boom, fender, and mooring cleaning, US Navy Graving Dock pre-flood cleaning, seawater cooling and overboard discharges (for vessels in the Graving Dock), and weight testing water.

III. Objectives

The Discharger shall develop and amend the BMP Plan consistent with the following objectives for the control of pollutants:

- A.** The number and quantity of pollutants and the toxicity of effluent generated, discharged or potential discharged at the Facility shall be minimized by the Discharger to the extent feasible by managing each waste stream in the most appropriate manner.
- B.** The Discharger shall ensure proper operation and maintenance of the Facility. Standard Operating Procedures (SOPs) may be included in the BMP Plan or referenced.
- C.** The Discharger shall evaluate each component or system for its waste minimization opportunities and its potential for causing a release of significant amounts of pollutants to waters of the United States due to equipment failure, improper operation, and natural phenomena such as rain or snowfall, or other emergency situation. The evaluation shall include all normal operations and ancillary activities at a minimum related to pier boom, fender, and mooring cleaning, US Navy graving dock flooding, and weight test water and any other activities which have the potential to discharge pollutants. The Discharger shall have a plan to address any emergency situation which would result in a significant release of pollutants to waters of the United States including those identified in this evaluation.

IV. Requirements

- A.** The BMP Plan shall be consistent with the objectives in section III above and the general guidance contained in the publication entitled *Guidance Manual for Developing Best Management Practices (BMPs)* (USEPA, 1993) or any subsequent revisions to the guidance document.
- B.** The BMP Plan shall be documented in narrative form, shall include any necessary plot plans, drawings or maps, and shall be developed in accordance with good engineering practices.
- C.** The BMP Plan shall be organized and written with the following elements:
 - 1. Purpose and objectives of the BMP Plan;
 - 2. Name and location of the activity with specific BMPs;
 - 3. Specific management practices and standard operating procedures to achieve the above objectives, including, but not limited to, the following:
 - a. Modification of equipment, facilities, technology, processes, and procedures,
 - b. Reformulation or redesign of products,
 - c. Substitution of materials,
 - d. Improvement in management, inventory control, materials handling or general operational phases of the facility, and
 - e. Materials compatibility.
 - 4. Good housekeeping;
 - 5. Preventative maintenance;
 - 6. Risk identification and assessment;
 - 7. Reporting of BMP incidents and spills;
 - 8. Inspections and records; and
 - 9. Employee training.
- D.** The BMP Plan shall establish specific BMPs to meet the objectives identified in section III, addressing each component or system capable of generating or causing a release of significant amounts of pollutants, and identifying specific preventative or remedial measures to be implemented.

- E.** The BMP Plan shall establish specific BMPs or other measures which ensure that the following specific requirements are met:
1. Ensure that the discharge of pollutants including, but not limited to, copper, benzo (b) fluoranthene, benzo (k) fluoranthene, and chrysene from pier boom, fender, and mooring cleaning is reduced to levels that do not exceed water quality objectives. (RPA)
 2. Ensure that discharge of pollutants including, but not limited to, copper and zinc in graving dock flood water is reduced to levels that do not exceed water quality objectives. (RPA and Benchmarks)
- F.** The BMP Plan shall include a statement this BMP Plan fulfills the requirements of this Order and shall be signed and certified in accordance with the signatory requirements of Standard Provision V.B. of Attachment D.

V. Documentation

The Discharger shall maintain a copy of the BMP Plan at the Facility and shall make it available to the San Diego Water Board upon request. All offices of the Discharger which are required to maintain a copy of the NPDES permit shall also maintain a copy of the BMP Plan.

VI. BMP Plan Modification

The Discharger shall amend the BMP Plan whenever there is a change in the facility or in the operation of the facility which materially increases the generation of pollutants or their release or potential release to the receiving waters. The Discharger shall also amend the BMP Plan, as appropriate, when operations covered by the BMP Plan change. Any such changes to the BMP Plan shall be consistent with the objectives and specific requirements listed above. All changes in the BMP Plan shall be reported to the San Diego Water Board in writing.

VII. Modification for Ineffectiveness

At any time, if the BMP Plan proves to be ineffective in achieving the general objective of preventing and minimizing the generation of pollutants and their release and potential release to the receiving waters and/or the specific requirements above, the Order and/or the BMP Plan shall be subject to modification to incorporate revised BMP requirements.

ATTACHMENT J – 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 USCG 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 K – SEDIMENT MONITORING AND ANALYSIS

I. SEDIMENT MONITORING DETAILED REQUIREMENTS

A. Field Procedures

1. All samples shall be collected using a grab sampler.
2. Benthic samples shall be screened through a 1.0 mm-mesh screen.
3. Surface sediment from within the upper 5 cm shall be collected for chemistry and toxicity analyses.
4. The entire contents of the grab sample, with a minimum penetration depth of 5 cm, shall be collected for benthic community analysis.
5. Bulk sediment chemical analysis will include at a minimum the pollutants identified in Table K-1.

B. Laboratory Testing

All samples will be tested in accordance with U.S. Environmental Protection Agency (USEPA) or American Society for Testing and Materials (ASTM) methodologies where such methods exist. Where no USEPA or ASTM methods exist, the State Water Board or Regional Water Quality Control Boards (San Diego Water Boards) (collectively Water Boards) shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the California Department of Health Services in accordance with Water Code Section 13176.

C. Sediment Toxicity

A 10-Day amphipod survival test shall be performed using a species tolerant of the sample salinity and grain size characteristics (e.g., *Hyaella azteca* or *Eohaustorius estuaries*). The results shall be recorded as “Percent of control survival”.

D. Sediment Chemistry

All samples shall be tested for the analytes specified in Table K-1. In water bodies where other toxic pollutants are believed to pose risk to benthic communities, those toxic pollutants shall be identified and included by the Discharger. Inclusion of the additional analytes cannot be used in the exposure assessment; however the data can be used to conduct more effective stressor identification studies as described in the Sediment Quality Policy.

Table K-1 List of Chemical Analytes Needed to Characterize Sediment Contamination Exposure and Effect.

Chemical Name	Chemical Group
Total Organic Carbon	General
Percent Fines	General
Cadmium	Metal
Copper	Metal
Lead	Metal
Mercury	Metal
Zinc	Metal
Acenaphthene	PAH
Anthracene	PAH
Biphenyl	PAH
Naphthalene	PAH
2,6-dimethylnaphthalene	PAH
Fuorene	PAH
1-methylnaphthalene	PAH
2-methylnaphthalene	PAH
1-methylphenanthrene	PAH
Phenanthrene	PAH
Benzo(a)anthracene	PAH
Benzo(a)pyrene	PAH
Benzo(e)pyrene	PAH
Chrysene	PAH
Dibenz(a,h)anthracene	PAH
Fluoranthene	PAH
Perylene	PAH
Pyrene	PAH
Alpha Chlordane	Pesticide
Gamma Chlordane	Pesticide
Trans Nonachlor	Pesticide
Dieldrin	Pesticide
o,p'-DDE	Pesticide
o,p'-DDD	Pesticide
o,p'-DDT	Pesticide
p,p'-DDD	Pesticide
p,p'-DDE	Pesticide
p,p'-DDT	Pesticide

Chemical Name	Chemical Group
2,4'-Dichlorobiphenyl	PCB congener
2,2',5'-Trichlorobiphenyl	PCB congener
2,4,4'-Trichlorobiphenyl	PCB congener
2,2',3,5'-Tetrachlorobiphenyl	PCB congener
2,2',5,5'-Tetrachlorobiphenyl	PCB congener
2,3',4,4'-Tetrachlorobiphenyl	PCB congener
2,2',4,5,5'-Pentachlorobiphenyl	PCB congener
2,3,3',4,4'-Pentachlorobiphenyl	PCB congener
2,3',4,4',5'-Pentachlorobiphenyl	PCB congener
2,2',3,3',4,4'-Hexachlorobiphenyl	PCB congener
2,2',3,4,4',5'-Hexachlorobiphenyl	PCB congener
2,2',4,4',5,5'-Hexachlorobiphenyl	PCB congener
2,2',3,3',4,4',5'-Heptachlorobiphenyl	PCB congener
2,2',3,4,4',5,5'-Heptachlorobiphenyl	PCB congener
2,2',3,4',5,5',6-Heptachlorobiphenyl	PCB congener
2,2',3,3',4,4',5,6-Octachlorobiphenyl	PCB congener
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	PCB congener
Decachlorobiphenyl	PCB congener

E. Benthic Community Condition

The Discharger shall identify all benthic invertebrates at the sample locations and reference stations to the lowest possible taxon and counted.

The Discharger shall identify the abundance of sensitive indicator taxa, tolerant indicator taxa, and total abundance. The Discharger shall then compare the results from the sampling locations to the reference locations.

ATTACHMENT L – ELEMENTS FOR SMALL MUNICIPAL (MILITARY BASE) SEPARATE STORM SEWER SYSTEM (MS4) – STORM WATER MANAGEMENT PROGRAM (SWMP)

I. SIX MINIMUM CONTROL MEASURES The SWMP shall describe BMPs, and associated measurable goals, that fulfill the requirements of the following six Minimum Control Measures:

A. Public Education and Outreach on Storm Water Impacts The SWMP shall contain a written plan to distribute educational materials to the target audiences identified below, or conduct equivalent outreach activities about the effects of storm water discharges on water bodies and the steps that the target audiences can take to reduce pollutants in storm water runoff.

The SWMP shall contain a list of target audience groups consisting of civilian, contractor, retailers military personnel (and their dependents) that are present on the Facility that may be conducting activities that may have potential adverse effect(s) to water quality.

B. Public Involvement/Participation Program The SWMP shall contain a written Public Involvement/Participation Program to:

1. Regularly encourage public participation in the development and implementation of the SWMP;
2. Establish a platform for the public and target audiences to provide input into the development and implementation of the SWMP;
3. Solicit public reporting of suspected illicit discharges via telephone and writing; and
4. Implement procedures for the receipt and consideration of verbal or written public inquires, concerns, and information submitted by the public.

C. Illicit Discharge Detection and Elimination The SWMP shall contain a written Illicit Discharge Detection and Elimination Program containing the following elements:

1. A written program to detect and eliminate illicit discharges (as defined at 40 CFR §122.26(b)(2)) into the storm water drainage systems;
2. A storm sewer system map, showing the location of all storm water drainage systems, outfalls and the names and locations of all waters of the U.S. that receive discharges from those outfalls;

3. A prohibition against non-storm water discharges into the storm water drainage system except as allowed under Non-Storm Water Specification IV.D;
 4. A plan to detect and address non-storm water discharges, including illegal dumping, to the MS4 system that are not authorized by a separate NPDES permit;
 5. A plan to inform the target audiences of the hazards that are generally associated with illegal discharges and improper disposal of waste; and
 6. A plan to address the categories of non-storm water discharges or flows as specified in Non-Storm Water Specification IV.G of this Order (i.e., authorized non-storm water discharges) only where they are identified as significant contributors of pollutants to the storm water collection system.
- D. Construction Site Storm Water Runoff Control The SWMP shall contain a written *Construction Site Storm Water Runoff Control* program to reduce pollutants in any storm water runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must, at a minimum, include the development and implementation of:
1. Mechanisms to require erosion and sediment controls, as well as enforcement mechanisms, to ensure compliance;
 2. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
 3. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
 4. Procedures for site plan review which incorporate consideration of potential water quality impacts;
 5. Procedures for receipt and consideration of information submitted by the public. The Discharger shall demonstrate acknowledgement and consideration of the information submitted, whether submitted verbally or in writing;
 6. Procedures for site inspection and enforcement of control measures; and

7. Procedures for verifying that the site has existing coverage under California's statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities (hereinafter General Construction Permit).

E. Post-Construction Storm Water Management in New Development and Redevelopment The SWMP shall contain a written Post-Construction Storm Water Management Program to:

1. Address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development, that discharge into the storm water drainage system by ensuring that controls are in place that would prevent or minimize water quality impacts, and that are designed to maintain pre-project runoff condition;
2. Develop and implement water quality strategies, which include a combination of structural and/or non-structural BMPs appropriate for the Facility;
3. Develop or use a mechanism to address post-construction runoff from new development and redevelopment projects;
4. Ensure adequate long-term operation and maintenance of water quality BMPs; and
5. Maintain and regularly update an inventory of BMPs installed pursuant to the SWMP. The inventory shall include, at a minimum:
 - a. Exact location of BMP(s);
 - b. Contact information for the individual or entity responsible for long term BMP operation and maintenance;
 - c. A description of the BMP and the year it was installed;
 - d. Maintenance required;
 - e. Actual inspection/maintenance activities that occurred during the reporting year; and
 - f. An assessment by the Discharger if proper operation and maintenance occurred during the year, and if not, what actions the Discharger has taken, or will take, to address the deficiencies.

F. Pollution Prevention/Good Housekeeping The SWMP shall contain a written *Pollution Prevention/Good Housekeeping Program* that is sufficient to minimize pollutant runoff from on-site operations. The Discharger may incorporate by reference, other plans implemented at the Facility (i.e., SWPPP and BMP Plan) that address similar goals. The Discharger shall:

1. Develop *and* implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from Facility operations; and
2. Using training materials that are available from USEPA, the State, or other organizations, include target audience training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

II. MEASUREABLE GOALS The SWMP must identify the measurable goals for each of the BMPs, including, as appropriate, the months and years for scheduled actions, including interim milestones and the frequency of the action.

III. SWMP ANNUAL REVIEW The SWMP shall be reviewed annually and revised as necessary. A summary of each annual review, the identified inadequacies, and any planned efforts to address the identified inadequacies shall be maintained as an attachment to the SWMP for a minimum of 5 years.

ATTACHMENT M – STORM WATER RISK LEVEL DESIGNATION TABLE

Listing of NBSD Storm Water Discharge Locations						
Discharge Point	Navy ID Number	Type	Outfall Risk Level	Latitude	Longitude	Receiving Water
NBSD-001	1	Industrial	High Risk	32° 41' 2" N	117° 7' 43" W	San Diego Bay
NBSD-002	2	Industrial	High Risk	32° 41' 1" N	117° 7' 42" W	San Diego Bay
NBSD-003	3	Industrial	High Risk	32° 40' 59" N	117° 7' 40" W	San Diego Bay
NBSD-004	4	Municipal	Non-Industrial	32° 40' 57" N	117° 7' 39" W	San Diego Bay
NBSD-005	5	Industrial	High Risk	32° 40' 56" N	117° 7' 38" W	San Diego Bay
NBSD-006	6	Industrial	High Risk	32° 40' 53" N	117° 7' 35" W	San Diego Bay
NBSD-007	7	Municipal	Non-Industrial	32° 40' 52" N	117° 7' 34" W	San Diego Bay
NBSD-008	8	Industrial	High Risk	32° 40' 50" N	117° 7' 32" W	San Diego Bay
NBSD-009	9	Industrial	High Risk	32° 40' 47" N	117° 7' 30" W	San Diego Bay
NBSD-010	10	Industrial	High Risk	32° 40' 46" N	117° 7' 29" W	San Diego Bay
NBSD-011	11	Industrial	High Risk	32° 40' 44" N	117° 7' 27" W	San Diego Bay
NBSD-012	12	Industrial	Low Risk	32° 40' 41" N	117° 7' 25" W	San Diego Bay
NBSD-013	13	Industrial	High Risk	32° 40' 39" N	117° 7' 23" W	San Diego Bay
NBSD-014	14	Industrial	High Risk	32° 40' 36" N	117° 7' 21" W	San Diego Bay
NBSD-015	15	Industrial	Low Risk	32° 40' 34" N	117° 7' 19" W	San Diego Bay
NBSD-016	16	Industrial	High Risk	32° 40' 32" N	117° 7' 17" W	San Diego Bay
NBSD-017	17	Industrial	High Risk	32° 40' 29" N	117° 7' 15" W	San Diego Bay
NBSD-018	18	Municipal	Non-Industrial	32° 40' 27" N	117° 7' 13" W	San Diego Bay
NBSD-019	19	Municipal	Non-Industrial	32° 40' 24" N	117° 7' 10" W	San Diego Bay
NBSD-020	20	Industrial	Low Risk	32° 40' 24" N	117° 7' 10" W	San Diego Bay
NBSD-021	21	Municipal	Non-Industrial	32° 40' 22" N	117° 7' 9" W	San Diego Bay
NBSD-022	22	Municipal	Non-Industrial	32° 40' 22" N	117° 7' 6" W	San Diego Bay
NBSD-023	23	Industrial	Low Risk	32° 40' 24" N	117° 7' 3" W	San Diego Bay
NBSD-024	24	Industrial	Low Risk	32° 40' 25" N	117° 7' 1" W	San Diego Bay
NBSD-025	25	Industrial	Low Risk	32° 40' 26" N	117° 6' 60" W	San Diego Bay
NBSD-026	26	Industrial	Low Risk	32° 40' 27" N	117° 6' 58" W	San Diego Bay
NBSD-027	27	Industrial	Low Risk	32° 40' 29" N	117° 6' 55" W	San Diego Bay
NBSD-028	28	Municipal	Non-Industrial	32° 40' 34" N	117° 6' 48" W	San Diego Bay
NBSD-029	29	Municipal	Non-Industrial	32° 40' 25" N	117° 6' 57" W	San Diego Bay
NBSD-030	30	Industrial	Low Risk	32° 40' 22" N	117° 6' 58" W	San Diego Bay
NBSD-031	31	Municipal	Non-Industrial	32° 40' 22" N	117° 6' 59" W	San Diego Bay
NBSD-032	32	Municipal	Non-Industrial	32° 40' 21" N	117° 7' " W	San Diego Bay
NBSD-033	33	Industrial	Low Risk	32° 40' 19" N	117° 7' 3" W	San Diego Bay

Listing of NBSD Storm Water Discharge Locations

Discharge Point	Navy ID Number	Type	Outfall Risk Level	Latitude	Longitude	Receiving Water
NBSD-034	34	Industrial	High Risk	32° 40' 17" N	117° 7' 6" W	San Diego Bay
NBSD-035	35	Industrial	Low Risk	32° 40' 15" N	117° 7' 9" W	San Diego Bay
NBSD-036	36	Municipal	Non-Industrial	32° 40' 14" N	117° 7' 12" W	San Diego Bay
NBSD-037	37	Municipal	Non-Industrial	32° 40' 12" N	117° 7' 15" W	San Diego Bay
NBSD-038	38	Industrial	High Risk	32° 40' 11" N	117° 7' 17" W	San Diego Bay
NBSD-039	39	Industrial	High Risk	32° 40' 11" N	117° 7' 21" W	San Diego Bay
NBSD-040	40	Industrial	High Risk	32° 40' 11" N	117° 7' 23" W	San Diego Bay
NBSD-041	41	Industrial	Low Risk	32° 40' 9" N	117° 7' 23" W	San Diego Bay
NBSD-042	42	Industrial	Low Risk	32° 40' 7" N	117° 7' 21" W	San Diego Bay
NBSD-043	43	Industrial	Low Risk	32° 40' 8" N	117° 7' 18" W	San Diego Bay
NBSD-044	44	Industrial	Low Risk	32° 40' 8" N	117° 7' 13" W	San Diego Bay
NBSD-045	45	Industrial	Low Risk	32° 40' 7" N	117° 7' 10" W	San Diego Bay
NBSD-046	46	Industrial	Low Risk	32° 40' 4" N	117° 7' 10" W	San Diego Bay
NBSD-047	47	Industrial	Low Risk	32° 39' 58" N	117° 7' 9" W	San Diego Bay
NBSD-048	48	Industrial	Low Risk	32° 39' 55" N	117° 7' 8" W	San Diego Bay
NBSD-049	49	Municipal	Non-Industrial	32° 39' 52" N	117° 7' 8" W	San Diego Bay
NBSD-050	50	Municipal	Non-Industrial	32° 41' 26" N	117° 7' 27" W	Chollas Creek
NBSD-051	51	Municipal	Non-Industrial	32° 41' 27" N	117° 7' 25" W	Chollas Creek
NBSD-052	52	Municipal	Non-Industrial	32° 40' 56" N	117° 6' 46" W	San Diego Bay
NBSD-053	53	Municipal	Non-Industrial	32° 40' 54" N	117° 6' 46" W	San Diego Bay
NBSD-054	54	Municipal	Non-Industrial	32° 40' 54" N	117° 6' 47" W	San Diego Bay
NBSD-055	55	Municipal	Non-Industrial	32° 40' 51" N	117° 6' 45" W	San Diego Bay
NBSD-056	56	Municipal	Non-Industrial	32° 40' 48" N	117° 6' 44" W	San Diego Bay
NBSD-057	57	Municipal	Non-Industrial	32° 40' 47" N	117° 6' 44" W	San Diego Bay
NBSD-058	58	Municipal	Non-Industrial	32° 40' 45" N	117° 6' 43" W	San Diego Bay
NBSD-059	59	Municipal	Non-Industrial	32° 40' 42" N	117° 6' 41" W	San Diego Bay
NBSD-060	60	Municipal	Non-Industrial	32° 40' 53" N	117° 6' 40" W	San Diego Bay
NBSD-061	61	Municipal	Non-Industrial	32° 40' 49" N	117° 6' 39" W	San Diego Bay
NBSD-062	62	Municipal	Non-Industrial	32° 40' 48" N	117° 6' 39" W	San Diego Bay
NBSD-063	63	Municipal	Non-Industrial	32° 40' 39" N	117° 6' 40" W	San Diego Bay
NBSD-064	64	Municipal	Non-Industrial	32° 40' 36" N	117° 6' 39" W	San Diego Bay
NBSD-065	66	Municipal	Non-Industrial	32° 40' 44" N	117° 6' 36" W	San Diego Bay
NBSD-066	67	Municipal	Non-Industrial	32° 41' 24" N	117° 7' 29" W	Chollas Creek
NBSD-067	68	Municipal	Non-Industrial	32° 41' 21" N	117° 7' 30" W	Chollas Creek
NBSD-068	70	Municipal	Non-Industrial	32° 41' 18" N	117° 7' 31" W	Chollas Creek

Listing of NBSD Storm Water Discharge Locations

Discharge Point	Navy ID Number	Type	Outfall Risk Level	Latitude	Longitude	Receiving Water
NBSD-069	71	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 32" W	San Diego Bay
NBSD-070	72	Municipal	Non-Industrial	32° 41' 18" N	117° 7' 38" W	Chollas Creek
NBSD-071	73	Municipal	Non-Industrial	32° 41' 17" N	117° 7' 39" W	Chollas Creek
NBSD-072	74	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 39" W	San Diego Bay
NBSD-073	75	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 39" W	San Diego Bay
NBSD-074	76	Municipal	Non-Industrial	32° 41' 15" N	117° 7' 40" W	San Diego Bay
NBSD-075	77	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 44" W	San Diego Bay
NBSD-076	78	Municipal	Non-Industrial	32° 40' 34" N	117° 6' 48" W	San Diego Bay
NBSD-077	79	Municipal	Non-Industrial	32° 40' 31" N	117° 6' 52" W	San Diego Bay
NBSD-078	80	Industrial	Low Risk	32° 40' 31" N	117° 6' 53" W	San Diego Bay
NBSD-079	80A	Industrial	High Risk	32° 40' 15" N	117° 6' 55" W	San Diego Bay
NBSD-080	81	Municipal	Non-Industrial	32° 40' 31" N	117° 6' 53" W	San Diego Bay
NBSD-081	82	Municipal	Non-Industrial	32° 40' 30" N	117° 6' 53" W	San Diego Bay
NBSD-082	83	Industrial	Low Risk	32° 40' 31" N	117° 6' 53" W	San Diego Bay
NBSD-083	84	Municipal	Non-Industrial	32° 40' 30" N	117° 6' 53" W	San Diego Bay
NBSD-084	85	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 52" W	San Diego Bay
NBSD-085	86	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 53" W	San Diego Bay
NBSD-086	87	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 53" W	San Diego Bay
NBSD-087	88	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 53" W	San Diego Bay
NBSD-088	89	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 53" W	San Diego Bay
NBSD-089	90	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 54" W	San Diego Bay
NBSD-090	91	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 54" W	San Diego Bay
NBSD-091	92	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 54" W	San Diego Bay
NBSD-092	93	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 55" W	San Diego Bay
NBSD-093	94	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 55" W	San Diego Bay
NBSD-094	95	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 56" W	San Diego Bay
NBSD-095	96	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 57" W	San Diego Bay
NBSD-096	97	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 58" W	San Diego Bay
NBSD-097	98	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 59" W	San Diego Bay
NBSD-098	99	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 60" W	San Diego Bay
NBSD-099	101	Municipal	Non-Industrial	32° 41' 10" N	117° 7' 58" W	San Diego Bay
NBSD-100	102	Municipal	Non-Industrial	32° 41' 10" N	117° 7' 57" W	San Diego Bay
NBSD-101	103	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 52" W	San Diego Bay
NBSD-102	104	Municipal	Non-Industrial	32° 41' 6" N	117° 7' 54" W	San Diego Bay
NBSD-103	105	Municipal	Non-Industrial	32° 41' 3" N	117° 7' 50" W	San Diego Bay

Listing of NBSD Storm Water Discharge Locations

Discharge Point	Navy ID Number	Type	Outfall Risk Level	Latitude	Longitude	Receiving Water
NBSD-104	106	Municipal	Non-Industrial	32° 41' 2" N	117° 7' 50" W	San Diego Bay
NBSD-105	107	Industrial	High Risk	32° 41' 2" N	117° 7' 49" W	San Diego Bay
NBSD-106	108	Municipal	Non-Industrial	32° 41' 4" N	117° 7' 45" W	San Diego Bay
NBSD-107	109	Industrial	High Risk	32° 40' 55" N	117° 7' 37" W	San Diego Bay
NBSD-108	110	Industrial	Low Risk	32° 40' 6" N	117° 7' 10" W	San Diego Bay
NBSD-109	111	Municipal	Non-Industrial	32° 40' 1" N	117° 7' 9" W	San Diego Bay
NBSD-110	113	Municipal	Non-Industrial	32° 39' 50" N	117° 7' 8" W	San Diego Bay
NBSD-111	114	Municipal	Non-Industrial	32° 39' 46" N	117° 7' 7" W	San Diego Bay
NBSD-112	115	Municipal	Non-Industrial	32° 39' 42" N	117° 7' 7" W	San Diego Bay
NBSD-113	116	Municipal and No Exposure Industrial	Non-Industrial and No Exposure Industrial	32° 39' 35" N	117° 7' 6" W	San Diego Bay
NBSD-114	117	Industrial	Low Risk	32° 39' 32" N	117° 7' 5" W	San Diego Bay
NBSD-115	119	Municipal	Non-Industrial	32° 40' 39" N	117° 6' 57" W	San Diego Bay
NBSD-116	120	Municipal	Non-Industrial	32° 40' 41" N	117° 6' 42" W	San Diego Bay
NBSD-117	121	Municipal	Non-Industrial	32° 40' 35" N	117° 6' 45" W	San Diego Bay
NBSD-118	122	Industrial	Low Risk	32° 40' 47" N	117° 7' 2" W	San Diego Bay
NBSD-119	123	Municipal	Non-Industrial	32° 41' 24" N	117° 7' 28" W	Chollas Creek
NBSD-120	124	Municipal	Non-Industrial	32° 41' 19" N	117° 7' 32" W	Chollas Creek
NBSD-121	126	Municipal	Non-Industrial	32° 41' 17" N	117° 7' 34" W	Chollas Creek
NBSD-122	129	Municipal	Non-Industrial	32° 41' 17" N	117° 7' 39" W	Chollas Creek
NBSD-123	130	Municipal	Non-Industrial	32° 41' 17" N	117° 7' 40" W	San Diego Bay
NBSD-124	132	Municipal	Non-Industrial	32° 41' 17" N	117° 7' 42" W	San Diego Bay
NBSD-125	133	Municipal	Non-Industrial	32° 41' 15" N	117° 7' 42" W	San Diego Bay
NBSD-126	135	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 52" W	San Diego Bay
NBSD-127	136	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 51" W	San Diego Bay
NBSD-128	137	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 50" W	San Diego Bay
NBSD-129	138	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 49" W	San Diego Bay
NBSD-130	139	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 49" W	San Diego Bay
NBSD-131	140	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 48" W	San Diego Bay
NBSD-132	141	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 48" W	San Diego Bay
NBSD-133	142	Municipal	Non-Industrial	32° 41' 16" N	117° 7' 47" W	San Diego Bay
NBSD-134	143	Municipal	Non-Industrial	32° 41' 10" N	117° 7' 58" W	San Diego Bay
NBSD-135	144	Industrial	High Risk	32° 41' 10" N	117° 7' 58" W	San Diego Bay
NBSD-136	145	Municipal	Non-Industrial	32° 41' 9" N	117° 7' 56" W	San Diego Bay

Listing of NBSD Storm Water Discharge Locations

Discharge Point	Navy ID Number	Type	Outfall Risk Level	Latitude	Longitude	Receiving Water
NBSD-137	146	Municipal	Non-Industrial	32° 41' 6" N	117° 7' 54" W	San Diego Bay
NBSD-138	147	Municipal	Non-Industrial	32° 41' 3" N	117° 7' 51" W	San Diego Bay
NBSD-139	148	Municipal	Non-Industrial	32° 41' 4" N	117° 7' 45" W	San Diego Bay
NBSD-140	149	Municipal	Non-Industrial	32° 41' 4" N	117° 7' 44" W	San Diego Bay
NBSD-141	150	Municipal	Non-Industrial	32° 41' 30" N	117° 8' 1" W	San Diego Bay
NBSD-143	152	Industrial	High Risk	32° 40' 55" N	117° 7' 36" W	San Diego Bay
NBSD-144	343	Industrial	High Risk	32° 40' 1" N	117° 7' 9" W	San Diego Bay
NBSD-145	441	Municipal	Non-Industrial	32° 41' 18" N	117° 8' 1" W	San Diego Bay
NBSD-146	442	Municipal	Non-Industrial	32° 39' 39" N	117° 7' 6" W	San Diego Bay
NBSD-147	443	Municipal	Non-Industrial	32° 39' 40" N	117° 7' 6" W	San Diego Bay
NBSD-148	444	Municipal	Non-Industrial	32° 41' 28" N	117° 7' 26" W	Chollas Creek
NBSD-149	153-171	Industrial	High Risk	32° 41' 7" N	117° 8' 1" W	San Diego Bay
NBSD-150	172-195	Industrial	High Risk	32° 40' 59" N	117° 7' 53" W	San Diego Bay
NBSD-151	196-217	Industrial	High Risk	32° 40' 55" N	117° 7' 46" W	San Diego Bay
NBSD-152	218-247	Industrial	High Risk	32° 40' 49" N	117° 7' 41" W	San Diego Bay
NBSD-153	248-269	Industrial	High Risk	32° 40' 42" N	117° 7' 36" W	San Diego Bay
NBSD-154	270-288	Industrial	High Risk	32° 40' 36" N	117° 7' 30" W	San Diego Bay
NBSD-155	289-314	Industrial	High Risk	32° 40' 30" N	117° 7' 26" W	San Diego Bay
NBSD-156	315-339	Industrial	High Risk	32° 40' 23" N	117° 7' 21" W	San Diego Bay
NBSD-157	340-341	Industrial	Low Risk	32° 40' 9" N	117° 7' 20" W	San Diego Bay
NBSD-158	391-414	Industrial	High Risk	32° 39' 51" N	117° 7' 14" W	San Diego Bay
NBSD-159	415-438	Industrial	High Risk	32° 39' 45" N	117° 7' 13" W	San Diego Bay

ATTACHMENT N – ANALYTICAL METHODS FOR CTR/NTR PRIORITY POLLUTANTS AND OTHER TOXIC POLLUTANTS

The following table lists the suggested analytical methods and minimum levels (ML) for toxic pollutants that shall be used, unless otherwise specified.

For priority pollutant monitoring, when there is more than one ML value for a given substance, the Discharger may select any of the analytical methods cited in the following table for compliance determination, or any other method described in 40 CFR part 136 or approved by USEPA if authorized by the San Diego Water Board. However, the ML must be below the effluent limitation and water quality objective. If no ML value is below the effluent limitation and water quality objective, then the method must achieve an ML no greater than the lowest ML value indicated in the table below. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

Table N-1. List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Analytical Method ¹	Minimum Levels ² (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
1.	Antimony	204.2					10	5	50	0.5	5	0.5		1000
2.	Arsenic	206.3				20		2	10	2	2	1		1000
3.	Beryllium						20	0.5	2	0.5	1			1000
4.	Cadmium	200 or 213					10	0.5	10	0.25	0.5			1000
5a.	Chromium (III)	SM 3500												
5b.	Chromium (VI)	SM 3500				10	5							1000
	Chromium (total) ³	SM 3500					50	2	10	0.5	1			1000
6.	Copper	200.9					25	5	10	0.5	2			1000
7.	Lead	200.9					20	5	5	0.5	2			10,000
8.	Mercury	1631 (note) ⁴												
9.	Nickel	249.2					50	5	20	1	5			1000

¹ The suggested method is the USEPA Method unless otherwise specified (SM = Standard Methods). The Discharger may use another USEPA-approved or recognized method if that method has a level of quantification below the applicable water quality objective. Where no method is suggested, the Discharger has the discretion to use any standard method.

² Minimum levels are from the State Implementation Policy. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; ICP = Inductively Coupled Plasma; ICPMS = Inductively Coupled Plasma/Mass Spectrometry; SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., USEPA 200.9); Hydride = Gaseous Hydride Atomic Absorption; CVAA = Cold Vapor Atomic Absorption; DCP = Direct Current Plasma.

³ Analysis for total chromium may be substituted for analysis of chromium (III) and chromium (VI) if the concentration measured is below the lowest hexavalent chromium criterion (11 µg/l).

⁴ The Discharger shall use ultra-clean sampling (USEPA Method 1669) and ultra-clean analytical methods (USEPA Method 1631) for mercury monitoring. The minimum level for mercury is 2 ng/l (or 0.002 µg/l).

CTR No.	Pollutant/Parameter	Analytical Method ¹	Minimum Levels ² (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
10.	Selenium	200.8 or SM 3114B or C						5	10	2	5	1		1000
11.	Silver	272.2					10	1	10	0.25	2			1000
12.	Thallium	279.2					10	2	10	1	5			1000
13.	Zinc	200 or 289					20		20	1	10			
14.	Cyanide	SM 4500 CN- C or I				5								
15.	Asbestos (only required for dischargers to MUN waters) ⁵	0100.2 ⁶												
16.	2,3,7,8-TCDD and 17 congeners (Dioxin)	1613												
17.	Acrolein	603	2.0	5										
18.	Acrylonitrile	603	2.0	2										
19.	Benzene	602	0.5	2										
33.	Ethylbenzene	602	0.5	2										
39.	Toulene	602	0.5	2										
20.	Bromoform	601	0.5	2										
21.	Carbon Tetrachloride	601	0.5	2										
22.	Chlorobenzene	601	0.5	2										
23.	Chlorodibromomethane	601	0.5	2										
24.	Chloroethane	601	0.5	2										
25.	2-Chloroethylvinyl Ether	601	1	1										
26.	Chloroform	601	0.5	2										
75.	1,2-Dichlorobenzene	601	0.5	2										
76.	1,3-Dichlorobenzene	601	0.5	2										
77.	1,4-Dichlorobenzene	601	0.5	2										
27.	Dichlorobromomethane	601	0.5	2										
28.	1,1-Dichloroethane	601	0.5	1										
29.	1,2-Dichloroethane	601	0.5	2										
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2										
31.	1,2-Dichloropropane	601	0.5	1										
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2										
34.	Methyl Bromide or Bromomethane	601	1.0	2										
35.	Methyl Chloride or Chloromethane	601	0.5	2										
36.	Methylene Chloride or Dichlorormethane	601	0.5	2										
37.	1,1,2,2-Tetrachloroethane	601	0.5	1										
38.	Tetrachloroethylene	601	0.5	2										
40.	1,2-Trans-Dichloroethylene	601	0.5	1										
41.	1,1,1-Trichloroethane	601	0.5	2										
42.	1,1,2-Trichloroethane	601	0.5	2										
43.	Trichloroethene	601	0.5	2										

⁵ MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

⁶ Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water Using MCE Filters, USEPA 600/R-94-134, June 1994.

CTR No.	Pollutant/Parameter	Analytical Method ¹	Minimum Levels ² (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVA	DCP
44.	Vinyl Chloride	601	0.5	2										
45.	2-Chlorophenol	604	2	5										
46.	2,4-Dichlorophenol	604	1	5										
47.	2,4-Dimethylphenol	604	1	2										
48.	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	604	10	5										
49.	2,4-Dinitrophenol	604	5	5										
50.	2-Nitrophenol	604		10										
51.	4-Nitrophenol	604	5	10										
52.	3-Methyl-4-Chlorophenol	604	5	1										
53.	Pentachlorophenol	604	1	5										
54.	Phenol	604	1	1		50								
55.	2,4,6-Trichlorophenol	604	10	10										
56.	Acenaphthene	610 HPLC	1	1	0.5									
57.	Acenaphthylene	610 HPLC		10	0.2									
58.	Anthracene	610 HPLC		10	2									
60.	Benzo(a)Anthracene or 1,2 Benzanthracene	610 HPLC	10	5										
61.	Benzo(a)Pyrene	610 HPLC		10	2									
62.	Benzo(b)Fluoranthene or 3,4 Benzofluoranthene	610 HPLC		10	10									
63.	Benzo(ghi)Perylene	610 HPLC		5	0.1									
64.	Benzo(k)Fluoranthene	610 HPLC		10	2									
74.	Dibenzo(a,h)Anthracene	610 HPLC		10	0.1									
86.	Fluoranthene	610 HPLC	10	1	0.05									
87.	Fluorene	610 HPLC		10	0.1									
92.	Indeno(1,2,3-cd) Pyrene	610 HPLC		10	0.05									
100.	Pyrene	610 HPLC		10	0.05									
68.	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5										
70.	Butylbenzyl Phthalate	606 or 625	10	10										
79.	Diethyl Phthalate	606 or 625	10	2										
80.	Dimethyl Phthalate	606 or 625	10	2										
81.	Di-n-Butyl Phthalate	606 or 625		10										
84.	Di-n-Octyl Phthalate	606 or 625		10										
59.	Benzidine	625		5										
65.	Bis(2-Chloroethoxy)Methane	625		5										
66.	Bis(2-Chloroethyl)Ether	625	10	1										
67.	Bis(2-Chloroisopropyl)Ether	625	10	2										
69.	4-Bromophenyl Phenyl Ether	625	10	5										
71.	2-Chloronaphthalene	625		10										
72.	4-Chlorophenyl Phenyl Ether	625		5										
73.	Chrysene	625		10	5									
78.	3,3'-Dichlorobenzidine	625		5										
82.	2,4-Dinitrotoluene	625	10	5										
83.	2,6-Dinitrotoluene	625		5										

CTR No.	Pollutant/Parameter	Analytical Method ¹	Minimum Levels ² (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
85.	1,2-Diphenylhydrazine (note) ⁷	625		1										
88.	Hexachlorobenzene	625	5	1										
89.	Hexachlorobutadiene	625	5	1										
90.	Hexachlorocyclopentadiene	625	5	5										
91.	Hexachloroethane	625	5	1										
93.	Isophorone	625	10	1										
94.	Naphthalene	625	10	1	0.2									
95.	Nitrobenzene	625	10	1										
96.	N-Nitrosodimethylamine	625	10	5										
97.	N-Nitrosodi-n-Propylamine	625	10	5										
98.	N-Nitrosodiphenylamine	625	10	1										
99.	Phenanthrene	625		5	0.05									
101.	1,2,4-Trichlorobenzene	625	1	5										
102.	Aldrin	608	0.005											
103.	α-BHC	608	0.01											
104.	β-BHC	608	0.005											
105.	γ-BHC (Lindane)	608	0.02											
106.	δ-BHC	608	0.005											
107.	Chlordane	608	0.1											
108.	4,4'-DDT	608	0.01											
109.	4,4'-DDE	608	0.05											
110.	4,4'-DDD	608	0.05											
111.	Dieldrin	608	0.01											
112.	Endosulfan (alpha)	608	0.02											
113.	Endosulfan (beta)	608	0.01											
114.	Endosulfan Sulfate	608	0.05											
115.	Endrin	608	0.01											
116.	Endrin Aldehyde	608	0.01											
117.	Heptachlor	608	0.01											
118.	Heptachlor Epoxide	608	0.01											
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5											
126.	Toxaphene	608	0.5											

⁷ Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene is measured at >1 µg/l, then the Discharger shall analyze for 1,2-Diphenylhydrazine.