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13

14 STATE OF CALIFORNIA

15 STATE WATER RESOURCES CONTROL BOARD

16
17 In the Matter of the Petition of
18 SAN DIEGO UNIFIED PORT DISTRICT
19 For Review of Order No. R9-2012-0024
20 California Regional Water Quality Control
21 Board, San Diego
22

) PETITION NO. _____

) PETITION FOR REVIEW

) Water Code § 13320

23
24 Pursuant to California Water Code Section 13320 of California Water Code and
25 California Code of Regulations, Title 23, Section 2050, the San Diego Unified Port District
26 (Port) petitions the State Water Resources Control Board (State Board) to review and modify the
27 final decision of the California Regional Water Quality Control Board, San Diego Region
28 (Regional Board) in adopting Cleanup and Abatement Order No. R9-2012-0024 (CAO or Order),
with its supporting Technical Report (TR). The CAO and TR improperly identify the Port as a

1 primarily liable discharger. A copy of the adopted CAO and relevant portions of the TR are
2 attached as Attachments A and B respectively.

3 A review of the record confirms that this decision was motivated entirely by improper
4 considerations, an incorrect application of the proper legal standard and an absence of evidence
5 to support critical factual findings. While the Port strongly supports the remedial efforts
6 reflected in the CAO and remains committed to providing appropriate support, the Regional
7 Board's decision to name the Port as a primary discharger is untenable. The Port requests the
8 opportunity to submit additional briefing or evidence in reply to the Regional Board's or other
interested parties' responses to this petition.¹

9 **I.**

10 **NAMES AND CONTACT INFORMATION OF PETITIONER**

11 The name and address of the Port is:

12 San Diego Unified Port District
13 Celia Brewer, Port Attorney
14 Ellen Gross, Deputy Port Attorney
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24 **II.**

25 **SPECIFIC ACTION OF THE REGIONAL BOARD TO BE REVIEWED**

26 The Port requests that the State Board review the Regional Board's determination in
27 Regional Board Order No. R9-2012-0024 that the Port should be named 1) a primarily liable
28 discharger as a non-discharging public entity landlord for contamination attributable to its

29 ¹ The full administrative record in this matter is voluminous. To assist the State Board's
30 review of the most pertinent evidence and information, the Port is submitting excerpts from
31 this administrative record as attachments to its petition. This is without prejudice to the
32 Port's reliance upon or citation to other documents in the administrative record as and when
33 appropriate.

1 tenants' discharges within the Shipyard Sediment Site; and 2) a discharger as the owner and
2 operator of the municipal separate storm sewer system (MS4) that discharges to the Shipyard
3 Sediment Site at outfalls SW4 and SW9. The Port requests the State Board determine that both
4 findings are improper as an abuse of the Regional Board's discretion and without any supporting
5 substantial evidence.²

6 **III.**

7 **DATE ON WHICH THE REGIONAL BOARD ACTED**

8 The Regional Board adopted CAO No. R9-2012-0024 on March 14, 2012.

9 **IV.**

10 **STATEMENT OF REASONS WHY THE REGIONAL BOARD'S ACTIONS
11 WERE INAPPROPRIATE OR IMPROPER**

12 The Port is a non-discharging public entity landlord entitled to secondary, rather than
13 primary, liability. The process leading to the CAO and TR spanned several years. Through most
14 of that time, multiple drafts of the CAO and related TR³ acknowledged that under the law and
15 facts of this matter, the Port should not be designated a primary discharger because the Port was
16 a non-discharging landlord and the primary dischargers were cooperating and able to perform the
17 cleanup.⁴ Late in this process, with no change in facts or law, the Cleanup Team⁵ (CUT)
18 abruptly switched the Port to a primary discharger. At this same time, again with no change in

19
20 ² The adopted CAO also removed Star & Crescent Boat Company as a named primary
21 discharger. In the event any interested party files a petition challenging this aspect of the
CAO, the Port notes that it would join in such a petition.

22 ³ Mirroring the terms used through this process, the petition will refer to prior CAO drafts with
the acronym "TCAO [Tentative Cleanup and Abatement Order] and prior TR drafts with the
acronym "DTR" [Draft Technical Report].

23 ⁴ There have been numerous prior iterations of the TCAO which can be located in the
Shipyard Administrative Record [SAR] or on the Regional Board's website. The previous
24 iterations include: 1) April 29, 2005 (SAR 156322-156355; 2) August 24, 2007
http://www.waterboards.ca.gov/sandiego/water_issues/programs/shipyards_sediment/2005_0126cut.shtml; 3) April 4, 2008 (SAR 375752-375779); 4) December 22, 2009 (SAR
25 378622-378660/Attachment C); 5) September 15, 2010 (SAR 382474-382519/Attachment
26 D); and 6) September 15, 2011 TCAO.

27 ⁵ CUT served as the advocate for the Regional Board position and had responsibility for
presenting evidence to the Regional Board and developing the various versions of the
28 TCAOs and corresponding DTRs.

1 any facts or law, CUT added a new justification for Port liability -- discharges from the MS4 at
2 two outfalls within the Shipyard Sediment Site. These revisions by CUT were ultimately
3 approved by the Regional Board in the adopted CAO and TR.

4 When asked to explain the inexplicable about face, CUT claimed the Port was non-
5 cooperative and withdrew from a voluntary mediation process the Port had initiated. The Port
6 rebutted these claims of non-cooperation with compelling evidence prior to and during the
7 administrative trial that demonstrated the Port's cooperation and support. Faced with this
8 evidence and lacking any actual evidence to support its position, CUT then changed its story and
9 claimed that the primary motivation for the change was prior counsel's misunderstanding of the
10 law. CUT's decision to name the Port as a primary discharger was motivated and justified by
11 improper considerations. The Regional Board ultimately adopted and ratified this improper
12 decision in approving the CAO and TR. These decisions were an arbitrary and capricious
13 exercise of CUT and the Regional Board's power and were an abuse of its discretion.

14 Furthermore, the newly offered justification for the change is equally unpersuasive and
15 without support in the record. Neither CUT nor the Regional Board ever articulated how the
16 detailed factual and legal analysis regarding the Port's secondary liability in the prior TCAOs
17 and DTRs was erroneous. Rather, the CAO's approach is contrary to numerous State Board
18 Orders and the Regional Board's own practices in which a non-discharging landlord is
19 responsible for conducting a cleanup when the primary dischargers fail to comply with the CAO.
20 Here, the record confirms that the primary dischargers have been cooperative and have pledged
21 continued cooperation. Placing the Port in a position of primary liability prior to actual
22 noncompliance violates the legal authorities and reserves the Port's secondary liability for an
23 undisclosed time in the future when it will serve no meaningful purpose. This approach to the
24 well-established principles of secondary liability is both arbitrary and capricious and
25 unsupported by any substantial evidence in the record.

26 Finally, the CAO incorrectly imposes liability upon the Port as an owner and operator of
27 MS4 facilities. This basis of liability was newly added for the first time in conjunction with the
28 arbitrary decision to reclassify the Port's liability and is thus tainted by the same improper
motivations. Further, the undisputed evidence in the record is that the City of San Diego (City)

1 owns and operates the MS4 in question, directly contrary to the CAO findings. Finally, neither
2 CUT nor the Regional Board ever tested at the point of discharge to support the conclusion that
3 the MS4 discharges are in violation of the permit, contrary to directly applicable law.

4 These reasons and the legal authority supporting the Port's position shall be discussed in
5 greater detail in Section VII, below.

6 V.

7 **MANNER IN WHICH PORT IS AGGRIEVED**

8 If the CAO's arbitrary and capricious findings of Port primary liability as a non-
9 discharging public entity landlord are not reversed, the Port will be subjected to significant costs
10 of compliance and regulatory oversight that should properly be borne by the primary dischargers.
11 If the CAO's arbitrary and capricious findings of Port liability for the MS4 discharges are not
12 reversed, the Port will be subjected to significant costs of maintaining, upgrading and monitoring
13 systems the Port does not own, operate or control. Additionally, absent reversal of these
14 findings, there is an increased risk the Port will be repeatedly subjected to similar error in the
15 future at other sites.

16 VI.

17 **REQUESTED STATE BOARD ACTION**

18 Pursuant to Water Code section 13320(c), the Port requests that the State Board find CUT
19 and the Regional Board abused its discretion and acted arbitrarily and capriciously by naming the
20 Port as a primary discharger and by naming the Port as a discharger with respect to the MS4
21 discharges. The Port requests on this basis that the State Board amend the CAO and TR as
22 follows: (1) to delete the determination of Port primary liability in section 11 of the CAO and
23 TR; (2) to designate the Port as secondarily liable with responsibility for compliance with the
24 CAO only upon notice to the Port by the Regional Board that the primary dischargers have failed
25 to comply with the CAO obligations; (3) to delete the determination in section 11 of the CAO
26 and TR finding that the Port is a discharger based on MS4 discharges; and (4) to delete any
27 associated requirements in the CAO Directives A.3-A.5 that require the Port to conduct the MS4
28 investigation, monitoring and reporting.

VII.

STATEMENT OF POINTS AND AUTHORITIES IN SUPPORT OF LEGAL ISSUES

The TR acknowledges that “[t]here is no evidence in the record that the Port of San Diego initiated or contributed to the actual discharge of waste to the Shipyard Sediment Site.” (Attachment B [TR] at p. 11-4.) Yet, the CAO improperly imposes primary liability upon the Port on two stated bases. Specifically, the CAO concludes:

The San Diego Water Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" and does so in the Shipyard Sediment site CAO. The Port District asserts that its status as a lessor and State's trustee as well as other factors should only give rise to secondary and not primary liability as a discharger under this Order. Allocation of responsibility has not been determined and there is insufficient evidence to establish that present and former Port District tenants at the Site each have sufficient financial resources to perform all of the remedial activities required by this Order. In addition, cleanup is not underway at this time. Under these circumstances, it is not appropriate to accord the Port District secondary liability status it seeks.

The Port District also owns and operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of an NPDES Storm Water Permit. The San Diego Water Board finds that the Port District has discharged urban storm waste containing waste directly or indirectly to San Diego Bay at the Shipyard Sediment Site. . . .

The urban storm water containing waste that has discharged from the on-site and off-site MS4 has contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, that cause, and threaten to cause, conditions of pollution, contamination and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Based on these considerations the San Diego Unified Port District is referred to as "Discharger(s)" in this CAO.

(Attachment A [CAO] at pp.7-8.)

As set forth fully below, the Regional Board's adoption of the CAO and these findings was an arbitrary and capricious decision. The evidence developed through the administrative process confirms irrefutably that the decision to name the Port a primarily liable, rather than secondarily liable, discharger was not grounded in any proper factual basis but animated solely by improper bias. Further, the justification offered in the CAO for the Port's primary liability is

also unsupported by the facts and law, and also constitutes an arbitrary and capricious decision. Finally, the determination of Port liability for the MS4 discharges is unsupported by any substantial evidence. (*Petition of ExxonMobil*, WQ 85-7 [substantial evidence requires credible and reasonable evidence which indicates the named party has responsibility].)

A. The Regional Board Abused its Discretion in Naming the Port as a Primarily Responsible Discharger

The adopted CAO was the culmination of a process in which CUT prepared numerous TCAOs and DTRs. From April 2005 to December 2009, CUT issued four draft CAOs and draft TRs (see, footnote 4, *supra*), each of which conducted a thorough analysis of the law and facts pertinent to the issue of the Port's liability. Specifically, the DTR cited the following facts relevant to secondary liability:

- 1) The absence of “evidence in the record that the Port … initiated or contributed to the actual discharge of waste” (*Petition of Prudential Insurance Company*, Order WQ 87-6, p. 3 [noting petitioner “did not in any way initiate or contribute to the actual discharge of waste”]; *Petition of Wenwest*, WQ 92-13, p. 6 [party had “nothing to do with the activity” that resulted in discharges]; *Petition of ALCOA*, WQ 93-9, p. 12 fn. 8 [discussing secondary liability authority and noting application to non-discharging landlords]);
 - 2) The absence of evidence in the record that the Port’s tenants had “insufficient financial resources” to clean up the site (*Petition of Wenwest*, WQ 92-13, p. 9 [concluding non-discharging landlords “should be required to perform the cleanup only in the event of default by [the primary dischargers]” when primary dischargers are “capable of … undertak[ing] the cleanup”]);
 - 3) The fact “[t]he major [site] investigation to determine the extent of pollution at the [site] were satisfactorily completed” by the primarily responsible parties (*Petition of Prudential Insurance Company*, WQ 87-6, p. 3 [noting site investigation and cleanup “proceeding well”]; *Petition of Wenwest*, WQ 92-13, p. 9 [concluding non-discharging landlords “should be required to perform the cleanup only in the event of default by [the primary dischargers]” when primary dischargers are “willing to undertake the cleanup”]);
 - 4) The fact the Port is a “responsible public agency that is well equipped under its lease agreements to coordinate or require compliance of its tenants with the cleanup and abatement orders issued by the Regional Board” (*Petition of Forest Service*, WQ 87-5, p. 5 [decreeing that “it would be unwise to seek enforcement of the waste discharge requirements against the Forest Service until it becomes clear that [the primary discharger] will not comply” because Forest Service was a “responsible public agency which is well equipped to require compliance of the [primary discharger]”]; and

1 5) The fact that naming the Port as a primarily responsible party “may create an additional
2 adversarial situation and hinder cooperation with the Regional Board in a cleanup that is
3 already highly contested by other dischargers” (*Petition of Forest Service*, WQ 87-5, p. 4
4 [noting as valid consideration that naming a non-discharging public entity landlord “may
5 regrettably create an adversarial situation and hinder cooperation”].)

6 (Attachment C [2009 DTR] at p. 10-4.)

7 Based on these legally pertinent facts, CUT consistently concluded that the Regional
8 Board should not name the Port as a primary discharger since “at this time *it would be*
9 *inconsistent with previous State Water Board orders* which direct naming non-operating public
10 agencies in cleanup and abatement orders *only in the event* there are no other viable responsible
11 parties.” (Attachment C [2009 DTR] at p. 10-3 [emphasis added].) Rather, the TCAO and DTR
12 recommended the Port be secondarily liable, responsible for performing the tasks in the CAO
13 only in the event of the primary discharger’s noncompliance. (*Id.*; Attachment AA [2009 TCAO]
14 at pp. 6-7.)

15 **1. CUT’s Decision to Move the Port from Secondary Liability to
16 Primary Liability, and the Regional Board’s Approval of that
17 Decision, was an Arbitrary and Capricious Decision Based on
18 Improper Motivations and Bias**

19 Suddenly, in September 2010, CUT issued a TCAO and DTR that recited the same facts
20 and legal analysis as the prior TCAOs and DTRs, but inexplicably reached the opposite
21 conclusion by naming the Port as primarily responsible. (Attachment D [2010 TCAO] at pp. 6-7
22 and Attachment E [2010 TR] at pp. 11-1 -11-3.) In response to this unexplained and
23 unsupported change in position, the Port questioned CUT through administrative discovery about
24 the reason for this sudden change. CUT’s response was that the Port’s liability position changed
25 because the Port had been non-cooperative, a fact not mentioned in the September 2010 draft
26 CAO and DTR.

27 For example, David Gibson and Craig Carlisle both testified at their deposition that the
28 Port’s decision to withdraw from the mediation process was a basis for naming the Port primarily
29 liable. (Attachment R [Gibson Deposition] at 33:9-22; Attachment P [Carlisle Deposition] at
30 110:20-23.) Mr. Gibson and David Barker also testified that the Port was not cooperating in
31 providing technical assistance to the Regional Board, was not supportive of the remedial

1 footprint and refused to work with the Regional Board to identify areas for dewatering dredged
2 sediments. (Attachment Q [Barker Deposition] at 520:7-21, 521:23-522:24; Attachment R
3 [Gibson Deposition] at 33:9-22.) CUT's responses to the Port's written discovery demanding an
4 explanation for the change in the Port's liability position likewise cited these allegations,
5 (Attachment W [CUT's Responses to Discovery] at pp. 29-30.) Finally, at trial Mr. Gibson
6 testified that he had cited the Port's decision to withdraw from the mediation process as a
7 motivation for the change in the Port's liability position. (Attachment G [11/14/11 Hearing] at
8 75:8-76:7.)

9 The Port presented detailed written comments and supporting evidence to rebut these
10 unfounded assertions. (Attachment K [Port 5/11 Comments].) The Port cited its lengthy history
11 of working cooperatively with the Regional Board on a number of sites throughout the San
12 Diego Bay. (Attachment K [Port 5/11 Comments] at pp. 4-7.) The Port also confirmed that its
13 experts supported the remedial approach and that the Port was in fact working cooperatively with
14 the Regional Board to resolve issues at the Shipyard Sediment Site. (Attachment M [Johns
15 Declaration] at paras. 8 and 9.) The Port presented similar evidence at the administrative trial,
16 confirming its history of cooperation and testifying strongly in support of the remedial approach
17 proposed by the TCAO and DTR. (Attachment F [11/9/11 Hearing] at 95:21-96:12, 98:8-99:1;
18 Attachment H [11/15/11 Hearing] at 124:11-125:24, 134:20-142:17.) In fact, at the conclusion
19 of the administrative trial, Mr. Gibson concurred with the Port's assertion that it was the
20 Regional Board's "best, and sometimes only, friend." (Attachment I [11/16/11 Hearing] at
21 155:24-25.) The Port continues to support the remedial effort and will necessarily continue to be
22 involved and providing appropriate support, even in a position of secondary liability.
23 (Attachment F [11/9/11 Hearing] at 100:5-25; Attachment CC [3/14/12 Hearing] at 52:53:11.)

24 Tellingly, no one – CUT, the Regional Board or any of the other interested parties – has
25 challenged the Port's evidence forcefully rebutting the explanation CUT provided for altering the
26 Port's liability position in the September 2010 TCAO and DTR. This confirms the absence of
27
28

any substantial evidence supporting this change in the Port's liability position.⁶ Further, the explanation CUT offered is not a relevant consideration in assessing a non-discharging public entity landlord's liability position. In short, the Port's liability was not assessed on legally pertinent facts, but personal bias and animus reflecting an abuse of discretion. By adopting a CAO finding born of these improper considerations, the Regional Board ratified and perpetuated the error.

It matters not that CUT later offered a different explanation for its actions. While the newly minted explanation amounts to an abuse of discretion given its inconsistency with the facts and the law, it is unquestionably unfair and contrary to basic due process for the Port to be placed in a position of secondary liability in numerous TCAOs and DTRs based on a proper and thorough assessment of the facts and legal authorities, have this decision change without explanation, have CUT provide an improper justification for the change in this position, and then have that impermissible justification – but not the associated change in position -- abandoned after forceful factual rebuttal of this unfounded charge. The Port is entitled to a far more transparent process.

In sum, CUT was given an opportunity to explain the September 2010 TCAO and DTR's inexplicable change. CUT and its witnesses repeatedly recited the true reason and justification for placing the Port in a position of primary liability – an alleged lack of Port cooperation and its withdrawal from a voluntary mediation process. The consistency of these accusations belies any present argument that the decision to name the Port as primarily liable discharger had any other basis or justification. Neither CUT nor the Regional Board can sanitize this improper use of its authority by now offering a different justification that it deems more legally and factually palatable.

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⁶ In fact, at the administrative trial Mr. Gibson candidly testified that he had "personal misgivings about naming the Port as a primary responsible party." (Attachment I [11/16/11 Hearing] at 155:12-18.)

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2 **CUT's Decision to Move the Port from Secondary Liability to**
3 **Primary Liability, and the Regional Board's Approval of that**
4 **Decision, is an Abuse of Discretion Because it is Without Evidentiary**
5 **Support and Contrary to the Established Legal Authorities**
6 **Governing the Application of Secondary Liability to a Non-**
7 **Discharging Public Entity Landlord**

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10 As noted, after CUT claimed that the Port should be primarily liable because of its non-
11 cooperation, the Port produced compelling and undisputed evidence to the contrary, culminating
12 in Mr. Gibson's acknowledgement that the Port was the Regional Board's best, and sometimes
13 only, friend. (Attachment I [11/16/11 Hearing] at 155:22-25.) Rather than defend this admission
14 as a factually or legally tenable basis for its actions, CUT again reversed field. For example, in
15 its response to the Port's pre-hearing comments on the September 2010 TCAO and DTR, CUT
16 for the first time⁷ offered the following explanation:

17 Because some former Port District Tenants may not have sufficient financial
18 resources to account for their fair shares of cleanup costs, and because the cleanup
19 is not progressing and a number of named dischargers are contesting the TCAO,
20 the Port District should remain a primarily – not a secondarily – responsible party.
21 (Attachment N [CUT's 8/11 Response to Comments] at p. 11-30.)

22 Similarly, during the administrative trial, CUT's counsel stated that the "bottom line" as
23 to why the Port was not named as a primary discharger before was because "the previous legal
24 analysis was flawed. (Attachment G [11/14/11 Hearing] at 75:6-19.) The adopted CAO also
25 states that the Port should be considered a primarily liable discharger because "[a]location of
26 responsibility has not been determined and there is insufficient evidence to establish that present
27 and former Port District tenants at the Site each have sufficient financial resources to perform all
28 of the remedial activities required by this Order." (Attachment A [CAO] at p. 8.)

29 These justifications fail any principled review of the law and facts. In fact, the CAO cites
30 no new evidence on which CUT or the Regional Board could rationally support a change of
31 view. The prior TCAOs and DTRs expressly note that there was in fact no evidence on which to
32 conclude that the named dischargers were unable to perform the tasks in the CAO. (Attachment
33 C [2009 TR] at p. 10-4.) Likewise, these TCAOs and DTRs confirmed that the named

34 ⁷ This explanation was not provided in the administrative discovery responses when the Port
35 asked CUT to explain its new position.

1 dischargers were conducting the investigation required of them. (*Id.*; Attachment Q [Barker
2 Deposition] at 489:20-490:14.) The CAO cites no evidence that the named dischargers are
3 presently unable or unwilling to perform the tasks in the CAO or that the named primary
4 dischargers' resources changed in the interim. Indeed, to the extent any evidence on this point
5 was presented, it supported the conclusion that the current primary dischargers are willing and
6 able to perform the CAO tasks. (Attachment I [11/16/11 Hearing] at 45:19-46:9 and 166:7-
7 168:11 [NASSCO comments of support], 75:11-14 [BAE comments of support], 82:21-83:19
8 [Navy comments of support]; Attachment F [11/9/11 Hearing] at 83:15-84:24.)

9 Similarly, despite CUT counsel's assertion that prior counsel simply got the law wrong,
10 neither CUT nor the Regional Board ever cited any new or different legal authority to support
11 their directly contrary conclusion. (Attachment G [11/14/11 Hearing] at 75:6-19.) In fact, the
12 CAO has the law wrong. The unmistakably clear lesson of numerous State Board Orders
13 regarding primary and secondary liability is that a non-discharging public entity landlord should
14 not be placed in a position of primary liability unless and until the named primary dischargers
15 have failed to comply with the tasks in the CAO, as stated in prior TCAOs and DTRs. Indeed,
16 the Regional Board's own prior recent dealings with the Port on issues of tenant compliance
17 confirm that the Regional Board understands this to be the correct approach.

18 a. *Under State Board Orders and Regional Board Practice, a Non-*
19 *discharging Public Entity Landlord Should only Be Primarily Liable At*
20 *Such Time when the Named Dischargers have Failed to Comply with*
the Tasks in the CAO

21 The CAO's analysis of the Port's primary liability is directly contrary to the State Board
22 orders discussing secondary liability. The long established policy of the State Board is that non-
23 discharging landlords should be secondarily liable and responsible for compliance only *after* the
24 dischargers fail or default on their compliance:

- 25 • Non-discharging landlords "should be required to perform the cleanup *only in the*
26 *event of default by [dischargers]*" (*Petition of Wenwest*, WQ 92-13, p. 9
27 [emphasis added]);

- Order placed “primary cleanup and abatement responsibility on [discharger’s] shoulders and specifically requires [non-discharging landlords] to assume the burden *only upon [discharger’s] failure to perform*” (*Petition of Schmidl*, WQ 89-1, p. 4 [emphasis added]);
- Regional Board instructed to “only look to the [non-discharging landlord] regarding enforcement should [discharger] fail to comply” (*Petition of Forest Service*, WQ 87-5, p. 5: [emphasis added]⁸);
- Regional Board ordered to modify order to provide that non-discharging landlord required to comply with order only upon “determination and actual notice to [the non-discharging landlord] that [the dischargers] *have failed to comply*” (*Petition of Prudential Insurance Company*, WQ 87-6, p. 5 [emphasis added]);
- Non-discharging landlord responsible for cleanup “only if the other named dischargers did not timely complete these tasks” (*Petition of Spitzer*, WQ 89-8, p. 6).

No State Board order approves the approach taken by the CAO and TR – deferring secondary liability of a non-discharging landlord to a later date after discharger compliance is demonstrated. In fact, the CAO’s approach renders secondary liability illusory. Proof of compliance will only be achieved at the completion of the tasks in the CAO, at which point redesignating the Port’s liability would be meaningless. Thus, the correct approach is the one followed by the prior TCAOs and DTRs – the Port should be designated secondarily liable under the CAO now and become primarily liable only in the event of noncompliance. (Attachment C [2009 TR] at §10.2 and Attachment AA [2009 TCAO] at p. 7 (“may do so in the future if the Port’s former and/or current tenants fail to comply with the Order”).)

The Regional Board’s prior practices dealing with the Port and some of these same tenants stand in stark contrast to the position taken in the CAO. Specifically, a dispute arose

⁸ While *Petition of Forest Service* involved waste discharge requirements rather than a cleanup and abatement order, the secondary liability analysis is the same in both contexts. (*Petition of Schmidl*, WQ 89-1, p. 4 [citing *Petition of Forest Service* as instructive on secondary liability analysis].)

1 regarding the Port's position of responsibility as discharger under waste discharge requirements
2 for six boat and shipyards, including NASSCO's facility. The matter came before the State
3 Board. (*Petition of San Diego Unified Port District*, WQ 90-3.) The State Board concluded that
4 the Regional Board intended the Port to be in a position of secondary liability and remanded to
5 have this clarified in the WDRs. Thereafter, the Port and the Regional Board reached an
6 agreement regarding the language to be used in the WDR:

7 The Regional Board will notify the Port District of any violation by [the tenant] of
8 any permit conditions, for the purpose of obtaining the assistance of the Port
9 District in attempting to obtain compliance by [the tenant]. The Port District is
10 not primarily responsible for compliance with the permit requirements. The
11 Regional Board will not take enforcement action against the Port District for
12 violations by [the tenant] unless there is a continued failure to comply by [the
13 tenant] after the Port District has been given notice of the violations, and until
14 after the Regional Board has issued against [the tenant] either a cleanup and
15 abatement order, cease and desist order, or complaint for administrative civil
16 liabilities.

17 (Attachment J [Port's 2004 Correspondence to Regional Board] at p. 8,
18 SAR158816.)⁹

19 This language was then inserted in WDR permits issued to BAE's predecessor
20 and NASSCO. (See Attachment S [Southwest Marine 2002 WDR] at p. 3; Attachment T
21 [NASSCO 2003 WDR] at p. 4; Attachment CC [3/14/12 Hearing] at 50:4-51:23
22 (discussing history of prior agreement and inconsistency with CAO findings).)

23 Accordingly, the Regional Board cannot credibly claim that its approach to the
24 naming of the Port in the CAO is consistent with the clear legal direction of the State
25 Board Orders or its own prior conduct.

26 **b. *The CAO's Secondary Liability Analysis Requires a Liability Allocation
27 Out of Place in this Context***

28 In an effort to evade the plain direction of the legal authorities, the Regional Board found
29 that Port should not be secondarily liable because "allocation of responsibility has not been
30 determined" and because "there is insufficient evidence to establish that present and former Port

28 ⁹ The Port presented this evidence directly to the Regional Board during the final hearing

1 District tenants *each* have sufficient financial resources to perform all of the remedial activities
2 required by this Order." (See Attachment A [CAO] at pp. 7-8; Attachment N [CUT's 8/11
3 Response to Comments] at pp. 11-30 – 11-32.) Similarly, CUT previously claimed concerns
4 over "potential gaps" in the primary dischargers' financial resources and concerns that some
5 prior Port tenants may not have the financial resources "to satisfy their respective fair shares of
6 responsibility." (*Id.*) These justifications for naming the Port primarily liable are contrary to the
7 law and the facts.

8 The absence of a liability allocation is not relevant to, much less an obstacle to,
9 secondary liability. This is because no State Board legal authority contemplates or even
10 authorizes a regional board to impose liability on the basis of "fair shares." Rather, the authority
11 is unanimously to the contrary – dischargers are jointly and severally liable to the regional board
12 for the entire cleanup. (*Petition of Union Oil Company of California*, WQ 90-2; *Petition of*
13 *Ultramar, Inc.*, WQ 09-001-UST, p. 7 fn. 12.) If the named dischargers are concerned about fair
14 shares of liability, this issue must be taken up among those parties in a court of law. (*Id.*)

15 Tellingly, neither the Regional Board nor CUT has ever offered any legal authority
16 supporting their view on this point. In its briefing, CUT cited *Petition of Aluminum Company of*
17 *America* to support the proposition apparently accepted by the Regional Board that a non-
18 discharging landlord is primarily liable for "orphaned liability" attributable to an absent tenant
19 discharger. (Attachment N [CUT's 8/11 Response to Comments] at p. 11-31.) Yet, *Petition of*
20 *Aluminum Company of America* does not refer to "orphaned liability," much less establish that
21 such liability can be the basis for imposing primary liability on a non-discharging landlord. In
22 short, because the primary dischargers are jointly and severally liable for the entire remediation
23 required under a CAO, secondary liability is not contingent upon a regional board first taking a
24 roll call of all potential primary dischargers to make sure they are all present.

25 c. *The CAO's Secondary Liability Analysis Imposes an Improper*
26 *Evidentiary Burden on the Non-Discharging Landlord Regarding the*
27 *Primary Dischargers' Ability to Perform*

28 None of the State Board orders cited in the CAO or TR requires a non-discharging
29 landlord to produce detailed factual evidence of the dischargers' financial assets. *Petition of*

1 *Wenwest*, the only cited authority that even references this factor, limits its analysis on this point
2 to a comment that the dischargers in that case were “capable” of undertaking the cleanup.
3 (*Petition of Wenwest*, WQ 92-13, p. 9.) Here, the primary dischargers are capable of performing
4 any cleanup required by the order. These dischargers include NASSCO, BAE Systems, SDG&E
5 and the United States Navy, financially robust parties with significant resources who have never
6 asserted that they lack the resources to perform the tasks in the CAO. (See, e.g., Attachment Y
7 [BAE Stipulation]; Attachment Z [NASSCO Stipulation].) Because each primary discharger is
8 legally liable under a CAO for the entire remedial obligations, no greater showing of ability is
9 required.

10 Likewise, there is no credible evidence that the primary dischargers will not comply with
11 the CAO. While the TR states that “no cleanup is taking place” (Attachment B [TR] at p. 11-1),
12 the obvious response is that no cleanup was required prior to the adoption of the CAO. The far
13 more relevant observation is the one made in the prior draft CAOs and TRs -- that “the major site
14 investigation to determine the extent of pollution” at the site had been “satisfactorily completed”
15 by the primary dischargers. (Attachment C [2009 TR] at p. 10-4.) Mr. Gibson similarly testified
16 under oath that the process has been “proceeding cooperatively.” (Attachment H [11/15/11
17 Hearing] at 489:20-490:14.) In closing, Mr. Gibson echoed his pleasure with the primary
18 dischargers’ willingness to undertake the remediation. (Attachment I)Consequently, until the
19 primary dischargers have “defaulted,” “failed to comply” or “failed to perform” (*Petition of*
20 *Wenwest*, WQ 92-13, p. 9; *Petition of Schmidl*, WQ 89-1, p. 4; *Petition of Forest Service*, WQ
21 87-5, p. 5; *Petition of Prudential Insurance Company*, WQ 87-6, p. 5; *Petition of Spitzer*, WQ
22 89-8, p. 6), there is no legitimate or necessary basis to name the Port, a non-discharging public
entity landlord, as a primary discharger in the CAO.

23 **B. The Regional Board’s Finding that the Port is a Discharger Based on MS4
24 Discharges is Arbitrary and Capricious and an Abuse of Discretion**

25 As noted above, the September 2010 draft CAO and TR for the first time contained a
26 finding that the Port should be liable as a discharger because of the MS4 facilities that discharge
27 to outfalls SW4 and SW9 within the Shipyard Sediment Site. This recently-constructed basis for
28 Port liability constitutes an arbitrary and capricious decision for three reasons. First, it arose at

the same time as the shift in Port liability from primary to secondary and was motivated by the same improper animus. Second, there is no substantial evidence in the record to support the conclusion that the Port is the owner or operator of the MS4 facilities that discharge to the Shipyard Sediment Site – instead, the evidence confirms the contrary conclusion. Third, the CAO and TR lack the necessary testing data indispensable to a finding of liability.

I. The Port's Alleged MS4 Liability is Not Based in Fact or Law but Motivated by Improper Considerations

As discussed above, there were a number of draft CAOs and TRs preceding the September 2010. While these draft CAOs and TRs discussed the purported role of the MS4 outfalls within the Shipyard Sediment Site, none of these draft documents assigned any liability to the Port for the MS4 facilities. (See Attachment C [2009 TR] at pp. 10-1 – 10-4.) In September 2010, the draft CAO and TR inexplicably concluded that the Port should be liable for these facilities. (Attachment D [2010 TCAO] at 7 and Attachment E [2010 TR] at §11.) As discussed in greater detail above, it became clear from CUT’s explanation that the change of Port liability in the September 2010 draft CAO and TR was the result of CUT’s displeasure with the Port’s decision to withdraw from mediation process, not any legitimate legal or factual basis. Given the absence of any facts to support the Port’s purported MS4 liability, discussed in greater detail directly below, it is equally clear that this improper consideration was the motivation behind the decision to assign the Port liability under the MS4 theory as well. For this reason alone, the finding in the CAO and TR that the Port is liable for MS4 discharges is arbitrary and capricious and an abuse of discretion.

2. There is no Evidence the Port Owns or Operates the MS4 that Discharges to the Shipyard Sediment Site

23 There is another fundamental flaw in the CAO's conclusion that the Port is a discharger
24 based upon the MS4 discharges. The CAO states that the Port "owns and operates" MS4
25 "through which it discharges waste commonly found in urban runoff to San Diego Bay subject to
26 the terms and conditions of an NPDES Storm Water Permit." (Attachment A [CAO] at p. 8.)
27 Yet the record contains no evidence to support this statement.

This liability theory first emerged in the September 15, 2010 TCAO and DTR, which

1 simply assumed that the Port owned and operated the MS4 facilities that discharge to SW4 and
2 SW9. (Attachment E [2010 DTR] at 11-5, §11.3 [referring to the Port's liability for pollutants
3 allegedly discharged "through *its* SW4 ... and SW9 ... conduit pipes" (emphasis added).])
4 However, CUT later acknowledged that these conduit pipes are owned and operated by the City.
5 (Attachment W [CUT's Responses to Discovery] at pp. 94-100 and Attachment X [CUT's
6 Responses to Requests for Admissions] at p. 10.)

7 The City has similarly acknowledged that it owns and operates these facilities.
8 (Attachment BB [City's Complaint]¹⁰ at 7:5-8; Attachment DD [2004 City Report] at SAR
9 158791 [acknowledging that City "storm drain system enters the NASSCO leasehold at the foot
10 to 28th Street and terminates at the southeasterly corner" where it "discharges into Chollas
11 Creek" at the SW9 outfall"]) The Port further offered into evidence records confirming the
12 City's ownership and operation of the relevant MS4 facilities. (Attachment U [City Easement]
13 (City's easement for the MS4 facilities that terminate at the SW4 outfall); Attachment V
14 [Conveyance] (City easements for "all water ...drainage facilities").) This evidence clearly
15 demonstrates that the MS4 facilities are under the City's control.

16 At the administrative trial, again the Port presented evidence that the City, not the Port,
17 maintains easements and owns and operates the MS4 facilities in the relevant outfalls, SW4 and
18 SW9. (Attachment H [11/15/11 Hearing] at 150:23-151:19); Attachment EE [Depiction of SW4
19 and SW9].) Although the City attempted to dispute its ownership of the subject MS4 facilities,
20 the City's witness admitted she had not reviewed the easement documents presented by the Port
21 which establish otherwise. (Attachment H [11/15/11 Hearing] at 198:8-20) Because the Port is
22 not the owner or operator of the MS4 facilities that discharge to SW4 and SW9, the finding of
Port liability lacks any substantial evidence.

23 Any contrary suggestion by the Regional Board that the Port is liable for MS4 discharges

24 _____
25 ¹⁰ Water Code section 13320(b) provides that "[t]he evidence before the state board shall
26 consist of the record before the regional board, *and any other relevant evidence* which, in the
27 judgment of the state board, should be considered to effectuate and implement the policies of
this division." (emphasis added.) These admissions by the City are plainly relevant evidence
that should be considered by the State Board in connection with the Port's Petition. *See also*
Cal. Evid. Code § 452(d), which permits judicial notice to be taken of records of any court of
the state or United States.

simply by virtue of its position as a co-permittee under the NPDES permit is untenable. The CAO states that the Port's liability is premised on its ownership and operation of the MS4 facilities, not a more general basis. Likewise, the CAO cites no provision in the NPDES permit to support a vague co-permittee liability theory. Finally, this approach is inconsistent with the federal regulations governing NPDES permits. The Clean Water Act defines "co-permittee" as "a permittee to an NPDES permit that is only responsible for permit conditions relating to the discharge *for which it is operator.*" (40 Code of Federal Regulations §122.6(b)(1) [emphasis added].) In short, absent any permit language to support Because CUT and the Regional Board have not cited any actual permit language to the contrary, the conclusion that the Port is liable for discharges from MS4 facilities that it does not own or operate lacks legal or factual support and cannot be upheld.¹¹

3. *There is No Evidence of Testing at the Discharge Point Required to Impose Liability for Violation of an NPDES Permit*

Recently established law confirms that liability for MS4 facility discharges under a NPDES permit requires testing at the point of discharge. (*National Resources Defense Council v. County of Los Angeles Flood Control District* (9th Cir. 2011) 636 F.3d 1235 (NRDC).) Here, the CAO cites no evidence of testing at the outfall points SW4 or SW9. This alone defeats the inclusion of the Port as a discharger based upon alleged MS4 discharges.

In NRDC, the claimant alleged the co-permittees on an NPDES permit governing MS4 facilities had discharged pollutants in violation of the permit. The claimant argued initially that the "measured exceedances in the Watershed Rivers *ipso facto* establish Permit violations by Defendants." (NRDC, *supra*, at 1251.) In response, the Ninth Circuit noted that "the Clean

¹¹ In fact, if CUT's view of MS4 permit liability is sound, all of the co-permittees would face the same liability. Other co-permittees such as City of Lemon Grove and City of La Mesa have facilities that connect to the MS4 facilities that discharge to SW4 as well. (Attachment O [2007 NPDES Permit] at p. 2; Attachment H [11/15/11 Hearing] at 153:17-154:25.) Neither CUT nor the Regional Board has ever offered any defensible explanation for why the Port alone should be the only co-permittee responsible for MS4 facilities that it does not own or operate. The decision to single out the Port in this fashion adds further support to the inescapable conclusion that the decision to assign the Port this liability is not the product of any principled exercise of discretion it may have, but an abuse of that discretion intended to punish the Port for improper reasons.

1 Water Act does not prohibit ‘undisputed’ exceedances.” (*Id.*) Rather, the Clean Water Act
2 “prohibits ‘discharges’ that are *not* in compliance with the Act (which means in compliance with
3 the NPDES).” (*Id.* [emphasis in original]) Consequently, the Ninth Circuit concluded,
4 “responsibility for those exceedances requires proof that some entity discharged a pollutant.”
5 (*Id.*)

6 Against this backdrop, the Ninth Circuit found that “the primary factual dispute between
7 the parties is whether the evidence shows any *addition* of pollutants by Defendants” to the
8 waterways. (*NRDC, supra*, at 1251 [emphasis in original].) The claimant asserted that because
9 “the monitoring stations are downstream from hundreds of miles of storm drains which have
10 generated the pollutants being detected” it was “irrelevant which of the thousands of storm drains
11 were the source of polluted stormwater – as holders of the Permit, Defendants bear responsibility
12 for the detected exceedances.” (*Id.*, at 1251-1252.) The Ninth Circuit found this view
13 unsatisfactorily simplistic as it “did not enlighten the district court with sufficient evidence for
14 certain claims and assumed it was obvious to anyone how stormwater makes its way from a
15 parking lot in Pasadena into the MS4, through a mass-emissions station, and then to a Watershed
16 River.” (*Id.*, at 1252.)

17 Ultimately, the Ninth Circuit found adequate evidence of discharges for two of the rivers,
18 where mass emissions stations detecting the exceedances were located in a portion of the MS4
19 “owned and operated” by the defendant in question. (*Id.*, at 1253-1254.) In contrast with that
20 conclusion, the Ninth Circuit found that “it is not possible to mete out responsibility for
21 exceedances detected” in other waterways where it was “unable to identify the relationship
22 between the MS4 and these mass-emissions stations” and where it “appear[ed] that both
23 monitoring stations are located within the rivers themselves.” (*Id.* at 1253.) As to these
24 waterways, the Ninth Circuit concluded that “[i]t is highly likely, but on this record nothing more
25 than assumption, that polluted stormwater exits the MS4 controlled by the [defendants], and
26 flows downstream in these rivers past the mass-emissions stations.” (*Id.*) However, the Ninth
27 Circuit found this assumption inadequate because the claimant was “obligated to spell out this
28 process for the district court’s consideration and to spotlight how the flow of water from an ms4
‘contributed’ to a water-quality exceedance detected at the Monitoring Stations.” (*Id.*, at 1254.)

1 The clear message of NRDC is that liability for violation of an NPDES permit such as an
2 MS4 permit requires evidence the co-permittee “discharged” pollutants from an MS4 facility that
3 the co-permittee owns or operates. Testing or monitoring taken from the affected waterway,
4 rather than from the MS4 system, is not adequate. This is so regardless of how “probable” or
5 “likely” the assumption is that the defendant may have discharged pollutants. Here, the CAO
6 and TR contain no testing of the actual MS4 discharges to SW4 or SW9. In fact, the TR
7 acknowledges that “no monitoring data is available” for either SW4 or SW9. (Attachment B
8 [TR] at p. 11-13 [SW4], p. 11-15 [SW9].) In lieu of actual monitoring results, the TR simply
9 concludes that “it is highly probable that historical and current discharges from th[ese] outfalls
10 have discharged” various contaminants. (*Id.*) This approach cannot be reconciled with *NRDC*.

11 In an effort to evade the plain meaning of *NRDC* and the obligation to provide discharge
12 sampling, CUT argued that *NRDC* imposed specific testing requirements because the NPDES
13 permits in that case contained specific numeric discharge limits. (Attachment [CUT’s 8/11
14 Comments]N at p. 11-34.) From this premise, CUT concluded that *NRDC* would not apply in
15 the present case because the Port is not being held liable for an NPDES violation but for a
16 narrative standard that prohibits discharges that “cause or contribute to the condition of pollution
17 or nuisance at the Site.” (*Id.*) CUT’s analysis is wrong. The *NRDC* permits contained a
18 narrative standard under which the co-permittees were bound to “neither cause nor contribute to
19 the exceedance of water quality standards and objectives *nor create conditions of nuisance in
the receiving waters.*” (*NRDC, supra*, 636 F.3d at 1241. [emphasis added].) In fact, the Ninth
20 Circuit expressly noted:

21 [T]he Permit prohibits MS4 discharges into receiving waters that exceed the
22 Water Quality Standards established in the Basin Plan and elsewhere.
23 Specifically, Section 2.1 provides: “[D]ischarges from the MS4 that cause or
24 contribute to the violation of Water Quality Standards or water quality objective
25 are prohibited.” *Section 2.2. of the Permit reads: “Discharges from the MS4 of
storm water, or non-storm water, for which a Permittee is responsible for, shall
not cause or contribute to a condition of nuisance.”*

26 (*NRDC, supra*, 636 F.3d at 1244 [emphasis added].) In short, the alleged *NRDC* permit violation
27 was indistinguishable from the narrative standard CUT cites as the basis for Port MS4 liability.

28 CUT’s claim that Port MS4 liability can rest entirely on circumstantial evidence fails for

1 another reason. The Port presented evidence that it has been complying with its MS4 permit
2 obligations. (Attachment L at para. 9 and Attachment H at 149:2-150:19.) The Port conducts
3 the inspections required under the MS4 permit and sweeps the associated areas as well. (See
4 Attachment L at para. 8(g).) The Port has prepared the JURMP document required by the MS4
5 permit and operates in MS4 facilities in compliance with that document. (*Id.* at para. 8(h).) The
6 Port's compliance program is being implemented to the "maximum extent practicable" and in
7 many cases has proactively implemented compliance at a higher level. (Attachment L [Collacott
8 Declaration] pp. 4-5, paras. 8(g)-(h), 9; Attachment H at 150:15-19.) In sum, there is an absence
9 of substantial and legally necessary evidence to support a finding of Port liability based on MS4
10 discharges.

11 **C. Conclusion**

12 The Port should not be named as a primary discharger in the CAO. The Regional Board
13 fell prey to CUT's improper motivation and the incorrect and improper legal standard CUT
14 offered to support naming the Port as a primary discharger. As a non-discharging public entity
15 landlord, the Port should be secondarily liable and responsible for CAO compliance only in the
16 event the primary dischargers fail to comply with the CAO. Likewise, there is no substantial
17 evidence to support the CAO's conclusion that the Port is liable as a discharger based upon MS4
18 discharges, because the Port is not the owner or operator of the MS4 facilities at issue.
19 Furthermore, there is no substantial evidence of the type required by law to establish liability for
MS4 discharges.

20 The Port has worked well and cooperatively with the Regional Board at this and
21 numerous other sites. The Port supports the remedial approach at the Shipyard Sediment Site
22 and will continue to provide appropriate support. Placing the Port in its proper position as a
23 secondarily liable party will not alter the Port's support for the process and the proposed
24 remediation. However, for the reasons discussed throughout this petition, the Regional Board's
25 findings of Port primary liability are arbitrary and capricious and constitute an abuse of its
26 discretion. The CAO should therefore be amended as requested in Section VI, *supra*.

27 ///

28 ///

VIII.

**THE PETITION HAS BEEN SENT TO THE REGIONAL BOARD AND TO NAMED
DISCHARGERS**

True and correct copies of this Petition, were sent electronically to:

Jeannette L. Bashaw, Legal Analyst
State Water Resources Control Board
Office of Chief Counsel
jbashaw@waterboards.ca.gov

David Gibson, Executive Officer
San Diego Regional Water Quality Control Board
dgibson@waterboards.ca.gov

This Petition was also sent electronically to the individuals/parties identified in the attached proof of electronic service.

IX

**SUBSTANTIVE ISSUES AND OBJECTIONS RAISED IN THE PETITION WERE
RAISED BEFORE THE REGIONAL BOARD**

Port certifies that the issues set forth above were presented in writing or orally to the Regional Board in advance of the March 14, 2012 decision on this matter.

Dated: April 13, 2012

BROWN & WINTERS

By:

William D. Brown, Esq.
Scott E. Patterson, Esq.
Attorneys for Designated Party
SAN DIEGO UNIFIED PORT
DISTRICT

Attachments

- A Cleanup and Abatement Order No. R9-2012-0024, dated March 14, 2012
 - B Excerpts from Technical Report for Cleanup and Abatement Order No. R9-2012-0024, dated March 14, 2012
 - C Excerpts from the Draft Technical Report for Cleanup and Abatement Order R9-2010-0002, dated December 22, 2009
 - D Excerpts from the Tentative Cleanup and Abatement Order R9-2011-0001, dated September 15, 2010
 - E Excerpts from the Draft Technical Report for Cleanup and Abatement Order R9-2011-0001, dated September 15, 2010
 - F Excerpts from the Transcript of the California Regional Water Quality Control Board Public Meeting/Hearing, dated November 9, 2011
 - G Excerpts from the Transcripts of the California Regional Water Quality Control Board Public Meeting/Hearing, dated November 14, 2011
 - H Excerpts from the Transcripts of the California Regional Water Quality Control Board Public Meeting/Hearing, dated November 15, 2011
 - I Excerpts from the Transcripts of the California Regional Water Quality Control Board Public Meeting/Hearing, dated November 16, 2011
 - J Correspondence from the Port to the California Regional Water Quality Control Board dated July 15, 2004, exhibits excluded (SAR158809-SAR158824)
 - K Port District's Submission of Comments, Evidence and Legal Argument, dated May 26, 2011 (resubmitted on August 15, 2011 redacting certain sections) exhibits excluded
 - L Declaration of Expert Robert Collacott in Support of the San Diego Unified Port District's Submission of Comments, Evidence and Legal Argument, dated May 24, 2011 (Exhibit "20" to Port's May 26, 2011 Comments)
 - M Declaration of Expert Michaels Johns, Ph.D. in Support of the San Diego Unified Port District's Submission of Comments, Evidence and Legal Argument, dated May 24, 2011 (Exhibit "3" to Port's May 26, 2011 Comments)
 - N Excerpts from California Regional Water Quality Control Board's Response to Comments Report, dated August 23, 2011
 - O Excerpts from California Regional Water Quality Control Order No. R9-2007-0001, NPDES No. CAS0108758, Waste Discharge Requirements for Discharges of Urban Runoff from MS4s Draining the Watersheds of San Diego County, the Incorporated Cities of San Diego County, the San Diego Unified Port District and the San Diego County Regional Airport Authority, dated January 24, 2007
 - P Excerpts from the Deposition of California Regional Water Quality Control Board Cleanup Team Member, Craig Carlisle, dated February 9, 2011 (Exhibit "6" to Port's May 26, 2011 Comments)

- 1 **Q** Excerpts from the Deposition of California Regional Water Quality Control Board
2 Cleanup Team Member, David Barker, Vol. III, dated March 3, 2011 (Exhibit "5" to
3 Port's May 26, 2011 Comments)
- 4 **R** Excerpts from the Deposition of California Regional Water Quality Control Board
5 Cleanup Team Member, David Gibson, dated March 11, 2011 (Exhibit "1" to Port's
6 May 26, 2011 Comments)
- 7 **S** Excerpts from California Regional Water Quality Control Order No. R9-2002-0161
8 NPDES Permit No. CA0109151, Waste Discharge Requirements for Southwest
9 Marine, Inc., dated November 13, 2002
- 10 **T** Excerpts from California Regional Water Quality Control Order No. R9-2003-0005
11 NPDES Permit No. CA0109134, Waste Discharge Requirements for National Steel
12 Shipbuilding Company, dated February 5, 2003
- 13 **U** Drainage Easement between the City of San Diego and the San Diego Unified Port
14 District, dated April 24, 1985 (Exhibit "18" to Port's May 26, 2011 Comments)
- 15 **V** Conveyance between the City of San Diego and the San Diego Unified Port District,
16 dated February 15, 1963 (Exhibit "19" to Port's May 26, 2012 Comments)
- 17 **W** Excerpts from California Regional Water Quality Control Board Cleanup Team's
18 Responses to Special Interrogatories propounded by Port District, dated January 5,
19 2010 [sic] (correct date should be January 5, 2011)
- 20 **X** Excerpts from California Regional Water Quality Control Board Cleanup Team's
21 Responses to Request for Admissions propounded by Port District, dated January 5,
22 2010 [sic] (correct date should be January 5, 2011)
- 23 **Y** BAE Stipulation Regarding Resolution of Discovery Dispute, dated March 9, 2011
24 (Exhibit "9" to Port's May 26, 2011 Comments)
- 25 **Z** NASSCO Stipulation Regarding Resolution of Discovery Dispute, dated March 3,
26 2011 (Exhibit "11" to Port's May 26, 2011 Comments)
- 27 **AA** Excerpts from the Cleanup and Abatement Order R9-2010-0002, dated December 22,
28 2009
- 29 **BB** Excerpts from City of San Diego's Complaint in *City of San Diego v. National Steel*
30 *and Shipbuilding Company, et al.*, U.S. District Court, Southern District, Case No.
31 09-CV-2275 W CAB
- 32 **CC** Excerpts from the Transcript of the California Regional Water Quality Control Board
33 Public Meeting/Hearing, dated November March 14, 2012
- 34 **DD** City of San Diego's Report for the Investigation of Exceedances of the Sediment
35 Quality Objectives at National Steel and Ship Building Company, dated July 15,
36 2004
- 37 **EE** Excerpt from Presentation of San Diego Unified Port District's Expert, Robert
38 Collacott, MBA, M.S., during the California Regional Water Quality Control Board
39 Public Meeting/Hearing,

Attorney or party without attorney (Name and Address): BROWN & WINTERS WILLIAM D. BROWN, ESQ. (SBN 125468) SCOTT E. PATTERSON, ESQ. (SBN 174979) 120 Birmingham Drive, Suite 110 Cardiff-by-the-Sea, CA 92007	TELEPHONE NO: 760-633-4485
ATTORNEY FOR (Name): SAN DIEGO UNIFIED PORT DISTRICT	
STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD	
IN THE MATTER OF THE PETITION OF SAN DIEGO UNIFIED PORT DISTRICT, FOR REVIEW OF ORDER NO. R9-2012-0024	
DECLARATION OF PROOF OF ELECTRONIC SERVICE	Petition No. _____

At the time of this service, the undersigned was over the age of 18 years and not a party to the case; I am employed in, or am a resident of, the County of San Diego, California where the mailing occurs; and my business/residence address is: 120 Birmingham Drive, Suite 110, Cardiff-by-the-Sea, CA 92007

On the date set forth below, from my business address, I served the document(s) described as:

PETITION FOR REVIEW

Service Address: SEE ATTACHMENT

Service was accomplished: 4/13/12

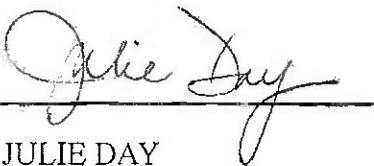
Approximate Time: 4:00 p.m.

✓ (By Electronic Service) I caused the described document(s) to be transmitted from my electronic-mail address, jday@brownandwinters.com to the Service Address(es) noted herein. The transmission was reported as complete without error by transmission report issued by the electronic mail upon which the transmission was made. (CCP § 1010.6(BL)(6).)

I certify under penalty and perjury under the laws of the State of California that the foregoing is true and correct.

Executed on April 13, 2012

Signature:



JULIE DAY

SHORT TITLE: In the Matter of the Petition of SAN DIEGO UNIFIED PORT DISTRICT For Review of Order No. R9-2012-0024	CASE NUMBER:
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ATTACHMENT TO PROOF OF ELECTRONIC SERVICE (PERSONS SERVED)

(This attachment is for use with form POS-050/EFS-050.)

NAMES, ADDRESSES, AND OTHER APPLICABLE INFORMATION ABOUT PERSONS SERVED:

<u>Name of Person Served</u>	<u>Electronic Service Address</u>	<u>Date and Time</u> <u>of Electronic Service</u>
<i>(If the person served is an attorney, the party or parties represented should also be stated.)</i>		
Christian Carrigan Attorney for State Water Resources Control Board	ccarrigan@waterboards.ca.gov	Date: _____ Time: _____
Raymond Parra Attorney for BAE Systems Ship Repair	Raymond.parra@baesystems.com	Date: _____ Time: _____
Michael McDonough Attorney for BP West Coast Products LLC	Michael.mcdonough@bingham.com	Date: _____ Time: _____
Christopher McNevin Attorney for Chevron USA, Inc.	chrismcnevin@pillsburylaw.com	Date: _____ Time: _____
Brian Ledger Attorney for City of San Diego	bledger@gordonrees.com	Date: _____ Time: _____
Nate Cushman Attorney for United States Navy	nate.cushman@navy.mil	Date: _____ Time: _____
Marco Gonzalez, Attorney for Environmental Health Coalition & SD Coastkeeper	marco@coastlawgroup.com	Date: _____ Time: _____
James Handmacher, Attorney for Marine Construction & Design; Campbell Industries	jvhandmacher@bvmm.com	Date: _____ Time: _____
Matthew Dart Attorney for BAE Systems	matthew.dart@dlapiper.com	Date: _____ Time: _____
Frank Melbourn California RWQCB	fmelbourn@waterboards.ca.gov	Date: _____ Time: _____
Catherine Hagan California RWQCB	chagan@waterboards.ca.gov	Date: _____ Time: _____
Laura Hunter Environmental Health Coalition	laurah@environmentalhealth.org	Date: _____ Time: _____

SHORT TITLE: In the Matter of the Petition of SAN DIEGO UNIFIED PORT DISTRICT For Review of Order No. R9-2012-0024	CASE NUMBER:
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ATTACHMENT TO PROOF OF ELECTRONIC SERVICE (PERSONS SERVED)

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NAMES, ADDRESSES, AND OTHER APPLICABLE INFORMATION ABOUT PERSONS SERVED:

<u>Name of Person Served</u>	<u>Electronic Service Address</u>	<u>Date and Time</u> <u>of Electronic Service</u>
(If the person served is an attorney, the party or parties represented should also be stated.)		
Gabe Solmer Attorney for San Diego Coastkeeper	gabe@sdcoastkeeper.org	Date: _____ Time: _____
Tom Stahl Attorney for United States Navy	Thomas.stahl@usdoj.gov	Date: _____ Time: _____
Kelly E. Richardson Attorney for NASSCO	kelly.richardson@lw.com	Date: _____ Time: _____
Mike Tracy Attorney for BAE Systems	Mike.tracy@dlapiper.com	Date: _____ Time: _____
Sandi Nichols Attorney for San Diego Unified Port District	snichols@allenmatkins.com	Date: _____ Time: _____
James Dragna Attorney for BP West Coast Products LLC	jim.dragna@bingham.com	Date: _____ Time: _____
Steven Goldberg Attorney for BAE Systems Ship Repair	sgoldberg@downeybrand.com	Date: _____ Time: _____
Jennifer Lucchesi Attorney for CA State Lands Commission	jennifer.lucchesi@slc.ca.gov	Date: _____ Time: _____
Matthew Luxton Attorney for NASSCO	matthew.luxton@nassco.com	Date: _____ Time: _____
Scott Spear Attorney for United States Navy	Scott.spear@usdoj.gov	Date: _____ Time: _____
David Gibson, Executive Officer California Region Water Quality Control Board San Diego	dgibson@waterboards.ca.gov	Date: _____ Time: _____
Jeannette L. Bashaw Office of Chief Counsel, State Water Resources Control Board	jbashaw@waterboards.ca.gov	Date: _____ Time: _____

SHORT TITLE: In the Matter of the Petition of SAN DIEGO UNIFIED PORT DISTRICT For Review of Order No. R9-2012-0024	CASE NUMBER:
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ATTACHMENT TO PROOF OF ELECTRONIC SERVICE (PERSONS SERVED)

(This attachment is for use with form POS-050/EFS-050.)

NAMES, ADDRESSES, AND OTHER APPLICABLE INFORMATION ABOUT PERSONS SERVED:

<u>Name of Person Served</u>	<u>Electronic Service Address</u>	<u>Date and Time</u> <u>of Electronic Service</u>
<i>(If the person served is an attorney, the party or parties represented should also be stated.)</i>		
Frederick Ortlieb Attorney for City of San Diego	fortlieb@sandiego.gov	Date: _____ Time: _____
Douglas Reinhart Attorney for BP West Coast Products LLC	douglas.reinhart@bp.com	Date: _____ Time: _____
Miles Scully Attorney for City of San Diego	mscully@gordonrees.com	Date: _____ Time: _____
David Silverstein Attorney for United States Navy	david.silverstein@navy.mil	Date: _____ Time: _____
Jill Tracy Attorney for Sempra Energy	jtracy@semprautilities.com	Date: _____ Time: _____
Roslyn Tobe Attorney for United States Navy	roslyn.tobe@navy.mil	Date: _____ Time: _____
Brian Wall Attorney for Chevron Products Co.	bwall@chevron.com	Date: _____ Time: _____
Jill Witkowski Attorney for San Diego Coastkeeper	jill@sdcoastkeeper.org	Date: _____ Time: _____
Sarah Brite Evans Attorney for Star & Crescent	sarah@SSHBClaw.com	Date: _____ Time: _____
Kristin Reyna Attorney for City of San Diego	kreyna@gordonrees.com	Date: _____ Time: _____
Sharon Cloward, Exec. Dir. San Diego Port Tenants Association	sharon@sdpta.com	Date: _____ Time: _____
Suzanne Varco Attorney for Star & Crescent	svarco@envirolawyer.com	Date: _____ Time: _____

Attachment A

**Cleanup and Abatement Order No. R9-2012-0024, dated March 14,
2012**

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

**CLEANUP AND ABATEMENT ORDER
NO. R9-2012-0024**

**NATIONAL STEEL AND SHIPBUILDING COMPANY
BAE SYSTEMS SAN DIEGO SHIP REPAIR, INC.**

**CITY OF SAN DIEGO
CAMPBELL INDUSTRIES**

SAN DIEGO GAS AND ELECTRIC

UNITED STATES NAVY

SAN DIEGO UNIFIED PORT DISTRICT

**SHIPYARD SEDIMENT SITE
SAN DIEGO BAY
SAN DIEGO, CALIFORNIA**

The California Regional Water Quality Control Board, San Diego Region (hereinafter San Diego Water Board), finds as follows, based upon the weight of the evidence in this matter:

JURISDICTION

1. **WASTE DISCHARGE.** Elevated levels of pollutants above San Diego Bay background conditions exist in the San Diego Bay bottom marine sediment 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 hereinafter collectively referred to as the "Shipyard Sediment Site." The National Steel and Shipbuilding Company Shipyard facility (NASSCO), the BAE Systems San Diego Ship Repair Facility (BAE Systems), the City of San Diego, San Diego Marine Construction Company,¹ Campbell Industries (Campbell), San Diego Gas and Electric (SDG&E), the United States Navy, and the San Diego Unified Port District (Port District) have each caused or permitted the discharge of waste to the Shipyard Sediment Site resulting in the accumulation of waste in the marine sediment. The contaminated marine sediment has caused conditions of pollution, contamination or nuisance in San Diego Bay that adversely affect aquatic life, aquatic-dependent wildlife, and human health San Diego Bay beneficial uses. A map of the Shipyard Sediment Area is provided in Attachment 1 to this Order (referred to interchangeably as CAO or Order).

RESPONSIBLE PERSON/DISCHARGER DETERMINATIONS

2. **NATIONAL STEEL AND SHIPBUILDING COMPANY (NASSCO), A SUBSIDIARY OF GENERAL DYNAMICS COMPANY.** The San Diego Water Board finds that NASSCO has caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. These wastes contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs), polynuclear aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons (TPH).

NASSCO, a subsidiary of General Dynamics Company, owns and operates a full service ship construction, modification, repair, and maintenance facility on 126 acres of tidelands property leased from the Port District on the eastern waterfront of central San Diego Bay at 2798 Harbor Drive in San Diego. Shipyard operations have been conducted at this site by NASSCO over San Diego Bay waters or very close to the waterfront since at least 1960. Shipyard facilities operated by NASSCO over the years at the Site have included concrete platens used for steel fabrication, a graving dock, shipbuilding ways, and berths on piers or

¹ San Diego Marine Construction Company is not identified as a discharger with responsibility for compliance with this Order because San Diego Marine Construction Company no longer exists and no corporate successor with legal responsibility for San Diego Marine Construction Company's liabilities has been identified. See Finding No. 5 and the Technical Report Section 5.

land to accommodate the berthing of ships. An assortment of waste is generated at the facility including spent abrasive, paint, rust, petroleum products, marine growth, sanitary waste, and general refuse. Based on these considerations NASSCO is referred to as "Discharger(s)" in this Cleanup and Abatement Order (CAO).

- 3. BAE SYSTEMS SAN DIEGO SHIP REPAIR, INC., FORMERLY SOUTHWEST MARINE, INC.** The San Diego Water Board finds that BAE Systems caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. These wastes contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH.

From 1979 to the present, Southwest Marine, Inc. and its successor BAE Systems have owned and operated a ship repair, alteration, and overhaul facility on approximately 39.6 acres of tidelands property on the eastern waterfront of central San Diego Bay. The facility, currently referred to as BAE Systems San Diego Ship Repair, is located on land leased from the Port District at 2205 East Belt Street, foot of Sampson Street in San Diego, San Diego County, California. Shipyard facilities operated by BAE Systems over the years have included concrete platens used for steel fabrication, two floating dry docks, five piers, and two marine railways. An assortment of waste has been generated at the facility including spent abrasive, paint, rust, petroleum products, marine growth, sanitary waste, and general refuse. Based on these considerations BAE Systems is referred to as "Discharger(s)" in this CAO.

- 4. CITY OF SAN DIEGO.** The San Diego Water Board finds that the City of San Diego caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. From the early 1900s through February 1963, when the relevant tideland areas were transferred from the City of San Diego to the Port District, the City was the trustee of and leased to various operators, all relevant portions of the Shipyard Sediment Site. The wastes the City of San Diego caused or permitted to be discharged, or to be deposited where they were discharged into San Diego Bay through its ownership of the Shipyard Sediment Site contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH.

The City of San Diego also owns and operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of a National Pollutant Discharge Elimination System (NPDES) Storm Water Permit. The San Diego Water Board finds that the City of San Diego has discharged urban storm water containing waste directly to San Diego Bay at the Shipyard Sediment Site. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs) through its SW4 (located on the BAE Systems leasehold) and SW9 (located on the NASSCO leasehold) MS4 conduit pipes.

March 14, 2012

The San Diego Water Board finds that the City of San Diego has also discharged urban storm water containing waste through its MS4 to Chollas Creek resulting in the exceedances of chronic and acute California Toxics Rule copper, lead, and zinc criteria for the protection of aquatic life. Studies indicate that during storm events, storm water plumes toxic to marine life emanate from Chollas Creek up to 1.2 kilometers into San Diego Bay, and contribute to pollutant levels at the Shipyard Sediment Site. The urban storm water containing waste that has discharged from the on-site and off-site MS4 has contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Based on these considerations the City of San Diego is referred to as "Discharger(s)" in this CAO.

- .5. **STAR & CRESCENT BOAT COMPANY.** The San Diego Water Board finds that between 1914 and 1972, San Diego Marine Construction Company operated a ship repair, alteration, and overhaul facility on what is now the BAE Systems leasehold at the foot of Sampson Street in San Diego. Shipyard operations were conducted at this site over San Diego Bay water or very close to the waterfront. An assortment of waste was generated at the facility, including spent abrasive blast waste, paint, rust, petroleum products, marine growth, sanitary waste and general refuse. These wastes contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH. In July 1972, San Diego Marine Construction Company sold its shipyard operations to Campbell Industries, and changed its corporate name, effective July 14, 1972, to Star & Crescent Investment Co. On March 19, 1976, Star & Crescent Boat Company (Star & Crescent), was incorporated in California and on April 9, 1976, Star & Crescent Investment Co. (formerly San Diego Marine Construction Company) transferred some portion of its assets and liabilities to Star & Crescent. The San Diego Water Board's Cleanup Team and several other designated parties allege that Star & Crescent Investment Co. (formerly San Diego Marine Construction Company) transferred all of its liabilities and assets to Star & Crescent. Accordingly, these parties allege that Star & Crescent is the corporate successor of and responsible for the conditions of pollution or nuisance caused or permitted by San Diego Marine Construction Company. Star & Crescent denies that it is the corporate successor to San Diego Marine Construction Company's and denies any responsibility for San Diego Marine Construction Company's discharges of waste to the San Diego Bay Shipyard Sediment Site from 1914 to 1972.

The San Diego Water Board finds that San Diego Marine Construction Company caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. San Diego Marine Construction Company is no longer in existence. The San Diego Water Board declines to decide the legal and factual questions necessary to determine whether Star & Crescent is the corporate successor to and therefore liable for San Diego Marine Construction Company's discharges. Due to Star & Crescent's uncertain legal status and due to the pending federal court litigation to which Star & Crescent is a party and that the San Diego Water Board expects will address allocation issues associated with this Order, the San Diego Water Board does not name Star & Crescent as a Discharger under this

Order. The San Diego Water Board retains the authority to exercise its discretion to add Star & Crescent as a Discharger under this Order in the future. If the federal court determines that Star & Crescent is the corporate successor to San Diego Marine Construction Company (later Star & Crescent Investment Company), the San Diego Water Board directs the Cleanup Team to reevaluate whether it is appropriate to amend the Order to add Star & Crescent as a Discharger.

6. **CAMPBELL INDUSTRIES.** The San Diego Water Board finds that Campbell caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. These wastes contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH. From July 1972 through 1979, Campbell's wholly owned subsidiaries MCCSD and later San Diego Marine Construction Corporation operated a ship repair, alteration, and overhaul facility on what is now the BAE Systems leasehold at the foot of Sampson Street in San Diego. Shipyard operations were conducted at this site by Campbell over San Diego Bay waters or very close to the waterfront. An assortment of waste was generated at the facility including spent abrasive blast waste, paint, rust, petroleum products, marine growth, sanitary waste, and general refuse. Based on these considerations, Campbell is referred to as "Discharger(s)" in this CAO.
7. **CHEVRON, A SUBSIDIARY OF CHEVRONTEXACO.** Chevron, a subsidiary of ChevronTexaco (hereinafter, Chevron) owns and operates the Chevron Terminal, a bulk fuel storage facility currently located at 2351 East Harbor Drive in the City of San Diego adjacent to the NASSCO and BAE Systems leaseholds. Fuel products containing petroleum hydrocarbons have been stored at the Chevron Terminal since the early 1900s at both the currently operating 7 million gallon product capacity upper tank farm and the closed 5 million gallon capacity lower tank farm. Based on the information that the San Diego Water Board has reviewed to date, there is insufficient evidence to find that discharges from the Chevron Terminal contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, which create, or threaten to create, conditions of pollution or nuisance. Accordingly, Chevron is not referred to as "Discharger(s)" in this CAO.
8. **BP AS THE PARENT COMPANY AND SUCCESSOR TO ATLANTIC RICHFIELD.** BP owns and operates the Atlantic Richfield Company (ARCO) Terminal, a bulk fuel storage facility with approximately 9 million gallons of capacity located at 2295 East Harbor Drive in the City of San Diego. Fuel products containing petroleum hydrocarbons and related constituents such as PAHs have been stored at ARCO Terminal since the early 1900s. ARCO owned and operated ancillary facilities include a wharf, fuel pier (currently BAE Systems Pier 4), and a marine fueling station used for loading and unloading petroleum products and fueling from 1925 to 1978, and five pipelines connecting the terminal to the pier and wharf in use from 1925 to 1978. Storm water flows from ARCO Terminal enter a City of San Diego MS4 storm drain that terminates in San Diego Bay in the Shipyard Sediment Site approximately 300 feet south of the Sampson Street extension. Based on the information that the San Diego Water Board has reviewed

to date, there is insufficient evidence to find that discharges from the ARCO Terminal contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, which create, or threaten to create, conditions of pollution or nuisance. Accordingly, BP and ARCO are not referred to as "Discharger(s)" in this CAO.

9. **SAN DIEGO GAS AND ELECTRIC, A SUBSIDIARY OF SEMPRA ENERGY.** SDG&E owned and operated the Silver Gate Power Plant along the north side of the BAE Systems leasehold from approximately 1943 to the 1990s. SDG&E utilized an easement to San Diego Bay along BAE Systems' north property boundary for the intake and discharge of cooling water via concrete tunnels at flow rates ranging from 120 to 180 million gallons per day. SDG&E operations included discharging waste to holding ponds above the tunnels near the Shipyard Sediment Site.

The San Diego Water Board finds that SDG&E has caused or permitted waste (including metals [chromium, copper, lead, nickel, and zinc], PCBs, PAHs, and total petroleum hydrocarbons [TPH-d and TPH-h]) to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. Based on these considerations SDG&E is referred to as "Discharger(s)" in this CAO.

10. **UNITED STATES NAVY.** The San Diego Water Board finds that the United States Navy (hereinafter "U.S. Navy") caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. The U.S. Navy owns and operates a municipal separate storm sewer system (MS4) at Naval Base San Diego (NBSD), formerly Naval Station San Diego or NAVSTA, through which it has caused or permitted the discharge of waste commonly found in urban runoff to Chollas Creek and San Diego Bay, including excessive concentrations of copper, lead, and zinc in violation of waste discharge requirements. Technical reports by the U.S. Navy and others indicate that Chollas Creek outflows during storm events convey elevated sediment and urban runoff chemical pollutant loading and its associated toxicity up to 1.2 kilometers into San Diego Bay over an area including the Shipyard Sediment Site.

The San Diego Water Board finds that the U.S. Navy has caused or permitted marine sediment and associated waste to be resuspended into the water column as a result of shear forces generated by the thrust of propellers during ship movements at NBSD. The resuspended sediment and pollutants can be transported by tidal currents and deposited in other parts of San Diego Bay, including the Shipyard Sediment Site. The above discharges have contributed to the accumulation of pollutants in marine sediment at the Shipyard Sediment Site to levels that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay.

Also, from 1921 to the present, the U.S. Navy has provided shore support and pier-side berthing services to U.S. Pacific fleet vessels at NBSD located at 3445 Surface Navy Boulevard in the City of San Diego. NBSD currently occupies 1,029 acres of land and 326

water acres adjacent to San Diego Bay to the west, and Chollas Creek to the north near Pier 1. Between 1938 and 1956, the NBSD leasehold included a parcel of land within the Shipyard Sediment Site referred to as the 28th Street Shore Boat Landing Station, located at the south end of the present day NASSCO leasehold at the foot of 28th Street and including the 28th Street Pier. The San Diego Water Board finds that the U.S. Navy caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance at this location when it conducted operations similar in scope to a small boatyard, including solvent cleaning and degreasing of vessel parts and surfaces, abrasive blasting and scraping for paint removal and surface preparations, metal plating, and surface finishing and painting. Prevailing industry-wide boatyard operational practices employed during the 1930s through the 1980s were often not sufficient to adequately control or prevent pollutant discharges, and often led to excessive discharges of pollutants and accumulation of pollutants in marine sediment in San Diego Bay. The types of pollutants found in elevated concentrations at the Shipyard Sediment Site (metals, butyltin species, PCBs, PCTs, PAHs, and TPH) are associated with the characteristics of the waste the U.S. Navy operations generated at the 28th Street Shore Boat Landing Station site. Based on the preceding considerations, the U.S. Navy is referred to as "Discharger(s)" in this CAO.

11. **SAN DIEGO UNIFIED PORT DISTRICT.** The San Diego Water Board finds that the Port District caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. The Port District is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the San Diego Marine Construction Company and by Campbell at all times since 1963 during which they conducted shipbuilding and repair activities.² The Port District's own ordinances, which date back to 1963, prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and make it unlawful to discharge pollutants in non-storm water directly or indirectly into the storm water conveyance system.

The wastes the Port District caused or permitted to be discharged, or to be deposited where they were discharged into San Diego Bay through its ownership of the Shipyard Sediment Site contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH.

The San Diego Water Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" and does so in the Shipyard Sediment site CAO. The Port District asserts that its status as a lessor and State's trustee as well as other factors

² San Diego Marine Construction Company and Campbell Industries owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 5 and 6 of the Technical Report.

should only give rise to secondary and not primary liability as a discharger under this Order. Allocation of responsibility has not been determined and there is insufficient evidence to establish that present and former Port District tenants at the Site each have sufficient financial resources to perform all of the remedial activities required by this Order. In addition, cleanup is not underway at this time. Under these circumstances, it is not appropriate to accord the Port District secondary liability status it seeks.

The Port District also owns and operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of an NPDES Storm Water Permit. The San Diego Water Board finds that the Port District has discharged urban storm water containing waste directly or indirectly to San Diego Bay at the Shipyard Sediment Site. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs).

The urban storm water containing waste that has discharged from the on-site and off-site MS4 has contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Based on these considerations the San Diego Unified Port District is referred to as "Discharger(s)" in this CAO.

FACTUAL BACKGROUND

12. **CLEAN WATER ACT SECTION 303(d) LIST.** The San Diego Bay shoreline between Sampson and 28th Streets is listed on the Clean Water Act section 303(d) List of Water Quality Limited Segments for elevated levels of copper, mercury, zinc, PAHs, and PCBs in the marine sediment. These pollutants are impairing the aquatic life, aquatic-dependent wildlife, and human health beneficial uses designated for San Diego Bay and are causing the Bay's narrative water quality objective for toxicity to not be attained. The Shipyard Sediment Site occupies this shoreline. Issuance of a CAO (in lieu of a Total Maximum Daily Load program) is the appropriate regulatory tool to use for correcting the impairment at the Shipyard Sediment Site.
13. **SEDIMENT QUALITY INVESTIGATION.** NASSCO and BAE Systems conducted a detailed sediment investigation at the Shipyard Sediment Site in San Diego Bay within and adjacent to the NASSCO and BAE Systems leaseholds. Two phases of fieldwork were conducted, Phase I in 2001 and Phase II in 2002. The results of the investigation are provided in the Exponent report *NASSCO and Southwest Marine Detailed Sediment Investigation, September 2003 (Shipyard Report, Exponent 2003)*. Unless otherwise explicitly stated, the San Diego Water Board's finding and conclusions in this CAO are based on the data and other technical information contained in the Shipyard Report prepared by NASSCO's and BAE Systems' consultant, Exponent.

The Shipyard Sediment Site is exempt from the Phase I Sediment Quality Objectives

promulgated by the State Water Board because a site assessment (the Shipyard Report) was completed and submitted to the San Diego Water Board on October 15, 2003. See State Water Board, *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*, II.B.2 (August 25, 2009).

IMPAIRMENT OF AQUATIC LIFE BENEFICIAL USES

14. **AQUATIC LIFE IMPAIRMENT.** Aquatic life beneficial uses designated for San Diego Bay are impaired due to the elevated levels of pollutants present in the marine sediment at the Shipyard Sediment Site. Aquatic life beneficial uses include: Estuarine Habitat (EST), Marine Habitat (MAR), and Migration of Aquatic Organisms (MIGR). This finding is based on the considerations described below in this *Impairment of Aquatic Life Beneficial Uses* section of the CAO.
15. **WEIGHT-OF-EVIDENCE APPROACH.** The San Diego Water Board used a weight-of-evidence approach based upon multiple lines of evidence to evaluate the potential risks to aquatic life beneficial uses from pollutants at the Shipyard Sediment Site. The approach focused on measuring and evaluating exposure and adverse effects to the benthic macroinvertebrate community and to fish using data from multiple lines of evidence and best professional judgment. Pollutant exposure and adverse effects to the benthic macroinvertebrate community were evaluated using sediment quality triad measurements, and bioaccumulation analyses, and interstitial water (i.e., pore water) analyses. The San Diego Water Board evaluated pollutant exposure and adverse effects to fish using fish histopathology analyses and analyses of PAH breakdown products in fish bile.
16. **SEDIMENT QUALITY TRIAD MEASURES.** The San Diego Water Board used lines of evidence organized into a sediment quality triad, to evaluate potential risks to the benthic community from pollutants present in the Shipyard Sediment Site. The sediment quality triad provides a “weight-of-evidence” approach to sediment quality assessment by integrating synoptic measures of sediment chemistry, toxicity, and benthic community composition. All three measures provide a framework of complementary evidence for assessing the degree of pollutant-induced degradation in the benthic community.
17. **REFERENCE SEDIMENT QUALITY CONDITIONS.** The San Diego Water Board selected a group of reference stations from three independent sediment quality investigations to contrast pollution conditions at the Shipyard Sediment Site with conditions found in other relatively cleaner areas of San Diego Bay not affected by the Shipyard Sediment Site: (1) Southern California Bight 1998 Regional Monitoring Program (Bight 98), (2) 2001 Mouth of Chollas Creek and Mouth of Paleta Creek TMDL studies, and (3) 2001 NASSCO and BAE Systems Detailed Sediment Investigation. Stations from these studies were selected to represent selected physical, chemical, and biological characteristics of San Diego Bay. Criteria for selecting acceptable reference stations included low levels of anthropogenic pollutant concentrations, locations remote from pollution sources, similar biological habitat to the Shipyard Sediment Site, sediment total organic carbon (TOC) and grain size profiles similar to the Shipyard Sediment Site, adequate sample size for statistical analysis, and sediment quality data comparability. The

reference stations selected for the Reference Sediment Quality Conditions are identified below.

Reference Stations Used To Establish Reference Sediment Quality Conditions

2001 Chollas/Palicta Reference Station Identification Number	2001 NASSCO/BAE Systems Reference Station Identification Number	1998 Eight '98 Reference Station Identification Number
2231	2231	2235
2243	2243	2241
2433	2433	2242
2441	2441	2243
2238		2256
		2257
		2258
		2260
		2265

18. **SEDIMENT QUALITY TRIAD RESULTS.** The San Diego Water Board categorized 6 of 30 sediment quality triad sampling stations at the Shipyard Sediment Site as having sediment pollutant levels "Likely" to adversely affect the health of the benthic community. The remaining triad stations were classified as "Possible" (13) and "Unlikely" (11). These results are based on the synoptic measures of sediment chemistry, toxicity, and benthic community structure at the Shipyard Sediment Site.
19. **BIOACCUMULATION.** The San Diego Water Board evaluated initial laboratory bioaccumulation test data to ascertain the bioaccumulation potential of the sediment chemical pollutants at the Shipyard Sediment Site. Examination of laboratory test data on the chemical pollutant concentrations in tissue of the clam *Macoma nasuta* relative to the pollutant concentrations in sediment indicates that bioaccumulation of chemical pollutants is occurring at the Shipyard Sediment Site. The data indicates for several chemical pollutants that concentrations in *Macoma nasuta* tissue increase proportionally as chemical pollutant concentrations in sediment increase. Statistically significant relationships were found for arsenic, copper, lead, mercury, zinc, tributyltin (TBT), PCBs, and high molecular weight polynuclear aromatic hydrocarbons (HPAHs). These chemical pollutants have a bioaccumulation potential at the Shipyard Sediment Site and are therefore considered bioavailable to benthic organisms. No statistically significant relationships were found for cadmium, chromium, nickel, selenium, silver, or PCTs.
20. **INDICATOR SEDIMENT CHEMICALS.** The San Diego Water Board evaluated the relationships between sediment chemical pollutants and biological responses to identify

indicator chemical pollutants that may be impacting aquatic life and would therefore be candidates for assignment of cleanup levels or remediation goals. A two-step process was conducted. The first step in the selection of indicator chemicals was to identify chemicals representative of the major classes of sediment pollutants: metals, butyltins, PCBs and PCTs, PAHs, and petroleum hydrocarbons. The second step was the evaluation of relationships between these chemicals and biological responses. Results of the three toxicity tests, benthic community assessment, and bioaccumulation testing conducted in Phase 1 of the Shipyard study were all used to evaluate the potential of such relationships. Chemical pollutants were selected as indicator chemicals if they had any statistically significant relationship with amphipod mortality, echinoderm fertilization, bivalve development, total benthic macroinvertebrate abundance, total benthic macroinvertebrate richness, or tissue chemical concentrations in *Macoma nasuta*. Chemical pollutants selected as indicator chemicals include arsenic, copper, lead, mercury, zinc, TBT, total PCB homologs, diesel range organics (DRO), and residual range organics (RRO).

IMPAIRMENT OF AQUATIC-DEPENDENT WILDLIFE BENEFICIAL USES

21. **AQUATIC-DEPENDENT WILDLIFE IMPAIRMENT.** Aquatic-dependent wildlife beneficial uses designated for San Diego Bay are impaired due to the elevated levels of pollutants present in the marine sediment at the Shipyard Sediment Site. Aquatic-dependent wildlife beneficial uses include: Wildlife Habitat (WILD), Preservation of Biological Habitats of Special Significance (BIOL), and Rare, Threatened, or Endangered Species (RARE). This finding is based on the considerations described below in the *Impairment of Aquatic-Dependent Wildlife Beneficial Uses* section of this CAO.
22. **RISK ASSESSMENT APPROACH FOR AQUATIC-DEPENDENT WILDLIFE.** The San Diego Water Board evaluated potential risks to aquatic-dependent wildlife from chemical pollutants present in the sediment at the Shipyard Sediment Site based on a two-tier approach. The Tier I screening level risk assessment was based on tissue data derived from the exposure of the clam *Macoma nasuta* to site sediments for 28 days using the protocols specified by American Society of Testing Material (ASTM). The Tier II baseline comprehensive risk assessment was based on tissue data derived from resident fish and shellfish caught within and adjacent to the Shipyard Sediment Site.
23. **TIER I SCREENING LEVEL RISK ASSESSMENT FOR AQUATIC-DEPENDENT WILDLIFE.** The Tier I risk assessment objectives were to determine whether or not Shipyard Sediment Site conditions pose a potential unacceptable risk to aquatic-dependent wildlife receptors of concern and to identify whether a comprehensive, site-specific risk assessment was warranted (i.e., Tier II baseline risk assessment). The receptors of concern selected for the assessment include: California least tern (*Sterna antillarum brownie*), California brown pelican (*Pelecanus occidentalis californicus*), Western grebe (*Aechmophorus occidentalis*), Surf scoter (*Melanitta perspicillata*), California sea lion (*Zalophus californianus*), and East Pacific green turtle (*Chelonia mydas agassizii*). Chemical pollutant concentrations measured in clam tissue derived from laboratory bioaccumulation tests were used to estimate chemical exposure to these receptors of concern. Based on the Tier I screening level risk assessment results, there is a potential

risk to all receptors of concern ingesting prey caught at the Shipyard Sediment Site. The chemical pollutants in *Macoma* tissue posing a potential risk include arsenic, copper, lead, zinc, benzo[a]pyrene (BAP), and total PCBs. The results of the Tier I risk assessment indicated that a Tier II baseline comprehensive risk assessment was warranted.

24. **TIER II BASELINE COMPREHENSIVE RISK ASSESSMENT FOR AQUATIC-DEPENDENT WILDLIFE.** The Tier II risk assessment objective was to more conclusively determine whether or not Shipyard Sediment Site conditions pose an unacceptable risk to aquatic-dependent wildlife receptors of concern. The receptors of concern selected for the assessment include: California least tern (*Sterna antillarum brownie*), California brown pelican (*Pelecanus occidentalis californicus*), Western grebe (*Aechmophorus occidentalis*), Surf scoter (*Melanitta perspicillata*), California sea lion (*Zalophus californianus*), and East Pacific green turtle (*Chelonia mydas agassizii*). Based on the Tier I screening level risk assessment results, there is a potential risk to all receptors of concern ingesting prey caught at the Shipyard Sediment Site and so a Tier II assessment was conducted. To focus the risk assessment, prey items were collected within four assessment units at the Shipyard Sediment Site and from a reference area located across the bay from the site. Chemical concentrations measured in fish were used to estimate chemical exposure for the least tern, western grebe, brown pelican, and sea lion and chemical concentrations in benthic mussels and eelgrass were used to estimate chemical pollutant exposure for the surf scoter and green turtle, respectively. Based on the Tier II risk assessment results, ingestion of prey items caught within all four assessment units at the Shipyard Sediment Site poses an increased risk above reference to all receptors of concern (excluding the sea lion). The chemicals in prey tissue posing a risk include BAP, PCBs, copper, lead, mercury, and zinc.

IMPAIRMENT OF HUMAN HEALTH BENEFICIAL USES

25. **HUMAN HEALTH IMPAIRMENT.** Human health beneficial uses for Shellfish Harvesting (SHELL), and Commercial and Sport Fishing (COMM) designated for San Diego Bay are impaired due to the elevated levels of pollutants present in the marine sediment at the Shipyard Sediment Site. This finding is based on the considerations described below in this *Impairment of Human Health Beneficial Uses* section of the CAO.
26. **RISK ASSESSMENT APPROACH FOR HUMAN HEALTH.** The San Diego Water Board evaluated potential risks to human health from chemical pollutants present in the sediment at the Shipyard Sediment Site based on a two-tier approach. The Tier I screening level risk assessment was based on tissue data derived from the exposure of the clam *Macoma nasuta* to site sediments for 28 days using ASTM protocols. The Tier II baseline comprehensive risk assessment was based on tissue data derived from resident fish and shellfish caught within and adjacent to the Shipyard Sediment Site. Two types of receptors (i.e., members of the population or individuals at risk) were evaluated:
- Recreational Anglers – Persons who eat the fish and/or shellfish they catch recreationally; and

- b. Subsistence Anglers – Persons who fish for food, for economic and/or cultural reasons, and for whom the fish and/or shellfish caught is a major source of protein in their diet.
27. **TIER I SCREENING LEVEL RISK ASSESSMENT FOR HUMAN HEALTH.** The Tier I risk assessment objectives were to determine whether or not Shipyard Sediment Site conditions potentially pose an unacceptable risk to human health and to identify if a comprehensive, site-specific risk assessment was warranted (i.e., Tier II baseline risk assessment). The receptors of concern identified for Tier I are recreational anglers and subsistence anglers. Recreational anglers represent those who eat the fish and/or shellfish they catch recreationally and subsistence anglers represent those who fish for food, for economic and/or cultural reasons, and for whom the fish and/or shellfish caught is a major source of protein in the diet. Chemical concentrations measured in *Macoma nasuta* tissue derived from laboratory bioaccumulation tests were used to estimate chemical exposure for these receptors of concern. Based on the Tier I screening level risk assessment results, there is a potential risk greater than that in reference areas to recreational and subsistence anglers ingesting fish and shellfish caught at the Shipyard Sediment Site. The chemicals in *Macoma* tissue posing a potential risk include arsenic, BAP, PCBs, and TBT.
28. **TIER II BASELINE COMPREHENSIVE RISK ASSESSMENT FOR HUMAN HEALTH.** The Tier II risk assessment objective was to more conclusively determine whether Shipyard Sediment Site conditions pose unacceptable cancer and non-cancer health risks to recreational and subsistence anglers. Fish and shellfish were collected within four assessment units at the Shipyard Sediment Site and from two reference areas located across the bay from the Shipyard Site. Chemical concentrations measured in fish fillets and edible shellfish tissue were used to estimate chemical exposure for recreational anglers and chemical concentrations in fish whole bodies and shellfish whole bodies were used to estimate chemical exposure for subsistence anglers. Based on the Tier II risk assessment results, ingestion of fish and shellfish caught within all four assessment units at the Shipyard Sediment Site poses a theoretical increased cancer and non-cancer risk greater than that in reference areas to recreational and subsistence anglers. The chemicals posing theoretical increased cancer risks include inorganic arsenic and PCBs. The chemicals posing theoretical increased non-cancer risks include cadmium, copper, mercury, and PCBs.

*EVALUATING FEASIBILITY OF CLEANUP TO BACKGROUND
SEDIMENT QUALITY CONDITIONS*

29. **CHEMICALS OF CONCERN AND BACKGROUND SEDIMENT QUALITY.** The San Diego Water Board derived sediment chemistry levels for use in evaluating the feasibility of cleanup to background sediment quality conditions from the pool of San Diego Bay reference stations described in Finding 17. The background sediment chemistry levels based on these reference stations are as follows:

Table 1. Background Sediment Chemistry Levels

Chemicals of Concern	Units (dry weight)	Background Sediment Chemistry Levels ¹
Primary COCs		
Copper	mg/kg	121
Mercury	mg/kg	0.57
HPAHs ²	µg/kg	663
PCBs ³	µg/kg	84
Tributyltin	µg/kg	22
Secondary COCs		
Arsenic	mg/kg	7.5
Cadmium	mg/kg	0.33
Lead	mg/kg	53
Zinc	mg/kg	192

1. Equal to the 2005 Reference Pool's 95% upper predictive limits shown in Section 18 of the *Technical Report for Cleanup and Abatement Order No. R9-2012-0024*. The background levels for metals are based on the %fines:metals regression using 50% fines, which is conservative because the mean fine grain sediment at the Shipyard Investigation Site is 70% fines.
2. HPAHs = sum of 6 PAHs: Fluoranthene, Perylene, Benzo[a]anthracene, Chrysene, Benzo[a]pyrene, and Dibenzo[a,h]anthracene.
3. PCBs = sum of 41 congeners: 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

The San Diego Water Board identified constituents of primary concern (primary COCs), which are associated with the greatest exceedance of background and highest magnitude of potential risk at the Shipyard Sediment Site. A greater concentration relative to background suggests a stronger association with the Shipyard Sediment Site, and a higher potential for exposure reduction via remediation. Secondary contaminants of concern (secondary COCs) are contaminants with lower concentrations relative to background, and are highly correlated with primary COCs and would be addressed in a common remedial footprint. Based on these criteria, the primary COCs for the Shipyard Sediment Site are copper, mercury, HPAHs,³ PCBs, and TBT, and the secondary COCs are arsenic, cadmium, lead, and zinc.

³ Petroleum hydrocarbons, including TPH, RRO, DRO, and other PAHs were eliminated as primary and secondary COCs for the following reasons. HPAHs, a primary COC, are considered to be the most recalcitrant, bioavailable, and toxic compounds present in the complex mixture of petroleum hydrocarbons. Other measures of petroleum hydrocarbons are generally correlated with HPAHs such that remedial measures to address HPAHs will also address

30. **TECHNOLOGICAL FEASIBILITY CONSIDERATIONS.** Although there are complexities and difficulties that would need to be addressed and overcome (e.g. removal and handling of large volume of sediment; obstructions such as piers and ongoing shipyard operations; transportation and disposal of waste), it is technologically feasible to cleanup to the background sediment quality levels utilizing one or more remedial and disposal techniques. Mechanical dredging, subaqueous capping, and natural recovery have been successfully performed at numerous sites, including several in San Diego Bay, and many of these projects have successfully overcome the same types of operational limitations present at the Shipyard Sediment Site, such as piers and other obstructions, ship movements, and limited staging areas. Confined aquatic disposal or near-shore confined disposal facilities have also been employed in San Diego Bay and elsewhere, and may be evaluated as project alternatives for the management of sediment removed from the Shipyard Sediment Site.
31. **ECONOMIC FEASIBILITY CONSIDERATIONS.** Under State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*, determining “economic feasibility” requires an objective balancing of the incremental benefit of attaining further reduction in the concentrations of primary COCs as compared with the incremental cost of achieving those reductions. Resolution No. 92-49 provides that “[e]conomic feasibility does not refer to the dischargers’ ability to finance cleanup.” When considering appropriate cleanup levels under Resolution No. 92-49, the San Diego Water Board is charged with evaluating “economic feasibility” by estimating the costs to remediate constituents of concern at a site to background and the costs of implementing other alternative remedial levels. An economically feasible alternative cleanup level is one where the incremental cost of further reductions in primary COCs outweighs the incremental benefits.

The San Diego Water Board evaluated a number of criteria to determine risks, costs, and benefits associated with no action, cleanups to background sediment chemistry levels, and alternative cleanup levels greater than background concentrations. The criteria included factors such as total cost, volume of sediment dredged, exposure pathways of receptors to contaminants, short- and long-term effects on beneficial uses (as they fall into the broader categories of aquatic life, aquatic-dependent wildlife, and human health). The San Diego Water Board then compared these cost criteria against the benefits gained by diminishing exposure to the primary COCs to estimate the incremental benefit gained from reducing exposure based on the incremental costs of doing so. As set forth in detail herein, this comparison revealed that the incremental benefit of cleanup diminishes significantly with additional cost beyond a certain cleanup level, and asymptotically approaches zero as remediation approaches background. Based on these considerations, cleaning up to background sediment chemistry levels is not economically feasible.

environmental concerns associated with elevated levels of low molecular weight PAHs (LPAHs), total PAHs, TPH, RRO and DRO.

ALTERNATIVE SEDIMENT CLEANUP LEVELS

32. **ALTERNATIVE CLEANUP LEVELS.** Under State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304*, the San Diego Water Board may prescribe alternative cleanup levels less stringent than background sediment chemistry concentrations if attainment of background concentrations is technologically or economically infeasible. Resolution No. 92-49 requires that alternative levels must result in the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on the waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible. Resolution No. 92-49 further requires that any alternative cleanup level shall: (1) be consistent with maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial uses of such water; and (3) not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards.

The San Diego Water Board is prescribing the alternative cleanup levels for sediment summarized in the table below to protect aquatic life, aquatic-dependent wildlife, and human health based beneficial uses consistent with the requirements of Resolution No. 92-49. Compliance with alternative cleanup levels will be determined using the monitoring protocols summarized in Finding 34 and described in detail of Section 34 of the Technical Report.

Table 2. Alternative Cleanup Levels: Shipyard Sediment Site

Aquatic Life	Aquatic Dependent Wildlife and Human Health	
		Surface Weighted Average Concentrations (site-wide)
Remediate all areas determined to have sediment pollutant levels likely to adversely affect the health of the benthic community.	Copper	159 mg/kg
	Mercury	0.68 mg/kg
	HPAHs ¹	2,451 µg/kg
	PCBs ²	194 µg/kg
	Tributyltin	110 µg/kg

1. HPAHs = sum of 10 PAHs: Fluoranthene, Pyrene, Benz[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[a]pyrene, Indeno[1,2,3-c,d]pyrene, Dibenz[a,h]anthracene, and Benzo[g,h,i]perylene.

2. PCBs = sum of 41 congeners: 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

In approving alternative cleanup levels less stringent than background the San Diego Water Board has considered the factors contained in Resolution No. 92-49 and the California Code of Regulations, Title 23, section 2550.4, subdivision (d):

Alternative Cleanup Levels are Appropriate. Cleaning up to background sediment quality levels at the Shipyard Sediment Site is economically infeasible. The alternative cleanup levels established for the Shipyard Sediment Site are the lowest levels that are technologically and economically achievable, as required under the California Code of Regulations Title 23 section 2550.4(e).

Alternative Cleanup Levels are Consistent with Water Quality Control Plans and Policies. The alternative cleanup levels provide for the reasonable protection of San Diego Bay beneficial uses and will not result in water quality less than prescribed in water quality control plans and policies adopted by the State Water Board and the San Diego Water Board. While it is impossible to determine the precise level of water quality that will be attained given the residual sediment pollutant constituents that will remain at the Site, compliance with the alternative cleanup levels will markedly improve water quality conditions at the Shipyard Sediment Site and result in attainment of water quality standards at the site.

Alternative Cleanup Levels Will Not Unreasonably Affect Present and Anticipated Beneficial Uses of the Site. The level of water quality that will be attained upon remediation of the required cleanup at the Shipyard Sediment Site will not unreasonably affect San Diego Bay beneficial uses assigned to the Shipyard Sediment Site represented by aquatic life, aquatic-dependent wildlife, and human health.

Alternative Cleanup Levels are Consistent with the Maximum Benefit to the People of the State. The proposed alternative cleanup levels are consistent with maximum benefit to the people of the State based on the San Diego Bay resource protection, mass removal and source control, and economic considerations. The Shipyard Sediment Site pollution is located in San Diego Bay, one of the finest natural harbors in the world. San Diego Bay is an important and valuable resource to San Diego and the Southern California Region. The alternative cleanup levels will result in significant contaminant mass removal and therefore risk reduction from San Diego Bay. Remediated areas will approach reference area sediment concentrations for most contaminants. Compared to cleaning up to background cleanup levels, cleaning up to the alternative cleanup levels will cause less diesel emission, less greenhouse gas emission, less noise, less truck traffic, have a lower potential for accidents, and less disruption to the local community. Achieving the alternative cleanup levels also requires less barge and crane movement on San Diego Bay, has a lower risk of re-suspension of contaminated sediments, and reduces the amount of landfill capacity required to dispose of the sediment wastes. The alternative cleanup levels properly balance reasonable protection of San Diego Bay beneficial uses with the significant economic and service activities provided by the City of San Diego, the NASSCO and BAE Systems Shipyards and the U.S. Navy.

33. **PROPOSED REMEDIAL FOOTPRINT AND PRELIMINARY REMEDIAL DESIGN.** Polygonal areas were developed around the sampling stations at the Shipyard Sediment Site using the Thiessen Polygon method to facilitate the development of the remedial footprint. The polygons targeted for remediation are shown in red and green in

Attachment 2. The red areas are where the proposed remedial action is dredging. The areas shown in green represent inaccessible or under-pier areas that will be remediated by one or more methods other than dredging. Portions of polygons NA20, NA21, and NA22 as shown in Attachment 2 were omitted from this analysis because it falls within an area that is being evaluated as part of the TMDLs for Toxic Pollutants in Sediment at the Mouth of Chollas Creek TMDL and is not considered part of the Shipyard Sediment Site for purposes of the CAO.

The polygons were ranked based on a number of factors including likely impaired stations, composite surface-area weighted average concentration for the five primary COCs, Site-Specific Median Effects Quotient (SS-MEQ)⁴ for non-Triad stations, and highest concentration of individual primary COCs. Based on these rankings, polygons were selected for remediation on a “worst first” basis.

In recognition of the methodologies and limitations of traditional mechanical dredging, the irregular polygons were converted into uniform dredge units. Each dredge unit (sediment management unit or “SMU”) was then used to develop the dredge footprint. The conversion from irregular polygons to SMUs is shown in Attachments 3 and 4. These attachments show the remedial footprint, inclusive of areas to be dredged (“dredge remedial area,” in red) and under-pier areas (“under-pier remedial area,” in green) to be remediated by other means, most likely by sand cover. Together, the dredge remedial area and the under-pier remedial area constitute the remedial footprint.

Upland source control measures in the watershed of municipal separate storm sewer system outfall SW-4 are also needed to eliminate ongoing contamination from this source, if any, and ensure that recontamination of cleaned up areas of the Shipyard Sediment Site from this source does not occur.

34. **REMEDIAL MONITORING PROGRAM.** Monitoring during remediation activities is needed to document that remedial actions have not caused water quality standards to be violated outside of the remedial footprint, that the target cleanup levels have been reached within the remedial footprint, and to assess sediment for appropriate disposal. This monitoring should include water quality monitoring, sediment monitoring, and disposal monitoring.

Post-remediation monitoring is needed to verify that remaining pollutant concentrations in the sediments will not unreasonably affect San Diego Bay beneficial uses. Post-remediation monitoring should be initiated two years after remedy implementation has been completed and continue for a period of up to 10 years after remediation. For human health and aquatic dependent wildlife beneficial uses, post-remediation monitoring should include sediment chemistry monitoring to ensure that post-remediation SWACs are maintained at the site following cleanup. A subset of samples should undergo bioaccumulation testing using *Macoma*. For aquatic life beneficial uses, post-remediation

⁴ The SS-MEQ is a threshold developed to predict likely benthic community impairments based on sediment chemistry at the Shipyard Sediment Site. The development, validation, and application of the SS-MEQ are described in Section 32.5.2 of the Technical Report.

monitoring should include sediment chemistry, and toxicity bioassays to verify that post-remedial conditions have the potential to support a healthy benthic community. In addition, post-remediation monitoring should include benthic community condition assessments to evaluate the overall impact of remediation on the benthic community re-colonization activities.

Environmental data has natural variability which does not represent a true difference from expected values. Therefore, if remedial monitoring results are within an acceptable range of the expected outcome, the remedial actions will be considered successful.

35. **REMEDIAL ACTION IMPLEMENTATION SCHEDULE.** The Dischargers have proposed a remedial action implementation schedule and a description of specific remedial actions they intend to undertake to comply with this CAO. The remedial action implementation schedule will begin with the adoption of this CAO and end with the submission of final reports documenting that the alternative sediment cleanup levels have been met. From start to finish, remedial action implementation is expected to take approximately 5 years to complete.

The proposed remedial actions have a substantial likelihood to achieve compliance with the requirements of this CAO within a reasonable time frame. The proposed schedule is as short as possible, given 1) the scope, size, complexity, and cost of the remediation, 2) industry experience with the time typically required to implement similar remedial actions, 3) the time needed to secure other regulatory agency approvals and permits before remediation can start, and 4) the need to conduct dredging in a phased manner to prevent or reduce adverse effects to the endangered California Least Tern. Therefore, the remedial action implementation schedule proposed by the Dischargers is consistent with the provisions in Resolution No. 92-49 for schedules for cleanup and abatement.

36. **LEGAL AND REGULATORY AUTHORITY.** This Order is based on (1) section 13267 and Chapter 5, Enforcement, of the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with section 13000), commencing with section 13300; (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the San Diego Water Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies for water quality control, including State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* and Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code section 13304*; and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies.

37. **CALIFORNIA ENVIRONMENTAL QUALITY ACT.** In many cases, an enforcement action such as this could be exempt from the provisions of the California Environmental Quality Act (“CEQA”; Public Resources Code, section 21000 et seq.), because it would fall within Classes 7, 8, and 21 of the categorical exemptions for projects that have been

determined not to have a significant effect on the environment under section 21084 of CEQA.⁵ In Resolution No. R9-2010-0115 adopted on September 8, 2010, the San Diego Water Board found that because the tentative CAO presents unusual circumstances and there is a reasonable possibility of a significant effect on the environment due to the unusual circumstances, the tentative CAO is not exempt from CEQA and that an EIR analyzing the potential environmental effects of the tentative CAO should be prepared.

As the lead agency for the tentative CAO, the San Diego Water Board prepared an EIR that complies with CEQA. The San Diego Water Board has reviewed and considered the information in the EIR and certified the EIR, adopting a statement of overriding considerations, in Resolution No. R9-2012-0025.

38. **PUBLIC NOTICE.** The San Diego Water Board has notified all known interested persons and the public of its intent to adopt this CAO, and has provided them with an opportunity to submit written comments, evidence, testimony and recommendations.
39. **PUBLIC HEARING.** A lengthy procedural history preceded adoption of this CAO. The San Diego Water Board has considered all comments, evidence and testimony pertaining to this CAO submitted to the San Diego Water Board in writing, or by oral presentations at the public hearing held on November 9, 14, 15, and 16, 2011, and March 14, 2012. Responses to many relevant comments have been incorporated into the Technical Report for this CAO and/or are provided in the Response to Comments Report, as revised, prepared by the San Diego Water Board Cleanup Team.
40. **TECHNICAL REPORT.** The “*Technical Report for Cleanup and Abatement Order No. R9-2012-0024 for the Shipyard Sediment Site, San Diego Bay, San Diego, CA*” is hereby incorporated as a finding in support of this CAO as if fully set forth here verbatim.
41. **COST RECOVERY.** Pursuant to Water Code section 13304, and consistent with other statutory and regulatory requirements, including but not limited to Water Code section 13365, the San Diego Water Board and the State Water Board are entitled to, and will seek reimbursement for, all reasonable costs actually incurred by the San Diego Water Board and the State Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action required by this Order.

Unreimbursed reasonable costs actually incurred by the San Diego Water Board and the State Water Board for the development and issuance of this Cleanup and Abatement Order are as follows:

- a. Contracts funded by the State Water Board Cleanup and Abatement Account or other San Diego Water Board contract funds for services in support of the development and issuance of this Cleanup and Abatement Order.

⁵ Title 14 CCR sections 15307, 15308, and 15321

March 14, 2012

- i. DM Information Services, Inc. produced the electronic administrative record. This work was paid for with Cleanup and Abatement Account funds and San Diego Water Board contract funds in the amount of \$109,908.
 - ii. The Department of Fish and Game provided technical consultation services on the fish histopathology and bile studies, and the wildlife risk assessments. This work was paid for with Cleanup and Abatement Account funds in the amount of \$43,287.
 - iii. The Office of Environmental Health Hazard Assessment provided technical consultation services on the human health risk assessments. This work was paid for with San Diego Water Board contract funds in the amount of \$12,009.
- b. Filing fees for CEQA documents. Pursuant to Fish and Game Code Section 711.4, the San Diego Water Board must pay to the Department of Fish and Game a filing fee to defray the costs of managing and protecting California's vast fish and wildlife resources. The filing fee for the Environmental Impact Report is \$2,919 and the County Clerk Processing fee is 50.00 for a total of \$2,969.

The amount of past and future recoverable staff costs will be determined through the process set forth in Water Code section 13365. The Chair may designate an individual qualified under Water Code section 13365, subdivision (c)(4) to resolve dischargers' disputes about the reasonableness of past and future oversight costs the San Diego Water Board seeks to recover from the dischargers to this Order. Under Water Code section 13365, the determination of the reasonableness of oversight costs can include, but is not limited to, evaluation of documentary support (including information not already in the record) for requested oversight costs. The Assistant Executive Officer is authorized to amend this Order as necessary to include any undisputed oversight cost amounts or amounts derived through the dispute resolution process identified in Water Code section 13365, subdivision (c)(4) and determined to be owed by the discharger(s).

42. **PROCEDURAL MATTERS.** At the public hearing, the San Diego Water Board Cleanup Team objected to argument made by counsel for SDG&E during SDG&E's presentation as mischaracterizing Cleanup Team witnesses' deposition testimony. The Cleanup Team's objections are overruled. The San Diego Water Board has considered the deposition testimony and counsel's legal argument. The transcripts speak for themselves. Counsel's characterization of the Cleanup Team witnesses' deposition testimony took some of the deposition testimony out of context, but counsel was making legal argument and not testifying. Accordingly, it is not necessary to strike any portion of counsel's presentation. All exhibits introduced and marked during the hearing were accepted and are included in the administrative record.

ORDER DIRECTIVES

IT IS HEREBY ORDERED that, pursuant to sections 13267 and 13304 of the Water Code, National Steel and Shipbuilding Company; BAE Systems San Diego Ship Repair Inc.; the City of San Diego; Campbell Industries; San Diego Gas and Electric; the United States Navy; and the

March 14, 2012.

San Diego Unified Port District (hereinafter Dischargers), shall comply with the following directives:

A. CLEANUP AND ABATE

1. **Illicit Discharges.** The Dischargers shall terminate all illicit discharges, if any, to the Shipyard Sediment Site (see Attachment 1) in violation of waste discharge requirements or other order or prohibition issued by the San Diego Water Board.
2. **Corrective Action.** The Dischargers shall take all corrective actions necessary to remediate the contaminated marine bay sediment at the Shipyard Sediment Site as described below: Corrective action design details shall be included in the Remedial Action Plan required by Directive B.
 - a. **Dredge Remedial Areas.** The sediments in the dredge remedial areas shown on Attachments 3 and 4 shall be dredged. This dredging shall remediate the sediment in the dredge remedial area to the concentrations in the table below for primary COCs, pursuant to confirmatory testing:

Primary COCs	Post-Remedial Dredge Area Concentrations (Background)
Copper	121 mg/kg
Mercury	0.57 mg/kg
HPAHs ²	663 µg/kg
PCBs ³	84 µg/kg
Tributyltin	22 µg/kg

1. See Finding 29, Table 1.
2. HPAHs = High Molecular Weight Polynuclear Aromatic Hydrocarbons, sum of 6 PAHs: Fluoranthene, Perylene, Benzo(a)anthracene, Chrysene, Benzo(a)pyrene, and Dibenzo(a,h)anthracene.
3. PCBs = Polychlorinated Biphenyls, sum of 41 congeners: 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

If the concentration of any primary COC in subsurface sediments (deeper than the upper 5 cm) is above 120 percent of the post-remedial dredge area concentration after completion of initial dredging, then additional sediments shall be dredged by performing an additional "pass" with the equipment. If concentrations of primary

COCs in subsurface sediments are below 120 percent of post-remedial dredge area concentrations, then the dredging is sufficient and may stop.

- b. ***Under-Pier Remedial Areas.*** The sediments in the under pier areas shown on Attachments 3 and 4 and other locations where significant impacts to infrastructure may occur shall be remediated by dredging, sand covering or other means.
- c. ***Post Remedial Surface-Area Weighted Average Concentrations.*** The Shipyard Sediment Site as shown in Attachment 2 shall be remediated to attain the following post remedial surface-area weighted average concentrations (“SWACs”):

Primary COCs	Predicted Post-Remedial SWACs
Copper	159 mg/kg
Mercury	0.68 mg/kg
HPAHs ¹	2,451 µg/kg
PCBs ²	194 µg/kg
Tributyltin	110 µg/kg

- 1. HPAHs = sum of 10 PAHs: Fluoranthene, Pyrene, Benz[a]anthracene, Chrysene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[a]pyrene, indeno[1,2,3-c,d]pyrene, Dibenz[a,h]anthracene, and Benzo[g,h,i]perylene.
- 2. PCBs = sum of 41 congeners: 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.
- 3. **MS4 Interim Mitigation Measures.** Immediately after adoption of the CAO, the City of San Diego and the San Diego Unified Port District within the tideland area shall take interim remedial actions, as necessary, to abate or correct the actual or potential effects of releases from the MS4 system that drains to outfall SW4. Interim remedial actions can occur concurrently with any phase of corrective action. Before taking interim remedial actions, the City and the Port District shall notify the San Diego Water Board of the proposed action and shall comply with any requirements that the San Diego Water Board sets.
- 4. **MS4 Investigation and Mitigation Plan.** The City of San Diego and the San Diego Unified Port District within the tideland area shall prepare and submit a municipal separate storm sewer system (MS4) Investigation and Mitigation Plan (Plan) within 90 days after adoption of the CAO. The Plan shall be designed to identify, characterize, and

mitigate pollutants and pollutant sources in the watershed that drains to the MS4 outfall SW-4 at the Shipyard Sediment Site and contain, at a minimum, the following information:

- a. ***Site Conceptual Model.*** The Plan shall contain a site conceptual model showing all of the current and former potential pollutant sources and pathways for pollutants to potentially enter the watershed that drains to the MS4 outfall SW-4.
- b. ***Map.*** A detailed map to scale showing the location and all elements of, and potential pollutant sources within, the MS4 system within the watershed that drains to the outfall SW-4.
- c. ***Sampling and Analyses.*** The Plan shall include sampling and analysis of the residual sediments within the MS4 system at key locations sufficient to characterize the sediments that will potentially be discharged to the Shipyard Sediment Site. The suite of chemical analyses must be adequate to identify the full range of site-specific waste constituents including, at a minimum, total PCB congeners, copper, mercury, lead, zinc, TPH, and HPAHs.
- d. ***Sample Locations.*** At a minimum, samples must be collected within all catch basins and similar junctions where accessible, and at intervals adequate to detect potential sources and no greater than approximately 500 feet within the streets in the storm water infrastructure within the SW-4 watershed. In addition, samples must be collected at locations designed to assess contributions from potential pollutant sources such as businesses with industrial activities or other pollutant-generating activities within the current SW-4 watershed. The Plan shall identify the number and location of the proposed sampling locations, and provide justification for the sampling intervals within the streets.
- e. ***Sampling Protocols and Quality Assurance Project Plan (QAPP).*** The Plan shall include the planned sampling protocols and a Quality Assurance Project Plan (QAPP) to assure that all environmental data generated scientifically valid and of acceptable quality to meet the Plan's objectives.
- f. ***Mitigation.*** The Plan shall include, at a minimum, the following mitigation activities:
 1. Removal and characterization of residual sediments in the MS4 system.
 2. Installation of structural treatment control best management practices (BMPs), where necessary and feasible, in the MS4 system to prevent or mitigate the entry of pollutants into the storm drains to the maximum extent practicable.
 3. Maintenance of BMPs, as necessary, to prevent degradation of their performance.

- g. ***Activity Completion Schedule:*** The Plan shall include a reasonable schedule for completion of all activities and submission of a final MS4 Investigation and Mitigation Report described in Directive A.5.

5. MS4 Investigation and Mitigation Implementation and Report

- a. ***Implementation.*** The City of San Diego and the San Diego Unified Port District within the tideland area shall implement the MS4 Investigation and Mitigation Plan according to the Activity Completion Schedule described in Directive 4.g.
- b. ***MS4 Investigation and Mitigation Report.*** The MS4 Investigation and Mitigation Report shall include the following:
1. Sampling protocols implemented.
 2. Location, type, and number of samples shown on detailed site maps and tables.
 3. Concentration and interpreted lateral extent of each constituent.
 4. Mass of residual sediments removed from the MS4 system.
 5. Interpretations regarding the potential for the pollutants within the MS4 system to contaminate or re-contaminate the Shipyard Sediment Site during or after the remedial activities.
 6. Evaluation of the effectiveness of the mitigation activities implemented.
 7. Recommendations for additional investigation and mitigation activities.

B. REMEDIAL ACTION PLAN AND IMPLEMENTATION

1. ***Remedial Action Plan.*** The Dischargers shall prepare and submit a Remedial Action Plan (RAP) to the San Diego Water Board no later than 90 days after adoption of the CAO. The RAP shall be complete and contain the following information
 - a. ***Introduction.*** A brief description of the Shipyard Sediment Site and Site History.
 - b. ***Selected Remedy.*** A detailed description of all of the remedial activities selected to attain all cleanup levels in Directive A.2.
 - c. ***Health and Safety Plan.*** A Health and Safety Plan including employee training, protective equipment, medical surveillance requirements, standard operating procedures and contingency plans.
 - d. ***Community Relations Plan.*** A Community Relations Plan for informing the public about (i) activities related to the final remedial design, (ii) the schedule for the remedial action, (iii) the activities to be expected during construction and

- remediation, (iv) provisions for responding to emergency releases and spills during remediation, and (v) any potential inconveniences such as excess traffic and noise that may affect the community during the remedial action.
- e. *Quality Assurance Project Plan.* A Quality Assurance Project plan (QAPP) shall be included describing the project objectives and organization, functional activities, and quality assurance/quality control protocols as they relate to the remedial action
 - f. *Sampling and Analysis Plan.* A Sampling and Analysis Plan defining (i) sample and data collection methods to be used for the project, (ii) a description of the media and parameters to be monitored or sampled during the remedial action, and (iii) a description of the analytical methods to be utilized and an appropriate reference for each.
 - g. *Wastes Generated.* A description of the plans for management, treatment, storage and disposal of all wastes generated by the remedial action.
 - h. *Pilot Testing.* The results of bench scale or pilot scale studies or other data collected to provide sizing and operations criteria to optimize the remedial design.
 - i. *Design Criteria Report.* A Design Criteria Report that defines in detail the technical parameters upon which the remedial design will be based. Specifically, the Design Criteria Report shall include the preliminary design assumptions and parameters, including (i) waste characterization; (ii) volume and types of each medium requiring removal or containment; (iii) removal or containment schemes and rates, (iv) required qualities of waste streams (i.e., input and output rates to stockpiles, influent and effluent qualities of any liquid waste streams such as dredge spoil return water, potential air emissions, and so forth); (v) performance standards; (v) compliance with applicable local, State and federal regulations; (vi) technical factors of importance to the design, construction, and implementation of the selected remedy including use of currently accepted environmental control measures, constructability of the design, and use of currently acceptable construction practices and techniques.
 - j. *Equipment, Services, and Utilities.* A list of any elements or components of the selected remedial action that will require custom fabrication or long lead time for procurement. The list shall state the basis for such need, and the recognized sources of such procurement.
 - k. *Regulatory Permits and Approvals.* A list of required federal, State and local permits or approvals to conduct the remedial action.
 - l. *Remediation Monitoring Plan.* A Remediation Monitoring Plan consisting of (i) water quality monitoring, (ii) sediment monitoring, and (iii) disposal monitoring consistent with Section 34.1 of the Technical Report. The water quality monitoring must be sufficient to demonstrate that implementation of the selected remedial activities do not result in violations of water quality standards outside the construction area. The sediment monitoring must be sufficient to confirm that the selected

- remedial activities have achieved target cleanup levels within the remedial footprint specified in Directive A.2. The disposal monitoring must be sufficient to adequately characterize the dredged sediments in order to identify appropriate disposal options.
- m. *Site Map.* A site map showing the location of buildings, roads, property boundaries, remedial equipment locations and other information pertinent to the remedial action.
 - n. *Contingencies.* A description of any additional items necessary to complete the RAP.
 - o. *Remediation Schedule:* A schedule detailing the sequence of events and time frame for each activity based on the shortest practicable time required to complete each activity. The initiation and completion of each activity must be no longer than the durations described in Attachment 5.
2. **RAP Implementation.** In the interest of promoting prompt cleanup, the Discharger may begin implementation of the RAP 60 calendar days after submittal to the San Diego Water Board, unless otherwise directed in writing by the San Diego Water Board. The Dischargers shall complete implementation of the RAP based on the schedule in the RAP. Before beginning RAP implementation activities, the Dischargers shall:
- a. Notify the San Diego Water Board of its intention to begin cleanup; and
 - b. Comply with any conditions set by the San Diego Water Board, including mitigation of adverse consequences from cleanup activities.
 - c. The Dischargers shall modify or suspend cleanup activities when directed to do so by the San Diego Water Board.

C. CLEANUP AND ABATEMENT COMPLETION VERIFICATION

Final Cleanup and Abatement Completion Report. The Dischargers shall submit a final Cleanup and Abatement Completion Report verifying completion of the RAP activities for the Shipyard Sediment Site within 90 days of completion of remediation. The report shall provide a demonstration, based on a sound technical analysis, that sediment quality cleanup levels in Directive A.2 have been achieved.

D. POST REMEDIAL MONITORING

1. **Post Remedial Monitoring Plan.** The Dischargers shall prepare and submit a Post Remedial Monitoring Plan to the San Diego Water Board no later than 90 days after adoption of this CAO. The Post Remedial Monitoring Plan shall be designed to verify that the remaining pollutant concentrations in the sediments will not unreasonably affect San Diego Bay beneficial uses. At a minimum the Post Remedial Monitoring Plan shall include 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 post remediation monitoring.

- b. *Sampling and Analysis Plan.* A Sampling and Analysis Plan defining (i) sample and data collection methods to be used for the post radiation monitoring, (ii) a description of the media and parameters to be monitored or sampled, and (iii) a description of the analytical methods to be utilized and an appropriate reference for each.
- c. *Sediment Chemistry.* Site-wide post-remedial SWACs for the five primary COCs (copper, mercury, TBT, PCBs, and HPAH) shall be confirmed through composite sampling of the entire Shipyard Sediment Site. Samples shall be collected at all 65 sampling stations used to develop Thiessen polygons and composited on a surface area weighted basis into 6 polygon groups as shown in Attachment 6.
 - 1. To prepare the composite samples, the 65 station locations within the six polygon groups shall be sampled. The volume of the sample at each station shall be proportional to the area of the polygon the station represents. These samples shall be collected from the 0-2 cm depth interval. Two (2) grab samples shall be composited in the field at each station.
 - 2. The individual samples shall be combined into six (6) composite samples representing the six (6) polygon groups as shown in Attachment 6. Three (3) replicates shall be taken from each of these six (6) composite samples and analyzed for PCBs, copper, mercury, HPAHs, and TBT, and sediment conventional parameters (e.g., grain size, TOC, ammonia). See Attachment 7 for the required list of PCB and HPAH analytes.
 - 3. The average concentration of each of the six (6) composites shall be calculated from the analytical results of the replicates for each COC. The average concentrations represent SWACs for each of the six (6) polygon groups.
 - 4. The three replicate sub-samples of composite samples provide an estimate of variances in the compositing process. Sample material from the 65 station-specific composite samples shall be archived for potential future analysis.
 - 5. The mean concentration for each of the six (6) composite groups shall be used to calculate Site-Wide SWACs for each COC.
 - 6. SWAC trigger concentrations shall be used to evaluate whether Site-Wide SWACs exceed the Predicted Post-Remedial SWACs, and whether further action is needed. These concentrations represent the surface-area weighted average concentration expected after cleanup, accounting for the variability in measured concentrations throughout the area. If the Site-Wide SWAC after remediation is below the trigger concentration then remediation shall be considered successful. Exceedance of the trigger concentration shall result in further evaluation of the site-specific conditions to determine if the remedy was successful as detailed in Directive D.3. The trigger concentrations for the primary COCs are listed below.

Primary COCs	Trigger Concentrations
Copper	185 mg/kg
Mercury	0.78 mg/kg
HPAHs ¹	3,208 µg/kg
PCBs ²	253 µg/kg
Tributyltin	156 µg/kg

1. HPAHs = sum of 6 PAHs: Fluoranthene, Perylene, Benzo[a]anthracene, Chrysene, Benzo[a]pyrene, and Dibenzo[a,h]anthracene.
2. PCBs = sum of 41 congeners: 18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

- d. **Bioaccumulation Testing.** Nine (9) sediment samples shall undergo bioaccumulation testing using the 28-day *Macoma nasuta* test. The samples selected for bioaccumulation testing shall be from stations SW04, SW08, SW13, SW21, SW28, and NA06, NA11, NA12, and NA20. Tissue samples shall be analyzed for arsenic, cadmium, copper, lead, mercury, zinc, HPAHs, and PCBs. See Attachment 7 for the required list of PCB and HPAH analytes.
- e. **Sediment Chemistry for Benthic Exposure.** Samples shall be collected for chemical analyses at the following five station locations: SW04, SW13, SW22, SW23 and NA19. Sediments shall be analyzed for sediment conventional parameters (e.g., grain size, TOC, ammonia) and the following: arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, zinc, TBT, PCBs, and PAHs. See Attachment 7 for the required list of PCB and PAH analytes. Results from the chemical analyses shall be evaluated in accordance with the flow diagram in Attachment 8 to determine if further evaluation or action is necessary based on benthic effects indicators. SS-MEQ values shall be determined for each station and compared to the 0.9 SS-MEQ threshold. The sediment chemistry results shall be compared to the 60% LAET thresholds.
- f. **Sediment Toxicity.** Sediment samples shall be collected for toxicity analyses at the following five station locations: SW04, SW13, SW22, SW23, and NA19. Two types of sediment toxicity tests shall be conducted in accordance with protocols recommended by the San Diego Water Board: (1) 10-day amphipod survival test using *Eohaustorius estuaricus* exposed to whole sediment, and (2) 48-hour bivalve larva development test using the mussel *Mytilus galloprovincialis* exposed to whole sediment at the sediment-water interface. Results from the toxicity analyses shall be evaluated in accordance with the flow diagram in Attachment 9 to determine if further evaluation or action is necessary based on benthic effects indicators.

- g. **Benthic Community Assessment.** Samples shall be collected to evaluate benthic communities at five randomly selected stations within the remediation footprint, excluding stations NA19, SW04, SW13, SW22, and SW23, at years 3 and 4 following completion of remediation activities. The random samples shall be stratified to assure two to three samples are collected from each of the NASSCO and BAE Systems areas. The benthic community analyses shall consist of full taxonomic analyses at the lowest feasible taxa level. This sampling shall be conducted only to evaluate the development of the benthic community following remediation.
 - h. **Schedule.** Sampling and analyses for sediment chemistry and toxicity, and for bioaccumulation assessment shall occur at two and five years post-remediation. If the remedial goals described in Directive D.3.c.2 are not met, the sampling and analyses shall also occur at ten years post remediation. The Post Remedial Monitoring Plan shall include a schedule detailing the sequence of sampling events and time frame for each activity. The schedule shall also include the dates for submittal of the Post-Cleanup Monitoring annual progress reports as detailed in Directive E and final report as detailed in Directive D.3. below.
2. **Post Remedial Monitoring Plan Implementation.** The Dischargers shall implement the Post Remedial Monitoring Plan in accordance with the schedule contained in the Post Remedial Monitoring Plan unless otherwise directed in writing by the San Diego Water Board. Before beginning sample collection activities, the Dischargers shall:
 - a. Notify the San Diego Water Board in advance of the beginning of sample collection activities in accordance with Provision G.6.; and
 - b. Comply with any conditions set by the San Diego Water Board with respect to sample collection methods such as providing split samples.
 3. **Post Remedial Monitoring Reports.** The Dischargers shall submit Post Remedial Monitoring Reports containing the following information:
 - a. An evaluation, interpretation and tabulation of monitoring data including interpretations and conclusions regarding the potential presence and chemical characteristics of any newly deposited sediment within the cleanup areas, and interpretations and conclusions regarding the health and recovery of the benthic communities.
 - b. The locations, type, and number of samples shall be identified and shown on a site map.
 - c. An analysis of whether or not the remedial goals described below have been attained.

1. Year 2 Remedial Goals

- Composite site-wide SWACs below the Trigger Concentrations identified in D.1.c.6. above; and
- Sediment chemistry below SS-MEQ and 60%LAET thresholds; and
- Toxicity not significantly different from conditions at the reference stations described in Finding 17 and in the *Technical Report for Cleanup and Abatement Order No. R9-2012-0024 for the Shipyard Sediment Site, San Diego Bay, San Diego, CA*; and
- The average of stations sampled shows bioaccumulation levels below the pre-remedial levels.

2. Year 5 Remedial Goals

- Composite site-wide SWACs below the Trigger Concentrations identified in D.1.c.6. above; and
- Sediment chemistry below SS-MEQ and 60%LAET thresholds; and
- Toxicity not significantly different from conditions at the reference stations described in Finding 17 and as defined in the *Technical Report for Cleanup and Abatement Order No. R9-2012-0024 for the Shipyard Sediment Site, San Diego Bay, San Diego, CA*; and
- The average of stations sampled shows bioaccumulation levels continuing to decrease below the pre-remedial levels and equal to or below the Year 2 post-remedial monitoring sampling event levels.

3. Confirm remedial goals are maintained at year 10 (if goals were not met in year 5)

- Composite site-wide SWACs below the Trigger Concentrations identified in D.1.c.6. above; and
- Sediment chemistry below SS-MEQ and 60%LAET thresholds; and
- Toxicity not significantly different from conditions at the reference stations described in Finding 17 and defined in the *Technical Report for Cleanup and Abatement Order No. R9-2012-0024 for the Shipyard Sediment Site, San Diego Bay, San Diego, CA*; and
- The average of stations sampled shows bioaccumulation levels below the pre-remedial levels and equal to or below the Year 5 post-remedial monitoring sampling event levels.

4. **SWAC Trigger Concentration, SS-MEQ Threshold, or 60% LAET Threshold Exceedance Investigation and Characterization.** Post remediation monitoring may indicate exceedance of one or more of the post-remediation Site-Wide SWAC trigger concentrations, SS-MEQ thresholds, or 60% LAET thresholds. In that event the Dischargers shall conduct an Exceedance Investigation and Characterization study to determine the cause(s) of the exceedance. There are several lines of investigation that may be pursued, individually or in combination, depending upon the type, scope, and scale of the exceedance(s) and site-specific conditions. The following approaches may be considered and implemented for the investigation and characterization effort:
 - a. Recalculation of the 95% UCL incorporating more recent sampling data (e.g. the dredge performance monitoring data, pre-remediation monitoring data from July, 2009, the most recent post remediation verification monitoring data etc.).
 - b. Identification of the specific subarea(s) that caused the excursion(s) using surrounding post remediation monitoring data and historical data as appropriate.
 - c. Evaluation of changes in site conditions as a result of disturbances since the previous sampling event from spills, major storm events, construction activities, newly discovered pollutant sources or other causes.
 - d. Analysis of the archived samples used to comprise the composite sample for the specific COC(s) exceeding the 95% UCL as a basis to understand which polygons have higher concentrations than expected. The data from this analysis could be used as a basis for spatial weighting of the data before recalculating 95% UCLs using interpolation methods such as inverse distance weighting.
5. **Exceedance Investigation and Characterization Report.** The Dischargers shall prepare and submit an adequate Exceedance Investigation and Characterization Report describing the final results of the investigation and characterization study to the San Diego Water Board. If the exceedances are found to be significant, the Report shall include a recommended approach, or combination of approaches, for addressing the exceedance(s) by additional sampling of the affected area, re-dredging, natural recovery, reanalysis following the next scheduled monitoring event, or other appropriate methods. The Report shall be due within 90 days of discovery of the exceedance or as otherwise directed by the San Diego Water Board.

E. QUARTERLY PROGRESS REPORTS

The Dischargers shall prepare and provide written quarterly progress reports which: (1) describe the actions which have been taken toward achieving compliance with this CAO during the

previous quarter; (2) include all results of sampling, tests, and all other verified or validated data received or generated by or on behalf of the Dischargers during the previous quarter in the implementation of the remedial actions required by this CAO; (3) describe all activities including, data collection and other field activities which are scheduled for the next two quarters and provide other information relating to the progress of work, including, but not limited to, a graphical depiction of the progress of the remedial actions; (4) identify any modifications to the Remedial Action Plan or other work plan(s) that the Dischargers proposed to the San Diego Water Board or that have been approved by San Diego Water Board during the previous quarter; and (5) include information regarding all delays encountered or anticipated that may affect the future schedule for completion of the remedial actions required , 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 March, June, September, and December of each year following the effective date of this CAO. Submission of these progress reports shall continue until submittal of the final Cleanup and Abatement Completion Report verifying completion of the Remedial Action Plan (RAP) for the Shipyard Sediment Site (see Directive C).

F. REPORTS AND WORKPLANS

The Dischargers shall prepare and submit all required plans and reports described in Directives B, C, and D of this Order to the San Diego Water Board for review and approval. The San Diego Water Board shall make these plans/reports available to the public for comment. If comments or concerns on these plans and reports are not resolved informally, then the Assistant Executive Officer will schedule the item for San Diego Water Board consideration at a public meeting.

G. NO FURTHER ACTION

Upon approval by the San Diego Water Board of the Final Cleanup and Abatement Completion Report (Directive C) and the Post Remedial Monitoring Reports (Directive D.3) remedial actions and monitoring will be complete and compliance with this CAO will be achieved. At that time the San Diego Water Board will inform the Dischargers and other interested persons in writing that, based on available information, no further remedial work is required. However, the portion of polygon SW29 not in the dredge footprint may be addressed by the San Diego Water Board under a separate future regulatory action based upon available information.

H. PROVISIONS

1. **Cost Recovery.** The Dischargers shall reimburse the State of California for all reasonable costs actually incurred by the San Diego Water Board and State Water Board to investigate, oversee, and monitor cleanup and abatement actions required by this CAO, including the cost to prepare CEQA documents according to billing statements prepared from time to time by the State Water Board. If the Dischargers are enrolled in a reimbursement program managed by the State Water Board for the discharge addressed by this CAO, reimbursement shall be made pursuant to the procedures established in that program.

Within 60 days of the adoption of this CAO, the Dischargers shall reimburse the State of California in the amount of \$168,173 for the unreimbursed costs actually incurred by the San Diego Water Board and State Water Board as described in Finding 41 of this Order.

Within 30 days of the adoption of this CAO, the Dischargers shall identify to the San Diego Water Board an entity or party, including contact information, authorized by the Dischargers to receive and pay future invoices issued by the State Water Board Cost Recovery Program for staff oversight costs incurred by the San Diego Water Board to investigate, oversee, and monitor cleanup and abatement actions required by this CAO.

2. **Waste Management.** The Dischargers shall properly manage, store, treat, and dispose of contaminated marine sediment and associated wastes in accordance with applicable federal, state, and local laws and regulations. The storage, handling, treatment, or disposal of contaminated marine sediment and associated waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. The Dischargers shall, as required by the San Diego Water Board, obtain, or apply for coverage under, waste discharge requirements or a conditional waiver of waste discharge requirements for the removal of waste from the immediate place of release and discharge of the waste to (a) land for treatment, storage, or disposal or (b) waters of the state. No waste discharge requirements or conditional waiver of waste discharge requirements shall be required for disposal of marine sediment and associated waste in a landfill regulated under existing waste discharge requirements.
3. **Request to Provide Information.** The Dischargers may present characterization data, preliminary interpretations and conclusions as they become available, rather than waiting until a final report is prepared. This type of on-going reporting can facilitate a consensus being reached between the Dischargers and the San Diego Water Board and may result in overall reduction of the time necessary for regulatory approval.
4. **Waste Constituent Analysis.** Unless otherwise permitted by the San Diego Water Board, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Specific methods of analysis must be identified. If the Dischargers propose to use methods or test procedures other than those included in the most current version of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846" (U.S. Environmental Protection Agency) or 40 CFR 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants; Procedures for Detection and Quantification", the exact methodology must be submitted for review and must be approved by the San Diego Water Board prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports submitted to the San Diego Water Board.

Any report presenting new analytical data is required to include the complete Laboratory Analytical Report(s). The Laboratory Analytical Report(s) must be signed by the laboratory director and contain:

- A complete sample analytical report.
 - A complete laboratory quality assurance/quality control (QA/QC) report.
 - A discussion of the sample and QA/QC data.
 - A transmittal letter that must indicate whether or not all the analytical work was supervised by the director of the laboratory, and contain the following statement, "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services in accordance with current USEPA procedures."
5. **Duty to Operate and Maintain.** The Dischargers shall, at all times, properly operate and maintain all facilities and systems of treatment, control, storage, disposal and monitoring (and related appurtenances) which are installed or used by the Dischargers to achieve compliance with this CAO. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities, which are installed by the Dischargers only when the operation is necessary to achieve compliance the conditions of this CAO.
6. **Field Work Notice.** The Dischargers shall give the San Diego Water Board at least fourteen (14) days advance notice of all field work or field activities to be performed by the Dischargers pursuant to this CAO; provided, however, that in a given instance, if it is impossible for the Dischargers to provide such notice, the Dischargers shall provide notice to the San Diego Water Board of all such field work or activities as far in advance of such work as is possible. In any event, any notification pursuant to this Provision shall be given at least twenty-four (24) hours prior to the given field activities, unless the San Diego Water Board agrees otherwise.
7. **Duty to Use Registered Professionals.** The Dischargers shall provide documentation that plans and reports required under this CAO are prepared under the direction of appropriately qualified professionals. California Business and Professions Code sections 6735, 7835 and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. A statement of qualifications and registration numbers of the responsible lead professionals shall be included in all plans and reports submitted by the Dischargers. The lead professional shall sign and affix their registration stamp to the report, plan or document.
8. **Corporate Signatory Requirements.** All reports required under this Order shall be signed and certified by a responsible corporate officers of the Dischargers described in paragraph 5.a. of this provision or by a duly authorized representative of that person as described in paragraph 5.b.of this provision.
- a. **Responsible Corporate Officer(s).** For the purposes of this provision, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who

performs similar policy - or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. **Duly Authorized Representative.** A person is a duly authorized representative only if

1. The authorization is made in writing by a person described in paragraph (a) of this provision;
2. 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 (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
3. The written authorization is submitted to the San Diego Water Board.

c. **Changes to Authorization.** If an authorization under paragraph (b) of this provision 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 paragraph (b) of this provision must be submitted to the San Diego Water Board prior to or together with any reports or information to be signed by an authorized representative.

d. **Certification Statement.** Any person signing a document under paragraph a. or b. of this provision 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."

9. **Duty to Submit Other Information.** When the Dischargers become aware that it failed to submit any relevant facts in any report required under this CAO, or submitted incorrect

information in any such report, the Dischargers shall promptly submit such facts or information to the San Diego Water Board.

10. **Electronic and Paper Media Reporting Requirements.** The Dischargers shall submit both electronic and paper copies of all reports required under this CAO including work plans, technical reports, and monitoring reports. Larger documents shall be divided into separate files at logical places in the report to keep file sizes under 150 megabytes. The Discharger shall continue to provide a paper transmittal letter, a paper copy of all figures larger than 8.5 inches by 14 inches (legal size), and an electronic copy (on CD or other appropriate media) of all reports to the San Diego Water Board. All paper correspondence and documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Geotracker Site ID: T10000003580. The Dischargers shall comply with the following reporting requirements for all reports and plans (and amendments thereto) required by this Order:
 - a. **Reports and Plans Required by this Order.** The Dischargers shall submit one paper and one electronic, searchable PDF copy of all technical reports, monitoring reports, progress reports, and plans required by this Order. The PDF copy of all the reports shall also be uploaded into the Geotracker database, as required by Provision G.10(b)(4) below.
 - b. **Electronic Data Submittals for Sediment Chemistry.** All information submitted to the San Diego Water Board in compliance with this Order is required to be submitted electronically via the Internet into the Geotracker database <http://geotracker.waterboards.ca.gov/> (Geotracker Site ID. T10000003580). The electronic data shall be uploaded on or prior to the regulatory due dates set forth in the Order or addenda thereto. To comply with these requirements, the Dischargers shall upload to the Geotracker database the following minimum information:
 1. Laboratory Analytical Data: Analytical data (including geochemical data) for all sediment and water samples in Electronic Data File (EDF) format. Water, sediment, and soil include analytical results of samples collected from: dredging equipment, monitoring wells, boreholes, gas and vapor wells or other collection devices, surface water, groundwater, piezometers, and stockpiles.
 2. Locational Data: The latitude and longitude of any permanent monitoring location (surface water or sediment sampling location) for which data is reported in EDF format, accurate to within 1 meter and referenced to a minimum of two reference points from the California Spatial Reference System (CSRS-H), if available.
 3. Site Map: Site map or maps which display discharge locations, streets bordering the facility, and sampling locations for all sediment, soil, and water samples. The site map is a stand-alone document that may be submitted in various electronic formats. A site map must also be uploaded to show the maximum extent of any sediment and water pollution. An update to the site map may be uploaded at any time.

4. Electronic Report: A complete copy (in searchable PDF format) of all workplans, assessment, cleanup, and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.
11. **Report Submittals.** All monitoring and technical reports required under this CAO shall be submitted to

Executive Officer
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340
12. **Amendment.** This CAO in no way limits the authority of this San Diego Water Board to institute additional enforcement actions or to require additional investigation and cleanup consistent with the California Water Code. This CAO may be revised by the San Diego Water Board as additional information becomes available.
13. **Time Extensions.** If, for any reason, the Dischargers are unable to perform any activity or submit any documentation in compliance with requirements in this CAO, including the RAP, or in compliance with associated implementation schedules, including the RAP implementation schedule, the Dischargers may request, in writing, an extension of time. The written extension request shall include justification for the delay and shall be received by the San Diego Water Board reasonably (but not less than 15 calendar days) in advance of the deadline sought to be extended. An extension may be granted for good cause, in which case this CAO will be accordingly amended.
14. **Community Relations.** The Dischargers shall cooperate with the San Diego Water Board in providing information regarding the remediation of the Shipyard Sediment Site to the public. If requested by the San Diego Water Board, the Dischargers shall participate in the preparation of such information for distribution to the public and in public meetings which may be held or sponsored by the San Diego Water Board to explain activities at or relating to the Shipyard Sediment Site.

I. NOTIFICATIONS

1. **Enforcement Discretion.** The San Diego Water Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this CAO.
2. **Enforcement Notification.** The Porter-Cologne Water Quality Control Act commencing with Chapter 5, Enforcement and Implementation, section 13308, provides that if there is a threatened or continuing violation of a CAO, the San Diego Water Board may issue a Time Schedule Order prescribing a civil penalty in an amount not to exceed \$10,000 per day for each day compliance is not achieved in accordance with that time schedule. Section 13350 provides that any person may be assessed administrative civil liability by the San Diego Water Board for violating a CAO in an amount not to exceed \$5,000 for

March 14, 2012

each day the violation occurs, or on a per gallon basis, not to exceed \$10 for each gallon of waste discharged. Alternatively the court may impose civil liability in an amount not to exceed \$15,000 for each day the violation occurs, or on a per gallon basis, not to exceed \$20 for each gallon of waste discharged. Section 13385 provides that any person may be assessed administrative civil liability by the San Diego Water Board for violating a CAO for an activity subject to regulation under Division 7, Chapter 5.5 of the Water Code, in an amount not to exceed the sum of both of the following: (1) \$10,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$10 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons. Alternatively the civil liability may be imposed by the court in an amount not to exceed the sum of both of the following: (1) \$25,000 for each day in which the violation occurs; and (2) where there is a discharge, any portion of which is not susceptible to cleanup or is not cleaned up, and the volume discharged but not cleaned up exceeds 1,000 gallons, an additional liability not to exceed \$25 multiplied by the number of gallons by which the volume discharged but not cleaned up exceeds 1,000 gallons.

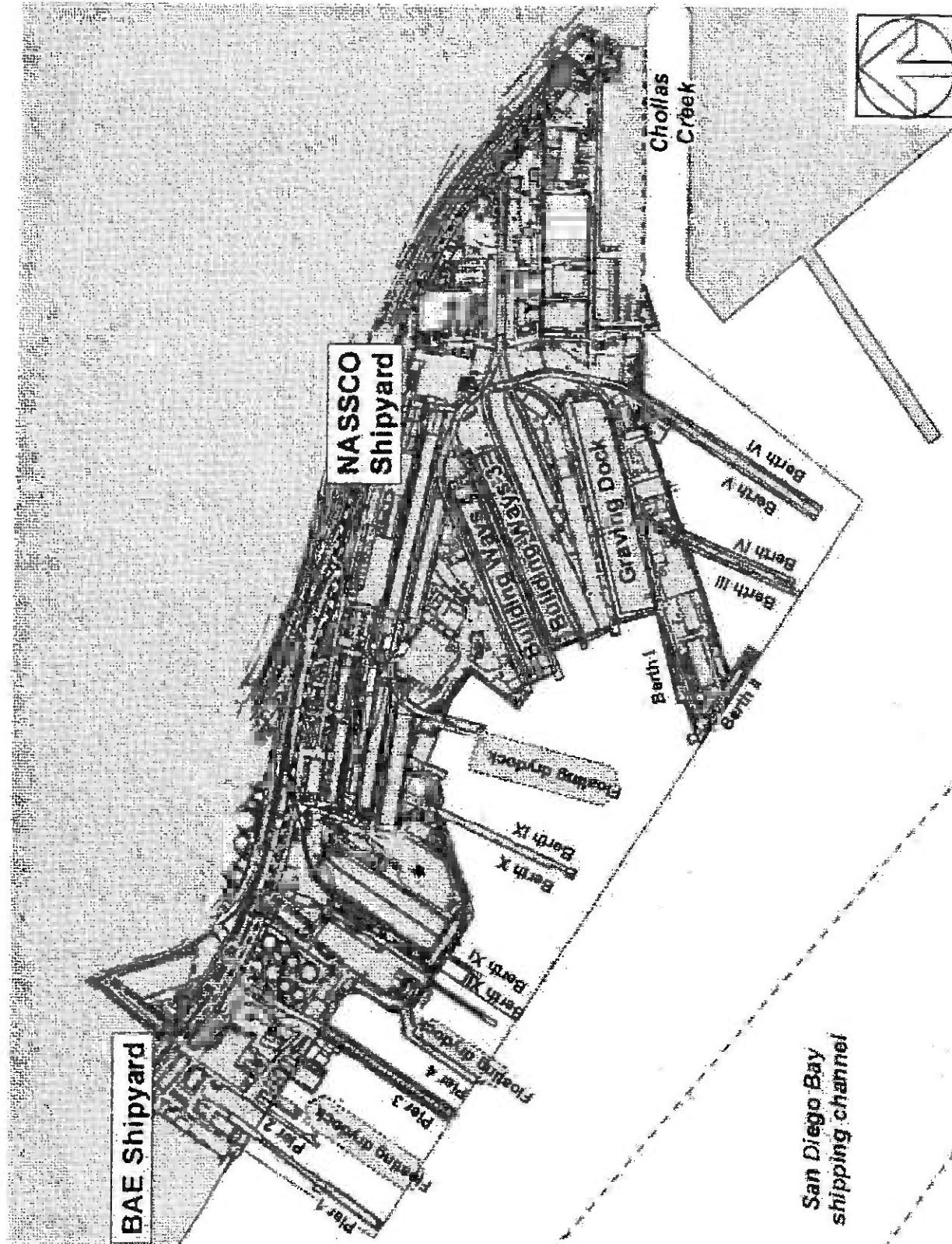
I, David W. Gibson, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a CAO issued on March 14, 2012.



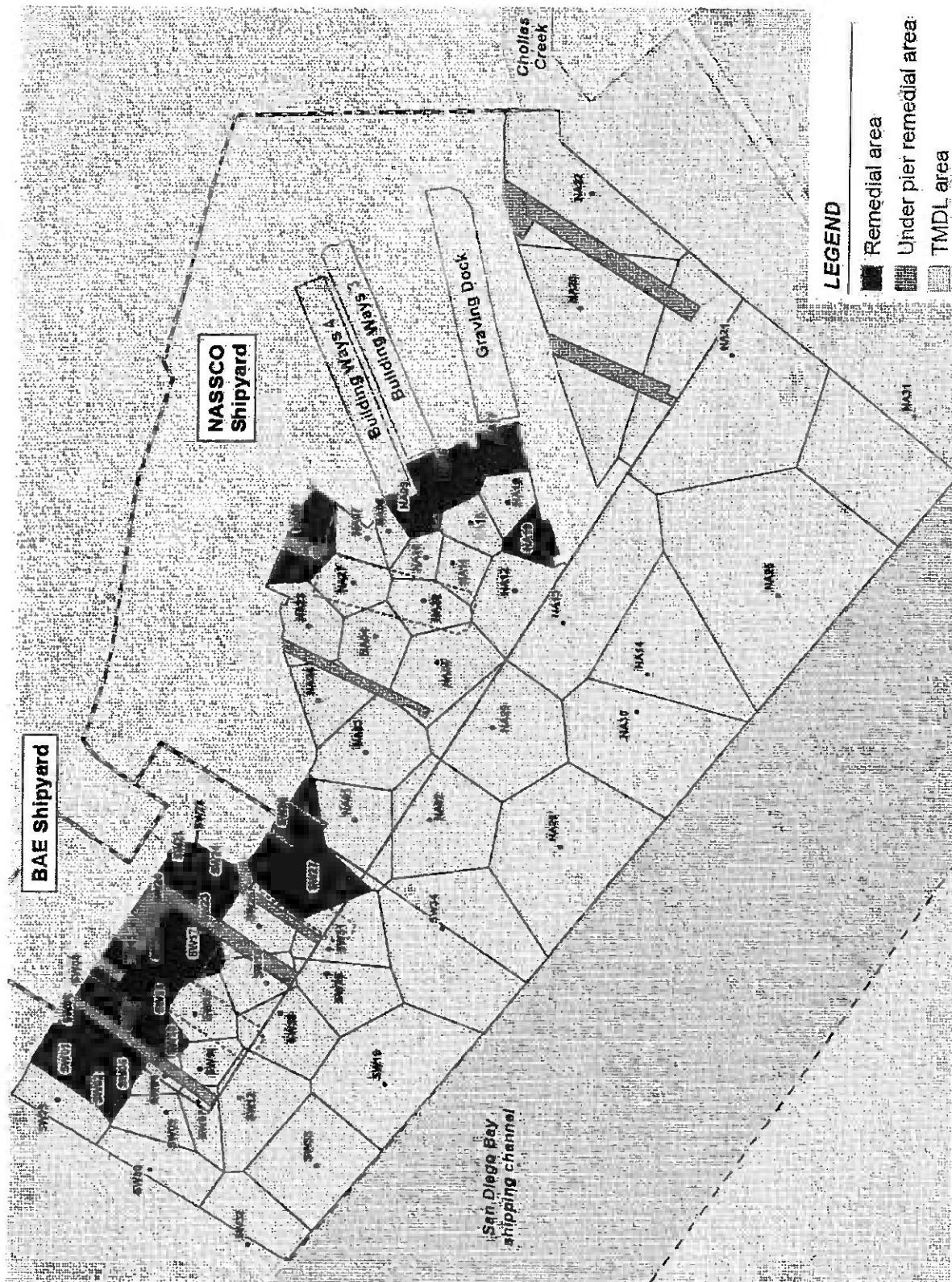
David W. Gibson
Executive Officer

March 14, 2012

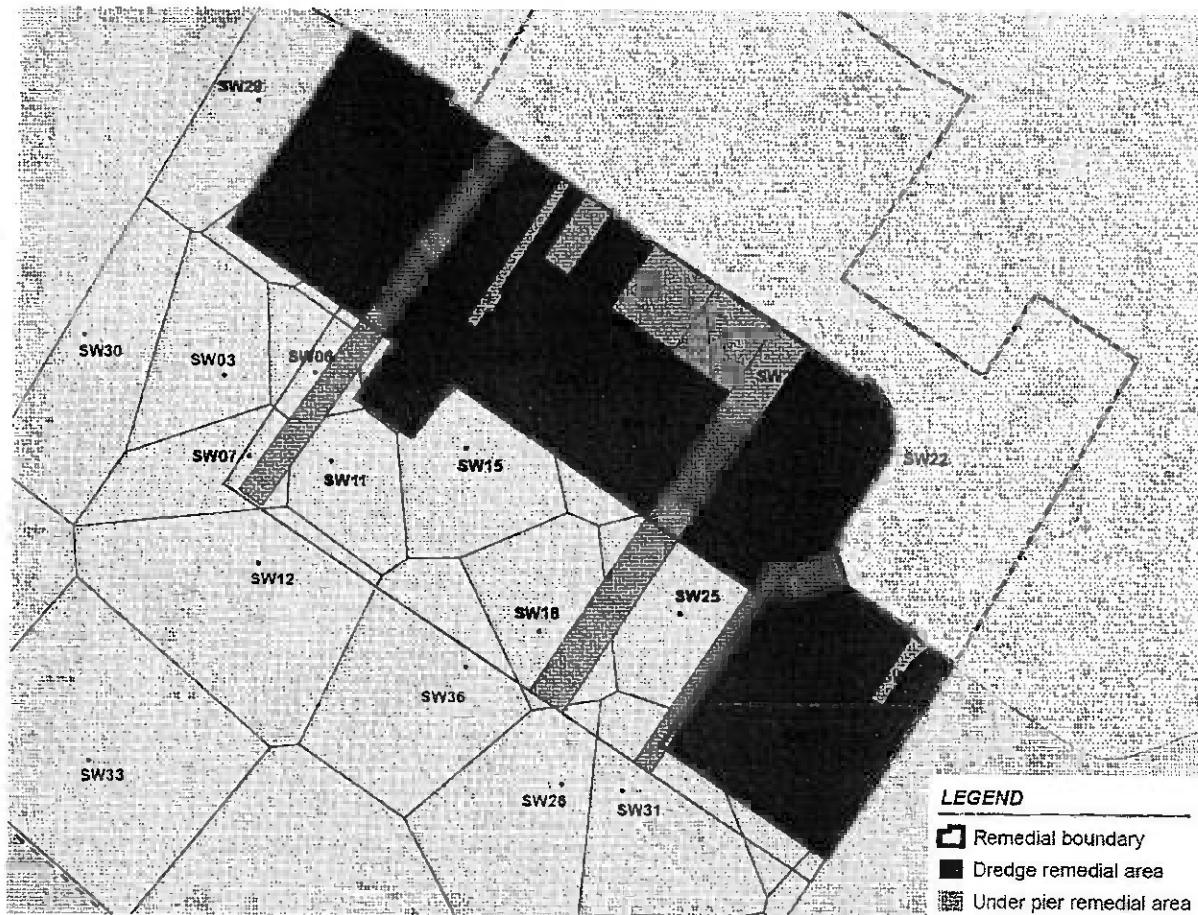
Attachment 1. Shipyard Sediment Area



Attachment 2. Polygons Targeted for Remediation



Attachment 3. Remedial Footprint Based on Sediment Management Units for BAE Shipyard

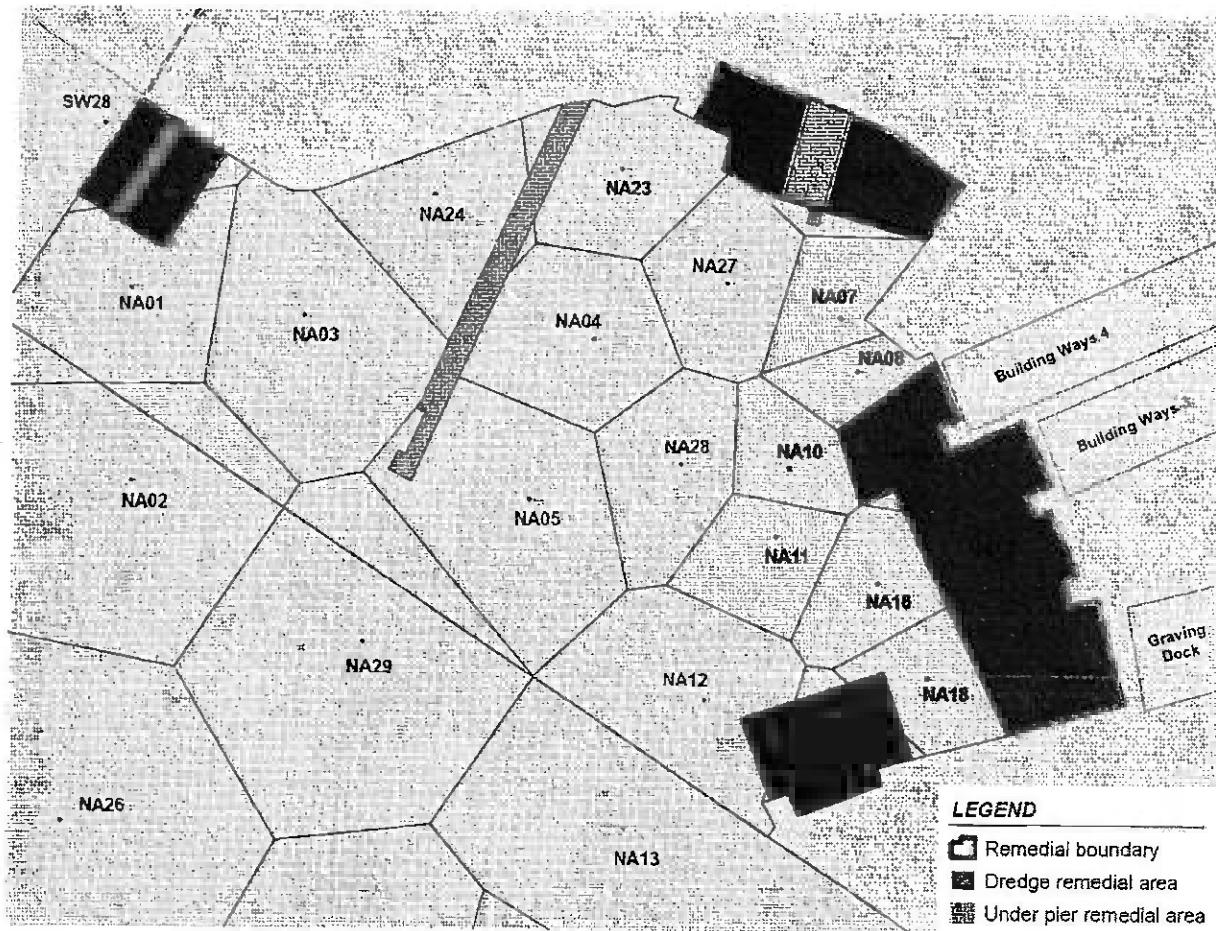


Remedial Site (North)

Dredge remedial Area (ft ²)	438,300
Under pier remedial area (ft ²)	89,980
Total Remedial Area (ft ²)	528,295
Dredge Volume (yd ³)	90,800

Note: Presumed remedy within the remedial boundary is dredging, except for under pier remedial areas.

Attachment 4. Remedial Footprint Based on Sediment Management Units for NASSCO Shipyard



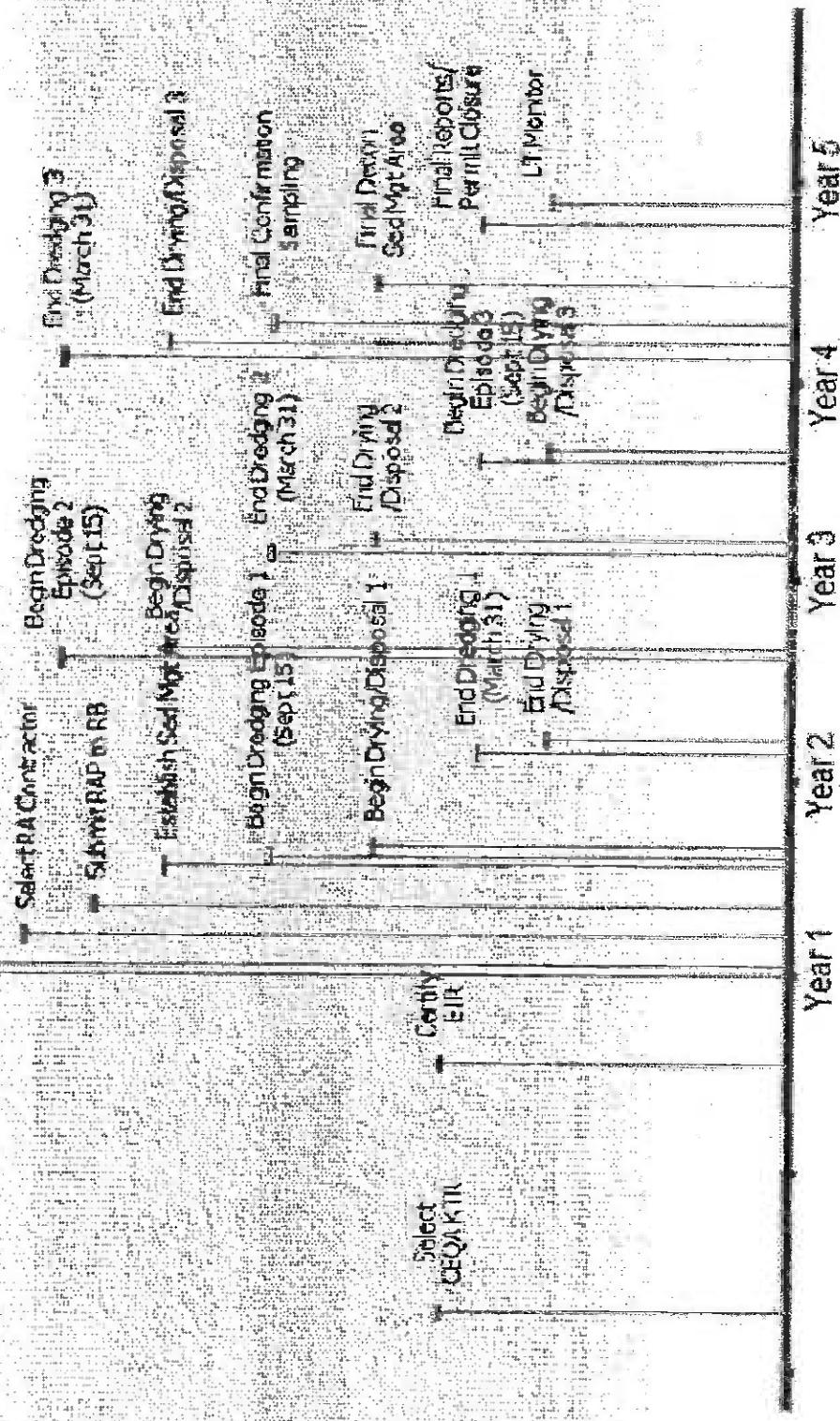
Remedial Site (South)

Dredge remedial Area (ft ²)	217,800
Under pier remedial area (ft ²)	13,725
Total Remedial Area (ft ²)	231,495
Volume (yd ³)	52,600
TMDL area (ft ²)	218,060

Note: Presumed remedy within the remedial boundary is dredging, except for under pier remedial areas.

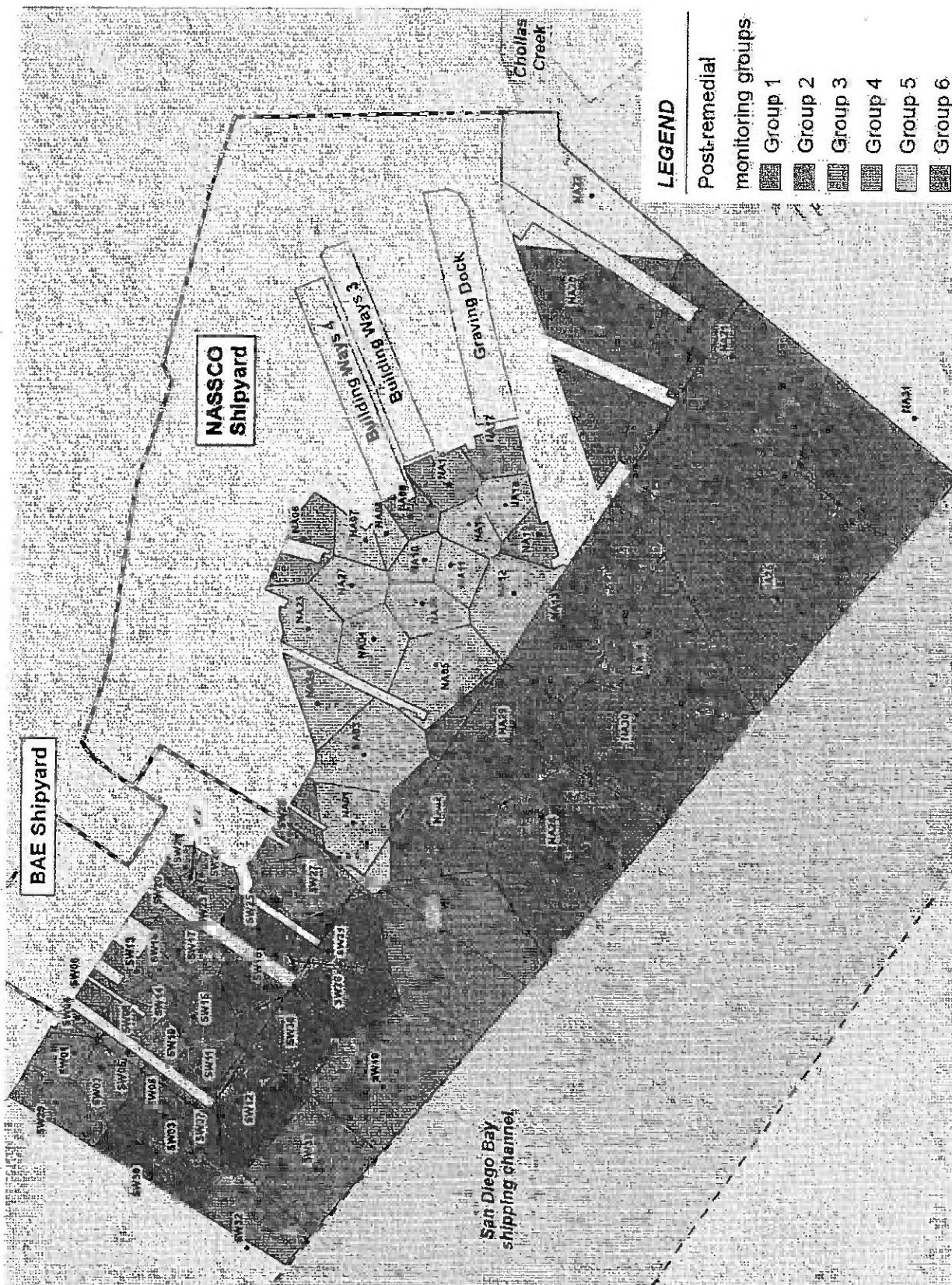
Remedial Action Schedule

Final issuance of CAO
Permits/Authorizations
Received



Attachment 5. Remedial Action Implementation Schedule

Attachment 6. Composite Sampling Area for Post-Remedial Monitoring



Attachment 7. Summed list of PCB and PAH analytes measured in bulk sediments.

PAH	Identifier	PAH	Identifier
Naphthalene	C0N	Pyrene	PYR
C1-Naphthalenes	C1N	C1-Fluoranthenes/pyrenes	C1F/P
C2-Naphthalenes	C2N	C2-Fluoranthenes/pyrenes	C2F/P
C3-Naphthalenes	C3N	C3-Fluoranthenes/pyrenes	C3F/P
C4-Naphthalenes	C4N	Benzo[a]anthracene	BAA
Acenaphthylene	ACEY	Chrysene	COC
Acenaphthene	ACE	C1-Chrysenes	C1C
Biphenyl	BIP	C2-Chrysenes	C2C
Fluorene	C0F	C3-Chrysenes	C3C
C1-Fluorenes	C1F	C4-Chrysenes	C4C
C2-Fluorenes	C2F	Benzo[b]fluoranthene	BBF
C3-Fluorenes	C3F	Benzo[k]fluoranthene	BKF
Anthracene	C0A	Benzo[e]pyrene	BEP
Phenanthrene	C0P	Benzo[a]pyrene	BAP
C1-Phenanthrenes/anthracenes	C1P/A	Perylene	PER
C2-Phenanthrenes/anthracenes	C2P/A	Indeno[1,2,3,-c,d]pyrene	INDENO
C3-Phenanthrenes/anthracenes	C3P/A	Dibenz[a,h]anthracene	DAH
C4-Phenanthrenes/anthracenes	C4P/A	Benzo[g,h,i]perylene	BGP
Dibenzothiophene	C0D	Total PAH ¹	TPAH
C1-Dibenzothiophenes	C1D	Priority Pollutant PAH ²	PPPAH
C2-Dibenzothiophenes	C2D	Low Molecular Weight PAH ³	LMWPAH
C3-Dibenzothiophenes	C3D	High Molecular Weight PAH ⁴	HMWPAH
Fluoranthene	FLANT		

SCCWRP and U.S. Navy, 2005b

¹Total PAH = sum of all listed PAH analytes

²Priority pollutant PAH = sum of C0N, ACEY, ACE, C0F, C0A, C0P, FLANT, PYR, BAA, COC, BBF, BKF, BAP, INDENO, DAH, BGP

³Low Molecular Weight PAH = sum of C0N, C2N, ACEY, ACE, C0F, C0A, C0P

⁴High Molecular Weight PAH = sum of FLANT, PYR, BAA, COC, BAP, DAH

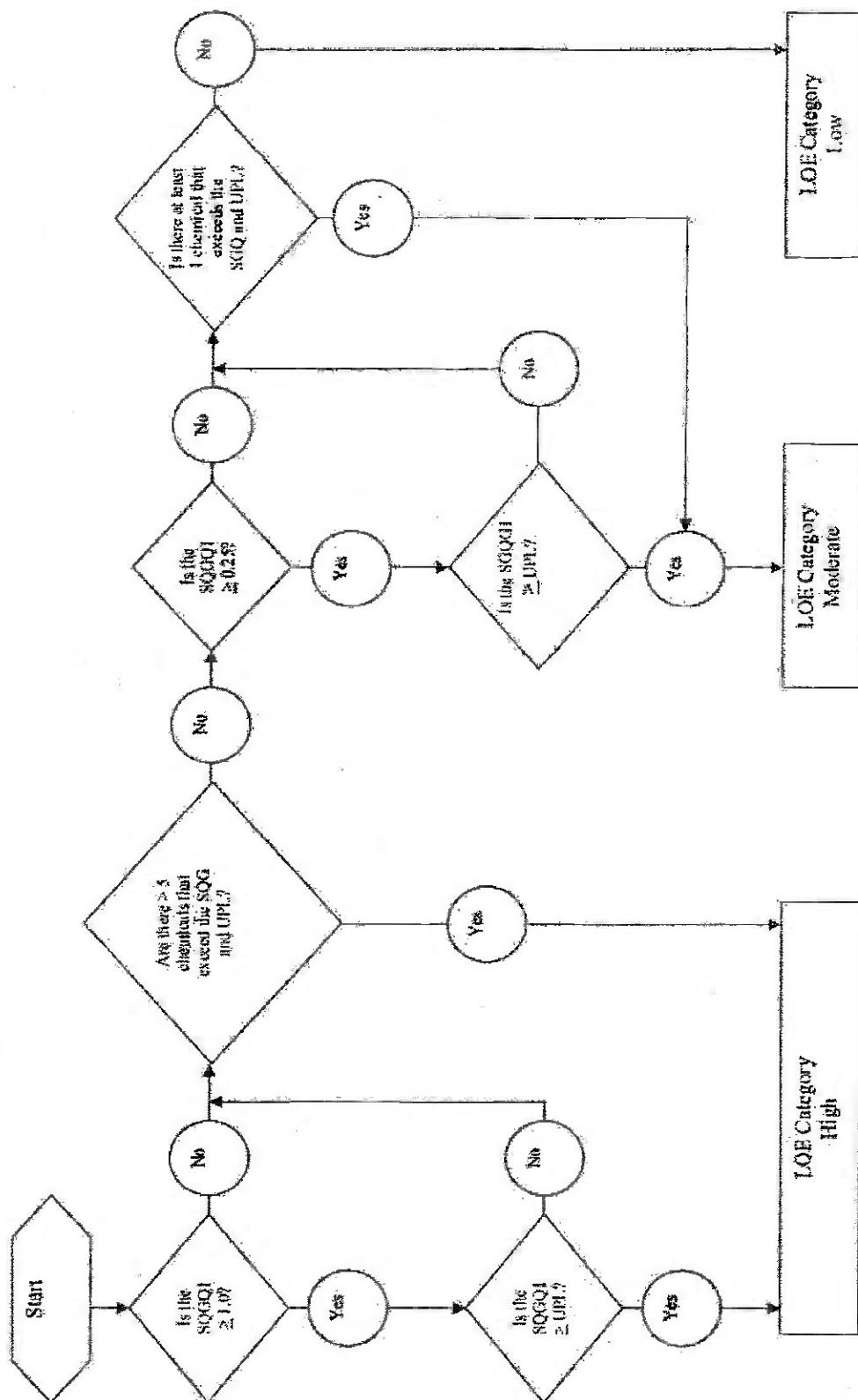
Attachment 7 (continued). Summed list of PCB and PAH analytes measured in bulk sediments.

PCB Congener	Congener Number	PCB Congener	Congener Number
2,2',5-Trichlorobiphenyl (Cl3)	18	2,2',3,3',4,4'-Hexachlorobiphenyl (Cl6)	128
2,4,4'-Trichlorobiphenyl (Cl3)	28	2,2',3,4,4',5'-Hexachlorobiphenyl (Cl6)	138
3,4,4'-Trichlorobiphenyl (Cl3)	37	2,2',3,4',5',6-Hexachlorobiphenyl (Cl6)	149
2,2',3,5'-Tetrachlorobiphenyl (Cl4)	44	2,2',3,5,5',6-Hexachlorobiphenyl (Cl6)	151
2,4,4',5'-Tetrachlorobiphenyl (Cl4)	49	2,2',4,4',5,5'-Hexachlorobiphenyl (Cl6)	153
2,2',5,5'-Tetrachlorobiphenyl (Cl4)	52	2,3,3',4,4',5-Hexachlorobiphenyl (Cl6)	156
2,3',4,4'-Tetrachlorobiphenyl (Cl4)	66	2,3,3',4,4',5'-Hexachlorobiphenyl (Cl6)	157
2,3',4',5 - Tetrachlorobiphenyl (Cl4)	70	2,3,3',4,4',6-Hexachlorobiphenyl (Cl6)	158
2,4,4',5-Tetrachlorobiphenyl (Cl4)	74	2,3',4,4',5,5'-Hexachlorobiphenyl (Cl6)	167
3,4,4',5 - Tetrachlorobiphenyl (Cl4)	81	2,3',4,4',5',6-Hexachlorobiphenyl (Cl6)	168
3,3',4,4'-Tetrachlorobiphenyl (Cl4)	77	3,3',4,4',5,5'-Hexachlorobiphenyl (Cl6)	169
2,2',3,4,5'-Pentachlorobiphenyl (Cl5)	87	2,2',3,3',4,4',5-Hepatachlorobiphenyl (Cl7)	170
2,2',4,4',5-Pentachlorobiphenyl (Cl5)	99	2,2',3,3',4,5',6'-Heptachlorobiphenyl (Cl7)	177
2,2',4,5,5'-Pentachlorobiphenyl (Cl5)	101	2,2',3,4,4',5,5'-Heptachlorobiphenyl (Cl7)	180
2,3,3',4,4'-Pentachlorobiphenyl (Cl5)	105	2,2',3,4,4',5',6-Heptachlorobiphenyl (Cl7)	183
2,3,3',4',6-Pentachlorobiphenyl (Cl5)	110	2,2',3,4',5,5',6-Heptachlorobiphenyl (Cl7)	187
2,3,4,4',5-Pentachlorobiphenyl (Cl5)	114	2,3,3',4,4',5,5'-Heptachlorobiphenyl (Cl7)	189
2,3',4,4',5-Pentachlorobiphenyl (Cl5)	118	2,2',3,3',4,4',5,5'-Octachlorobiphenyl (Cl8)	194
2,3',4,4',6-Pentachlorobiphenyl (Cl5)	119	2,2',3,3',4,5',6,6'-Octachlorobiphenyl (Cl8)	201
2,3',4,4',5'-Pentachlorobiphenyl (Cl5)	123	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (Cl9)	206
3,3',4,4',5-Pentachlorobiphenyl (Cl5)	126	Total PCB ¹	TPCB

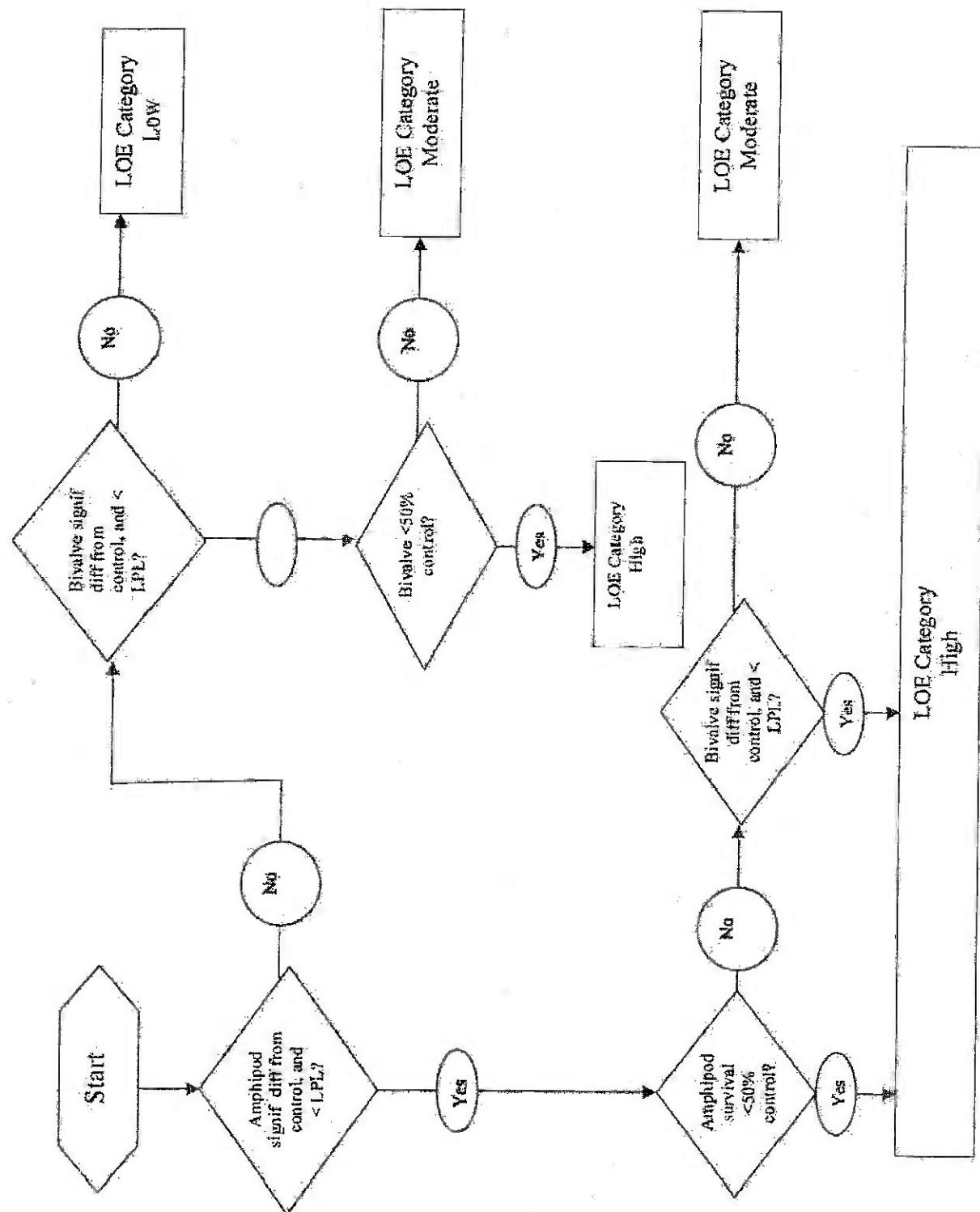
SCCWRP and U.S. Navy, 2005b

¹Total PCB = sum of all listed PCB congeners.

Attachment 8. Flow Diagram for the Sediment Chemistry Ranking Criteria (Low, Moderate, and High)

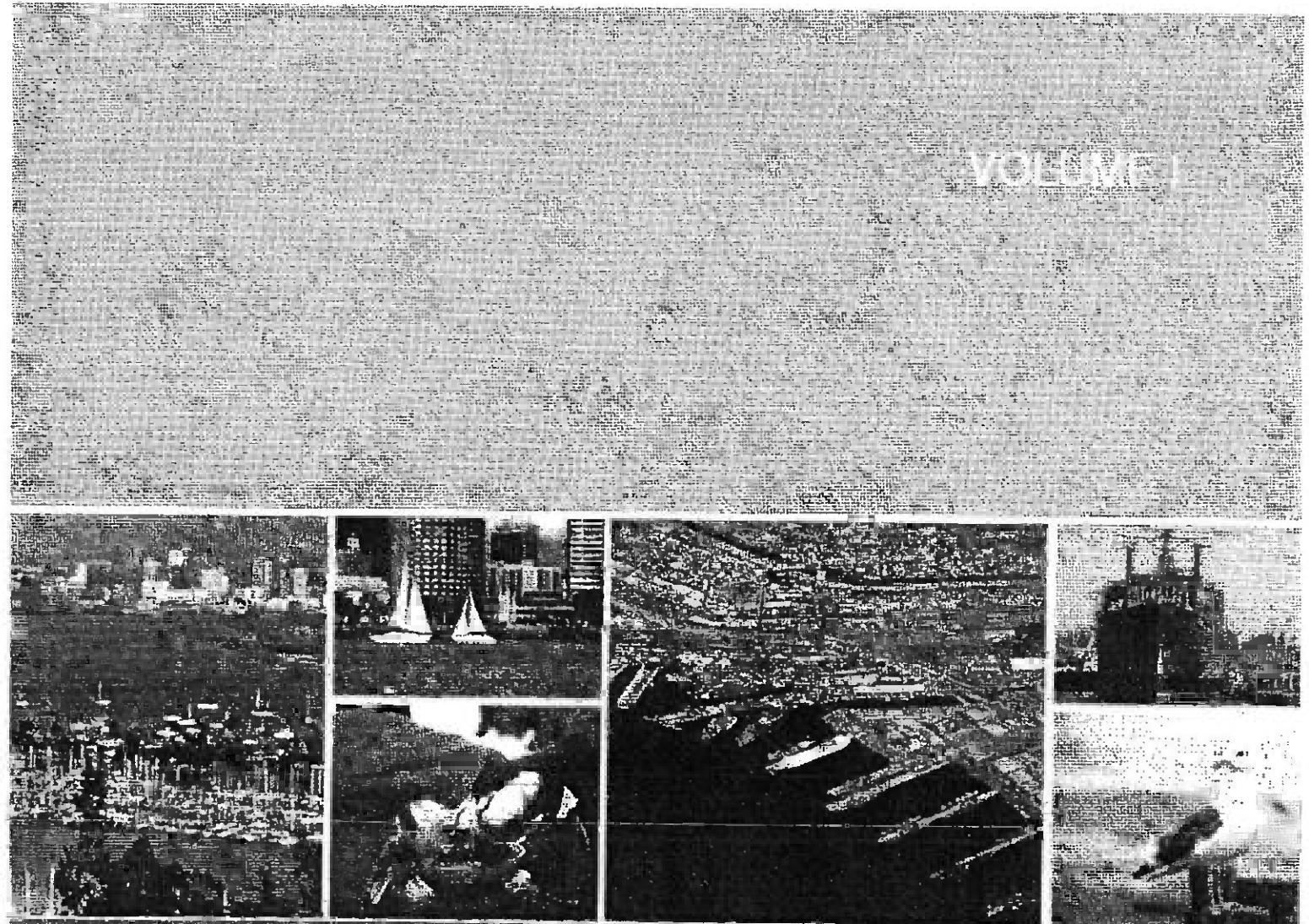


Attachment 9. Flow Diagram for the Toxicity Ranking Criteria (Low, Moderate, and High)



Attachment B

**Excerpts from Technical Report for Cleanup and Abatement Order
No. R9-2012-0024, dated March 14, 2012**



TECHNICAL REPORT FOR CLEANUP AND ABATEMENT ORDER NO. R9-2012-0024

FOR THE SAN FRANCISCO BAY HARBOR SITES - PROJECT NUMBER SANBAY-001

March 14, 2012



Water Boards

STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

11. Finding 11: San Diego Unified Port District

Finding 11 of CAO No. R9-2012-0024 states:

The San Diego Water Board finds that the Port District caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. The Port District is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by San Diego Marine Construction Company and by Campbell at all times since 1963 during which they conducted shipbuilding and repair activities.¹⁰¹ The Port District's own ordinances, which date back to 1963, prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and make it unlawful to discharge pollutants in non-storm water directly or indirectly into the storm water conveyance system.

The wastes the Port District caused or permitted to be discharged, or to be deposited where they were discharged into San Diego Bay through its ownership of the Shipyard Sediment Site contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH.

The San Diego water Board has discretion to name the Port district in its capacity as the State's trustee as a "discharger" in the Shipyard Sediment Site CAO and hereby does so in this CAO, consistent with its responsibility for the actions, omissions and operations of its tenants and to the extent indicated by previous State Water Board and San Diego Water Board orders. The Port District asserts that its status as a lessor and the State's trustee as well as other factors should only give rise to secondary and not primary liability as a discharger under this Order. Allocation of responsibility has not been determined and there is insufficient evidence to establish that present and former Port District tenants at the Site each have sufficient financial resources to perform all of the remedial activities required by this CAO. In addition, cleanup is not underway at this time. Under those circumstances, it is not appropriate to accord the Port District the secondary liability status it seeks.

The Port District also owns and operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of an NPDES Storm Water Permit. The San Diego Water Board finds that the Port District has discharged urban storm water containing waste directly or indirectly to San Diego Bay at the Shipyard Sediment Site. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs).

¹⁰¹ San Diego Marine Construction Company and Campbell Industries owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 5 and 6 of the Technical Report.

The urban storm water containing waste that has discharged from the on-site and off-site MS4 has contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Based on these considerations the San Diego Unified Port District is referred to as “Discharger(s)” in this CAO.

11.1. The Port District May Be Named as a Discharger

The Port District is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the San Diego Marine Construction Company and by Campbell at all times since 1963 during which they conducted shipbuilding and repair activities.¹⁰² The San Diego Water Board has the discretion to name the Port District in its capacity as the State's trustee as a “discharger” in the Shipyard Sediment Site CAO and hereby does so, consistent with its responsibility for the actions, omissions and operations of its tenants and to the extent indicated by previous State Water Board and San Diego Water Board orders.

The San Diego Water Board's discretion to hold landowners accountable for discharges which occurred on the landowner's property is based on three criteria. As the State's designated trustee for the relevant lands, the Port District meets all three of these criteria:

- Ownership of the land;
- Knowledge of the activity causing the discharge; and
- The ability to control the activity.¹⁰³

It is undisputable that the Port District is the State's designated statutory trustee and that it is responsible for the use and maintenance of the land leased by NASSCO, BAE Systems, and SDG&E, and the land formerly leased by San Diego Marine Construction Company and Campbell Industries. The Port District has responsibility for land use on these lands and can control decisions regarding the use and sizing of facilities located on lands under its jurisdiction. The Port District has, through its interactions with the San Diego Water Board over many years, and otherwise, known of the potential for discharges from the NASSCO, BAE Systems, San

¹⁰² San Diego Marine Construction Company and Campbell Industries owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 5 and 6.

¹⁰³ These principles on the issue of landowner liability under both waste discharge requirements and enforcement orders were established in a series of orders adopted by the State Water Resources Control Board and in memoranda issued by the State Board Office of Chief Counsel. (See e.g., State Board Order Nos. WQ 87-6, 87-5, 86-18, 86-16, 86-15, 86-11, 84-6, 90-03; Memorandum dated May 8, 1987 from William R. Attwater to Regional Board Executive Officers entitled “Inclusion of Landowners in Waste Discharge Requirements and Enforcement Orders”).

Diego Marine Construction Company, Campbell Industries, and SDG&E facilities to contribute to accumulations of pollutants in San Diego Bay sediment to deleterious levels. Finally, it is also clear that the Port District has, and at all times relevant had, the obligation and ability under its lease agreements with these entities to impose controls that could prevent or reduce waste discharges. (See e.g. Port District Ordinance No. 62.)

In years past, the State Water Board examined the terms of a lease in order to ascertain whether the lessor has the legal power to prevent a discharge.¹⁰⁴ In Order No. WQ 84-6 (page 12), for example the State Water Board concluded that former landowner/lessors had the opportunity to obviate dangerous conditions on their property on the basis of lease provisions stipulating that “the tenant shall not commit waste or nuisance on the premises, and shall obey all laws, state, federal, and local, with respect to the use of the premises.” Port District Ordinance No. 62 contains similar provisions. In addition, the State Water Board cited a term of the lease authorizing the landowners to re-enter the premises upon the failure of the tenant to perform any of its obligations under the lease.

Past lease agreements between the Port District and its tenants typically contained terms similar to those discussed in State Water Board Order No. WQ 84-6. For example, Port District leases reviewed by the San Diego Water Board in years past obligated its tenants to “abide by and conform to ... any applicable laws of the State of California and Federal Government....” The Port of San Diego’s leases required its tenants to keep the leased premises in a clean and sanitary condition, free and clear of waste. The leases authorized the Port District to enter and inspect the leased premises at any time during normal business hours. The leases also authorized the Port District to terminate the lease after 60 days written notice, if the tenant defaulted in the performance of the lease provisions. Under State Water Board Order No. WQ 84-6, these lease terms would provide a sufficient basis for a finding that the Port District had the requisite degree of control over a tenant’s activities to name it as a responsible party.

Based upon the three elements of ownership, knowledge of, and the ability to regulate the discharges which occurred during the lease terms, the San Diego Water Board can and hereby does conclude that that the Port District caused or permitted waste to be discharged into San Diego Bay, creating a condition of pollution and/or nuisance in the Bay at the Shipyard Sediment Site, consistent with its responsibility for the actions, omissions and operations of its tenants. Based on these considerations, and to the extent indicated by previous State Water Resources Control Board and San Diego Water Board orders, the Port District is referred to as “Discharger(s)” herein.

¹⁰⁴ See State Water Resources Control Board Order Nos. WQ 84-6 and 86-15.

11.2. The Port District Should Not Bear Merely Secondary Responsibility at this Time

In certain situations, the State Water Board has found it appropriate to consider a lessee primarily responsible and the lessor secondarily responsible for compliance with a cleanup and abatement order. A secondarily responsible party is one that is not obligated to comply with the cleanup and abatement order unless the primarily responsible party fails to do so. State Water Board Orders WQ 86-10 and 87-6 identified factors that should be considered in determining whether it is appropriate to assign secondary liability to the Port District for compliance with the Cleanup and Abatement Order. These factors include:

- The status of the lessee's compliance with the Order;
- The ability of the lessor to control the property, including the status of the lease agreement, the authority of the lessor under the lease, and the lessor's current ability to conduct the cleanup; and
- The lessor's role, if any, in the discharge of waste.

In general, the State Water Board Orders held that a landowner or lessor party may be placed in a position of secondary liability where it did not cause or permit the activity that led to the initial discharge into the environment and there is a primarily responsible party who is performing the cleanup. Other factors considered by the State Water Board include whether the landowner or lessor:

- Is a public entity that should be treated in a manner similar to the U.S. Forest Service in State Water Board Order No. WQ 87-05;
- Has a limited ability to conduct cleanup because another party has control over the site; and
- Contributed to or aggravated pollution conditions at the site.

The San Diego Water Board concludes that the Port District should be named as a "discharger" in the CAO consistent with its responsibility for the actions, omissions and operations of its tenants to the extent indicated by previous State Water Resources Control Board and San Diego Water Board orders. Although the Port District is a public government entity,¹⁰⁵ and there is no evidence in the record that the Port District initiated or contributed to the actual discharge of waste to the Shipyard Sediment Site, it is nevertheless appropriate to name the Port District as a discharger in the CAO to the extent the Port's tenants, past and present, have insufficient financial resources to cleanup the Shipyard Sediment Site and/or fail to comply with the order. (See egs. In the Matter of Petitions of Wenwest, Inc., et al., State Water Board Order No. WQ 92-13, p. 9; In the Matter of the Petitions of Arthur Spitzer, et al., State Water Board Order No. WQ 89-8, p. 21.) In the event the Port District's tenants, past and present, have sufficient financial resources to clean up the Shipyard Sediment Site and comply with the Order, then the San Diego Water Board may modify its status to secondarily responsible party in the future.

¹⁰⁵ See Harb. and Nav. Code, Appendix I, section 28.

11.3. The San Diego Unified Port District Operates a Municipal Separate Storm Sewer System (MS4) Through Which It Discharges Urban Runoff

The San Diego Unified Port District (Port District) operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of a NPDES Storm Water Permit (Order No. R9-2007-0001 NPDES No. CAS0108758). The Port District is the trustee of the tidelands property and lessor of the BAE Systems leasehold and NASSCO leasehold. The Port District is a co-permittee of current and prior NPDES Storm Water Permits which regulate the MS4 drains which outfall on the BAE Systems and NASSCO leaseholds as well as drains on other tidelands property over which the Port District is trustee. The permits specifically regulate the watershed of the Port District and the Port District is subject to all of the terms and conditions of the permits as an operator of the MS4 system.

The Port District's own ordinances, which date back to 1963, prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and make it unlawful to discharge pollutants in non-storm water directly or indirectly into the storm water conveyance system.

The San Diego Water Board finds that the Port District has discharged urban storm water containing waste directly to San Diego Bay at the Shipyard Sediment Site through its MS4 conveyances. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs) through SW4 (located on the BAE Systems leasehold) and SW9 (located on the NASSCO leasehold) MS4 conduit pipes as well as other minor drains on its tidelands property and watershed to the Shipyard Sediment Site.

11.3.1. MS4 Description

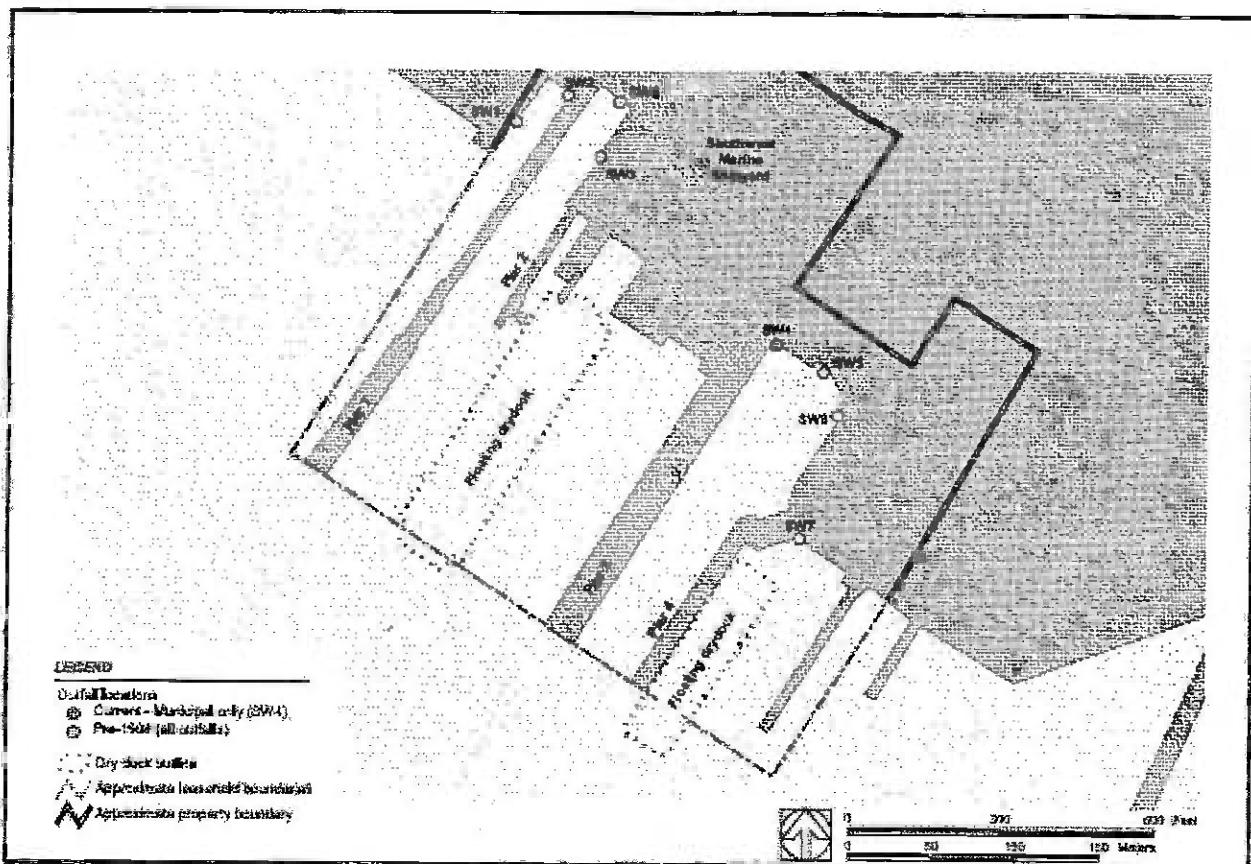
The Port District operates an MS4 conveyance through which it discharges urban runoff into waters of the United States within the San Diego Region. The Port District's MS4 conveys urban runoff from the urbanized and largely industrial tidelands area storm drain structures and storm drain pipes that discharge into the Shipyards Site and greater San Diego Bay.

The Port District operates an MS4 that conveys urban runoff from source areas up-gradient of the Shipyard Sediment Site's property and discharge indirectly into San Diego Bay within the NASSCO and BAE Systems leasehold or directly through the following outfalls:

- **Storm Drain SW4**

The storm drain outfall identified as SW4 in the Shipyard Report (Exponent, 2003) enters BAE Systems leasehold with two contributing storm pipes located at the foot of Sampson and Sicard Streets. These pipes join together somewhere beneath BAE Systems' leasehold, ultimately discharging into San Diego Bay at the SW4 outfall located at a point between Piers 3 and Pier 4 on the BAE Systems leasehold¹⁰⁶ at the Shipyard Sediment site. This storm drain receives runoff from Sicard, Belt, and Sampson streets and had historically received runoff directly from areas within the current BAE leasehold. Figure 11-1 shows the storm drain outfalls at the BAE Systems' leasehold.

Figure 11-1 Storm Drain Outfalls at BAE Systems' Leasehold



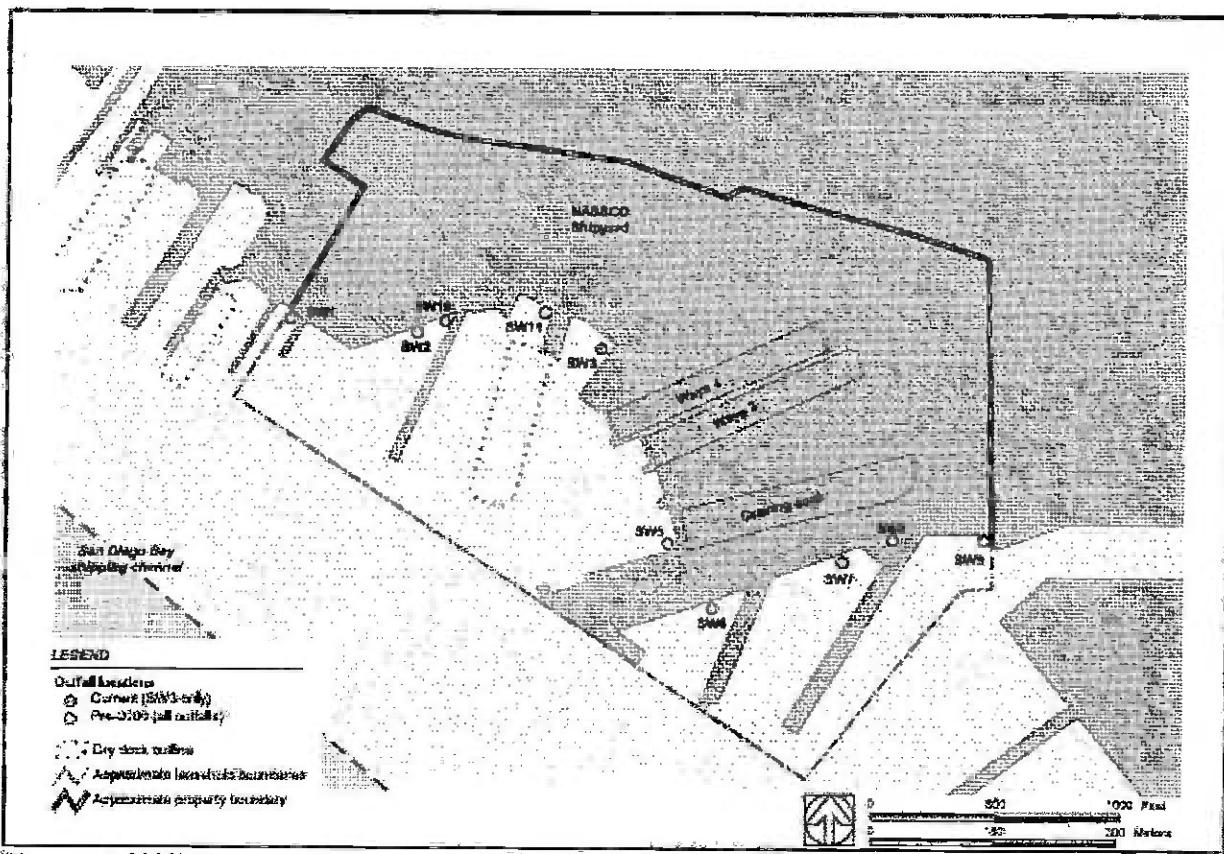
(Exponent, 2003)

¹⁰⁶ A 1968 City of San Diego drainage easement figure shows a 42-inch storm drain, discharging into the Bay between Piers 3 and 4. No further information was provided by the City of San Diego concerning the SW4 outfall.

- **Storm Drain SW9**

This storm drain outfall is identified as SW9 in the Shipyard Report (Exponent, 2003) and enters NASSCO's leasehold at the foot of 28th Street and discharges at the southeasterly corner of the leasehold into Chollas Creek, a tributary of San Diego Bay. (Exponent, 2003; ENV America, 2004a; City of San Diego, 2004a) Storm Drain SW9 collects flow from 28th Street, and stretches from the I-5 freeway to the bay including parts of Belt Street and Harbor Drive and historically received runoff from areas within the current NASSCO leasehold. Figure 11-2 shows the storm drain outfalls at NASSCO's leasehold.

Figure 11-2 Storm Drain Outfalls at NASSCO's Leasehold



(Exponent, 2003)

11.3.2. Urban Runoff is a “Waste” and a “Point Source Discharge” of Pollutants

Urban runoff is a waste, as defined in the Water Code that contains pollutants and adversely affects the quality of the waters of the state.¹⁰⁷ The discharge of urban runoff from an MS4 conveyance is a “discharge of pollutants from a point source” into waters of the United States as defined in the Clean Water Act.¹⁰⁸

¹⁰⁷ See Wat. Code, § 13050, subd. (d). Waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, March 14, 2012

The most common categories of pollutants in urban runoff include total suspended solids (TSS), sediment (due to anthropogenic activities), pathogens (e.g., bacteria, viruses, protozoa), heavy metals (e.g., copper, lead, zinc, and cadmium), petroleum products and polynuclear aromatic hydrocarbons (PAHs and HPAHs), synthetic organics (e.g., pesticides, herbicides, and PCBs), nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), and trash.¹⁰⁹

11.4. The Port District Discharged Waste to San Diego Bay

The Port District has caused or permitted the discharge of urban storm water pollutants directly to San Diego Bay at the Shipyard Sediment Site. The pollutants include metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), TSS, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs) through SW4 (located on the BAE Systems leasehold) and SW9 (located on the NASSCO leasehold) MS4 conduit pipes, as well as other minor drains on its tidelands property and watershed to the Shipyard Sediment Site.

Urban runoff discharges from the Port District are regulated under NPDES requirements prescribed by the San Diego Water Board pursuant to CWA section 402 and Water Code section 13376. The Port District must comply with all conditions of the NPDES requirements. Any noncompliance of NPDES requirements constitutes a violation of the CWA and Water Code and is grounds for enforcement action, including the issuance of a cleanup and abatement order under the circumstances described in Water Code section 13304. Water Code section 13304 contains the cleanup and abatement authority of the San Diego Water Board. Section 13304(a) provides, in relevant part, that the San Diego Water Board may issue a cleanup and abatement order to any person “who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement....”

The Port District’s NPDES Permit requirement urban runoff discharges are documented in the San Diego Water Board records via monitoring reports (filed by the *San Diego County Municipal Copermittees*).

11.5. The Port District Discharged Waste to San Diego Bay Creating Pollution, Contamination, and Nuisance Conditions in San Diego Bay

The Port District has contributed to the accumulation of pollutants in marine sediment at the Shipyard Sediment Site by discharging urban storm water pollutants from MS4 discharges at

manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

¹⁰⁸ 40 CFR 122.2 defines “point source” as “any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.” 40 CFR 122.2 defines “discharge of a pollutant” as “Any addition of any ‘pollutant’ or combination of pollutants to ‘waters of the United States’ from any point source.”

¹⁰⁹ Finding 7 of Order No. 2001-001, NPDES No. CAS0108758, Waste Discharge Requirements For Discharges Of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities Of San Diego County, and the San Diego Unified Port District.

levels, which cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Water code section 13304 requires that any person who causes any waste to be discharged, or deposited where it probably will be discharged, into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance is subject to cleaning up or abating the effects of the waste.

The Porter-Cologne Water Quality Act defines "pollution" as "an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects ... the waters for beneficial uses...."¹¹⁰ "Contamination" is defined as "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."¹¹¹

Pollutants conveyed and discharged by the MS4 conveyance include metals, TSS, sediment, petroleum products, pesticides, herbicides, and PCBs. Many of these same pollutants are present in marine sediment at the Shipyard Sediment Site in highly elevated concentrations as compared to sediment chemistry levels found at off-site reference stations located in areas of San Diego Bay.¹¹²

As stated above, since 1990 the Port District's NPDES requirements have specifically prohibited urban runoff discharges that cause pollution, contamination or nuisance conditions in San Diego Bay or otherwise cause or contribute to violations of San Diego Bay water quality standards.

Based on the evidence presented in Section 11.4 of this Technical Report, the Port District has a history of discharging pollutants through MS4 Storm Drains SW4, SW9, and other minor drains on its tidelands property and watershed to the Shipyard Sediment Site at levels that have contributed to a condition of pollution, contamination, or nuisance at the Shipyard Sediment Site. As described in Sections 13 through 30 of this Technical Report these same pollutants in the discharges have accumulated in San Diego Bay sediment at levels that may:

4. Adversely affect the beneficial uses of San Diego Bay, violating a NPDES requirement prohibitions pertaining to discharges that cause pollution, contamination, or nuisance conditions in San Diego Bay; and
5. Violate NPDES requirements pertaining to discharges that degrade marine communities, cause adverse effects on the environment or the public health, or result in harmful concentrations of pollutants in marine sediment.

Accordingly, it is concluded that the Port District has caused or permitted the discharge of waste to San Diego Bay in a manner causing the creation of pollution or nuisance conditions and that it

¹¹⁰ Wat. Code, § 13050, subd. (l).

¹¹¹ Wat. Code, § 13050, subd. (k).

¹¹² See Section 15 of this Technical Report.

is appropriate for the San Diego Water Board to issue a cleanup and abatement order naming the Port District as a discharger pursuant to Water Code section 13304.¹¹³

11.6. NPDES Requirement Regulations & Port District Ordinances

Urban runoff discharges from the Port District's MS4 are regulated under NPDES requirements prescribed by the San Diego Water Board pursuant to Clean Water Act section 402 and Water Code section 13376. These requirements are referred to as either NPDES requirements¹¹⁴ or by the federal terminology "NPDES Permit." The Port District's first NPDES requirements started in 1990, when the San Diego Water Board issued WDRs for storm water and urban runoff. A listing of the successive NPDES requirements adopted by the San Diego Water Board to regulate the Port District's MS4 Urban Runoff discharges is provided in Table 11-1 below.

¹¹³ The Port District asserts that under the Ninth Circuit opinion in Natural Resources Defense Council, Inc. v. County of Los Angeles, 636 F.3d 1235 (9th Cir. 2011) (NRDC Case), there is insufficient evidence in the record to support naming the Port District as a Discharger based upon urban runoff discharges. For the reasons stated in the San Diego Water Board Cleanup Team's Response to Comments Report, the NRDC Case is not applicable because it focused on whether an NPDES permittee had violated its NPDES permit limits. The weight of the evidence in this record supports finding that the Port District discharged waste to the Shipyard Sediment that caused a condition of pollution or nuisance. (See Response to Comments Report, August 23, 2011, pp. 11-16 through 11-17).

¹¹⁴ Pursuant to Chapter 5.5 of the Porter-Cologne Water Quality Act, to avoid the issuance by the United States Environmental Protection Agency of separate and duplicative NPDES permits for discharges in California that would be subject to the Clean Water Act, the State's Waste Discharge Requirements (WDRs) for such discharges implement the NPDES regulations and entail enforcement provisions that reflect the penalties imposed by the Clean Water Act for violation of NPDES permits issued by the U.S. EPA. Thus, the State's WDRs that implement federal NPDES regulations (NPDES requirements) serve in lieu of NPDES permits.

Table 11-1 Port District NPDES Permits

Order Number / NPDES No.	Order Title	Adoption Date	Expiration Date
Order No. 90-42 NPDES No. CA0108758	Waste Discharge Requirements For Storm water and Urban Runoff from the County of San Diego the Incorporated Cities of San Diego County and the San Diego Unified Port District	July 16, 1990	February 21, 2001
Order No. 2001-01, NPDES No. CAS0108758	Waste Discharge Requirements For Discharges Of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cites of San Diego County, and the Unified Port District	February 21, 2001	Present
Order No. 2007-001, NPDES No. CAS0108758	Waste Discharge Requirements For Discharges Of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cites of San Diego County, and the Unified Port District	January 24, 2007	Present

The Port District must comply with all conditions of the NPDES requirements. Any noncompliance of NPDES requirements constitutes a violation of the CWA and Water Code and is grounds for enforcement action, including the issuance of a cleanup and abatement order under the circumstances described in Water Code section 13304.

Each of the Port District's successive NPDES requirements described here has specifically prohibited urban runoff discharges that cause pollution, contamination or nuisance conditions in San Diego Bay, or otherwise cause or contribute to violations of San Diego Bay water quality standards.

11.6.2. Order No. 90-42, NPDES No. CA0108758

Order 90-42, NPDES No. CA0108758, in effect from July 16, 1990 to February 21, 2001, contains the following narrative limits that relate to the discussions contained herein:

- VIII. ILLICIT CONNECTION/ILLEGAL DUMPING DETECTION PROGRAM B. The permittee shall effectively eliminate all identified illegal/illicit discharges in the shortest time practicable, and in no case later than July 16, 2005 If it is determined that any of the preceding discharges cause or contribute to violations of water quality standards or are significant contributors of pollutants to waters of the United States, the discharges shall be prohibited from entering storm water conveyance systems; and
- XIII. PROVISIONS A. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.

11.6.3. Order No. 2001-01, NPDES No. CAS0108758

Order No. 2001-01, NPDES No. CAS0108758, in effect from February 21, 2001 contains the following provisions that relate to the discussions contained herein:

- A. PROHIBITIONS – DISCHARGES ... 1. Discharges into and from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC § 13050), in waters of the state are prohibited.
- A. PROHIBITIONS DISCHARGES ... 2. Discharges from MS4s which cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater are prohibited.
- C. RECEIVING WATER LIMITATIONS ... 1. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.

11.6.4. Order No. 2007-0001, NPDES No. CAS0108758

Order No. 2007-0001, NPDES No. CAS0108758, in effect from January 24, 2007 contains the following provisions that relate to the discussions contained herein:

- A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS... 1. Discharges into and from municipal separate storm sewer systems (MS4s) in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC section 13050), in waters of the state are prohibited.
- A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS ... 3. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.

The above NPDES requirement narrative limits are applicable to urban runoff discharges to San Diego Bay from the Port District MS4 Storm Drains SW4, SW9, and other minor drains on the Port District's tidelands property at the Site, which occurred during the effective terms of Order Nos. 90-42, 2001-01, and 2007-0001.

Additionally, the Port District's own ordinances, which date back to 1963, also prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay.¹¹⁵ The Port District's ordinances make it unlawful to discharge pollutants in non-storm water directly or indirectly into storm water conveyance systems or receiving waters.¹¹⁶ It is specifically among the powers of the Port District to "protect, preserve and enhance" the "natural resources of the Bay" and "the quality of water in the Bay."¹¹⁷ The Port District has been charged with making

¹¹⁵ Ordinance No. 62, "An Ordinance Regulating Disposal of Refuse and Dumping on the Tidelands and into the Bay of San Diego; Amending Port District Code by adding § 8.50 (May 1963) (See § 8.50 (b), (c)).

¹¹⁶ Article 10, San Diego Unified Port District Stormwater Management & Discharge Control, § 10.05. Prohibitions, San Diego Unified Port District code (26Sep2011)

¹¹⁷ Harbors & Navigation Code, Appx. § 4.

and enforcing all necessary rules and regulations governing the use and control of the Bay waters and tidelands, including making and enforcing any local sanitary regulations relating to public services and public utilities in the District, which would include municipal storm water systems, since the San Diego Unified Port District Act was enacted in 1962.¹¹⁸

11.6.5. Port District, MS4 Storm Drain SW4

As described in Section 11.3.1, the Port District operates an MS4 storm drain identified as SW4 in the Shipyards Report (Exponent, 2003) (see Figure 11-1 above) which conveys urban runoff from source areas upgradient of BAE Systems and historically from BAE Systems' property and discharges(d) directly within the BAE Systems leasehold. Urban runoff discharged into the SW4 storm drain outfall is subject to the NPDES requirements cited in Section 11.6. Although no monitoring data is available for this outfall, it is highly probable that historical and current discharges from this outfall have discharged heavy metals and organics to San Diego Bay at the Shipyards Sediment Site.¹¹⁹

The Storm Drain SW4 discharges into the BAE Systems leasehold between Piers 3 and 4. Sample stations from the Detailed Sediment Investigation (Exponent, 2003) in the area of this outfall include SW20 through SW25. The sample results for PCBs and PAHs are presented in Table 11-2.

¹¹⁸ San Diego Unified Port District Act, §§ 55, 56.

¹¹⁹ See Section Figure 0-112816128 for a description of the most common categories of pollutants found in urban runoff.

Table 11-2 NASSCO & BAE Systems Detailed Sediment Investigation PCB and PAH Results for SW20 through SW25

Constituent	SW20 µg/kg	SW21 µg/kg	SW22 µg/kg	SW23 µg/kg	SW24 µg/kg	SW25 µg/kg
Aroclor-1016	<250	<260	<29	<29	<230	<26
Aroclor-1221	<500	<520	<57	<58	<460	<51
Aroclor-1232	<250	<260	<29	<29	<230	<26
Aroclor-1242	<250	<260	<29	<29	<230	<26
Aroclor-1248	<250	<260	<29	<29	<230	<26
Aroclor-1254	1,500	1,600	670	550	790	330
Aroclor-1260	1,600	1,800	790	710	870	380
Sum of Aroclors [®]	3,100	3,400	1,500	1,300	1,700	710
Naphthalene ¹	<13	13	31	<15	26	<13
Acenaphthylene ¹	120	130	150	130	290	180
Acenaphthene ¹	16	14	17	19	14	13
Fluorene ¹	53	53	56	53	220	45
Phenanthrene ¹	300	220	330	360	810	260
Anthracene ¹	450	370	500	500	6,000	440
Fluoranthene ²	930	580	910	960	7,100	750
Pyrene ²	1,200	850	1,100	1,000	3,100	940
Benzo [a] Anthracene ²	760	650	890	850	6,300	710
Chrysene ²	1,800	1,400	1,900	1,800	11,000	1,300
Benzo [b] Fluoranthene ²	1,500	1,600	1,800	1,500	7,000	2,000
Benzo [k] Fluoranthene ²	1,200	1,100	1,300	1,200	7,300	1,600
Benzo [a] Pyrene ²	1,400	1,500	1,700	1,500	8,800	2,000
Dibenz [a,h] Anthracene ²	200	210	230	220	1,100	240
Benzo [g,h,i] Perylene ²	770	780	830	820	2,800	800
Indeno [1,2,3-c, d] Pyrene ²	970	990	1,100	1,000	3,700	1,100
Total PAHs	11,669	10,460	12,844	11,912	65,560	12,378

1. LPAH – low molecular weight polynuclear aromatic hydrocarbon

2. HPAH – high molecular weight polynuclear aromatic hydrocarbon

Non-detections are represented as less than the quantitation limit.

(Exponent, 2003)

PCBs in sediment from the laterals and catch basin of the storm water conveyance system were found at levels that exceed the ERL and ERM of 22.7 µg/kg and 180 µg/kg, respectively (Long et al., 1995), as well as the proposed Alternative Sediment Cleanup Levels.

Sediment PCB levels, specifically Aroclor-1254 and 1260, and sediment PAH levels reported in the storm water conveyance system are also reported in the bay sediment near the storm water outfall as indicated in Table 11-2.

As outlined above, SW4 has discharged pollutants, specifically Aroclor-1254 and 1260, and PAHs, into the BAE Systems leasehold and San Diego Bay at the Shipyard Sediment Site, for which the Port District is required under its NPDES permit and by its own ordinances to prevent. These facts provide evidence that the Port District has discharged and deposited pollutants to the Shipyard Sediment Site.

11.6.6. Port District, MS4 Storm Drain SW9

As described in Section 11.3.1, the Port District operates an MS4 storm drain identified as SW9 in the Shipyard Report (Exponent, 2003) (see Figure 11-2, above), which conveys urban runoff from source areas upgradient of NASSCO's property and historically from areas within the current NASSCO leasehold and discharges(d) directly within the NASSCO leasehold. Urban runoff discharged into the SW9 storm drain outfall is subject to the NPDES requirements cited in Section 11.6. Although no monitoring data is available for this outfall, it is highly probable that historical and current discharges from this outfall have discharged heavy metals and organics to San Diego Bay at the Shipyard Sediment Site.¹²⁰

A review of maps of the storm drain outfalls shows that the storm drain SW9 outfall is located in the NASSCO leasehold at the foot of 28th St. near the mouth of Chollas Creek (Exponent, 2003; ENV America, 2004a; City of San Diego, 2004a). SW9 collects flow from 28th Street, and stretches from the I-5 freeway to the bay including parts of Belt Street and Harbor Drive.

Surface sediment data at NASSCO sample station NA22, which is located near the SW9 storm drain outfall shows elevated concentrations of total high-molecular-weight polynuclear aromatic hydrocarbons (Total HPAHs) at 3600 µg/kg, Dichlorodiphenyltrichloroethane (DDT) at 29.7 µg/kg, and Chlordane at 21.1 µg/kg. These pollutant levels are indicators of an urban runoff source (Exponent, 2003) and therefore indicate that historical urban runoff discharges occurred from the Port District's tidelands via the SW9 outfall.

As described above, the surface sediment data at NASSCO sample station NA22 provides evidence that the Storm Drain SW9 conveys the HPAHs pollutants into the NASSCO leasehold and San Diego Bay at the Shipyard Sediment Site and the Port District under its NPDES permit and by its own ordinances is responsible for preventing those discharges. The urban runoff characteristics of the sediment pollutants at Station NA22 adjacent to the Storm Drain SW9 provide evidence that the Port District has discharged pollutants to the Shipyard Sediment Site. The weight of evidence suggests that there are discharges from Storm Drain SW9 that are contributing to the accumulation of pollutant in marine sediment.

¹²⁰ See Section 1.3.2 for a description of the most common categories of pollutants found in urban runoff.

Attachment C

**Excerpts from the draft Technical Report for Cleanup and
Abatement Order No. R9-2010-0002, dated December 22, 2009**



DRAFT TECHNICAL REPORT FOR TENTATIVE CLEANUP AND ABATEMENT ORDER NO. R9-2010-0002

For the Shipyard Sediment Site
San Diego Bay, San Diego, CA

Volume I

DECEMBER 2009



STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

1. Finding 1: Waste Discharge

Elevated levels of pollutants above San Diego Bay background conditions exist in the San Diego Bay bottom marine sediment along the eastern shore of central San Diego Bay in an area extending approximately from the Sampson Street Extension to the north and Chollas Creek to the south and from the National Steel and Shipbuilding Company Shipyard facility (hereinafter "NASSCO") and the BAE Systems San Diego Ship Repair Facility (hereinafter "BAE Systems") shoreline out to the San Diego Bay main shipping channel to the west. This area is hereinafter collectively referred to as the "Shipyard Sediment Site." NASSCO; BAE Systems San Diego Ship Repair, Inc.; City of San Diego; Marine Construction and Design Company and Campbell Industries, Inc.; San Diego Gas and Electric, a subsidiary of Sempra Energy Company; and the United States Navy have each caused or permitted the discharge of waste to the Shipyard Sediment Site resulting in the accumulation of waste in the marine sediment. The contaminated marine sediment has caused conditions of contamination or nuisance in San Diego Bay that adversely affects aquatic life, aquatic-dependent wildlife, human health, and San Diego Bay beneficial uses. A map of the Shipyard Sediment Site region is provided in Attachment 1 to this Order.

1.1 Shipyard Sediment Site

Discharges of metals and other pollutant¹ wastes to San Diego Bay marine sediment and water have resulted in the accumulation of pollutants in bay bottom marine sediment, which creates conditions that adversely impacts three categories of beneficial uses: aquatic life, aquatic-dependent wildlife, and human health. The sediment containing elevated levels of pollutants is referred to in this Technical Report as "contaminated marine sediment".

The contaminated marine sediments are located along the eastern shore of central San Diego Bay and encompass an area extending approximately from the Sampson Street Extension to the north and Chollas Creek to the south and from the National Steel and Shipbuilding Company Shipyard facility (NASSCO) and BAE Systems shipyard facilities shoreline out to the San Diego Bay main shipping channel on the west. This area

¹ Any type of industrial, municipal, and agricultural waste discharged into water is a pollutant. The term "pollutant" is defined in Clean Water Act section 502(6) as dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, "chemical wastes", biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. The term "pollutant" has been further broadened by the NPDES regulations (40 CFR 122) and court cases. As used in this technical report, the term "pollutant" is intended to refer to a substance that meets the definition of "waste" under Water Code section 13050(d).

² As used in this Technical Report, the term "contaminated marine sediment" is intended to refer to sediment that either meets the definition of "contamination" under Water Code section 13050(k) or that creates, or threatens to create, a condition of "pollution" under Water Code section 13050(l).

10. Finding 10: San Diego Unified Port District

The Port District is a special government entity that administers certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by the NASSCO Shipyard facility, the BAE Systems San Diego Ship Repair Facility, and the cooling water tunnels for San Diego Gas and Electric Company's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the San Diego Marine Construction Company Inc. and Southwest Marine Inc. at all times during which they conducted shipbuilding and repair activities. As the State's designated trustee for these lands, the Port District is responsible for the actions, omissions and operations of its tenants. The Regional Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" in the Shipyard Sediment Site Cleanup and Abatement Order. To be consistent with previous State and Regional Water Board orders concerning the naming of non-operating public agencies in cleanup and abatement orders, the Regional Board is not now naming the Port of San Diego as a "discharger" in the Cleanup and Abatement order, but may do so in the future if the Port's former and/or current tenants fail to comply with the Order.

10.1 The San Diego Unified Port District May Be Named as a Discharger

The San Diego Unified Port District ("Port District") is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E'sformer Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the SDMC and Southwest Marine Inc. at all times during which they conducted shipbuilding and repair activities¹⁰⁰. The Regional Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" in the Shipyard Sediment Site Cleanup and Abatement Order. However, the Regional Board's exercise of this discretion should be consistent with previous State Water Board orders concerning the naming of non-operating public agencies in cleanup and abatement orders.

¹⁰⁰ San Diego Marine Construction Company and Southwest Marine Inc. owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 3 and 5.

The San Diego Water Board's discretion to hold landowners accountable for discharges which occurred on the landowner's property is based on three criteria. As the State's designated trustee for the relevant lands, the Port District meets all three of these criteria:

- Ownership of the land;
- Knowledge of the activity causing the discharge; and
- The ability to control the activity.¹⁰¹

It is undisputed that the Port District is the State's designated statutory trustee and that it is responsible for the use and maintenance of the land leased by NASSCO, BAE Systems, and SDG&E, and the land formerly leased by SDMC. The SDUPD has responsibility for land use on these lands and can control decisions regarding the use and sizing of facilities located on lands under its jurisdiction. The Port District has, through its interactions with the San Diego Water Board over many years, known of the potential for discharges from the NASSCO, BAE Systems, SWM, Campbell Industries, and SDG&E facilities to contribute to accumulations of pollutants in San Diego Bay sediment to deleterious levels. Finally, it is also clear that the Port District has, and at all times relevant had, the obligation and ability under its lease agreements with these entities to impose controls that could prevent or reduce waste discharges. (See eg. Port District Ordinance No. 62.)

In years past, the State Water Board examined the terms of a lease in order to ascertain whether the lessor has the legal power to prevent a discharge¹⁰². In Order No. WQ 84-6 (page 12), for example the State Water Board concluded that former landowner/lessors had the opportunity to obviate dangerous conditions on their property on the basis of lease provisions stipulating that "the tenant shall not commit waste or nuisance on the premises, and shall obey all laws, state, federal, and local, with respect to the use of the premises". Port District Ordinance No. 62 contains similar provisions. In addition, the State Water Board cited a term of the lease authorizing the landowners to re-enter the premises upon the failure of the tenant to perform any of its obligations under the lease.

Past lease agreements between the Port District and its tenants typically contained terms similar to those discussed in State Water Board Order No. WQ 84-6. For example, Port District leases reviewed by the San Diego Water Board in years past obligated its tenants to "abide by and conform to ... any applicable laws of the State of California and Federal Government...". The Port of San Diego's leases required its tenants to keep the leased premises in a clean and sanitary condition, free and clear of waste. The leases authorized the Port District to enter and inspect the leased premises at any time during normal

¹⁰¹ These principles on the issue of landowner liability under both waste discharge requirements and enforcement orders were established in a series of orders adopted by the State Water Resources Control Board and in memoranda issued by the State Board Office of Chief Counsel. (See e.g., State Board Order Nos. WQ 87-6, 87-5, 86-18, 86-16, 86-15, 86-11, 84-6, 90-03; Memorandum dated May 8, 1987 from William R. Attwater to Regional Board Executive Officers entitled "Inclusion of Landowners in Waste Discharge Requirements and Enforcement Orders".)

¹⁰² See State Water Resources Control Board Order Nos. WQ 84-6 and 86-15.

business hours. The leases also authorized the Port District to terminate the lease after 60 days written notice, if the tenant defaulted in the performance of the lease provisions. Under State Water Board Order No. WQ 84-6, these lease terms would provide a sufficient basis for a finding that the Port District had the requisite degree of control over a tenant's activities to name it as a responsible party.

Based upon the three elements of ownership, knowledge of, and the ability to regulate the discharges which occurred during the lease terms, the San Diego Water Board can conclude that that the Port District caused or permitted waste to be discharged into San Diego Bay, creating a condition of pollution in the Bay at the Shipyard Sediment Site. Although it is within the San Diego Water Board's discretion to name the Port District in the Cleanup and Abatement Order, to do so at this time would be inconsistent with previous State Water Board orders which direct naming non-operating public agencies in cleanup and abatement orders only in the event there are no other viable responsible parties.

10.2 The San Diego Unified Port District Should Only Bear Secondary Responsibility at this Time

In certain situations, the State Water Board has found it appropriate to consider a lessee primarily responsible and the lessor secondarily responsible for compliance with a cleanup and abatement order. A secondarily responsible party is one that is not obligated to comply with the cleanup and abatement order unless the primarily responsible party fails to do so. State Water Board Orders WQ 86-10 and 87-6 identified factors that should be considered in determining whether it is appropriate to assign secondary liability to the Port District for compliance with the Cleanup and Abatement Order. These factors include:

- The status of the lessee's compliance with the Order;
- The ability of the lessor to control the property, including the status of the lease agreement, the authority of the lessor under the lease, and the lessor's current ability to conduct the cleanup; and
- The lessor's role, if any, in the discharge of waste.

In general, the State Water Board Orders held that a landowner or lessor party may be placed in a position of secondary liability where it did not cause or permit the activity that led to the initial discharge into the environment and there is a primarily responsible party who is performing the cleanup. Other factors considered by the State Water Board include whether the landowner or lessor:

- Is a public entity that should be treated in a manner similar to the U.S. Forest Service in State Water Board Order WQ 87-05;
- Has a limited ability to conduct cleanup because another party has control over the site; and
- Contributed to or aggravated pollution conditions at the site.

While the San Diego Water Board concludes that the Port District may be named as a “discharger” in the Cleanup and Abatement Order, the Board also concludes that the Port District should only bear secondary responsibility for the cleanup at this time and that it is not presently necessary to name the Port District in the Cleanup and Abatement Order. The Port District is a public government entity¹⁰³. There is no evidence in the record that the Port District initiated or contributed to the actual discharge of waste to the Shipyard Sediment Site. The Port’s leases with its tenants are long-term and there is no evidence in the record at this time indicating that its past and/or current tenants have insufficient financial resources to cleanup the Shipyard Sediment Site. The major Shipyard Sediment Site investigations to determine the extent of pollution at the Shipyard Sediment Site were satisfactorily completed by NASSCO and BAE Systems. The Port District is a responsible public agency that is well equipped under its lease agreements to coordinate or require its tenants’ compliance with the cleanup and abatement orders issued by the San Diego Water Board. Naming the Port District in the Cleanup and Abatement Order at this juncture may create an additional adversarial situation and hinder cooperation with the San Diego Water Board in a cleanup that is already highly contested by other dischargers. Consistent with State Board precedent, there is no need to name the Port District in the Cleanup and Abatement Order as a “discharger” with primary responsibility for compliance until it becomes clear that the Port’s tenants have failed to comply with the order. (See egs. In the Matter of Petitions of Wenwest, Inc., et al., State Board Order No. WQ 92-13, p. 9; In the Matter of the Petitions of Arthur Spitzer, et al., State Board Order No. WQ 89-8, p. 21.) Based on these considerations the San Diego Water Board is not now naming the Port District as a “discharger” in the Cleanup and Abatement order but may do so in the future if the Port’s tenants fail to comply with the Order.

¹⁰³ See California Harbors and Navigation Code, Appendix I, section 28.

Attachment D

Excerpts from the Tentative Cleanup and Abatement Order No. R9-2011-0001, dated September 15, 2010

TENTATIVE

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN DIEGO REGION

TENTATIVE CLEANUP AND ABATEMENT ORDER NO. R9-2011-0001

NATIONAL STEEL AND SHIPBUILDING COMPANY

BAE SYSTEMS SAN DIEGO SHIP REPAIR, INC.

CITY OF SAN DIEGO

STAR & CRESCENT BOAT COMPANY

CAMPBELL INDUSTRIES

SAN DIEGO GAS AND ELECTRIC

UNITED STATES NAVY

SAN DIEGO UNIFIED PORT DISTRICT

SHIPYARD SEDIMENT SITE

SAN DIEGO BAY

SAN DIEGO, CALIFORNIA

(NBSD), formerly Naval Station San Diego or NAVSTA, through which it has caused or permitted the discharge of waste commonly found in urban runoff to Chollas Creek and San Diego Bay, including excessive concentrations of copper, lead, and zinc in violation of waste discharge requirements. Technical reports by the U.S. Navy and others indicate that Chollas Creek outflows during storm events convey elevated sediment and urban runoff chemical pollutant loading and its associated toxicity up to 1.2 kilometers into San Diego Bay over an area including the Shipyard Sediment Site.

The San Diego Water Board alleges, but the U.S. Navy denies, that the U.S. Navy has caused or permitted marine sediment and associated waste to be resuspended into the water column as a result of shear forces generated by the thrust of propellers during ship movements at NBSD. The resuspended sediment and pollutants can be transported by tidal currents and deposited in other parts of San Diego Bay, including the Shipyard Sediment Site. The above discharges have contributed to the accumulation of pollutants in marine sediment at the Shipyard Sediment Site to levels that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay.

Also, from 1921 to the present, the U.S. Navy has provided shore support and pier-side berthing services to U.S. Pacific fleet vessels at NBSD located at 3445 Surface Navy Boulevard in the City of San Diego. NBSD currently occupies 1,029 acres of land and 326 water acres adjacent to San Diego Bay to the west, and Chollas Creek to the north near Pier 1. Between 1938 and 1956, the NBSD leasehold included a parcel of land within the Shipyard Sediment Site referred to as the 28th Street Shore Boat Landing Station, located at the south end of the present day NASSCO leasehold at the foot of 28th Street and including the 28th Street Pier. The San Diego Water Board alleges, but the U.S. Navy denies, that the U.S. Navy caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance at this location when it conducted operations similar in scope to a small boatyard, including solvent cleaning and degreasing of vessel parts and surfaces, abrasive blasting and scraping for paint removal and surface preparations, metal plating, and surface finishing and painting. Prevailing industry-wide boatyard operational practices employed during the 1930s through the 1980s were often not sufficient to adequately control or prevent pollutant discharges, and often led to excessive discharges of pollutants and accumulation of pollutants in marine sediment in San Diego Bay. The types of pollutants found in elevated concentrations at the Shipyard Sediment Site (metals, butyltin species, PCBs, PCTs, PAHs, and TPH) are associated with the characteristics of the waste the U.S. Navy operations generated at the 28th Street Shore Boat Landing Station site. Based on the preceding considerations, the U.S. Navy is referred to as "Discharger(s)" in this CAO.

11. **SAN DIEGO UNIFIED PORT DISTRICT.** The San Diego Water Board alleges, but the Port District denies, that the Port District caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. The Port District is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain

public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the Star & Crescent Boat Company and its predecessor, and by Campbell Industries at all times since 1963 during which they conducted shipbuilding and repair activities.¹ The Port District's own ordinances, which date back to 1963, prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and make it unlawful to discharge pollutants in non-storm water directly or indirectly into the storm water conveyance system. The San Diego Water Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" in the Shipyard Sediment Site CAO and hereby does so, consistent with its responsibility for the actions, omissions and operations of its tenants and to the extent indicated by previous State Water Board and San Diego Water Board orders

The wastes the Port District caused or permitted to be discharged, or to be deposited where they were discharged into San Diego Bay through its ownership of the Shipyard Sediment Site contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH.

The Port District also owns and operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of an NPDES Storm Water Permit. The San Diego Water Board alleges, but the Port District denies, that the Port District has discharged urban storm water containing waste directly to San Diego Bay at the Shipyard Sediment Site. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs).

The urban storm water containing waste that has discharged from the on-site and off-site MS4 has contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Based on these considerations the San Diego Unified Port District is referred to as "Discharger(s)" in this CAO.

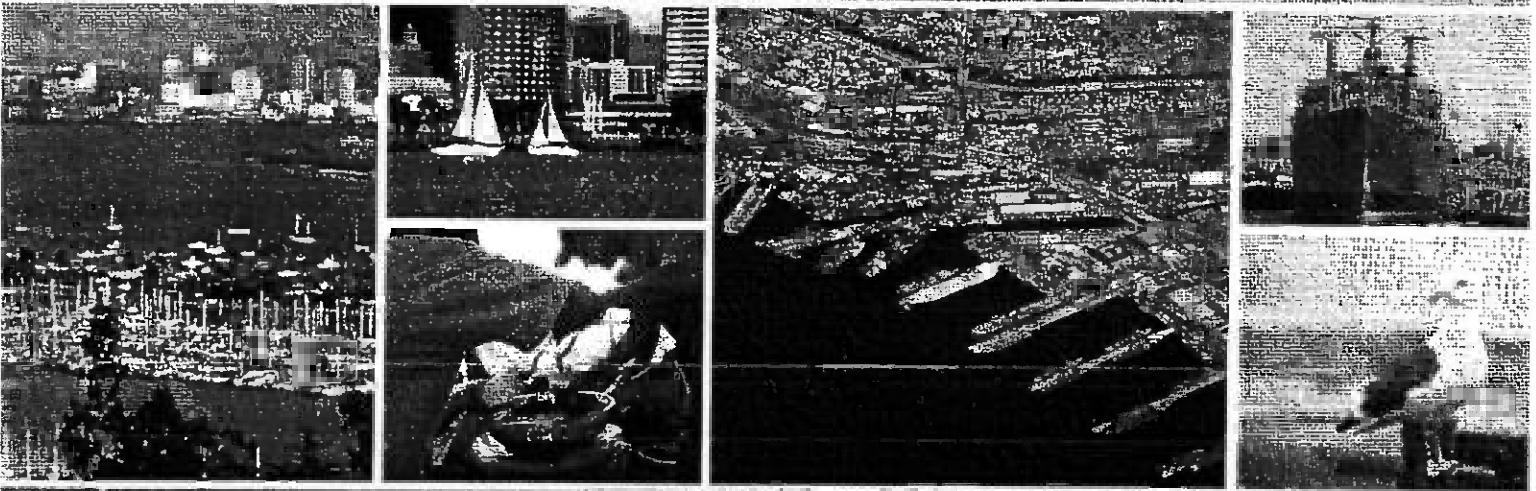
FACTUAL BACKGROUND

12. **CLEAN WATER ACT SECTION 303(d) LIST.** The San Diego Bay shoreline between Sampson and 28th Streets is listed on the Clean Water Act section 303(d) List of Water Quality Limited Segments for elevated levels of copper, mercury, zinc, PAHs, and PCBs in the marine sediment. These pollutants are impairing the aquatic life, aquatic-dependent wildlife, and human health beneficial uses designated for San Diego Bay. The Shipyard Sediment Site occupies this shoreline. Issuance of a CAO (in lieu of a Total Maximum

¹ Star & Crescent Boat Company and Campbell Industries owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 5 and 6 of the Technical Report.

Attachment E

**Excerpts from the Draft Technical Report for Cleanup and
Abatement Order No. R9-2011-0001, dated September 15, 2010**



DRAFT TECHNICAL REPORT FOR TENTATIVE CLEANUP AND ABATEMENT ORDER NO. R9-2011-0001

FOR THE SHIPYARD SEDIMENT SITE - SAN DIEGO BAY STUDY AREA

SEPTEMBER 15, 2010



STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

11. Finding 11: San Diego Unified Port District

Finding 11 of CAO No. R9-2011-0001 states:

The San Diego Water Board alleges, but the Port District denies, that the Port District caused or permitted wastes to be discharged or to be deposited where they were discharged into San Diego Bay and created, or threatened to create, a condition of pollution or nuisance. The Port District is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the Star & Crescent Boat Company and its predecessor, and by Campbell Industries at all times since 1963 during which they conducted shipbuilding and repair activities.¹⁰⁰ The Port District's own ordinances, which date back to 1963, prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and make it unlawful to discharge pollutants in non-storm water directly or indirectly into the storm water conveyance system. The San Diego Water Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" in the Shipyard Sediment Site CAO and hereby does so, consistent with its responsibility for the actions, omissions and operations of its tenants and to the extent indicated by previous State Water Board and San Diego Water Board orders

The wastes the Port District caused or permitted to be discharged, or to be deposited where they were discharged into San Diego Bay through its ownership of the Shipyard Sediment Site contained metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), butyl tin species, PCBs, PCTs, PAHs, and TPH.

The Port District also owns and operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of a National Pollutant Discharge Elimination System (NPDES) Storm Water Permit. The San Diego Water Board alleges, but the Port District denies, that the Port District has discharged urban storm water containing waste directly to San Diego Bay at the Shipyard Sediment Site. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs).

¹⁰⁰ Star & Crescent Boat Company and Campbell Industries owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 5 and 6 of the Technical Report.

The urban storm water containing waste that has discharged from the on-site and off-site MS4 has contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels, that cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. Based on these considerations the San Diego Unified Port District is referred to as "Discharger(s)" in this CAO.

11.1. The Port District May Be Named as a Discharger

The Port District is a special government entity, created in 1962 by the San Diego Unified Port District Act, California Harbors and Navigation Code Appendix I, in order to manage San Diego Harbor, and administer certain public lands along San Diego Bay. The Port District holds and manages as trust property on behalf of the People of the State of California the land occupied by NASSCO, BAE Systems, and the cooling water tunnels for SDG&E's former Silver Gate Power Plant. The Port District is also the trustee of the land formerly occupied by the Star & Crescent Boat Company and its predecessor, and by Campbell Industries at all times since 1963 during which they conducted shipbuilding and repair activities.¹⁰¹ The San Diego Water Board has the discretion to name the Port District in its capacity as the State's trustee as a "discharger" in the Shipyard Sediment Site CAO and hereby does so, consistent with its responsibility for the actions, omissions and operations of its tenants and to the extent indicated by previous State Water Board and San Diego Water Board orders.

The San Diego Water Board's discretion to hold landowners accountable for discharges which occurred on the landowner's property is based on three criteria. As the State's designated trustee for the relevant lands, the Port District meets all three of these criteria:

- Ownership of the land;
- Knowledge of the activity causing the discharge; and
- The ability to control the activity.¹⁰²

It is undisputable that the Port District is the State's designated statutory trustee and that it is responsible for the use and maintenance of the land leased by NASSCO, BAE Systems, and SDG&E, and the land formerly leased by Star & Crescent Boat Company and Campbell Industries. The Port District has responsibility for land use on these lands and can control decisions regarding the use and sizing of facilities located on lands under its jurisdiction. The

¹⁰¹ Star & Crescent Boat Company and Campbell Industries owned and operated ship repair and construction facilities in past years prior to BAE Systems San Diego Ship Repair, Inc.'s occupation of the leasehold. See Sections 5 and 6.

¹⁰² These principles on the issue of landowner liability under both waste discharge requirements and enforcement orders were established in a series of orders adopted by the State Water Resources Control Board and in memoranda issued by the State Board Office of Chief Counsel. (See e.g., State Board Order Nos. WQ 87-6, 87-5, 86-18, 86-16, 86-15, 86-11, 84-6, 90-03; Memorandum dated May 8, 1987 from William R. Attwater to Regional Board Executive Officers entitled "Inclusion of Landowners in Waste Discharge Requirements and Enforcement Orders").

Port District has, through its interactions with the San Diego Water Board over many years, and otherwise, known of the potential for discharges from the NASSCO, BAE Systems, Star & Crescent Boat Company, Campbell Industries, and SDG&E facilities to contribute to accumulations of pollutants in San Diego Bay sediment to deleterious levels. Finally, it is also clear that the Port District has, and at all times relevant had, the obligation and ability under its lease agreements with these entities to impose controls that could prevent or reduce waste discharges. (See e.g. Port District Ordinance No. 62.)

In years past, the State Water Board examined the terms of a lease in order to ascertain whether the lessor has the legal power to prevent a discharge.¹⁰³ In Order No. WQ 84-6 (page 12), for example the State Water Board concluded that former landowner/lessors had the opportunity to obviate dangerous conditions on their property on the basis of lease provisions stipulating that "the tenant shall not commit waste or nuisance on the premises, and shall obey all laws, state, federal, and local, with respect to the use of the premises." Port District Ordinance No. 62 contains similar provisions. In addition, the State Water Board cited a term of the lease authorizing the landowners to re-enter the premises upon the failure of the tenant to perform any of its obligations under the lease.

Past lease agreements between the Port District and its tenants typically contained terms similar to those discussed in State Water Board Order No. WQ 84-6. For example, Port District leases reviewed by the San Diego Water Board in years past obligated its tenants to "abide by and conform to ... any applicable laws of the State of California and Federal Government...." The Port of San Diego's leases required its tenants to keep the leased premises in a clean and sanitary condition, free and clear of waste. The leases authorized the Port District to enter and inspect the leased premises at any time during normal business hours. The leases also authorized the Port District to terminate the lease after 60 days written notice, if the tenant defaulted in the performance of the lease provisions. Under State Water Board Order No. WQ 84-6, these lease terms would provide a sufficient basis for a finding that the Port District had the requisite degree of control over a tenant's activities to name it as a responsible party.

Based upon the three elements of ownership, knowledge of, and the ability to regulate the discharges which occurred during the lease terms, the San Diego Water Board can and hereby does conclude that that the Port District caused or permitted waste to be discharged into San Diego Bay, creating a condition of pollution and/or nuisance in the Bay at the Shipyard Sediment Site, consistent with its responsibility for the actions, omissions and operations of its tenants. Based on these considerations, and to the extent indicated by previous State Water Resources Control Board and San Diego Water Board orders, the Port District is referred to as "Discharger(s)" herein.

¹⁰³ See State Water Resources Control Board Order Nos. WQ 84-6 and 86-15.

11.2. The Port District Should Not Bear Merely Secondary Responsibility at this Time

In certain situations, the State Water Board has found it appropriate to consider a lessee primarily responsible and the lessor secondarily responsible for compliance with a cleanup and abatement order. A secondarily responsible party is one that is not obligated to comply with the cleanup and abatement order unless the primarily responsible party fails to do so. State Water Board Orders WQ 86-10 and 87-6 identified factors that should be considered in determining whether it is appropriate to assign secondary liability to the Port District for compliance with the Cleanup and Abatement Order. These factors include:

- The status of the lessee's compliance with the Order;
- The ability of the lessor to control the property, including the status of the lease agreement, the authority of the lessor under the lease, and the lessor's current ability to conduct the cleanup; and
- The lessor's role, if any, in the discharge of waste.

In general, the State Water Board Orders held that a landowner or lessor party may be placed in a position of secondary liability where it did not cause or permit the activity that led to the initial discharge into the environment and there is a primarily responsible party who is performing the cleanup. Other factors considered by the State Water Board include whether the landowner or lessor:

- Is a public entity that should be treated in a manner similar to the U.S. Forest Service in State Water Board Order No. WQ 87-05;
- Has a limited ability to conduct cleanup because another party has control over the site; and
- Contributed to or aggravated pollution conditions at the site.

The San Diego Water Board concludes that the Port District should be named as a "discharger" in the CAO consistent with its responsibility for the actions, omissions and operations of its tenants to the extent indicated by previous State Water Resources Control Board and San Diego Water Board orders. Although the Port District is a public government entity,¹⁰⁴ and there is no evidence in the record that the Port District initiated or contributed to the actual discharge of waste to the Shipyard Sediment Site, it is nevertheless appropriate to name the Port District as a discharger in the CAO to the extent the Port's tenants, past and present, have insufficient financial resources to cleanup the Shipyard Sediment Site and/or fail to comply with the order. (See egs. In the Matter of Petitions of Wenwest, Inc., et al., State Water Board Order No. WQ 92-13, p. 9; In the Matter of the Petitions of Arthur Spitzer, et al., State Water Board Order No. WQ 89-8, p. 21.) In the event the Port District's tenants, past and present, have sufficient

¹⁰⁴ See California Harbors and Navigation Code, Appendix I, section 28.

financial resources to clean up the Shipyard Sediment Site and comply with the Order, then the San Diego Water Board may modify its status to secondarily responsible party in the future.

11.3. The San Diego Unified Port District Operates a Municipal Separate Storm Sewer System (MS4) Through Which It Discharges Urban Runoff

The San Diego Unified Port District (Port District) operates a municipal separate storm sewer system (MS4) through which it discharges waste commonly found in urban runoff to San Diego Bay subject to the terms and conditions of a NPDES Storm Water Permit (Order No. R9-2007-0001 NPDES No. CAS0108758). The Port District is the trustee of the tidelands property and lessor of the BAE Systems leasehold and NASSCO leasehold. The Port District is a co-permittee of current and prior NPDES Storm Water Permits which regulate the MS4 drains which outfall on the BAE Systems and NASSCO leaseholds as well as drains on other tidelands property over which the Port District is trustee. The permits specifically regulate the watershed of the Port District and the Port District is subject to all of the terms and conditions of the permits as an operator of the MS4 system.

The Port District's own ordinances, which date back to 1963, prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay and make it unlawful to discharge pollutants in non-storm water directly or indirectly into the storm water conveyance system.

The San Diego Water Board alleges, but the Port District denies, that the Port District has discharged urban storm water containing waste directly to San Diego Bay at the Shipyard Sediment Site through its MS4 conveyances. The waste includes metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), total suspended solids, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs) through SW4 (located on the BAE Systems leasehold) and SW9 (located on the NASSCO leasehold) MS4 conduit pipes as well as other minor drains on its tidelands property and watershed to the Shipyard Sediment Site.

11.3.1. MS4 Description

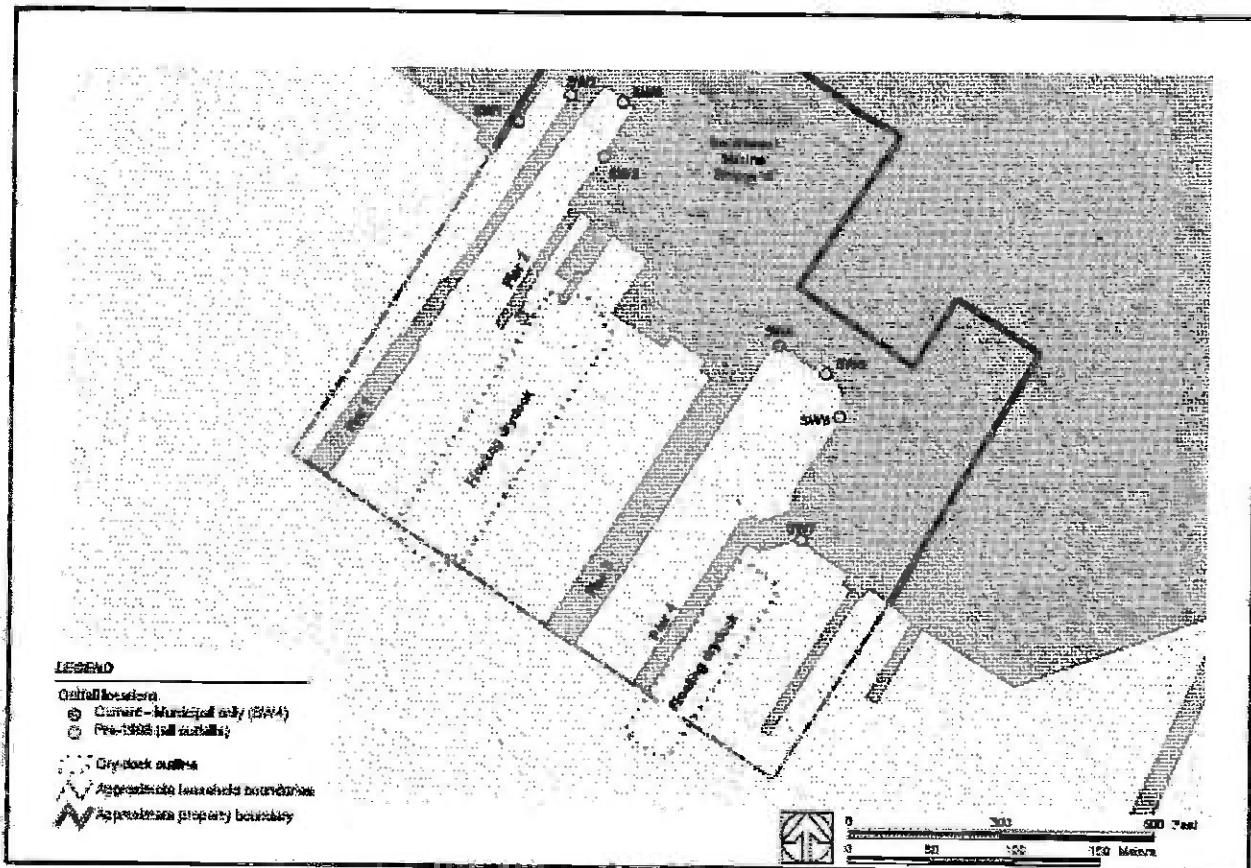
The Port District operates an MS4 conveyance through which it discharges urban runoff into waters of the United States within the San Diego Region. The Port District's MS4 conveys urban runoff from the urbanized and largely industrial tidelands area storm drain structures and storm drain pipes that discharge into the Shipyards Site and greater San Diego Bay.

The Port District operates the following MS4 storm drains which convey urban runoff from source areas up-gradient of the Shipyard Sediment Site's property and discharge directly or indirectly into San Diego Bay within the NASSCO and BAE Systems leasehold:

- **Storm Drain SW4**

The storm drain outfall identified as SW4 in the Shipyard Report (Exponent, 2003) enters BAE Systems leasehold with two contributing storm pipes located at the foot of Sampson and Sicard Streets. These pipes join together somewhere beneath BAE Systems' leasehold, ultimately discharging into San Diego Bay at the SW4 outfall located at a point between Piers 3 and Pier 4 on the BAE Systems leasehold¹⁰⁵ at the Shipyard Sediment site. This storm drain receives runoff from Sicard, Belt, and Sampson streets and had historically received runoff directly from areas within the current BAE leasehold. Figure 11-1 shows the storm drain outfalls at the BAE Systems' leasehold.

Figure 11-1 Storm Drain Outfalls at BAE Systems' Leasehold



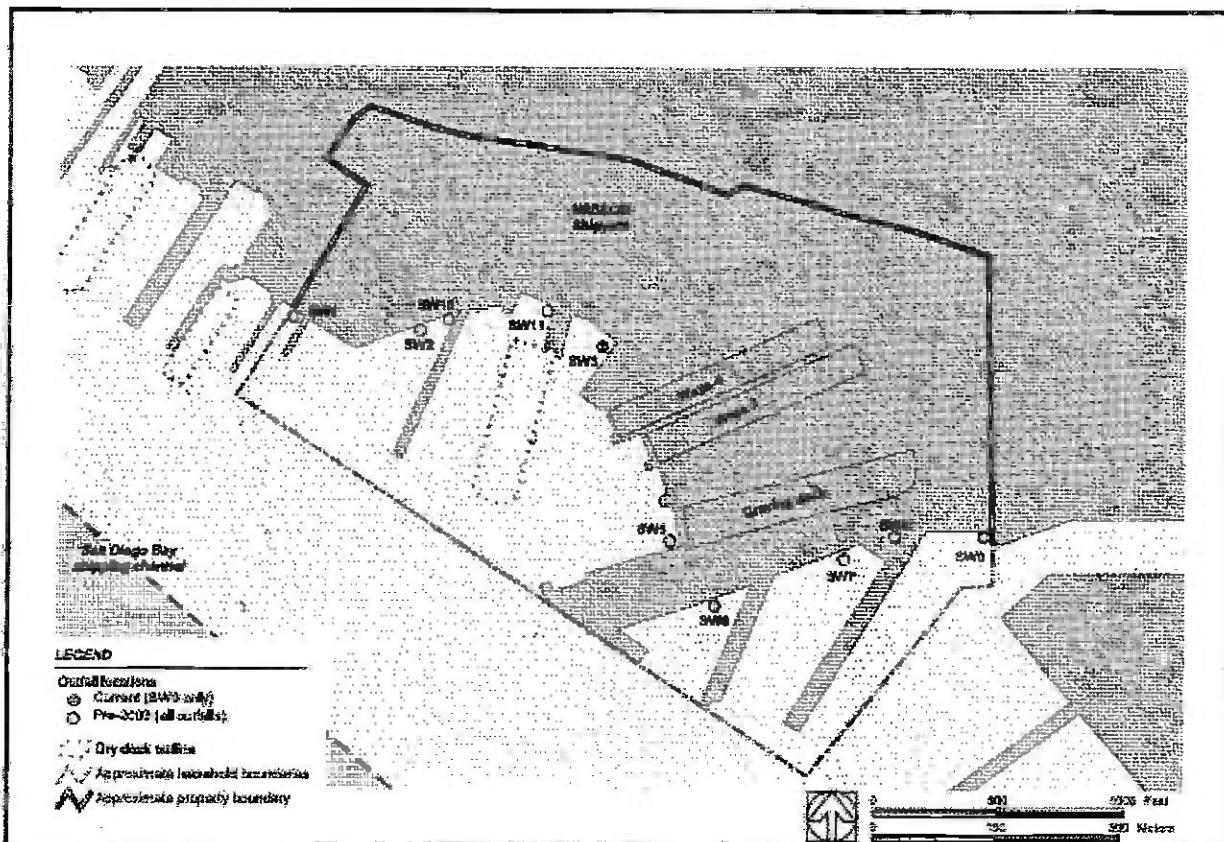
(Exponent, 2003)

¹⁰⁵ A 1968 City of San Diego drainage easement figure shows a 42-inch storm drain, discharging into the Bay between Piers 3 and 4. No further information was provided by the City of San Diego concerning the SW4 outfall.

- **Storm Drain SW9**

This storm drain outfall is identified as SW9 in the Shipyard Report (Exponent, 2003) and enters NASSCO's leasehold at the foot of 28th Street and discharges at the southeasterly corner of the leasehold into Chollas Creek, a tributary of San Diego Bay. (Exponent, 2003; ENV America, 2004a; City of San Diego, 2004a) Storm Drain SW9 collects flow from 28th Street, and stretches from the I-5 freeway to the bay including parts of Belt Street and Harbor Drive and historically received runoff from areas within the current NASSCO leasehold. Figure 11-2 shows the storm drain outfalls at NASSCO's leasehold.

Figure 11-2 Storm Drain Outfalls at NASSCO's Leasehold



(Exponent, 2003)

11.3.2. Urban Runoff is a “Waste” and a “Point Source Discharge” of Pollutants

Urban runoff is a waste, as defined in the CWC that contains pollutants and adversely affects the quality of the waters of the state.¹⁰⁶ The discharge of urban runoff from an MS4 conveyance is a “discharge of pollutants from a point source” into waters of the United States as defined in the CWA.¹⁰⁷

The most common categories of pollutants in urban runoff include total suspended solids (TSS), sediment (due to anthropogenic activities), pathogens (e.g., bacteria, viruses, protozoa), heavy metals (e.g., copper, lead, zinc, and cadmium), petroleum products and polynuclear aromatic hydrocarbons (PAHs and HPAHs), synthetic organics (e.g., pesticides, herbicides, and PCBs), nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), and trash.¹⁰⁸

11.4. The Port District Discharged Waste to San Diego Bay

The Port District has caused or permitted the discharge of urban storm water pollutants directly to San Diego Bay at the Shipyard Sediment Site. The pollutants include metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc), TSS, sediment (due to anthropogenic activities), petroleum products, and synthetic organics (pesticides, herbicides, and PCBs) through its SW4 (located on the BAE Systems leasehold) and SW9 (located on the NASSCO leasehold) MS4 conduit pipes, as well as other minor drains on its tidelands property and watershed to the Shipyard Sediment Site

Urban runoff discharges from the Port District are regulated under NPDES requirements prescribed by the San Diego Water Board pursuant to CWA section 402 and CWC section 13376. The Port District must comply with all conditions of the NPDES requirements. Any noncompliance of NPDES requirements constitutes a violation of the CWA and CWC and is grounds for enforcement action, including the issuance of a cleanup and abatement order under the circumstances described in CWC section 13304. CWC section 13304 contains the cleanup and abatement authority of the San Diego Water Board. Section 13304(a) provides, in relevant part, that the San Diego Water Board may issue a cleanup and abatement order to any person

¹⁰⁶ See California Water Code (CWC) Section 13050(d). Waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

¹⁰⁷ 40 CFR 122.2 defines “point source” as “any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.” 40 CFR 122.2 defines “discharge of a pollutant” as “Any addition of any ‘pollutant’ or combination of pollutants to ‘waters of the United States’ from any point source.”

¹⁰⁸ Finding 7 of Order No. 2001-001, NPDES No. CAS0108758, Waste Discharge Requirements For Discharges Of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities Of San Diego County, and the San Diego Unified Port District.

“who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement....”

The Port District’s NPDES Permit requirement urban runoff discharges are documented in the San Diego Water Board records via monitoring reports (filed by the *San Diego County Municipal Copermittees*).

11.5. The Port District Discharged Waste to San Diego Bay Creating Pollution, Contamination, and Nuisance Conditions in San Diego Bay

The Port District has contributed to the accumulation of pollutants in marine sediment at the Shipyard Sediment Site by discharging urban storm water pollutants from MS4 discharges at levels, which cause, and threaten to cause, conditions of pollution, contamination, and nuisance by exceeding applicable water quality objectives for toxic pollutants in San Diego Bay. CWC section 13304 requires that any person who causes any waste to be discharged, or deposited where it probably will be discharged, into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance is subject to cleaning up or abating the effects of the waste.

The Porter-Cologne Water Quality Act defines “pollution” as “an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects ... the waters for beneficial uses....”¹⁰⁹ “Contamination” is defined as “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.”¹¹⁰

Pollutants conveyed and discharged by the MS4 conveyance include metals, TSS, sediment, petroleum products, pesticides, herbicides, and PCBs. Many of these same pollutants are present in marine sediment at the Shipyard Sediment Site in highly elevated concentrations as compared to sediment chemistry levels found at off-site reference stations located in areas of San Diego Bay.¹¹¹

As stated above, since 1990 the Port District’s NPDES requirements have specifically prohibited urban runoff discharges that cause pollution, contamination or nuisance conditions in San Diego Bay or otherwise cause or contribute to violations of San Diego Bay water quality standards.

Based on the evidence presented in Section 11.4 of this Technical Report, the Port District has a history of discharging pollutants from MS4 Storm Drains SW4, SW9, and other minor drains on its tidelands property and watershed to the Shipyard Sediment Site at levels that have contributed to a condition of pollution, contamination, or nuisance at the Shipyard Sediment Site. As

¹⁰⁹ Water Code section 13050(1).

¹¹⁰ Water Code section 13050(k).

¹¹¹ See Section 15 of this Technical Report.

described in Sections 13 through 30 of this Technical Report these same pollutants in the discharges have accumulated in San Diego Bay sediment at levels that may:

1. Adversely affect the beneficial uses of San Diego Bay, violating a NPDES requirement prohibitions pertaining to discharges that cause pollution, contamination, or nuisance conditions in San Diego Bay; and
2. Violate NPDES requirements pertaining to discharges that degrade marine communities, cause adverse effects on the environment or the public health, or result in harmful concentrations of pollutants in marine sediment.

Accordingly, it is concluded that the Port District has caused or permitted the discharge of waste to San Diego Bay in a manner causing the creation of pollution or nuisance conditions and that it is appropriate for the San Diego Water Board to issue a cleanup and abatement order naming the Port District as a discharger pursuant to CWC section 13304.

11.6. NPDES Requirement Regulations & Port District Ordinances

Urban runoff discharges from the Port District's MS4 are regulated under NPDES requirements prescribed by the San Diego Water Board pursuant to CWA section 402 and CWC section 13376. These requirements are referred to as either NPDES requirements¹¹² or by the federal terminology "NPDES Permit." The Port District's first NPDES requirements started in 1990, when the San Diego Water Board issued WDRs for storm water and urban runoff. A listing of the successive NPDES requirements adopted by the San Diego Water Board to regulate the Port District's MS4 Urban Runoff discharges is provided in Table 11-1 below.

¹¹² Pursuant to Chapter 5.5 of the Porter-Cologne Water Quality Act, to avoid the issuance by the United States Environmental Protection Agency of separate and duplicative NPDES permits for discharges in California that would be subject to the Clean Water Act, the State's Waste Discharge Requirements (WDRs) for such discharges implement the NPDES regulations and entail enforcement provisions that reflect the penalties imposed by the Clean Water Act for violation of NPDES permits issued by the U.S. EPA. Thus, the State's WDRs that implement federal NPDES regulations (NPDES requirements) serve in lieu of NPDES permits.

Table 11-1 Port District NPDES Permits

Order Number NPDES No.	Order Title	Adoption Date	Expiration Date
Order No. 90-42 NPDES No. CA0108758	Waste Discharge Requirements For Storm water and Urban Runoff from the County of San Diego the Incorporated Cities of San Diego County and the San Diego Unified Port District	July 16, 1990	February 21, 2001
Order No. 2001-01, NPDES No. CAS0108758	Waste Discharge Requirements For Discharges Of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cites of San Diego County, and the Unified Port District	February 21, 2001	Present
Order No. 2007-001, NPDES No. CAS0108758	Waste Discharge Requirements For Discharges Of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cites of San Diego County, and the Unified Port District	January 24, 2007	Present

The Port District must comply with all conditions of the NPDES requirements. Any noncompliance of NPDES requirements constitutes a violation of the CWA and CWC and is grounds for enforcement action, including the issuance of a cleanup and abatement order under the circumstances described in CWC section 13304.

Each of the Port District's successive NPDES requirements described here has specifically prohibited urban runoff discharges that cause pollution, contamination or nuisance conditions in San Diego Bay, or otherwise cause or contribute to violations of San Diego Bay water quality standards.

11.6.1. Order No. 90-42, NPDES No. CA0108758

Order 90-42, NPDES No. CA0108758, in effect from July 16, 1990 to February 21, 2001, contains the following narrative limits that relate to the discussions contained herein:

- **VIII. ILLICIT CONNECTION/ILLEGAL DUMPING DETECTION PROGRAM B.** The permittee shall effectively eliminate all identified illegal/illicit discharges in the shortest time practicable, and in no case later than July 16, 2005 If it is determined that any of the preceding discharges cause or contribute to violations of water quality standards or are significant contributors of pollutants to waters of the United States, the discharges shall be prohibited form entering storm water conveyance systems; and
- **XIII. PROVISIONS A.** Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.

11.6.2. Order No. 2001-01, NPDES No. CAS0108758

Order No. 2001-01, NPDES No. CAS0108758, in effect from February 21, 2001 contains the following provisions that relate to the discussions contained herein:

- A. PROHIBITIONS – DISCHARGES ... 1. Discharges into and from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC § 13050), in waters of the state are prohibited.
- A. PROHIBITIONS DISCHARGES ... 2. Discharges from MS4s which cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater are prohibited.
- C. RECEIVING WATER LIMITATIONS ... 1. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.

11.6.3. Order No. 2007-0001, NPDES No. CAS0108758

Order No. 2007-0001, NPDES No. CAS0108758, in effect from January 24, 2007 contains the following provisions that relate to the discussions contained herein:

- A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS... 1. Discharges into and from municipal separate storm sewer systems (MS4s) in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC section 13050), in waters of the state are prohibited.
- A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS ... 3. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.

The above NPDES requirement narrative limits are applicable to urban runoff discharges to San Diego Bay from the Port District MS4 Storm Drains SW4, SW9, and other minor drains on the Port District's tidelands property at the Site, which occurred during the effective terms of Order Nos. 90-42, 2001-01, and 2007-0001.

Additionally, the Port District's own ordinances, which date back to 1963, also prohibit the deposit or discharge of any chemicals or waste to the tidelands or San Diego Bay.¹¹³ The Port District's ordinances make it unlawful to discharge pollutants in non-storm water directly or indirectly into storm water conveyance systems or receiving waters.¹¹⁴ It is specifically among the powers of the Port District to "protect, preserve and enhance" the "natural resources of the

¹¹³ Ordinance No. 62, "An Ordinance Regulating Disposal of Refuse and Dumping on the Tidelands and into the Bay of San Diego; Amending Port District Code by adding § 8.50 (May 1963) (see § 8.50 (b), (c)).

¹¹⁴ Article 10, San Diego Unified Port District Stormwater Management & Discharge Control, § 10.05. [need full cite]

Bay” and “the quality of water in the Bay.”¹¹⁵ The Port District has been charged with making and enforcing all necessary rules and regulations governing the use and control of the Bay waters and tidelands, including making and enforcing any local sanitary regulations relating to public services and public utilities in the District, which would include municipal storm water systems, since the San Diego Unified Port District Act was enacted in 1962.¹¹⁶

11.6.4. Port District, MS4 Storm Drain SW4

As described in Section 11.3.1, the Port District operates an MS4 storm drain identified as SW4 in the Shipyard Report (Exponent, 2003) (see Figure 11-1 above) which conveys urban runoff from source areas upgradient of BAE Systems and historically from BAE Systems’ property and discharges(d) directly within the BAE Systems leasehold. Urban runoff discharged into the SW4 storm drain outfall is subject to the NPDES requirements cited in Section 11.6. Although no monitoring data is available for this outfall, it is highly probable that historical and current discharges from this outfall have discharged heavy metals and organics to San Diego Bay at the Shipyard Sediment Site.¹¹⁷

The Storm Drain SW4 discharges into the BAE Systems leasehold between Piers 3 and 4. Sample stations from the Detailed Sediment Investigation (Exponent, 2003) in the area of this outfall include SW20 through SW25. The sample results for PCBs and PAHs are presented in Table 11-2.

¹¹⁵ Harbors & Navigation Code, Appx. § 4.

¹¹⁶ San Diego Unified Port District Act, §§ 55, 56.

¹¹⁷ See Section Figure 0-40 for a description of the most common categories of pollutants found in urban runoff.

Table 11-2 NASSCO & BAE Systems Detailed Sediment Investigation PCB and PAH Results for SW20 through SW25

Constituent	SW20 µg/kg	SW21 µg/kg	SW22 µg/kg	SW23 µg/kg	SW24 µg/kg	SW25 µg/kg
Aroclor-1016	< 250	< 260	< 29	< 29	< 230	< 26
Aroclor-1221	< 500	< 520	< 57	< 58	< 460	< 51
Aroclor-1232	< 250	< 260	< 29	< 29	< 230	< 26
Aroclor-1242	< 250	< 260	< 29	< 29	< 230	< 26
Aroclor-1248	< 250	< 260	< 29	< 29	< 230	< 26
Aroclor-1254	1,500	1,600	670	550	790	330
Aroclor-1260	1,600	1,800	790	710	870	380
Sum of Aroclors [®]	3,100	3,400	1,500	1,300	1,700	710
Naphthalene ¹	< 13	13	31	< 15	26	< 13
Acenaphthylene ¹	120	130	150	130	290	180
Acenaphthene ¹	16	14	17	19	14	13
Fluorene ¹	53	53	56	53	220	45
Phenanthrene ¹	300	220	330	360	810	260
Anthracene ¹	450	370	500	500	6,000	440
Fluoranthene ²	930	580	910	960	7,100	750
Pyrene ²	1,200	850	1,100	1,000	3,100	940
Benzo [a] Anthracene ²	760	650	890	850	6,300	710
Chrysene ²	1,800	1,400	1,900	1,800	11,000	1,300
Benzo [b] Fluoranthene ²	1,500	1,600	1,800	1,500	7,000	2,000
Benzo [k] Fluoranthene ²	1,200	1,100	1,300	1,200	7,300	1,600
Benzo [a] Pyrene ²	1,400	1,500	1,700	1,500	8,800	2,000
Dibenz [a,h] Anthracene ²	200	210	230	220	1,100	240
Benzo [g,h,i] Perylene ²	770	780	830	820	2,800	800
Indeno [1,2,3-c, d] Pyrene ²	970	990	1,100	1,000	3,700	1,100
Total PAHs	11,669	10,460	12,844	11,912	65,560	12,378

1. LPAH – low molecular weight polynuclear aromatic hydrocarbon

2. HPAH – high molecular weight polynuclear aromatic hydrocarbon

Non-detections are represented as less than the quantitation limit.

(Exponent, 2003)

PCBs in sediment from the laterals and catch basin of the storm water conveyance system were found at levels that exceed the ERL and ERM of 22.7 µg/kg and 180 µg/kg, respectively (Long et al., 1995), as well as the proposed Alternative Sediment Cleanup Levels.

Sediment PCB levels, specifically Aroclor-1254 and 1260, and sediment PAH levels reported in the storm water conveyance system are also reported in the bay sediment near the storm water outfall as indicated in Table 11-2.

As outlined above, SW4 has discharged pollutants, specifically Aroclor-1254 and 1260, and PAHs, into the BAE Systems leasehold and San Diego Bay at the Shipyard Sediment Site, for which the Port District is required under its NPDES permit and by its own ordinances to prevent. These facts provide evidence that the Port District has discharged and deposited pollutants to the Shipyard Sediment Site.

11.6.5. Port District, MS4 Storm Drain SW9

As described in Section 11.3.1, the Port District operates an MS4 storm drain identified as SW9 in the Shipyard Report (Exponent, 2003) (see Figure 11-2, above), which conveys urban runoff from source areas upgradient of NASSCO's property and historically from areas within the current NASSCO leasehold and discharges(d) directly within the NASSCO leasehold. Urban runoff discharged into the SW9 storm drain outfall is subject to the NPDES requirements cited in Section 11.6. Although no monitoring data is available for this outfall, it is highly probable that historical and current discharges from this outfall have discharged heavy metals and organics to San Diego Bay at the Shipyard Sediment Site.¹¹⁸

A review of maps of the storm drain outfalls shows that the storm drain SW9 outfall is located in the NASSCO leasehold at the foot of 28th St. near the mouth of Chollas Creek (Exponent, 2003; ENV America, 2004a; City of San Diego, 2004a). SW9 collects flow from 28th Street, and stretches from the I-5 freeway to the bay including parts of Belt Street and Harbor Drive.

Surface sediment data at NASSCO sample station NA22, which is located near the SW9 storm drain outfall shows elevated concentrations of total high-molecular-weight polynuclear aromatic hydrocarbons (Total HPAHs) at 3600 µg/kg, Dichlorodiphenyltrichloroethane (DDT) at 29.7 µg/kg, and Chlordane at 21.1 µg/kg. These pollutant levels are indicators of an urban runoff source (Exponent, 2003) and therefore indicate that historical urban runoff discharges occurred from the Port District's tidelands via the SW9 outfall.

As described above, the surface sediment data at NASSCO sample station NA22 provides evidence that the Storm Drain SW9 conveys the HPAHs pollutants into the NASSCO leasehold and San Diego Bay at the Shipyard Sediment Site and the Port District under its NPDES permit and by its own ordinances is responsible for preventing those discharges. The urban runoff characteristics of the sediment pollutants at Station NA22 adjacent to the Storm Drain SW9 provide evidence that the Port District has discharged pollutants to the Shipyard Sediment Site. The weight of evidence suggests that there are discharges from Storm Drain SW9 that are contributing to the accumulation of pollutant in marine sediment.

¹¹⁸ See Section Figure 0-40 for a description of the most common categories of pollutants found in urban runoff.

Attachment F

Excerpts from the Transcript of the California Regional Water Quality Control Board Public Meeting/Hearing, dated November 9, 2011

CALIFORNIA REGIONAL WATER QUALITY BOARD

SAN DIEGO REGION

GRANT DESTACHE, CHAIR

In the matter of the
Regional Board
Public Meeting/Hearing
Items 5 and 6

CERTIFIED
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TRANSCRIPT OF PROCEEDINGS

San Diego, California

Wednesday, November 9, 2011

Reported by:
DEREK HOAGLAND,
CSR No. 13445
-and-
ERIN WINN,
CSR No. 13579

Job No.
B7647WOSD

1 We agree with the cleanup team when it says
2 that the port district's claim that its current and
3 former tenants are cooperating in implicating the CAO
4 is false. We believe that to be the case. Why?
5 Because what is by far and away the most significant
6 tenant has had absolutely no participation in this
7 process, and from what we can tell to date, likely will
8 not have any. We believe that the port is and should
9 have been named as a primary discharger.

10 Lastly, we will identify both the city and the
11 port, walk through and indicate that their municipal
12 storm systems have not contributed to contamination at
13 the BAE site. We believe that that's factually
14 inaccurate. We will demonstrate that to the board.

15 Lastly, it has been a long cumbersome road
16 while BAE believes that the order is overly
17 conservative. It accepts as the order is set forth at
18 present, and will do what it can to implement it in
19 light of, as NASSCO mentioned, there is continuing
20 litigation that is taking place in the federal court
21 system.

22 What you determine in terms of the scope of
23 these proceedings will have an impact on that
24 litigation, which ultimately could have an impact on
25 this process as well. But as the order is presently

1 constituted, BAE is willing to accept it. Thank you.

2 MR. DESTACHE: Thank you very much. And we
3 will move on to the US Department of the Navy.

4 MR. SILVERSTEIN: Good morning. I am David
5 Silverstein, S-i-l-v-e-r-s-t-e-i-n. And I am an
6 environmental counsel for Southwest Division of the
7 Naval Facilities Engineering Command, that's the --
8 essentially functions as the engineer, and compliant,
9 and environmental compliance branch of this Navy
10 region, Southwest.

11 I guess in the Navy the style of presentation
12 is generally bottom line upfront, so the bottom line
13 here is that we have no intention right now of opposing
14 what is proposed in the tentative order. If that order
15 is adopted substantially the way it is now, we will
16 consider it a reasonable compromise.

17 That said, we agree that this order is very
18 conservative, probably overly conservative, and we
19 think that the natural attenuation with monitoring
20 approach is probably much more reasonable and is much
21 closer to the relatively minor risk that is actually
22 presented by the shipyard sediment site.

23 But like I said, the Navy doesn't plan to
24 oppose this as it is written right now. We also don't
25 plan to put on a full presentation, but we would like

1 there again. I understand that. It is good legal
2 tactic, but the cleanup team shouldn't have accepted
3 it.

4 We will ask -- or we mean attempt to present
5 to you some of the evidence that was ignored and no
6 effort was made to uncover to give you a sense for the
7 scale of the damage that BAE and its predecessors did
8 to the Bay, and why, frankly, we believe it totally
9 incredible to suggest that some trace amount of a
10 chemical of concern discharged by San Diego Gas &
11 Electric could have possibly contributed to the
12 devastation which they caused, and we will ask that our
13 request for rescindment be granted. Thank you very
14 much.

15 MR. DESTACHE: Thank you. And we will go to
16 the San Diego Unified Port District, but I would like
17 to remind are all the speakers that you spell name for
18 court reporter and provide their business cards, and
19 grab a label with your name and set it near the podium
20 when you're testifying.

21 MR. BROWN: Good afternoon. We want to echo
22 the same by -- my name is Bill Brown. I represent the
23 Port District, and the last name is easy. It is
24 B-r-o-w-n.

25 I want to echo some of the things that we

1 heard earlier, too. We want to thank all the people who
2 have been working on this project for a long time, and
3 a lot of the good work that has been done.

4 And actually, I think, that is our most
5 important statement is that we generally support what
6 has been done, and we generally support the findings of
7 the cleanup team, and we endorse the fact that this
8 cleanup has progressed to the point where it is, we
9 believe the process has been the right process, we
10 believe that the cleanup is appropriate, and we want to
11 have that be our most clear message that we support
12 this.

13 We do, of course, have some disagreements with
14 it. And anything this vast, there is going to be
15 certain parts where we disagree, but overall, we're in
16 agreement with what's going on.

17 The first part where we disagree though is
18 that we, contrary to everybody else, was named on the
19 order, actually believe the footprint should be
20 slightly larger. As the environmental steward for the
21 Bay, we take the health of the Bay as a very serious
22 issue at the Port of San Diego.

23 And we particularly identified one polygon
24 that we think poses significant threat to the
25 environment, and that the cost of addressing that

1 additional polygon is warranted, and we believe that
2 should be added to the footprint that has been proposed
3 by the cleanup team.

4 We will have our toxicologist, Dr. Mike Johns,
5 explain in detail why he thinks that that should
6 happen. It is largely a matter of science and
7 toxicology, and it is much better addressed by him than
8 by me, but we will definitely be putting that on during
9 our case.

10 The second issue is more of a legal issue and
11 very technical. We disagree that the Port should be
12 named as a primarily responsible party at the site. We
13 have never contested that we are a party at the site,
14 we never contested that we should be on the order, we
15 are not attempting to be taken off of the order, but
16 traditionally, landlords and public entities who own
17 sites and have not actively been involved in discharged
18 are considered to be secondarily liable, not primarily
19 liable.

20 We have submitted significant briefs on this
21 issue that are replete with consistent large order
22 opinions that say the Port should not be listed as
23 primarily liable. This is a matter that is within your
24 discretion, but we ask that the board exercise its
25 direction to have us named as secondarily liable.

1 Why are we asking for that? Well, number one,
2 it is consistent with precedent. This is what has been
3 going on with this water board for a long time, that
4 public entity who holds land and leases it to a party
5 that discharges is not liable for that discharge.
6 They're secondarily liable if that party cannot meet
7 the obligation to cleanup the site.

8 The other thing that we wanted to say, and we
9 think this is probably the best reason, is it is fair
10 and equitable. The Port of San Diego has been the
11 strongest advocate and best friend that the Bay of
12 San Diego has had.

13 We have put our money where our mouth is. We
14 have consistently been involved in all of the cleanups
15 in San Diego Bay, we have brought technological-legal
16 expertise, used insurance archeology, used all of the
17 tools that are available to a public entity to try to
18 make sure that the health of the San Diego Bay is as
19 good as it possibly can be.

20 We believe that the Port of San Diego is the
21 best water partner that the Regional Water Control
22 Board has and will ever have, and we should not be at
23 odds, and it is appropriate we're named to an order
24 because we're a landlord, but we don't believe we
25 should be lumped with parties who are actively

1 polluting the site.

2 The other issue that we will be talking about
3 in regard to that is we do not believe that this is our
4 stormwater. stormwater has been identified as
5 causing this, and one of the technical bases for naming
6 the Port as a discharger is the argument that it is our
7 stormwater and we should be named as a discharger
8 because we're discharging polluted stormwater.

9 We have a stormwater expert, Doctor --
10 Mr. Bob Colcock (phonetic) when he will be on to explain
11 the permits, the system, who owns what pipe, how the
12 pipes operate, and he will be explaining that that Port
13 does not own the pipe that has been designated as the
14 pipe who is polluting this property.

15 And then, I think we also are going to mention
16 the idea that the CUT team may have abused its
17 discretion in naming us because even if you name
18 somebody for a proper purpose, you can't do it if you
19 did it for an improper reason.

20 As mentioned by Mr. Carrigan in his opening,
21 there has been a lot of give and take during this
22 proceeding, and sometimes we're all on the same page,
23 and sometimes we're not all on the same page. At a
24 time when the Port was not on the same page as the
25 cleanup team for various reasons, our -- we were

1 originally named as secondarily liable at this site.

2 During a time of disagreement, we were named
3 as being primarily liable, and we believe that that is an
4 abuse of discretion and should not have occurred.

5 But our other central reason as to why this
6 should be accommodated is because in a practical world,
7 this will not impair cleanup of San Diego Bay if we're
8 named as secondarily liable. What won't happen is we
9 will not pull out of this process; we will not pull out
10 our financial commitment; we will not pull out our
11 technological commitment; we won't pull out any of our
12 services that we provide.

13 We have been a consistent player in San Diego
14 Bay, and we have been a major factor financially,
15 technologically, legally, and based on insurance, with
16 every situation that has come up in San Diego Bay and
17 with all of the cleanups.

18 We intend to continue our commitment to that
19 process, whether we're named primarily or secondarily
20 liable. It will not impact how we actually participate
21 in moving this process forward, and we want, again, to
22 drive home our central theme that we are very pleased
23 that this has moved forward where it has now got to,
24 and we look forward to seeing further cleanup in
25 San Diego Bay.

1 Oh, we have one other point that we will have
2 to raise, and that is the CDF. That is the contained
3 disposal facility. We have a disagreement with the
4 cleanup team as to how the remedy should take place.
5 The port has advocated that these sediments should be
6 moved across the Bay and put in what is called a
7 contained disposal facility, and that this is a better
8 type of cleanup than having the sediments dried out and
9 then trucked to a landfill.

10 There is numerous problems with air issues,
11 other issues, environmental justice. We don't believe
12 it is appropriate to have all of this activity occur in
13 an already heavily impacted area. We also want to
14 point out that, as BAE mentioned, there is no place on
15 the shipyards to dry out the sediments, so the port and
16 its properties have conveniently been picked as the
17 place where these sediments should be deposited and
18 then trucked out of.

19 we believe that a far more sensible solution
20 to this problem is to have the sediments barged across
21 the Bay, put in a central repository where it will be
22 confined and located in a contained disposal facility.
23 So those are our major points, and thank you very much.

24 MR. DESTACHE: Thank you very much. And being
25 that it's 20 to 1:00, I think we're going to break for

REPORTER'S CERTIFICATE

I, ERIN WINN, CSR NO. 13579, A CERTIFIED SHORTHAND REPORTER FOR THE STATE OF CALIFORNIA, DO HEREBY CERTIFY:
THAT THE FOREGOING TRANSCRIPT OF PROCEEDINGS WAS TAKEN BEFORE ME ON *November 9, 2011*
AT THE TIME AND PLACE THEREIN SET FORTH, WAS TAKEN DOWN BY ME IN SHORTHAND, AND THEREAFTER TRANSCRIBED INTO TYPEWRITING UNDER MY DIRECTION AND SUPERVISION;
AND I HEREBY CERTIFY THAT THE FOREGOING TRANSCRIPT OF PROCEEDINGS IS A FULL, TRUE AND CORRECT TRANSCRIPT OF MY SHORTHAND NOTES SO TAKEN.

I FURTHER CERTIFY THAT I AM NEITHER COUNSEL FOR NOR RELATED TO ANY PARTY TO SAID ACTION, NOR IN ANYWISE INTERESTED IN THE OUTCOME THEREOF.

IN WITNESS THEREOF, I HAVE HEREUNTO SUBSCRIBED MY NAME THIS *21st* DAY OF *November, 2011*



ERIN WINN, CSR NO. 13579
CERTIFIED SHORTHAND REPORTER
FOR THE STATE OF CALIFORNIA

207

Attachment G

**Excerpts from the Transcripts of the California Regional
Water Quality Control Board Public Meeting/Hearing, dated
November 14, 2011**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN DIEGO REGION

GRANT DESTACHE, CHAIR

In the Matter of the
Regional Board
Public Meeting/Hearing

ITEMS 5 AND 6

CERTIFIED
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TRANSCRIPT OF PROCEEDINGS

San Diego, California

Monday, November 14, 2011

Reported by:

SANDRA NALLEY,
CSR No. 13607
-and-
ERIN WINN,
CSR No. 13579

Job No.:
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1 responsible party in this action.

2 Was -- during the first draft of the Cleanup
3 and Abatement Order, the port was not issued as a
4 primarily responsible party; is that correct?

5 MR. CARRIGAN: That's correct.

6 MR. BROWN: And was one of the factors why the
7 port was named as a responsible party, the fact that it
8 withdrew from mediation?

9 MR. CARRIGAN: The -- I mean, I have never said
10 this publicly before, but here's the bottom line: The
11 port was erroneously not named as a primary discharge
12 from the beginning. The legal analysis, when I reviewed
13 it, when I first became involved in this, was flawed.

14 Upon reviewing the facts, I recommended to the
15 Cleanup Team that the previous legal analysis was flawed
16 and that the port should be named. It's a little bit
17 unbecoming to throw previous legal counsel under the
18 bus, but since you've given me no choice, there's your
19 answer.

20 MR. BROWN: Mr. Gibson, do you remember being
21 deposed on this issue?

22 MR. GIBSON: I do.

23 MR. BROWN: And was it your recollection at your
24 deposition that the -- that that was a factor in why
25 the port had been named as a responsible party?

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16 and that the port should be named. It's a little bit
17 unbecoming to throw previous legal counsel under the
18 bus, but since you've given me no choice, there's your
19 answer.

20 MR. BROWN: Mr. Gibson, do you remember being
21 deposed on this issue?

22 MR. GIBSON: I do.

23 MR. BROWN: And was it your recollection at your
24 deposition that the -- that that was a factor in why
25 the port had been named as a responsible party?

1 MR. GIBSON: It certainly is one of my
2 recollections that that's one of the reasons. As I
3 indicated during my deposition, for the reasons given
4 in the DTR and for the reasons that Mr. Carrigan has
5 just indicated, that I agreed with the Cleanup Team's
6 recommendation to name the port as the primary
7 responsible party.

8 MR. BROWN: Okay. And was one of the other
9 factors that they had failed to fund an EIR at that
10 point?

11 MR. GIBSON: I remember you asking me that
12 question, and that was not one of the factors that I
13 identified.

14 MR. BROWN: Okay. Did the NGOs also withdraw from
15 that mediation?

16 MR. GIBSON: It's my recollection that they did.

17 MR. BROWN: And did they protest that they did not
18 think it was a fair process at that time?

19 MR. GIBSON: They certainly did.

20 MR. BROWN: Okay. I'm going to move on to another
21 subject, and that is the TMDLs. I think we heard from
22 the Cleanup Team that as part of the TMDL for Chollas
23 Creek, that there would likely be a cleanup and abatement
24 order. And my question is would that require an active
25 remediation, something in the name of dredging, or

REPORTER'S CERTIFICATE

I, ERIN WINN, CSR NO. 13579, A CERTIFIED SHORTHAND REPORTER FOR THE STATE OF CALIFORNIA, DO HEREBY CERTIFY:

THAT THE FOREGOING TRANSCRIPT OF PROCEEDINGS WAS TAKEN BEFORE ME ON

November 14, 2011

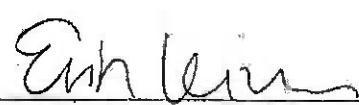
AT THE TIME AND PLACE THEREIN SET FORTH, WAS TAKEN DOWN BY ME IN SHORTHAND, AND THEREAFTER TRANSCRIBED INTO TYPEWRITING UNDER MY DIRECTION AND SUPERVISION;

AND I HEREBY CERTIFY THAT THE FOREGOING TRANSCRIPT OF PROCEEDINGS IS A FULL, TRUE AND CORRECT TRANSCRIPT OF MY SHORTHAND NOTES SO TAKEN.

I FURTHER CERTIFY THAT I AM NEITHER COUNSEL FOR NOR RELATED TO ANY PARTY TO SAID ACTION, NOR IN ANYWISE INTERESTED IN THE OUTCOME THEREOF.

IN WITNESS THEREOF, I HAVE HEREUNTO SUBSCRIBED MY NAME THIS *21st* DAY OF

February, 2012


ERIN WINN, CSR NO. 13579
CERTIFIED SHORTHAND REPORTER
FOR THE STATE OF CALIFORNIA

Attachment H

**Excerpts from the Transcripts of the California Regional
Water Quality Control Board Public Meeting/Hearing, dated
November 15, 2011**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
GRANT DESTACHE, CHAIR

In the Matter of the
Regional Board
Public Meeting/Hearing

ITEM 5

CERTIFIED
COPY

TRANSCRIPT OF PROCEEDINGS

San Diego, California

Tuesday, November 15, 2011.

Reported by:

SANDRA NALLEY

CSR No. 13607

-and-

ERTN WINN

CSR No. 13579

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1 MR. BENSHOOF: It's the completion. And I will
2 reserve the balance of our time to closing.

3 MR. DESTACHE: Okay. It's twenty after 12:00, and
4 we're going to break for lunch. Let's -- let's say 1:30 --
5 actually, let's say 1:20, and then we probably can get
6 started by 1:30. How's that?

7 (Whereupon, Erin Winn, CSR No. 13579, reported
8 the remainder of the proceedings)

9 MR. DESTACHE: All right. I think we will proceed with
10 the San Diego Unified Port District and your presentation.

11 MR. BROWN: Thank you, Chairman. And I just want to
12 start by doing sort of a reset. I think one of the problems
13 with hearings like this is that we get in a lot of detail,
14 and we can miss what the major points are of a particular
15 party. And you haven't heard from me in a while, so I kind
16 of want to get back to what our central theme is here.

17 Our central theme is that we support Water Board
18 and the CUT staff. We believe they've done a wonderful job.
19 We believe that they have used the correct methodology; that
20 they have come up with a good footprint.

21 We support the issuance of a cleanup and abatement
22 order. We support the footprint that they have issued. We
23 want to add an additional polygon. But we were gratified to
24 hear that if that polygon is not added in this proceeding,
25 that it will be the subject of additional investigation.

1 And we will have some discrepancies with some of
2 the other parties here. But although we disagree with
3 certain people about certain things, we don't want our
4 central theme to be missing, which is that we do support
5 what the cleanup team is doing. We do support what we hope
6 the Water Board will be doing.

7 We think it has been an enormous task, and we
8 appreciate all the work that has gone in. But not only do
9 we appreciate the work; we appreciate the product. We
10 believe in the end product. We believe it's correct, and we
11 recommend it.

12 I do want to address a couple of things, though,
13 that we don't agree with, so we'll get into that as well.
14 I'll tell you, first of all, that in addition to me, we're
15 going to have three witnesses testifying. We're going to
16 have Randa Coniglio, who's an executive vice president of
17 the Port.

18 She will be testifying, generally, about all the
19 work that the Port is doing to try to clean up San Diego Bay
20 at various locations throughout San Diego Bay. And I think
21 the essence of her presentation is that we view ourselves as
22 a cooperative party with the Water Board. We believe that
23 we have the same central mission, and we believe that we
24 should be on the same page.

25 We'll also hear from Bob Collacott. He is a --

1 to the record post-hearing that are not even -- we don't
2 even know what they are.

3 MS. HAGAN: Well, may I just clarify? If it's filed,
4 and if Mr. Brown seeks to introduce it tomorrow as new
5 evidence, the Board will take that into consideration and
6 decide whether to allow it in at that time.

7 MR. CARRIGAN: Understood. So the question would be:
8 If the public hearing has not yet been closed, we would
9 consider this as potential evidence? Understood. Thank
10 you.

11 MR. DESTACHE: Yes. That is the intent. And I was
12 going to clarify that because arguably tomorrow is the end
13 of the hearing. So if it's filed today, and we can get it
14 into the hearing tomorrow, that's fine. If not --

15 MR. BROWN: We'll wait and see what happens.

16 MR. TRACY: Thank you.

17 MR. BROWN: Okay. Well, moving on to a less contentious
18 area, I hope, we're going to have Ms. Coniglio get up and
19 provide her presentation.

20 MS. CONIGLIO: Good afternoon. Thank you very much. My
21 name is Randa Coniglio.

22 I'm Executive Vice President of Operations for the
23 San Diego Unified Port District. That means that I have
24 oversight of five of the Port's 13 departments. That would
25 be the real estate department, our maritime operations,

1 government and community relations, corporate
2 communications, and environmental and land use management,
3 including the environmental staff that interacts with the
4 local Water Board staff on a regular basis.

5 I do not have direct involvement in any level of
6 detail in any of the projects that I have been asked to talk
7 about today. But I have been with the Port for 12 years --
8 almost 12 years and have been very well aware of the Port's
9 commitment to its environmental initiatives and to improving
10 air, land, and water quality.

11 Virtually, in every undertaking -- in everything
12 that I have undertaken on behalf of the Port in 12 years.
13 More particularly, in my work in the real estate department
14 with our Port tenants. And more recently, in my
15 decision-making capacity as an executive.

16 So just by way of background -- I don't know if I'm
17 holding this right. There we go. The Port was created by
18 State legislature in 1962 to manage the San Diego Bay and
19 surrounding tidelands.

20 As dictated by the Port's own mission statement,
21 the Port protects the tideland's resources by balancing
22 economic benefits, community services, environmental
23 stewardship, and public safety. Due to our mandate and our
24 very mission, the Port honors its responsibility to protect,
25 preserve, and enhance San Diego Bay's physical access.

1 natural resources, including plant and animal life and water
2 quality.

3 The Port is dedicated to protecting and improving
4 the environmental conditions of San Diego Bay and the Port
5 tidelands. To accomplish this, we currently have several
6 programs in place to protect stormwater, reduce pollutant
7 sources, improve air quality, and reduce air emissions. The
8 Port has also recently approved an ordinance regulating in
9 water hull cleaning in our marinas to reduce copper in
10 San Diego Bay, as well as implementing grant-funded hull
11 paint conversion program to provide monetary support to
12 vessel owners converting to noncopper-based hull paint.

13 Additionally, the Port's staff and entire board
14 of Port commissioners is committed to conducting Port
15 operations and managing resources in an environmentally
16 sensitive and responsible manner in ensuring that tenant
17 operations do the same. This is evidenced by a couple of
18 our programs: Our clean truck program, which is a beyond
19 compliance program at our marine terminals aimed at reducing
20 air emissions; and several tenant programs, such as our
21 clean business challenge.

22 As with previous remediation sites in San Diego
23 Bay, the Port supports the expeditious cleanup of the
24 shipyard sediment site and the Regional Board's adoption of
25 a final cleanup and Abatement Order in this matter. The