CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

TENTATIVE CLEANUP AND ABATEMENT ORDER NO. R9-2026-0023 (AMENDMENT NO. 1 TO CLEANUP AND ABATEMENT ORDER NO. R9-2022-0007)

AN ORDER DIRECTING LOCKHEED MARTIN CORPORATION TO CLEAN UP OR ABATE THE EFFECTS OF WASTE DISCHARGED FROM THE FORMER TOW BASIN AND FORMER MARINE TERMINAL AND RAILWAY FACILITIES AT 3380 NORTH HARBOR DRIVE AND 1160 HARBOR ISLAND DRIVE TO THE EAST BASIN OF HARBOR ISLAND IN SAN DIEGO BAY, SAN DIEGO, CALIFORNIA

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

1. **Legal and Regulatory Authority.** This Order conforms to and implements: (1) policies and requirements of the Porter-Cologne Water Quality Control Act (division 7 of the California Water Code (Water Code), commencing with section 13000) including sections 13267 and 13304; (2) applicable state and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board (State Water Board) and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan)[1] adopted by the San Diego Water Board, including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies and regulations, including Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution No. 68-16), Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304* (Resolution 92-49), and the *Water Quality Control Plan for Enclosed Bays and Estuaries of California – Sediment Quality Provisions* (Sediment Quality Provisions)[2]; and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies.

2. **Statewide Enclosed Bays and Estuaries Plan Amendments.** The State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries of California* (Bays and Estuaries Plan) on May 16, 1974. Water Code section 13393 requires the State Water Board to develop Sediment Quality Objectives (SQOs) for toxic pollutants for California's enclosed bays and estuaries. Amendments to the Bays and Estuaries Plan, including the Sediment Quality Provisions, and SQOs are described in further detail below.

    a. **Amendments to the Bays and Estuaries Plan.** The following describes significant amendments and resolutions to the Bays and Estuaries Plan adopted by the State Water Board:

[1] https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/docs/R9_Basin_Plan.pdf
[2] https://www.waterboards.ca.gov/water_issues/programs/bptcp/docs/sediment/sed_qual_provs.pdf

i. The State Water Board adopted Resolution No. 2008-0070, *Adoption of a Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality* (Sediment Quality Plan), on September 16, 2008. The U.S. Environmental Protection Agency (EPA) approved the Sediment Quality Plan on August 25, 2009. The Sediment Quality Plan includes narrative SQOs to protect benthic communities from direct exposure to toxic pollutants[3] and protect human health from exposure to contaminants in seafood that bioaccumulate into tissue and sediment. The Sediment Quality Plan also includes an implementation program for the narrative SQOs.

ii. The State Water Board adopted Resolution No. 2011-0017, *Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality,* on April 6, 2011. The amended Sediment Quality Plan consists of a narrative SQO protecting wildlife and resident finfish from pollutants in sediments. The Office of Administrative Law (OAL) approved the narrative SQO on June 8, 2011, and submitted the narrative SQO to EPA on September 28, 2011.

iii. The State Water Board adopted Resolution No. 2018-0028, *Adoption of Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries: Sediment Quality Provisions, and the Staff Report Including the Substitute Environmental Documentation,* on June 5, 2018, which approved amendments to the Sediment Quality Plan – Sediment Quality Provisions. OAL and EPA approved the Sediment Quality Provisions on November 14, 2018, and March 19, 2019, respectively, which took immediate effect for the purposes of the Clean Water Act (CWA). The Sediment Quality Provisions provide a more prescriptive framework to address human health and exposure to contaminants in seafood. The tools, indicators, and framework described in the Sediment Quality Provisions, together with the previously adopted provisions of the Bays and Estuaries Plan, are planned for future incorporation into the *Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries Plan*, upon adoption by the State Water Board.

iv. By specific language, Chapter III.A.1.b of the Sediment Quality Provisions does not exempt ongoing sediment cleanups from complying with the SQOs.

b. **Sediment Quality Provisions.** The Sediment Quality Provisions integrate chemical and biological measures to determine if sediment-dependent biota are protected or degraded as a result of exposure to toxic pollutants in sediment in order to protect benthic communities in enclosed bays and estuaries, human health, wildlife, and resident finfish. The Sediment Quality

[3] Pollutants: Defined in section 502(6) of the Clean Water Act as “dredged spoil, solid waste, incinerator residue, filter backwash, 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.”

Provisions include (1) the narrative SQOs as listed below, (2) identification of the beneficial uses that these SQOs are intended to protect, and (3) a program of implementation for each SQO.

c. **Sediment Quality Objectives.** The Sediment Quality Provisions contain the narrative SQOs that protect the beneficial uses designated for San Diego Bay as further described in Finding 9. The narrative SQOs include the following protections:

   i. **Aquatic Life – Benthic Community Protection.** Pollutants shall not be present in sediments in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California. This narrative objective shall be implemented using the integration of multiple lines of evidence (MLOE) as described in Chapter IV.A.1 of the Sediment Quality Provisions .

   ii. **Human Health.** Pollutants shall not be present in sediments at levels that will bioaccumulate in aquatic life to levels that are harmful to human health in bays and estuaries of California. This narrative objective shall be implemented as described in Chapter IV.A.2 of the Sediment Quality Provisions .

   iii. **Wildlife and Resident Finfish.** Pollutants shall not be present in sediments at levels that alone or in combination are toxic to wildlife and resident finfish by direct exposure or that bioaccumulate in aquatic life at levels that are harmful to wildlife or resident finfish by indirect exposure in bays and estuaries of California. This narrative objective shall be implemented as described in Chapter IV.A.3 of the Sediment Quality Provisions .

3. **Geographic Extent of the Site.** As shown on Figure 1, the geographic extent of the site (Site) addressed in this Cleanup and Abatement Order (CAO) is the western portion of the East Basin of Harbor Island in the northern portion of San Diego Bay. The Site comprises the nearshore and offshore areas shown on Figure 1. The Site is defined by the spatial (vertical and lateral) and temporal distribution of marine sediment(s) in the East Basin of Harbor Island that are impacted by discharges of waste at chemical concentrations that threaten the beneficial uses for San Diego Bay listed below in Finding 9 and in Table 2-3 of the Basin Plan.

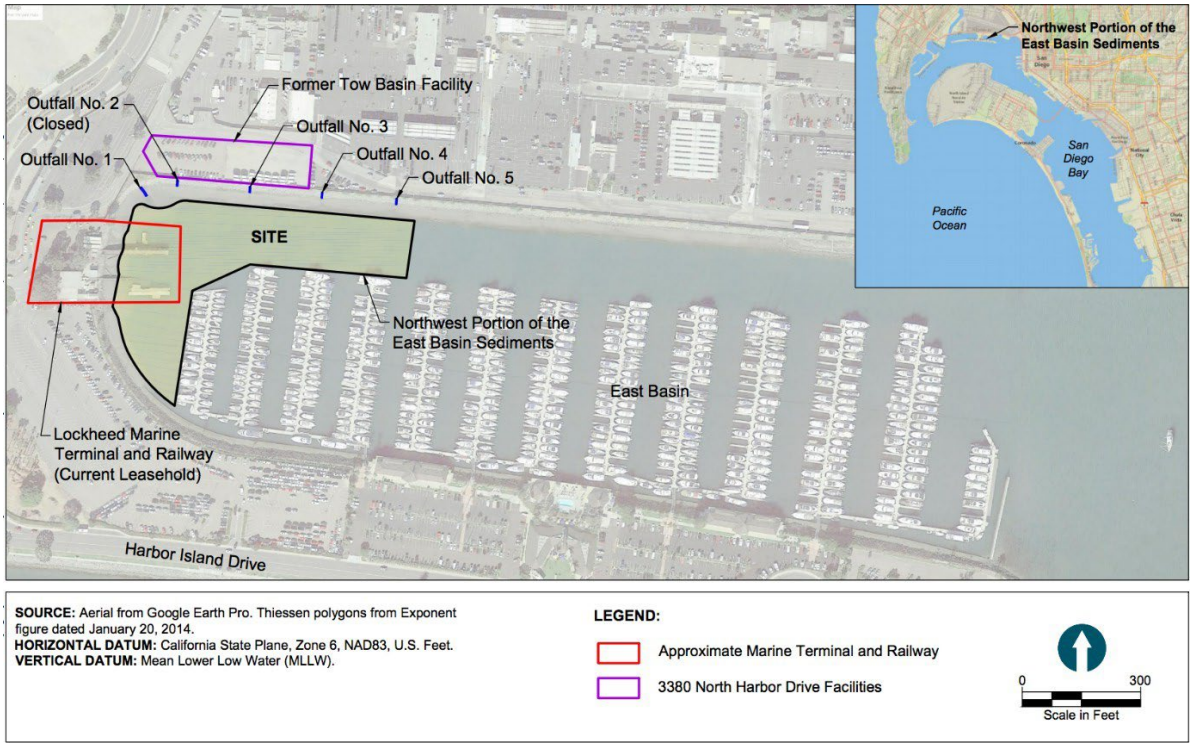

Figure 1. Site Location in the Northwest Portion of the East Basin of Harbor Island

4. [Intentionally left blank]

5. **Persons Responsible for the Waste Discharges.** General Dynamics Corporation (GD), Lockheed Martin Corporation (LMC), Rohr Marine Inc. (RMI), and the San Diego Unified Port District (Port District) (collectively, Dischargers) are responsible for discharges of wastes to sediments in the East Basin of Harbor Island in San Diego Bay. Various waste constituents originated at facilities owned and/or operated by these parties and were discharged directly or transported to the East Basin of Harbor Island, where they cause or threaten to cause a condition of pollution and an increased health risk to human consumers of fish.[4] Pursuant to the terms of a settlement agreement reached by the Dischargers in a separate lawsuit concerning the Site, the San Diego Water Board is only issuing this CAO to LMC. The Board reserves the right to name any additional parties, including any of the parties listed under this section, and to amend and/or reissue this CAO for any reason. This includes, but is not limited to, a scenario in which the work set forth in this CAO is not adequately performed or completed by LMC, in which case the Board reserves the right to amend this CAO and reissue it to all Dischargers. The following list further describes the ownership and operations conducted by the Dischargers:

   a. **General Dynamics Corporation.** The Tow Basin Facility was an onshore facility adjacent to the northern boundary of the Site. GD and its subsidiary (Convair) operated the Tow Basin Facility from its inception in 1954 until 1970. The Tow

[4] The Port District bears responsibility as a Discharger because it leased the facilities to the parties that owned and/or operated at the Site where waste constituents originated and were discharged directly or transported to the East Basin of Harbor Island.

Basin Facility consisted of a building and an open-top concrete water tank within the building, used by Electric Boat, a division of Convair, to test and develop hull designs for deep submersible vehicles and seaplanes. The Tow Basin Facility was demolished in 2004.

b. **Lockheed Martin Corporation.** LMC and its various entities operated at the Tow Basin Facility from 1970 until 1983 and from 1986 to 1991. In 1970, LMC purchased the Tow Basin Facility and sublet the property from Convair. LMC continued to use the Tow Basin Facility to test hull designs until 1983. LMC leased the Tow Basin Facility from the Port District from 1986 to 1991, at which time ownership of the Tow Basin Facility reverted to the Port District.

   The Marine Terminal and Railway facility (Railway Facility) consists of the onshore structure adjacent to the western boundary of the Site and the pier and railway structures extending offshore into the Site (see current leasehold on Figure 1). The Port District owns the Railway Facility and leased the facility to various LMC entities since 1966. Lockheed Aircraft Company began leasing the Railway Facility in April 1966.

   A deep submergence vehicle owned by Lockheed Missiles and Space Company began operating from the Railway Facility in 1969. In 1971, the lease was assigned to Lockheed Missiles and Space Company. From 1971 through 2009 deep submergence vehicle and deep submergence rescue vehicle maintenance operations were conducted at the Railway Facility. In 1981, the deep submergence rescue vehicle maintenance operations were conducted at the Railway Facility. In December 1983, LMC assigned the leases for the Railway Facility to Lockheed Advanced Marine Systems. In June 1989, Lockheed Missiles and Space Company assigned the leases for the Railway Facility to Lockheed Engineering and Sciences Company. In June 2010, LMC assigned Railway Facility operations and the lease obligations to a division of LMC. LMC renewed the lease for five consecutive five-year options beginning in 1990 and ending in 2015. Decommissioning of the Railway Facility is being planned as part of the Port District's Landside Demolition and Waterside Demolition phases as indicated in its Environmental Impact Report.[5]

c. **RMI.** In 1983 RMI purchased the Tow Basin Facility from LMC and leased the associated parcel from the Port District. RMI conducted similar industrial operations to those of LMC until 1986.

d. **Port District/Port of San Diego.** In 1986 the Port District took ownership of the Tow Basin Facility when RMI relinquished the structures due to bankruptcy.

6. **Unauthorized Discharge of Wastes.** The Site comprises the area of the East Basin of Harbor Island where marine sediment has been contaminated by discharges from the former Tow Basin Facility and the Railway Facility. The area of the two former facilities was submerged tideland until 1941 at which time the area was reclaimed by placement of hydraulic fill material (Figure 1).

   Five outfalls are located along the north shoreline of the East Basin of Harbor Island

[5] Harris & Associates. 2020. Final Environmental Impact Report: Lockheed Martin Harbor Island Facilities Demolition and Sediment Remediation Project. October.

that discharged wastes to the Site (Figure 1). A 48-inch-diameter reinforced concrete pipe (RCP) storm drain outfall (Outfall No. 1) is located in the northwest corner of the basin and drains the adjacent hotel parking lot and part of an airport parking lot. A 30-inch-diameter RCP closed outfall (Outfall No. 2) is located east of the 48-inch-diameter pipe that is on the former Tow Basin Facility. Another active RCP 30-inch-diameter outfall drains the Harbor Police site and adjacent parking lot (Outfall No. 3). A portion of Outfall No. 3 within the former Tow Basin Facility was partially replaced and the remainder of the line and catch basins were cleaned as part of site demolition activities.

The following describes the use and discharge of chemicals of concern from the former Tow Basin Facility and the Railway Facility:

a. **Former Tow Basin Facility (3380 North Harbor Drive).** The former Tow Basin Facility parcel is approximately 61,630 square feet in area and included a 13,000-square-foot building. The area was the site of a variety of industrial facilities. An open-top concrete water tank within the building was used to test various hull designs of boats, submersible vehicles, and seaplanes. A steep seawall is located on the south side of the former Tow Basin Facility parcel sloping southerly to the site. Discharges of polychlorinated biphenyls (PCBs), metals, and other pollutant wastes to San Diego Bay throughout the years resulted in the accumulation of contaminants in Site sediments. Paint samples from the open-top concrete water tank surfaces from the former Tow Basin Facility, inside and out, were reported to contain approximately 3 to 6 percent PCBs (Aroclor 1254).[6] PCBs were also detected in the paint that was hydroblasted from the structure at the former Tow Basin Facility.

   Multiple sediment investigations have been conducted at the Site adjacent to the former Tow Basin Facility and the Railway Facility. The sampling results indicate that PCBs are present in Site sediments, with the highest concentrations of PCBs located closest to the former Tow Basin Facility outfalls (Outfalls Nos. 1 and 2; Figure 1). In September 2010, sediment samples were collected from five stations within the Site (Figure 2). Consistent with the SQO Provisions, sediment toxicity, chemistry, and benthic infauna samples collected from the Site were analyzed, and the results integrated using the benthic triad method in the Sediment Quality Plan[7] to determine whether the benthic community was adversely impacted by exposure to wastes discharged to the sediment. The benthic communities at two of the five stations were determined to be *Likely Impacted* due to exposure to wastes, and one station was determined to be *Possibly Impacted*.[8]

[6] CH2M Hill. 1998. PCB Investigation, San Diego Tow Basin. Prepared for Lockheed Martin Missiles and Space, General Dynamics, and San Diego Unified Port District. January.
[7] https://www.waterboards.ca.gov/water_issues/programs/bptcp/docs/sediment/sed_qlty_part1.pdf
[8] Haley & Aldrich, Inc. 2011. Report on Sediment Quality Objectives Sampling, Former Tow Basin, East Basin of San Diego Bay, San Diego, California. March 10.

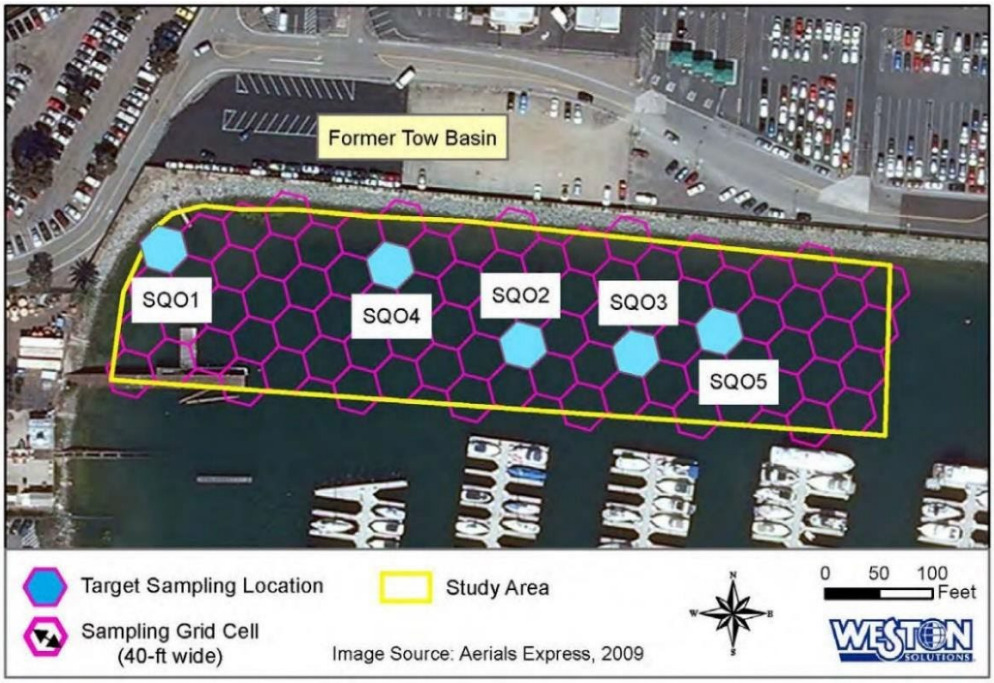

Figure 2. Locations of Sediment Sample Stations within the Former Tow Basin Site in the East Basin of Harbor Island

b. **Former Railway Facility (1160 Harbor Island Drive).** The Railway Facility consists of a laboratory building (constructed 1965-1966) and a pier and railway that extended into the western portion of the East Basin of Harbor Island. The Railway Facility was the site of a variety of maintenance and industrial activities. Historical use of mercury and other hazardous materials within the laboratory building could have resulted in a release of these materials to the drains within the building. A transformer existed adjacent to the laboratory building that could have leaked fluids containing PCBs. Various wastes, including mercury, waste and mixed oil, halogenated solvents, oxygenated solvents, and organic solids with halogens, were reported to be stored at several locations at the Railway Facility including the pier, as well as inside and outside of the laboratory building.

   Pursuant to San Diego Water Board Investigative Order No. R9-2011-0026 (2011 IO), sediments at three stations in the vicinity of the Railway Facility were sampled and analyzed, and the results integrated using the benthic triad method of the Sediment Quality Plan (Figure 3). Consistent with the SQO Provisions, the benthic communities at each of the three sediment stations were classified as *Likely Impacted* due to exposure to wastes. Based on soil, groundwater, catch basin, building material, and sediment sampling results, the San Diego Water Board determined the chemicals of concern at the Site to be divalent metals, mercury, and PCBs.[9]

[9] San Diego Water Board. 2014. Comments on Site Assessment Report for Lockheed Marine Terminal and Railway. February 13.

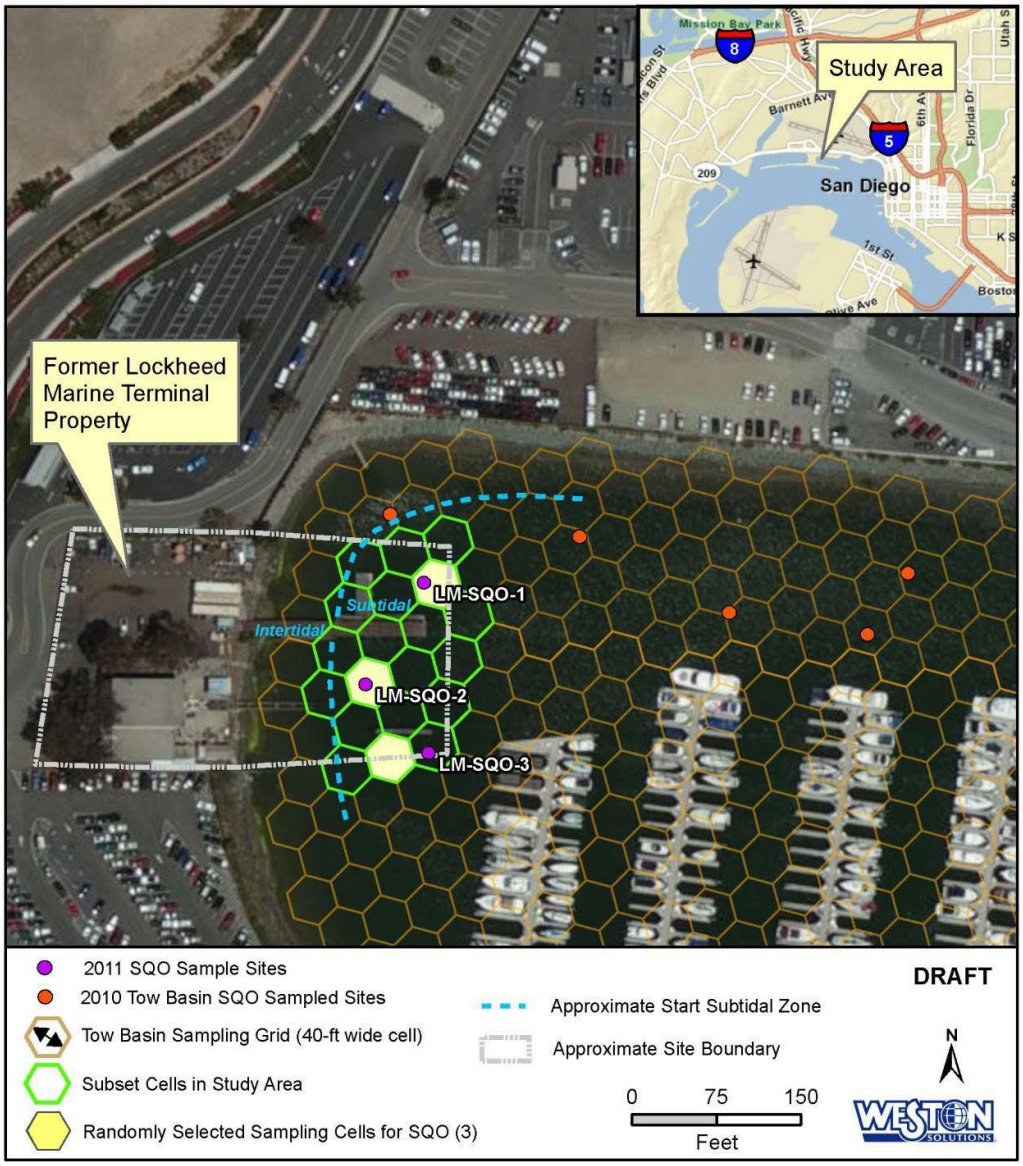

Figure 3. Locations of Sediment Sample Stations within the Former Lockheed Marine Terminal Site in the East Basin of Harbor Island

7. **Regulatory History 2011 through 2016.** A summary of the regulatory history from 2011 to 2016 is below:

   a. June 2011. The San Diego Water Board issued the 2011 IO to LMC pursuant to Water Code section 13267 on June 6, 2011. The 2011 IO was issued to LMC based on the results of the sediment sampling and analysis reported in 2009.[10]

   b. September 2011. LMC submitted to the San Diego Water Board a Site Assessment Work Plan for the sampling and analysis of onshore soil and groundwater and offshore sediments, as required by the 2011 IO.

   c. February 2012. LMC submitted to the San Diego Water Board a revised Site Assessment Work Plan.

   d. June 2012. LMC requested the San Diego Water Board amend the 2011 IO to name the Port District as a discharger. LMC also requested that an amended 2011 IO require the investigation of Outfall No. 1 and dischargers to this outfall. In November 2012, the San Diego Water Board declined LMC's request.

   e. June 2012. LMC submitted to the San Diego Water Board the final Site Assessment Report.

   f. November 2012-2013. LMC and GD submitted to the San Diego Water Board a Stressor Identification Work Plan and Draft Stressor Identification Report. San Diego Water Board staff provided comments on the Draft Stressor Identification Report; however, no response was submitted to the Board by LMC or GD.

   g. February 2014. San Diego Water Board staff provided comments to LMC on the Site Assessment Report requiring (1) further evaluation to determine if groundwater pollution was reaching surface water, (2) a stressor identification or a proposal for remediation of sediment pollution, and (3) human health and ecological risk assessments.

   h. June 2014. LMC submitted to the San Diego Water Board a Groundwater Investigation Work Plan to address the groundwater contamination.

   i. October 2014. LMC and GD submitted to the San Diego Water Board a Draft Remedial Action Plan.

   j. May 2015. LMC and GD submitted to the San Diego Water Board an Analysis of Copper and Zinc Distribution in Site Sediments.

   k. July 2015. LMC installed three groundwater monitoring wells as part of the Groundwater Investigation Work Plan.

   l. March 2016. LMC submitted to the San Diego Water Board a Groundwater Investigation Report.

   m. June 2016. LMC submitted to the San Diego Water Board a conceptual site model for mercury behavior.

[10] Haley & Aldrich, Inc. 2009. Technical Memorandum – East Basin Evaluation of Data Distribution and Identification of Former Tow Basin COPCs, San Diego, CA. July 9.

n. July 2016. LMC completed the onshore portion of the investigation by submitting the Well Decommissioning Report.

o. July 2016. The Port District submitted its own sediment chemistry sampling report to supplement the data collected from the adjacent Sunroad Resort Marina in 2011 to the San Diego Water Board. Six of the samples collected and analyzed in the report included samples located within the Site boundaries.

8. **2017 and 2022 Cleanup and Abatement Orders.** Release of a draft version of CAO No. R9-2017-0021, *An Order Directing Lockheed Martin Corporation to Clean Up and Abate the Effects of Waste Discharged from the Former Tow Basin and Former Marine Terminal and Railway Facilities at 3380 North Harbor Drive and 1160 Harbor Island Drive to the East Basin of San Diego Bay, San Diego, California* (2017 CAO), resulted in litigation and subsequent mediation amongst the Dischargers in 2016. The San Diego Water Board was not a party to the Dischargers' mediation, but was consulted on the expectations for implementation of the 2017 CAO by the Dischargers and the mediator. As an acknowledgement of the Dischargers' mediation process, the Board did not issue the 2017 CAO until the settlement agreement between the Dischargers was finalized. Under the terms of the settlement agreement, LMC agreed to be solely responsible for current and future response costs and the implementation and completion of the remedial action plan under the 2017 CAO. Consistent with these terms, the San Diego Water Board issued the 2017 CAO to only LMC on April 4, 2017. The 2017 CAO required a Feasibility Study, Remedial Action Plan, Cleanup and Abatement Verification Report, Post-Remedial Monitoring, and Quarterly Progress Reports.

   The following describes the submittals from LMC under the 2017 CAO and recent correspondence between LMC and the San Diego Water Board:

   a. **Initial Submittals under 2017 CAO.** LMC submitted a Feasibility Study, Remedial Action Plan, and Post-Remedial Monitoring Plan to the San Diego Water Board on June 29, 2017. At the request of the Board, LMC submitted revised figures on August 3, 2017. Board staff reviewed the Feasibility Study and Post-Remedial Monitoring Plan and provided comments to LMC on October 27, 2017. From October 27, 2017, through September 2020, a series of formal communications between Board staff and LMC took place regarding the adequacy of the submittals and the requirements for technical modifications. The Board approved the Feasibility Study in a letter to LMC dated September 24, 2020. The Feasibility Study included four Alternatives. Based on the approved Feasibility Study, LMC completed the CEQA EIR for Alternative 4, which was certified by the Port of San Diego in December 2020.

   b. **Discussions/Events Regarding SQO Requirements from November 2019 to Present.** The following list describes the more recent correspondence between LMC and the San Diego Water Board regarding the Sediment Quality Provisions requirements and the legal events that occurred from 2019 to present:

      i. On November 8, 2019, San Diego Water Board staff issued a letter requiring LMC to revise its Post-Remedial Monitoring Plan to incorporate sample collection and analysis for the evaluation of SQOs pursuant to the

requirements of the 2017 CAO.

ii. LMC's response to the November 8, 2019, letter and a December 4, 2019, teleconference with San Diego Water Board staff was a proposal to submit the Feasibility Study separately from the Post-Remedial Monitoring Plan to allow for further discussion regarding the scope and approach for the Post-Remedial Monitoring Plan.

iii. Board staff approved LMC's proposal to submit the Feasibility Study separate from the Post-Remedial Monitoring Plan in a letter dated January 14, 2020.

iv. LMC submitted a revised Feasibility Study on January 17, 2020, which the San Diego Water Board approved via a letter dated September 24, 2020, after receiving responses to several comments.

v. The Office of Enforcement issued a letter to LMC on March 10, 2020, following a teleconference discussion on February 5, 2020. The letter responded to LMC's request for a legal discussion regarding the applicability of the Sediment Quality Provisions and reiterated the requirement for a revised Post-Remedial Monitoring Plan that complied with amendments to the Sediment Quality Provisions.

vi. The San Diego Water Board denied LMC's April 8, 2020, Request for Hearing and Determination on the applicability of Sediment Quality Provisions in a letter to DLA Piper, LMC's counsel, on June 23, 2020, stating that the Sediment Quality Provisions apply to the Site.

vii. Following dismissal of a petition for review of the June 23, 2020, determination, LMC filed a Petition for Writ of Mandate and Request for Stay in San Diego County Superior Court on November 20, 2020.

viii. Technical meetings between LMC and San Diego Water Board staff failed to resolve the dispute regarding Sediment Quality Provisions applicability and LMC's request that the Board accept a Post-Remedial Monitoring Plan that does not comply with the Sediment Quality Provisions. Thereafter, the San Diego Water Board elected to rescind the 2017 CAO, in part, to facilitate development of a new CAO that more explicitly describes the applicability of Sediment Quality Provisions to the Site.

ix. On August 10, 2022, the San Diego Water Board issued CAO No. R9-2022-0007 (2022 CAO), which replaced the 2017 CAO. The directives of the 2022 CAO reflected the requirements of the Sediment Quality Provisions more explicitly than its predecessor.

x. On January 9, 2023, LMC filed a petition for writ of administrative mandate against the San Diego Water Board challenging the 2022 CAO (*Lockheed Martin Corporation v. Regional Water Quality Control Board, San Diego Region,* San Diego County Superior Court, Case No. 37-2023-00001041-CU-WM-CTL). The Court issued a Minute Order on April 3, 2024, granting in part LMC's petition for writ of mandate. The Court found that "Respondent's factual findings setting the background concentration levels at the Site at 84 parts per billion for total PCBs and 0.57 parts per million for mercury is

correct."

On July 1, 2024, the Court issued a Judgment and Writ of Mandate commanding the San Diego Water Board to either revise the 2022 CAO or issue a new CAO consistent with the Minute Order. On December 30, 2025, the Court issued a second order stating as follows:

"As described in the Court's April 3, 2024 Minute Order granting Petitioner's writ of mandamus and the Court's July 1, 2024 Judgment and Writ of Administrative Mandate, and for the reasons set forth therein:

i. Respondent is bound to the 2017 Cleanup and Abatement Order background concentration levels for PCBs and mercury; specifically, 84 parts per billion for total PCBs and 0.57 parts per million for total mercury.

ii. Respondent may employ the 2018 Sediment Quality Objectives only within the requirements of the Water Code and State Water Resources Control Board Resolution 92-49, under which a discharger may only be required to clean and abate waste attributable to that discharger, regardless of other water quality valuations. In this case, the 2018 Sediment Quality Objectives may not be employed to require Petitioner to clean and abate sediment contaminants at the Site below background levels of 84 parts per billion for total PCBs and 0.57 parts per million for total mercury.

iii. Respondent shall comply with the Court's Judgment and Writ by filing a return to the Writ of Mandate by not later than April 3, 2026."

xi. On November 19, 2025, the San Diego Water Board sent a letter requesting that the Board's Cleanup Team and LMC submit for the Board's consideration their proposed amendments to the 2022 CAO that conform with the Court's Orders. The parties were also invited to submit new evidence that supports any proposed amendments to the 2022 CAO. The letter stated that the Board would not consider any submissions received after December 22, 2025. On December 22, 2025, LMC submitted comments and proposed amendments to the 2022 CAO. The Cleanup Team did not submit any comments or proposed amendments to the 2022 CAO by the December 22, 2025 deadline.

9. **Beneficial Uses.** Table 2-3 of the Basin Plan and Table 1 of the Sediment Quality Provisions designate the following beneficial uses applicable to the Site that are impacted or have the potential to be impacted by wastes discharged to the San Diego Bay and Bay sediments:

Table 1. Beneficial Uses and Target Receptors of San Diego Bay

Beneficial Uses	**Target Receptor(s)**
Commercial and Sport Fishing	Human Health
Shellfish Harvesting	Human Health
Estuarine Habitat	Benthic Community, Wildlife, Finfish
Marine Habitat	Benthic Community, Wildlife, Finfish
Wildlife Habitat	Wildlife

Rare, Threatened, or Endangered Species	Wildlife, Finfish
Preservation of Biological Habitats of Special Significance	Wildlife, Finfish
Spawning, Reproduction, and/or Early Development	Finfish

10. [Intentionally left blank]

11. **Presence of Wastes at the Site.** The Summary of Sediment Chemistry Data for the East Basin (Summary Report),[11] prepared by Windward Environmental LLC for the Port District, summarizes the results from sediment samples collected by the Dischargers in the East Basin of Harbor Island in 2007 and from 2010 to 2016. The Summary Report assesses the nature, extent, and magnitude of contaminants in surface sediments and subsurface core sediments from within and outside of the Site. Surface sediment samples were collected from within the Site in 2010 and 2011 from a depth interval of 0 to 5 centimeters (cm). Subsurface sediment core samples were collected from within the Site during the 2007 investigation from depth intervals of 0.5 foot to 1.5 feet and 1.0 foot to 5.5 feet. The Discharger collected additional subsurface sediment core samples from within the Site during the 2010 to 2016 investigation from depth intervals of 0.5 foot to 1.0 foot and 1.0 foot to 6 feet.

    Surface sediment samples and sediment core samples were analyzed for PCBs and metals. The analytical results confirm the presence of wastes in the sediment at the Site, as shown in Tables 2, 3, and 4.

Table 2. Summary Statistics for Surface Sediment Chemistry, 2010-2011

Constituent	Depth Interval	Unit [a]	Detection Frequency	Percent Detected	Minimum Value	Maximum Value	Mean Value [b]
Total PCBs [c]	0 to 5 cm	µg/kg	8/8	100	43	420	210
Mercury	0 to 5 cm	mg/kg	8/8	100	0.133	1.66 J	0.694

Notes:
a – Dry weight unit
b – Mean of detected concentrations
c – Sum of 18 polychlorinated biphenyl (PCB) congeners (8, 18, 28, 44, 52, 66, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 206, 209) using a correction factor[12] of 1.72, from Tetra Tech (2012)[13]
cm – centimeter
J – estimated concentration
µg/kg – micrograms per kilogram
mg/kg – milligrams per kilogram

[11] Windward Environmental. 2016. Summary of Sediment Chemistry Data for the East Harbor Basin. July 28.
[12] Southern California Coastal Water Research Project. 2009. Sediment Quality Assessment Draft Technical Support Manual – Technical Report 582. May.
[13] Tetra Tech. 2012. Site Assessment Report – Lockheed Marine Terminal and Railway, San Diego, California. July 28.

Table 3. Summary Statistics for Sediment Core Chemistry, 2007

Constituent	Depth Interval	Unit [a]	Detection Frequency	Percent Detected	Minimum Value	Maximum Value	Mean Value [b]
Total PCBs [c]	0 to 0.5 ft	µg/kg	21/21	100	77	818	355
Mercury	0 to 0.5 ft	mg/kg	21/21	100	0.116 J	0.932	0.41
Total PCBs [c]	0.5 to 1.5 ft	µg/kg	17/17	100	15	764	244
Mercury	0.5 to 1.5 ft	mg/kg	17/17	100	0.012 J	1.07	0.30
Total PCBs [c]	1.5 to 2.5 ft	µg/kg	11/17	65	9	891	206
Mercury	1.5 to 2.5 ft	mg/kg	15/17	88	0.005 J	0.846	0.1
Total PCBs [c]	2.5 to 3.5 ft	µg/kg	10/17	59	6	362	67
Mercury	2.5 to 3.5 ft	mg/kg	15/17	88	0.002 J	0.319	0.049
Total PCBs [c]	3.5 to 4.5 ft	µg/kg	4/8	50	5	221	66
Mercury	3.5 to 4.5 ft	mg/kg	7/8	87	0.002 J	0.086	0.031
Total PCBs [c]	4.5 to 5.5 ft	µg/kg	2/8	25	11	15	13
Mercury	4.5 to 5.5 ft	mg/kg	5/8	63	0.004 J	0.098	0.029

Notes:
a – Dry weight unit
b – Mean of detected concentrations
c – Sum of 19 polychlorinated biphenyl (PCB) congeners (44, 87, 99, 105, 110, 118, 128, 138, 149, 151, 153, 156, 170, 177, 180, 183, 187, 194, 206) using a correction factor of 1.82, from Haley & Aldrich (2009)[14] (2011)[15]
ft – foot or feet
J – estimated concentration
µg/kg – micrograms per kilogram
mg/kg – milligrams per kilogram

Table 4. Summary Statistics for Sediment Core Chemistry, 2010-2016

Constituent	Depth Interval	Unit [a]	Detection Frequency	Percent Detected	Minimum Value	Maximum Value	Mean Value [b]
Total PCBs [c]	0 to 0.5 ft	µg/kg	6/6	100	42.9	704	344
Total PCBs [d]	0 to 0.5 ft	µg/kg	7/7	100	18.85	206.91	71.41
Mercury	0 to 0.5 ft	mg/kg	13/13	100	0.0913	13 J	2
Total PCBs [c]	0.5 to 1 ft	µg/kg	6/6	100	87.8	996	446
Total PCBs [d]	0.5 to 1 ft	µg/kg	NA	-	-	-	-
Mercury	0.5 to 1 ft	mg/kg	6/6	100	0.148	0.598	0.355
Total PCBs [c]	1 to 2 ft	µg/kg	6/6	100	12.1	1,343	515

[14] Haley & Aldrich. 2009. East Basin Evaluation of Data Distribution and Identification of Former Tow Basin COPCs – San Diego, California. July 9.
[15] Haley & Aldrich. 2011. Report on Sediment Quality Objectives Sampling – Former Tow Basin, East Basin of San Diego Bay. March 10.

Total PCBs [d]	1 to 2 ft	µg/kg	7/7	100	52.01	284.9	126.9
Mercury	1 to 2 ft	mg/kg	13/13	100	0.0440	2.51 J	0.62
Total PCBs [c]	2 to 3 ft	µg/kg	5/6	83	7.2	635	223
Total PCBs [d]	2 to 3 ft	µg/kg	7/7	100	1.2	438.07	134.1
Mercury	2 to 3 ft	mg/kg	10/13	77	0.026	1.215	0.38
Total PCBs [c]	3 to 4 ft	µg/kg	2/6	33	79.6	132	106
Total PCBs [d]	3 to 4 ft	µg/kg	5/5	100	0.33	187.32	91.3
Mercury	3 to 4 ft	mg/kg	6/11	54	0.0833	0.507 J	0.281
Total PCBs [c]	4 to 5 ft	µg/kg	3/3	100	7.4	245	89
Total PCBs [d]	4 to 5 ft	µg/kg	2/2	100	17.23	103.175	60.20
Mercury	4 to 5 ft	mg/kg	3/5	60	0.015	1.14	0.47
Total PCBs [c]	5 to 6 ft	µg/kg	1/2	50	-	3.30	-
Total PCBs [d]	5 to 6 ft	µg/kg	1/1	100	-	-	40.39
Mercury	5 to 6 ft	mg/kg	1/3	33	-	0.1255	-

Notes:
a – Dry weight unit
b – Mean of detected concentrations
c – Sum of 59 polychlorinated biphenyl (PCB) congeners (3, 5, 8, 15, 18, 27, 28, 29, 31, 37, 44, 49, 52, 60, 66, 70, 74, 77, 81, 87, 95, 97, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 132, 137, 138, 141, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 174, 177, 180, 183, 184, 187, 189, 194, 200, 201, 203, 206, 209), from Amec Foster Wheeler (2016)[16]
d – Sum of 18 polychlorinated biphenyl (PCB) congeners (8, 18, 28, 44, 52, 66, 101, 105, 118, 128, 138, 153, 170, 180, 187, 195, 206, 209) using a correction factor of 1.72, from Tetra Tech (2012)
ft – foot or feet
J – estimated concentration
µg/kg – micrograms per kilogram
mg/kg – milligrams per kilogram

NA – not analyzed

12. **Potential Threat to Aquatic Life – Benthic Community.** Guidelines to evaluate the potential for adverse biological effects on the benthic community by a given chemical include the two toxicity levels of *Effects Range-Low concentration* (ERL) and *Effects Range-Median concentration* (ERM).[17] At concentrations below the ERL, observation of an adverse effect on the benthic community is likely to be uncommon. At concentrations greater than the ERL, but below the ERM, it is possible that adverse effects would occur. At concentrations greater than the ERM, adverse effects are frequently observed. ERLs and ERMs are useful as screening levels pending the appropriate collection and analysis of MLOE for the assessment of risk to aquatic life. The surface sediment and sediment core samples within the Site with concentrations above ERLs and ERMs are shown in Tables 5, 6, and 7. The presence of these constituents at concentrations above the ERLs and ERMs in sediments of the East Basin of Harbor Island create or threaten to create a condition

[16] Amec Foster Wheeler Environment & Infrastructure. 2016. Final Report, Harbor Island East Basin Sediment Chemistry Sampling and Analysis Study – San Diego Bay, San Diego, California. July.
[17] https://www.waterboards.ca.gov/water_issues/programs/tmdl/records/region_9/2008/ref2796.pdf

of pollution in waters of the state.

Additionally, as stated in Finding 6, five of the eight sediment quality triad-sampling stations at the Site were categorized as having sediment pollutant levels “likely” to adversely affect the health of the benthic community, and one triad station was classified as “possible.” These results are based on the measures of sediment chemistry, toxicity, and benthic community structure at the Site.

Table 5. Sediment Screening Level Exceedances, 2010-2011

Constituent	Depth Interval	Detection Frequency	Number of Detections Above ERL (but less than ERM)	Number of Detections Above ERM
Total PCBs	0 to 5 cm	8/8	4	4
Mercury	0 to 5 cm	8/8	3	3

Notes:
cm – centimeter
ERL – Effects Range-Low
ERM – Effects Range-Median
PCBs – polychlorinated biphenyls

Table 6. Sediment Screening Level Exceedances, 2007

Constituent	Depth Interval	Detection Frequency	Number of Detections Above ERL (but less than ERM)	Number of Detections Above ERM
Total PCBs	0 to 0.5 ft	21/21	3	18
Mercury	0 to 0.5 ft	21/21	14	2
Total PCBs	0.5 to 1.5 ft	17/17	6	10
Mercury	0.5 to 1.5 ft	17/17	11	1
Total PCBs	1.5 to 2.5 ft	11/17	6	3
Mercury	1.5 to 2.5 ft	15/17	2	1
Total PCBs	2.5 to 3.5 ft	10/17	3	1
Mercury	2.5 to 3.5 ft	15/17	2	0
Total PCBs	3.5 to 4.5 ft	4/8	1	1
Mercury	3.5 to 4.5 ft	7/8	0	0
Total PCBs	4.5 to 5.5 ft	2/8	0	0
Mercury	4.5 to 5.5 ft	5/8	0	0

Notes:
ERL – Effects Range-Low
ERM – Effects Range-Median
ft – foot or feet
PCBs – polychlorinated biphenyls

Table 7. Sediment Screening Level Exceedances, 2010-2016

Constituent	Depth Interval	Detection Frequency	Number of Detections Above ERL (but less than ERM)	Number of Detections Above ERM
Total PCBs	0 to 0.5 ft	13/13	7	5
Mercury	0 to 0.5 ft	13/13	8	4
Total PCBs	0.5 to 1 ft	6/6	2	4
Mercury	0.5 to 1 ft	13/13	5	0
Total PCBs	1 to 2 ft	13/13	6	6
Mercury	1 to 2 ft	13/13	8	3
Total PCBs	2 to 3 ft	12/13	2	4
Mercury	2 to 3 ft	10/13	2	3
Total PCBs	3 to 4 ft	7/11	5	1
Mercury	3 to 4 ft	6/11	5	0
Total PCBs	4 to 5 ft	5/5	1	1
Mercury	4 to 5 ft	3/5	1	1
Total PCBs	5 to 6 ft	2/3	1	0
Mercury	5 to 6 ft	1/3	0	0

Notes:
ERL – Effects Range-Low
ERM – Effects Range-Median
ft – foot or feet
PCBs – polychlorinated biphenyls

13. **Potential Threat to Human Health.** Chapter IV.A.2 of the Sediment Quality Provisions prescribes the methods and procedures to interpret the narrative objective to protect human consumers of locally caught sportfish. The tools and associated framework address the following two components of the SQO requirement to protect human consumers:

    a. Assess if pollutant concentrations in sportfish are an unacceptable chemical exposure to human consumers; and

    b. Assess if sediment contamination at a site is a significant contributor to sportfish contamination.

    The assessment framework consists of three tiers. Tier 1 is an optional screening assessment to address if contaminants in sediments at a site are a potential chemical exposure that warrants further evaluation. Tier 2 is a complete site assessment to assess sediment quality relative to the SQO protecting human consumers of locally caught sportfish. Tier 3 is a more complex and site-specific assessment intended to supplement the Tier 2 evaluation.

Tier 1 requires fewer data relative to Tiers 2 and 3. Tier 2 requires site-specific information and data including sediment and sportfish tissue chemistry, sediment organic carbon, water column contaminant concentrations, and percent lipid in tissue. The data are used to calculate average chemical exposure from consumption and the probability distribution of linkage between contaminants in sediment and sportfish. In Tier 3, greater flexibility is provided to address unique site conditions, confounding factors, and other chemical exposure factors. Tier 3 may be employed only after meeting the conditions described in Chapter IV.A.2.e.2 of the Sediment Quality Provisions.

As shown in Table 8, the 95% upper confidence limit (UCL) of the mean concentration for PCBs in surface sediments within the East Basin of Harbor Island is above the PCB sediment screening thresholds for all fish guilds. These exceedances pose potential unacceptable chemical exposure risks that warrant cleanup or abatement of PCBs in Site sediments.

The 2014 and 2016 Integrated Report[18] lists San Diego Bay as impaired for PCBs in fish tissue. The listing is based on all fish tissue samples from the Bay exceeding OEHHA's screening value of 20 nanograms per gram. Further, OEHHA published a health advisory and guidelines for fish consumption from San Diego Bay in 2018 warning consumers of unhealthy levels of PCBs and mercury in fish tissue from San Diego Bay.[19] Mercury discharged from the Railway Facility and PCBs discharged from both the Railway Facility and the former Tow Basin Facility to the East Basin of Harbor Island are contributing to the elevated levels of these pollutants in San Diego Bay fish tissue.

Table 8. Tier 1 Human Health Screening Evaluation for Total PCBs (µg/kg dw) in Surface Sediment (0 to 0.5 feet)[20]

Fish Guild	Mean Total Organic Carbon[21] (% dw)	BSAF[22]	95% UCL[23] of Mean Surface Sediment Concentration (µg/kg dw)	Sediment Screening Threshold[24] (µg/kg dw)
Piscivore	0.970	11.6	352	1.81
Benthic with Piscivory	0.970	14.3	352	1.47

[18] 2014 and 2016 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report).https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2 016.shtml

[19] Office of Environmental Health Hazard Assessment. 2018. Health Advisory and Guidelines for Eating Fish from San Diego Bay (San Diego County). July. Available at: https://oehha.ca.gov/media/downloads/advisories/sandiegoreport073118.pdf

[20] Summary statistics for Table 8 incorporates 42 surface sediment samples with a mean value of 352 µg/kg. Eight samples are from 0- to 5-cm depth as presented in Table 2, 21 samples from 0- to 0.5-ft as presented in Table 3, and 13 samples from 0-to 0.5-ft as presented in Table 4.

[21] Arithmetic mean of total organic carbon (TOC) of 0.970 percent from 34 samples analyzed for TOC. Eight samples are from 0- to 5-cm depth from Tetra Tech (2012), 21 samples are from 0- to 0.5-ft from Haley & Aldrich (2009, 2011), and seven samples are from 0- to 0.5-ft from Tetra Tech (2012).

[22] BSAF is derived from Table 17 of the Sediment Quality Provisions using a TOC of 1 percent and is defined as the wet weight chemical concentration divided by dry weight chemical concentration in sediment.

[23] Calculated using EPA ProUCL Version 5.1.

[24] Calculated by dividing the Tier 1 Tissue Screening Threshold for total PCBs (21 µg/kg wet weight per Table 16 of the Sediment Quality Provisions) by the BSAF. BSAF derived using TOC of 1 percent.

Benthic with Piscivory (White Catfish Only)	0.970	18.6	352	1.13
Benthic and Pelagic with Piscivory	0.970	13.1	352	1.60
Benthic without Piscivory	0.970	16.0	352	1.31
Benthic and Pelagic without Piscivory	0.970	5.30	352	3.96
Benthic with Herbivory	0.970	9.80	352	2.14
Benthic and Pelagic with Herbivory	0.970	2.90	352	7.24
Pelagic with Benthic Herbivory	0.970	5.60	352	3.75

Notes:
BSAF – biota sediment accumulation factor
µg/kg dw – micrograms per kilogram dry weight
PCBs – polychlorinated biphenyls
% dw – percent dry weight
95% UCL – 95 percent upper confidence limit

14. **Potential Threat to Wildlife and Resident Finfish.** Bioaccumulation is the result of uptake and retention of a chemical by an aquatic organism from the surrounding water, food, and sediment.[25] Trace metals and organic chemicals can accumulate in fish tissue from exposure to these pollutants in the water column, sediment, and prey tissue.[26] Organisms that ingest sediments may accumulate contaminants that are desorbed by the digestive processes in the gut, and indirect contaminant exposure results from the consumption of contaminated prey by fish and other wildlife. Contaminants such as PCBs have an affinity for tissue lipids and, as a result, contaminants may accumulate at higher trophic levels to concentrations capable of causing unacceptable risks to human consumers and biota.[27] As stated in Finding 13, concentrations of mercury and PCBs in several species of fish in San Diego Bay have already been identified by OEHHA as a potential threat to human health. These concentrations are likely attributed to the mercury and PCBs found in sediments within the Site, which can also have an adverse impact on the benthic community and wildlife. Findings from the Assessment of Bioaccumulation in San Diego Bay indicate that mercury in aquatic biota may pose some risk of adverse effects on avian species that forage on benthic invertebrates and on small-bodied avian species that forage on pelagic fish, while both PCBs and mercury in fish tissue presents the greatest potential risk to human health.[28]

    The maximum PCB concentration of 818 micrograms per kilogram (µg/kg) in Site

[25] Mackay, D. and Fraser, A. 2000. Bioaccumulation of Persistent Organic Chemicals: Mechanisms and Models. Environmental Pollution 110:375-391.
[26] State Water Resources Control Board. 2018. Staff Report Including Substitute Environmental Documentation for Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (Sediment Quality Provisions). June 5.
[27] Ibid.
[28] Southern California Coastal Water Research Project. 2016. Assessment of Bioaccumulation in San Diego Bay – SCCWRP Technical Report 953. December.

surface sediments (Table 3, Depth Interval: 0 to 0.5 feet), and the maximum mercury concentration of 13,000 µg/kg (Table 4, Depth Interval: 0 to 0.5 feet), exceed the associated sediment screening levels for several of the ecological receptors potentially exposed to contaminants from sediment in San Diego Bay as presented in Table 9, from Zeeman (2004).[29]

Table 9. Sediment Screening Levels for Ecological Receptors Exposed to Contaminants from Sediment in San Diego Bay[30]

Receptor Category	Receptor	Screening Level Basis	Mercury	PCB [a] Homologs	PCB [a] Aroclors	PCB [a] Congeners
Benthic	Invertebrates	TEL [b]	130	22	-	-
Benthic	Vegetation	LCV [c]	59,000	240	-	-
Fish	Fish	NOEC [d]	<120 [e]	90 [f]	150 [f]	80 [f]
Bottom-feeding birds	Scoter	TRV-L [g]	210	310 [f]	320 [f]	310 [f]
Consumers of small fish	Grebe	TRV-L [g]	170	25 [f]	42 [f]	21 [f]
Consumers of small fish	Tern	TRV-L [g]	50	7 [f]	13 [f]	6 [f]
Consumers of small fish	Skimmer	TRV-L [g]	100	14 [f]	24 [f]	12 [f]
Consumers of medium-sized fish	Pelican	TRV-L [g]	160	22 [f]	38 [f]	19 [f]
Consumers of medium-sized fish	Sea lion	TRV-L [g]	460	310 [f]	520 [f]	260 [f]
Herbivores	Wigeon	TRV-L [g]	-	3,620	3,880	3,460
Herbivores	Turtle	TRV-L [g]	-	6,380	6,840	6,100

Notes:

a – PCB concentrations were quantified three different ways (as homologs, Aroclors, and congeners), producing different BSAFs. Results obtained by all three approaches shown for reference.

b – TEL: Threshold Effect Level (µg/kg sediment)

c – LCV: lowest chronic value for contaminants in water (µg/L)

d – NOEC: No Observed Effect Concentration in fish tissue (µg/kg), dry weight

e – No NOEC available. Screening level based on Lowest Observed Effect Concentration (µg/kg fish tissue, dry weight).

[29] Zeeman, C.Q.T. 2004. Ecological Risk-Based Screening Levels for Contaminants in Sediments of San Diego Bay, Technical Memorandum CFWO-EC-TM-04-01. U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, Carlsbad, CA. December 8.

[30] Zeeman, C.Q.T. 2004. Ecological Risk-Based Screening Levels for Contaminants in Sediments of San Diego Bay, Technical Memorandum CFWO-EC-TM-04-01. U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office, Carlsbad, CA. December 8.

f – Screening levels calculated using total organic carbon normalized accumulation factors. The screening values are for sediment with 1 percent total organic carbon.
g – TRV-L: Toxic Reference Value-Low (µg/kg-day)

15. **Condition of Pollution.** The concentrations of pollutants in the sediments of the Site are at levels that alter the quality of waters of the state. The pollutants unreasonably affect waters designated for beneficial uses and have an impact on human health and the benthic community and may have an impact on aquatic-dependent wildlife, thus creating a condition of pollution and an increased health risk to human consumers of fish.

16. **Basis for Cleanup and Abatement Order.** Water Code section 13304 authorizes the San Diego Water Board to require cleanup and/or abatement of the effects of pollution caused by discharges of wastes. Water Code section 13304 requires a person to clean up waste or abate the effects of the waste discharge if so ordered by a regional water board in the event there has been a discharge in violation of waste discharge requirements, or if a person has caused or permitted waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates or threatens to create a condition of pollution. Therefore, based on the findings in this 2026 CAO, the Board is authorized to order the Dischargers identified in Finding 5 to clean up and/or abate the effects of the waste discharged at the Site.

    This CAO amends the 2022 CAO, consistent with the orders issued by the Court in *Lockheed Martin Corporation v. Regional Water Quality Control Board, San Diego Region*, San Diego County Superior Court, Case No. 37-2023-00001041-CU-WM-CTL.

    As summarized in Finding 2, the regulations in place at the time of the 2017 CAO issuance included narrative SQOs to protect benthic communities, human health, and wildlife and resident finfish, and a program of implementation for the narrative SQOs. The June 5, 2018, adoption of the Sediment Quality Provisions provides a more prescriptive framework and implementation program to address human health and exposure to contaminants in seafood. This includes tools to assess health risk to human consumers of seafood and methods to evaluate the linkage to contaminants in sediments.

    The SQOs and the analytical framework of the Sediment Quality Provisions are based on scientific information, including chemical concentration data, bioassays, and established modeling procedures, and the objectives as implemented will provide adequate protection for the most sensitive aquatic organisms. In addition, SQOs for the protection of human health from contaminants in seafood are based on a health risk assessment. The health risk assessment used for development of the SQOs evaluates and quantifies the potential human exposure to a pollutant that bioaccumulates in edible fish, shellfish, or wildlife. Health risk assessments include an analysis of both individual and population-wide health risks associated with anticipated levels of human exposure, including potential synergistic effects of toxic pollutants and impacts on sensitive populations. The Sediment Quality Provisions include an implementation program to achieve the SQOs, which describes actions to be taken to achieve the objectives and monitoring to determine compliance with the

objectives. The Bays and Estuaries Plan and its Sediment Quality Provisions contain scientifically defensible SQOs for bays and estuaries, which can be consistently applied statewide to assess sediment quality, regulate waste discharges that may impact sediment quality, and provide the basis for appropriate remediation activities, where necessary, and should result in improved sediment quality.

The SQOs may not be employed to require LMC to cleanup and abate sediment contaminants at the Site below background levels of 84 parts per billion for total PCBs and 0.57 parts per million for total mercury.

17. **Basis for Requiring Technical and Monitoring Reports.** Water Code section 13267 authorizes the San Diego Water Board to require any person who has discharged, discharges, or is suspected of having discharged or is discharging, or who proposes to discharge waste within the region, to furnish technical and/or monitoring reports as the Board may specify, provided that the burden, including costs, of these reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

Technical and post-remedial monitoring reports are needed to provide information to the San Diego Water Board regarding (a) the determination of alternative sediment concentrations for chemicals of concern, (b) appropriate cleanup or abatement measures, and (c) verification that the remedial action continues to perform as designed to maintain the cleanup levels at the site. The reports will describe appropriate cleanup or abatement measures for the Site and provide technical information to determine if those cleanup and abatement measures have brought the Site into compliance with applicable water and sediment quality standards. Based on the nature and possible consequences of the discharges, the burden of providing the required reports, including the costs, bears a reasonable relationship to the need for the reports, and the benefits to be obtained from the reports.

The estimated total cost associated with the implementation of the directives included in this CAO range from $5.78 million(M) to $41M and are summarized in Tables 10A and 10C.

Table 10A. Estimated [a] Costs for Implementing Cleanup and Abatement Order Approach A – Clean Up to Background Sediment Cleanup Levels

Task	Estimated Cost Range
Draft Feasibility Study	$30K to $75K
Final Feasibility Study	$30K to $75K
Draft and Final Remedial Action Plans	$30K to $75K
Cleanup	$4.4M to $10.0M
Cleanup Verification Report	$30K to $75K
Draft and Final Post-Remedial Monitoring Plans	$30K to $75K
Post-Remedial Monitoring Implementation	$1.0M to $2.0M
Post-Remedial Monitoring Reports	$200K to $350K
Quarterly Progress Reports	$30K to $75K
Estimated Total	**$5.78M to $12.72M**

Notes:
a – LMC submitted these cost estimates to the San Diego Water Board on December 22, 2025.

Table 10B. [Intentionally left blank. The table from the 2022 CAO consisted of cost estimates for former Approach B, which has been removed from this CAO.]

Table 10C. Estimated [a] Costs for Implementing Cleanup and Abatement Order Approach C – Remove All Contaminated Sediments

Task	Estimated Cost Range
Draft and Final Remedial Action Plans	$45K to $100K
Cleanup	$25M to $40M
Cleanup Verification Report	$30K to $75K
Estimated Total	**$25M to $41M**

Notes:
a – LMC submitted these cost estimates to the San Diego Water Board on December 22, 2025.

18. **Cleanup Levels.** Resolution No. 92-49, *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under California Water Code Section 13304*, sets forth policies and procedures for the investigation and cleanup and abatement of a discharge of waste, and requires that cleanup levels be consistent with Resolution No. 68-16. Resolution No. 92-49 applies to the cleanup and/or abatement of the effects of waste discharges at the Site.

    Resolution No. 92-49 requires that dischargers clean up and abate the effects of discharges in a manner that promotes the attainment of background water quality, or the best water and/or sediment quality that is reasonable if background water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible. For the purposes of this CAO only, and as ordered by the Court, Cleanup Levels for total PCBs and total mercury (contaminants of concern [COCs]) applicable to this site are 84 parts per billion and 0.57 parts per million, respectively. Due to the unique nature of this CAO containing court-mandated background cleanup levels for LMC, which LMC has demonstrated are feasible and achievable, there is no need for alternative cleanup levels in this CAO.

19. **California Environmental Quality Act Compliance.** Issuance of this CAO is an enforcement action taken by a regulatory agency and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321(a)(2), chapter 3, title 14 of the California Code of Regulations (Cal. Code Regs). This action is also exempt from the provisions of CEQA pursuant to section 15061(b)(3), chapter 3, title 14, of the Cal. Code Regs., because it can be seen with certainty that there is no possibility the activities undertaken to comply with this CAO will have a significant effect on the environment.

    The San Diego Water Board has reviewed the existing CEQA documents, including the 2020 certified Environmental Impact Report (EIR), which was prepared in consideration of work required under the 2017 CAO and the recommended alternative (Alternative 4). Further analysis with regards to CEQA may not be needed. If, however, the San Diego Water Board later determines that work proposed in the Remedial Action Plan may have a significant effect on the

environment other than what was described in the EIR, the San Diego Water Board will consider appropriate actions in conjunction with the lead agency in compliance with CEQA.

20. **Public Notice.** The San Diego Water Board has notified all known interested persons and the public of its intent to adopt this CAO as may be required.

21. **Qualified Professionals.** LMC's reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigations and remediation. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under direction of licensed professionals.

22. **Cost Recovery.** Pursuant to Water Code section 13304(c), and consistent with other statutory and regulatory requirements, including but not limited to Water Code section 13365, the San Diego Water Board is entitled to, and will seek reimbursement for, all reasonable costs actually incurred by the 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 CAO or subsequent orders

23. **Court Ordered Amendment.** The Court in *Lockheed Martin Corporation v. Regional Water Quality Control Board, San Diego Region* relied on the 2017 CAO negotiated background cleanup levels of 84 ppb for PCBs and 0.57 ppm for total mercury. The 2022 CAO stated that PCBs are manmade and that background cleanup levels should be zero. This was a misstatement of the interplay between background levels under Resolution No. 92-49 and the scientific definition of PCBs. The Court held that in issuing the 2022 CAO, the San Diego Water Board did not provide sufficient evidence demonstrating that the 2022 CAO levels were the correct background levels applicable to LMC as required under Resolution No. 92-49.

    The San Diego Water Board disagrees with the Court's order that the 2017 CAO background cleanup levels are the correct background levels. The 2017 cleanup levels were derived from negotiated agreements reached in different CAOs for different sites. The San Diego Water Board also disagrees that the Court can require the Board to use specific cleanup levels. Despite these disagreements, the San Diego Water Board acknowledges that issuing this amendment to the 2022 CAO utilizing the court-mandated Cleanup Levels for LMC will allow cleanup at the Site to move forward in a timely manner. Nevertheless, it is reasonable to conclude that, even after LMC completes cleanup and abatement to the required Cleanup Levels in this CAO, some COCs may remain in Site sediments at concentrations higher than necessary to support beneficial uses.

24. **Feasibility Study Alternatives**. The San Diego Water Board's September 2020 approval of LMC's Feasibility Study, as described in Finding 8.a, did not endorse a specific Alternative. The Board and LMC subsequently discussed an amended Alternative 4 that would be more protective than Alternative 4. For instance, at the

August 10, 2022, Board meeting, LMC proposed pursuing an amended Alternative 4 (Amended Alternative 4) that includes clean cover placement across the entire Site. While the implicitly approved SWAC approach for calculating COC concentrations in Site sediments allows LMC to achieve Cleanup Levels and still leave some sediments that have high COC concentrations un-dredged and uncovered, LMC could feasibly implement the Amended Alternative 4 to substantially improve the cleanup for a relatively small cost. Implementation of the Amended Alternative 4 would avoid the need for costly and time-consuming fixes to the Feasibility Study and/or CEQA, would not require costly additional dredging, and would not require the development of a new draft RAP.

IT IS HEREBY ORDERED that, pursuant to Water Code sections 13267 and 13304, LMC must comply with the following directives:

A. **CLEAN UP AND ABATE THE EFFECTS OF PCB AND MERCURY DISCHARGES.** PCBs and mercury are the contaminants of concern (COCs) present in Site sediments. LMC must take all corrective actions necessary to clean up and abate COC concentrations in Site sediments using Approach A – Achieve Cleanup Levels. Alternatively, under Approach C, LMC may choose to remove all contaminated sediments from the Site until only natural Bay formation remains.

LMC must implement one of the following cleanup and abatement approaches to fulfill the requirements of this Order:

1. Approach A – Achieve **Cleanup Levels of 84 parts per billion total PCBs** and **0.57 parts per million total mercury** through the completion of either:
    a. Alternative 4 on or before **March 1, 2027**, or
    b. Amended Alternative 4 on or before **March 1, 2028**
2. [**Intentionally left blank]** (Former Approach B – clean up to alternative sediment cleanup levels – is no longer an available approach)
3. Approach C – Remove All Contaminated Sediments on or before March 30, 2028.

For all analyses associated with this project, total PCB concentrations must be expressed as the sum of the following 41 congeners based on EPA Method 8270 SIM:

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.

B. **FEASIBILITY STUDY.** LMC does not need to submit a new Feasibility Study. The Feasibility Study described in Finding 8.a demonstrates that the Cleanup Levels at this Site can be achieved.

C. **REMEDIAL ACTION PLAN AND IMPLEMENTATION.**

1. **Remedial Action Plan.** LMC must prepare and submit a Remedial Action Plan (RAP) to the San Diego Water Board that satisfies the following requirements no later than **60 calendar days after Board issuance of this CAO**. If the San Diego Water Board identifies deficiencies in the RAP that would prevent LMC from achieving the Cleanup Levels for the chosen approach, then LMC must revise and resubmit the RAP accordingly before beginning field work pursuant to directive I.7**.**

2. The RAP must state whether LMC will pursue Approach A or Approach C. If LMC pursues Approach A, LMC must state in the RAP whether Alternative 4 or Amended Alternative 4 will be implemented.

   Alternative 4 is defined in the Feasibility Study that was approved by the San Diego Water Board on September 24, 2020.

   Amended Alternative 4 requires the same remedial actions as Alternative 4, as well as a minimum of 15 cm of clean cover placement across all remaining surfaces in the Site that are not already planned for dredging and/or clean cover placement in Alternative 4.

At a minimum, the RAP must contain the following information:

a. **Site Summary.** A brief description of the Site and Site history. A site map showing the location of buildings, roads, property boundaries, remedial equipment locations, staging areas, boundaries of remedial activities, and other information pertinent to the remedial action.

b. **Remedial Activities Summary.** A work plan for any Pre-Remedial Studies or for the collection of any data needed to optimize the remedial design. A detailed description of the remedial activities selected to attain approved cleanup levels for total PCBs and mercury.

c. **Health and Safety Plan.** A Health and Safety Plan that includes employee training requirements, a list of personal protective equipment for each task, medical surveillance requirements, standard operating procedures, and contingency plans.

d. **Community Relations Plan.** A Community Relations Plan to inform the public about:

   i. Activities related to the final remedial design.

   ii. The schedule for the remedial action.

   iii. The activities expected to occur during construction and remediation.

   iv. Provisions for responding to emergency releases and spills during remediation.

   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) that describes the project objectives and organization, functional activities, and quality assurance/quality control (QA/QC) protocols as they relate to the remedial action.

f. **Sampling and Analysis Plan.** A Sampling and Analysis Plan (SAP) that defines:

   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 including confirmation (z-layer) sampling.

   iii. A description of the analytical methods to be used and an appropriate reference for each.

g. **Evaluation of Environmental Impacts.** If the existing approved 2020 EIR is modified by the lead agency based on the selected remedy outlined in the RAP, an evaluation of the potential environmental impacts of implementing the RAP based on the environmental factors in the CEQA checklist in title 14 of the California Code of Regulations (CEQA Guidelines) must be conducted. The evaluation must identify levels of significance for environmental impacts and propose mitigation to lessen environmental impacts to less than significant levels.

h. **Waste Management Plan.** A description of the plans for management, treatment, storage, and disposal of all wastes generated by the remedial action.

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 must include preliminary design assumptions and parameters, including:

   - Waste characterization.
   - Volume and types of each medium requiring removal or containment.
   - Removal or containment schemes and rates.
   - Required qualities of waste streams (e.g., input and output rates to stockpiles, influent and effluent qualities of any liquid waste streams such as dredge spoil return water, and potential air emissions).
   - Performance standards.
   - Compliance with applicable local, state, and federal regulations.
   - 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 Summary.** 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 must state the basis for such need and the recognized sources of such procurement.

k. **Regulatory Permits and Approvals Summary.** A list of required federal, state, and local permits and approvals needed to conduct the remedial action.

l. **Remediation Monitoring Plan.** The Discharger must implement the mitigation monitoring related to RAP implementation as described in the approved EIR.

m. **Remediation Schedule.** A schedule detailing the sequence of events and activities, and the timeframe for each event and activity based on the shortest practicable time required to complete each activity. All proposed timeframes and completion dates are subject to review and revision by the San Diego Water Board. Active remedial work must be completed outside of the least tern nesting season (March 31 through September 15).[31]

i. The schedule must satisfy the requirement that **remedial activities be completed before the deadline associated with the chosen Approach (see Table 11)**.

3. **RAP Implementation.** LMC must implement the RAP in accordance with the RAP schedule. Before beginning RAP implementation activities, LMC must notify the Board of its intention to begin cleanup in compliance with Directive I.7.

D. **CLEANUP AND ABATEMENT COMPLETION VERIFICATION.** LMC must verify through the submission of a Cleanup and Abatement Completion Report that all RAP activities for the Site have been completed. LMC must notify the Board by email when the last remedial event or activity has occurred and ensure the Cleanup and Abatement Completion Report is received **within 90 calendar days after completion of the last remedial event or activity on the Remediation Schedule in the RAP**.

The Board will review and evaluate the information provided in the Cleanup and Abatement Completion Report and subsequent monitoring reports to determine whether the project is complete.

E. **POST-REMEDIAL MONITORING.** Post-remedial monitoring must be performed to demonstrate, based on sound technical analysis, that the Cleanup Levels in the approved RAP have been achieved. Items due in Post-remedial monitoring must consist of the following components:

1. **Post-Remedial Monitoring Plan.** Before submitting the Draft RAP, LMC must submit a Post-Remedial Monitoring Plan (PRMP). The PRMP is designed to verify that the remedial action detailed in the approved Feasibility

[31] This is the date range provided in the July 2020 Environmental Impact Report

Study is performing as intended. The PRMP includes decision points for each monitoring element. PRMP data cannot be used to require LMC to clean up beyond the Cleanup Levels in this Order based on the chosen Cleanup Approach. Sediment COC concentration data can be used for compliance purposes, but benthic infauna assessment and toxicity testing may only be used for informational purposes to inform the San Diego Water Board and the public of the post-remedial conditions at the site (E.1.b.i).

For the purposes of the PRMP, Year 0 is defined as the period immediately following completion of Phase 2 of the remediation which, as outlined in the approved Feasibility Study, consists of clean cover placement. Sampling must occur within 30 days of Phase 1 completion. Year 1 is defined as 12 months after completion of Year 0 sampling, plus or minus 30 days. Each subsequent monitoring year is defined as one additional year (12 months plus or minus 30 days) after the previous monitoring Year.

The PRMP must be consistent with the approved Feasibility Study and include the following elements:

a. **Quality Assurance Project Plan.** A QAPP describing the project objectives and organization, functional activities, and QA/QC protocols for post-remedial monitoring.

b. **Sampling and Analysis Plan.** A SAP defining (i) sample and data collection methods to be used for the post-remedial monitoring, (ii) a description of the media and parameters to be monitored or sampled, and (iii) a description of the analytical methods to be used and an appropriate reference for each.

   The SAP must include the following assessments, sampling activities, and monitoring components:

   i. **Aquatic Life – Benthic Community Protection Assessment.** LMC must conduct sediment toxicity testing and a benthic community condition assessment, consistent with the protocols in Chapters IV.A.1 of the Sediment Quality Provisions[32], in eight of the 36 bulk sediment sampling locations. This sampling must be conducted at least twice between Year 1 and Year 5. The second sampling event must be on or after Year 3, and the first sampling event must occur at least 1 year prior to the second sampling event. The sampling must be conducted in addition to sampling described in Directive E.1.b.iii. The results cannot be used to evaluate compliance with this CAO.

   ii. **Bulk Sediment Chemistry Sampling.** LMC must sample surface sediments at the site for delineation for grain size, total organic carbon, total PCBs, total mercury, and total solids in Year 0 and at least two other times between Year 1 and Year 5. The third sampling event must be conducted on or after Year 3, and the second sampling event must occur at least 1 year prior to the third sampling event. At

[32] https://www.waterboards.ca.gov/water_issues/programs/bptcp/docs/sediment/sed_qual_provs.pdf

least one sample must be taken from each of the 36 established polygons when establishing compliance with the approved Cleanup Levels.

iii. **Northwest Corner Intertidal Zone Sampling.** LMC must collect two surface samples from sediments and any material placed near Outfall No. 1 in the intertidal zone of the northwest corner of the site for grain size analysis, benthic community enumeration, and shorebird foraging habitat protection in Year 1 or Year 2, and again in Year 3, Year 4, or Year 5.

iv. **Northwest Corner Intertidal Zone Physical Monitoring.** LMC must conduct physical monitoring of the northwest corner that includes low-tide photo-documentation and bathymetric survey(s) across the site in Year 1 or Year 2, and again in Year 3, Year 4, or Year 5.

v. **Use of Sediment Profile Imaging (SPI).** LMC must employ SPI to assess clean cover placement and mixing.

vi. **Sediment Trap Deployment.** LMC must use sediment traps to assess the potential for resuspension of sediment in the vicinity of the Site and redeposition onto the Site.

c. **Activities Completion Schedule.** A schedule detailing the sequence of and timeframe for each activity based on the time reasonably required to complete each activity.

2. **Post-Remedial Monitoring Plan Implementation.** LMC must implement the PRMP (Directive F.1) in compliance with the Activities Completion Schedule contained in the Post-Remedial Monitoring Plan unless otherwise directed in writing by the San Diego Water Board. Before beginning field activities, LMC must notify the Board of the intention to begin field activities in compliance with Directive I.7. LMC must comply with any conditions set by the Board, including modifications to sample collection methods and monitoring procedures, when directed to do so.

3. **Post-Remedial Monitoring Reports.** LMC must submit Post-Remedial Monitoring Reports to the San Diego Water Board for review and evaluation within 90 days after completion of any sampling in Year 0 through Year 5 that is required in Directive E.1.b. The Reports must contain, but will not be limited to, the following information:

   a. Evaluation, interpretation, and tabulation of all monitoring data from that Year, including but not limited to interpretations and conclusions regarding the potential presence and chemical characteristics of any newly deposited sediment within the Site, and interpretations and conclusions regarding any indications that the Site's clean cover is disturbed (e.g. due to propeller wash or other physical events).

   b. A site map showing the locations, type, and number of samples.

   c. An analysis of whether the concentrations of total PCBs and total mercury achieve the Cleanup Levels, whether the remedial action is continuing to

perform as designed, and whether resuspension and redeposition of surface sediments from outside the Site is impacting the Site surface sediment concentrations.

d. Evaluation, interpretation, tabulation, and other analyses of previous Year's monitoring data, including analysis of how it relates to the newly-presented analyses and conclusions, as appropriate.

4. **Exceedance Investigation and Characterization.** Post-remedial monitoring may indicate failure to achieve the approved Cleanup Levels. In that event, LMC must prepare an Exceedance Investigation and Characterization Study to determine the cause(s) of the exceedance. The Exceedance Investigation and Characterization Study must be submitted for review and evaluation by the San Diego Water Board **within 45 calendar days of the discovery of the exceedance,** or as otherwise directed by the Board. There are several lines of investigation that may be pursued, individually or in combination, depending on 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. Identification of the specific subarea(s) that caused the exceedance(s) using surrounding post-remedial monitoring data and historical data as appropriate.

   b. 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.

The Exceedance Investigation and Characterization Report must include a recommended approach, or combination of approaches, for addressing the exceedance(s) by additional sampling of the affected area, re-dredging, natural recovery, or other appropriate method. Possible actions addressed in an EICS could include the placement of additional clean cover, the assessment of incoming stormwater quality (e.g., at Outfall No. 1), or other appropriate steps.

The Exceedance Investigation and Characterization Report **will be due within 90 calendar days after the Board approves the Exceedance Investigation and Characterization Study**, or as otherwise directed by the Board. Timing for implementation of corrective actions will be determined by the Board based on the recommended approach and proposed remedies.

F. **QUARTERLY PROGRESS REPORTS.** LMC must prepare and provide written quarterly progress reports that:

1. Describe the actions taken toward achieving compliance with this CAO during the previous quarter.

2. Include all results of sampling and tests, and all other verified or validated data received or generated by or on behalf of LMC during the previous quarter in the implementation of the remedial actions required by this CAO.

3. Evaluate and interpret monitoring data and make conclusions regarding the

potential presence and chemical characteristics of any newly deposited sediment within the cleanup areas.

4. Evaluate whether the approved cleanup levels have been attained.
5. Show the locations, type, and number of samples on a site map.
6. Describe all activities, including data collection and other field activities, that are scheduled for the next two quarters, and provide all additional information related to the progress of work, including but not limited to a graphical depiction of the progress of the remedial actions.
7. Identify any modifications to the RAP, PRMP, or work plan(s) (i.e., Alternative Sediment Cleanup Levels) that LMC has submitted to the San Diego Water Board or that have been approved by the Board during the previous quarter.
8. Include information regarding all delays encountered or anticipated that may affect the future schedule for completion of the events and activities in the RAP, and a description of all efforts made to mitigate those delays or anticipated delays.

LMC must submit the quarterly progress reports to the Board for review and evaluation by the **15th day of March, June, September, and December** of each year following the adoption of this CAO. Submission of these progress reports will continue until the Board determines that no further action is required by LMC.

G. **VIOLATION REPORTS.** If LMC violates any requirement of this CAO, it must notify the San Diego Water Board's Site Cleanup Program manager by telephone and email as soon as practicable once LMC has knowledge of the violation. The Board may, depending on the violation's severity, require LMC to submit a separate technical report addressing the violation within five working days of notification. In addition, a violation may subject LMC to a future enforcement action.

H. **REPORTS AND WORK PLANS.** LMC must prepare and submit all required plans and reports described in this CAO to the San Diego Water Board for review and evaluation. The Board will make all documents submitted in compliance with this CAO available to the public via Geotracker.

I. **PROVISIONS.**

1. **Waste Management.** LMC must properly manage, store, treat, and dispose of contaminated marine sediment and associated wastes in compliance with applicable federal, state, and local laws and regulations. The storage, handling, treatment, or disposal of contaminated marine sediment and associated waste must not create conditions of pollution, contamination, or nuisance as defined in Water Code section 13050. LMC must, as required by the San Diego Water Board, obtain or apply for 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 (a) to land for treatment, storage, or disposal or (b) to waters of

the state. No waste discharge requirements or conditional waiver of waste discharge requirements will be required for disposal of marine sediment and associated waste in a landfill regulated under existing waste discharge requirements.

2. **Preliminary Information.** LMC may present data, preliminary interpretations, and preliminary conclusions to the San Diego Water Board as they become available, rather than withholding this information until a final report is prepared. This type of ongoing reporting is encouraged to facilitate and expedite Board approval of reports required by this CAO.

3. **Laboratory Qualifications.** All samples must be analyzed by California state-certified laboratories using methods approved by an appropriate authority (e.g., EPA or ASTM International) for the type of analysis to be performed. All laboratories must maintain QA/QC records for San Diego Water Board review.

4. **Laboratory Analytical Reports.** Any report presenting new analytical data must 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 reports.
    b. Complete laboratory QA/QC reports.
    c. A discussion of the sample and QA/QC data.
    d. A transmittal letter indicating whether or not all the analytical work was supervised by the director of the laboratory, and contain the following statement:

    "All samples were analyzed by a California state-certified laboratory using methods and procedures approved by an appropriate authority (e.g., EPA or ASTM International) for the types of analyses performed."

5. **Analytical Methods.** Specific methods of analysis must be identified in the technical and monitoring reports. For example, if the Dischargers propose to use methods or test procedures other than those included in the most current version of EPA's "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-486" or Code of Federal Regulations, title 40, part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants," or other than those approved by ASTM International, the exact methodology must be submitted for review and must be approved by the San Diego Water Board prior to use.

6. **Duty to Operate and Maintain.** LMC must properly operate and maintain all facilities and systems of treatment, control, storage, disposal, and monitoring (and related appurtenances) that are installed or used by LMC to achieve compliance with this CAO. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities, which

would be installed by LMC only when the operation is necessary to achieve compliance the conditions of this CAO.

7. **Field Work Notice.** LMC must give the San Diego Water Board **advance notice of 14 days** of all field work or field activities to be performed by LMC pursuant to this CAO.

8. **Duty to Use Registered Professionals.** LMC must provide documentation that written deliverables 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 licensed professionals. A statement of qualifications and license numbers of the responsible lead professionals and all professionals making significant and/or substantive contributions must be included in all plans and reports submitted by LMC. The lead professional performing engineering and geologic evaluations and judgments must sign and affix their license stamp to all technical reports, plans, or documents submitted to the San Diego Water Board.

9. **Corporate Signatory Requirements.** All reports required under this CAO must be signed and certified by a responsible corporate officer of LMC described in paragraph (a) of this provision or by a duly authorized representative of that person as described in paragraph (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.

        ii. The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions that 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 compliance with corporate procedures.

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

        i. The authorization is made in writing by a person described in paragraph (a) of this provision.

ii. 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).

iii. 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 or for any activity, 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. **Penalty of Perjury Statement.** All reports must be signed by LMC's corporate officer or its duly authorized representative, and must include the following statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge:

"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."

10. **Duty to Submit Other Information.** When LMC becomes aware that they failed to submit any relevant facts in any submittal required under this CAO, or submitted incorrect information in any such report, LMC must promptly submit in writing such facts or information to the San Diego Water Board.

11. **Document Submittals.** All documents prepared in compliance with this CAO must be submitted to the San Diego Water Board via the Geotracker database. The Board may also request hard copies and/or electronic copies on a compact disc (CD), universal serial bus (USB), or other appropriate media, including email. The following lists the type and/or format of required document submittals:

a. **Geotracker Database.** LMC must submit all documents electronically to the Geotracker database located at: https://geotracker.waterboards.ca.gov/esi

Electronic Reporting Regulations require electronic submission of any report or data required by a regulatory agency from a cleanup site after July 1, 2005. The electronic data must be uploaded on or prior to the regulatory due dates set forth in this CAO or addenda thereto. Upon receipt of the documents, the San Diego Water Board will use the email date and time to determine

compliance with the regulatory due dates specified in this CAO. Note the following regarding email document submittals:

i. Addressee. All documents must include the following addressee information on the cover letter and/or document title page unless otherwise directed by the Executive Officer:

Executive Officer
California Regional Water Quality Control Board
San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92018-2700

ii. Geotracker Global ID. All documents submitted to the San Diego Water Board must include the following Geotracker Global ID in the header or subject line: **T10000002642.**

iii. Document Size. Documents larger than 400 megabytes (MB) must be divided into separate files at logical places to keep the file sizes under 400 MB.

To comply with these requirements, LMC must upload all documents, including the following minimum information, to the Geotracker database:

i. Laboratory Analytical Data. Analytical data (including geochemical data) for all sediment samples in Electronic Deliverable Format (EDF).

ii. Laboratory Analytical Data. Analytical data (including geochemical data) for all sediment samples in Electronic Deliverable Format (EDF).

iii. Site Map. The site map must be a stand-alone document and can be submitted in various electronic formats. An updated site map may be uploaded at any time.

b. **CEDEN Database.** LMC must submit study data in the appropriate format for upload into the California Environmental Data Exchange Network (CEDEN), or an alternative state database if directed by the Executive Officer. The CEDEN website (http://www.ceden.org/) provides information on procedures for submitting data for upload into CEDEN.

c. **San Diego Water Board Database.** LMC must submit study data in the following comma separated value (.csv) format for upload into the Board's database:

Station ID	Latitude	Latitude	Data Source	Date	Analyte	Analyte Concen-tration (unit)	Minimum Detection Limit (unit)	Identifiers
Text Field	Double/ Number Field Decimal Degrees WGS84	Double/ Number Field Decimal Degrees WGS84	Text Field	Date Field MM/ DD/ YYYY	Text Field	Double/ Number Field	Double/ Number Field	Text Field
e.g. "S01" for surface samples, "S01 (0-1ft)" for sub-surface samples, "S01-DUP" for duplicate samples	e.g., 32.6872	e.g., -117.1279	e.g., CAO R9-2026-0023	e.g., 01/01/ 2022				

d. **Email.** If requested by the San Diego Water Board, LMC must also submit a complete copy (in a text-searchable PDF file) of all documents including signed transmittal letters, professional certifications, and all data presented in the documents to sandiego@waterboards.ca.gov

Upon receipt of the documents, the Board will use the email date and time to determine compliance with the regulatory due dates specified in this CAO.

2. **Amendment.** This CAO in no way limits the authority of the San Diego Water Board to institute additional enforcement actions or to require additional investigation and cleanup consistent with the California Water Code. The San Diego Water Board may revise this CAO as additional information becomes available.

3. **Time Extensions.** If, for any reason, LMC is 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, LMC may request, in writing, an extension of time. The written extension request must include justification for the delay and a proposed extension date. The request must be received by the San Diego Water Board at least 15 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.

4. **Public Information.** Information gathered by LMC and relevant to this CAO is considered public information and can be shared with the public, on its own, or in combination with relevant studies.

J. **NOTIFICATIONS.**

1. **Cost Recovery.** Upon receipt of invoices, and in compliance with instructions therein, LMC must reimburse the San Diego Water Board for all reasonable costs incurred by the Board to investigate discharge of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action required by this CAO and consistent with the estimation of work, including the cost to prepare CEQA documents. LMC is enrolled in a reimbursement program managed by the State Water Board for the discharge addressed by this CAO, and reimbursement must be made pursuant to the procedures established in that program.
2. **All Applicable Permits.** This CAO does not relieve LMC of the responsibility to obtain permits or other entitlements to perform necessary remedial activities. This includes, but is not limited to, actions that are subject to local, State, and/or federal discretionary review and permitting.
3. **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.
4. **Enforcement Notification.** Failure to comply with requirements of this CAO may subject LMC to further enforcement action, including but not limited to, administrative enforcement orders requiring LMC to cease and desist, and imposition of administrative civil liability pursuant to Water Code sections 13268 and 13350. Failure to comply may also result in referral to the State Attorney General for injunctive relief and/or referral to the District Attorney for criminal prosecution.
5. **Requesting Administrative Review by the State Water Board.** Any person affected by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and Cal. Code Regs. title 23, section 2050. The petition must be received by the State Water Board, Office of Chief Counsel, within **30 calendar days of this CAO adoption**. Copies of the law and regulations applicable to filing petitions will be provided upon request.

K. **Effective Date.** This Order, which amends the 2022 CAO, becomes effective upon adoption by the San Diego Water Board.

I, Jeremy Haas, as acting Executive Officer, do hereby certify that this Order is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Diego Region, on February 11, 2026.

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Table 11. Summary of some key required submittals and due dates

Directive	Task or Document	Due Date (calendar days)
A	Clean up and Abatement Completion	On or before March 1, 2027 for A.1.a; on or before March 1, 2028 for A.1.b; on or before March 30, 2028 for A.3.
C.1	Remedial Action Plan	Within 60 days of Board issuance of this CAO
D	Cleanup and Abatement Completion Report	Within 90 days of completion of last remedial event or activity
E.1	Post-Remedial Monitoring Plan	Before submission of the Remedial Action Plan
E.3	Post-Remedial Monitoring Reports	Within 90 days after Year 0 and within 90 days after subsequent Years
E.4	Exceedance Investigation and Characterization Study	Within 45 days of discovery of any exceedance.
E.4	Exceedance Investigation and Characterization Report	Within 90 days of approval of Exceedance Investigation and Characterization Study
F	Quarterly Progress Reports	On the 15th day of March, June, September, and December of each year following the adoption of this CAO