

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

TENTATIVE ORDER NO. R9-2015-0029

**WASTE DISCHARGE REQUIREMENTS FOR TDY HOLDINGS, LLC
AND TDY INDUSTRIES, LLC POST-CLOSURE MAINTENANCE
AND MONITORING OF THE CONVAIR LAGOON
SAND CAP, SAN DIEGO BAY**

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

1. Water Code section 13263 subdivision (e) requires the San Diego Water Board to periodically review waste discharge requirements (WDRs). The San Diego Water Board reviewed the WDRs in Order No. 98-21 and determined that revisions were necessary to (1) reflect completion of specific requirements of Order No. 98-21 and of Addendum No. 4 to Cleanup and Abatement Order (CAO) No. R9-2004-0258, and (2) update the Monitoring and Reporting Program (MRP) associated with the Convair Lagoon sand cap (sand cap).

DISCHARGERS

2. The Ryan Aeronautical Company conducted aerospace manufacturing operations at 2701 North Harbor Drive in San Diego (Facility) from its inception in the early 1940s until approximately 1969. In approximately January 1969, Teledyne, Inc. bought the outstanding stock of the Ryan Aeronautical Company. In approximately February 1969, the Ryan Aeronautical Company was merged into Teledyne United Corporation and Teledyne United Corporation changed its name to Ryan Aeronautical Company. In approximately December 1969, Ryan Aeronautical Company merged into Teledyne, Inc. and Teledyne, Inc. transferred the assets of Ryan Aeronautical Company to Teledyne Industries, Inc., a wholly owned subsidiary of Teledyne, Inc. TDY Industries, Inc. operated as Teledyne Ryan Aeronautical until 1999. In 1999, Teledyne, Inc., was dissolved. Certain of Teledyne, Inc.'s assets and liabilities were transferred to TDY Holdings, LLC and Teledyne, Inc. was terminated and dissolved. TDY Holdings, LLC became the successor to certain liabilities of Teledyne, Inc., including those associated with Teledyne Ryan Aeronautical's liability for Convair Lagoon. Teledyne Ryan Aeronautical a/k/a Teledyne Ryan Aeronautical Company was a division of Teledyne Industries, Inc. which changed its name to TDY Industries, Inc. TDY Industries, Inc. remained a subsidiary of TDY Holdings, LLC. Subsequently, TDY Industries, Inc. converted under California law to TDY Industries, LLC. TDY Holdings, LLC and TDY Industries, LLC are jointly referred to as Dischargers in this Order.

BACKGROUND

3. CAO No. 86-92 required the Dischargers to construct a sand cap to isolate bottom sediment contaminated with polychlorinated biphenyls (PCBs) from the environment in Convair Lagoon. The Dischargers constructed the sand cap in 1998 to cover sediment with PCB concentrations of 4.6 mg/kg (dry weight) or greater.
4. Because the sand cap is a waste containment facility, the San Diego Water Board prescribed WDRs for the proper maintenance, repair, and monitoring of the cap in Order No. 98-21. MRP No. 98-21 established monitoring and reporting requirements to ensure that the Dischargers comply with the WDRs in Order No. 98-21.
5. In a letter dated August 22, 2013, the Dischargers requested modifications to Order No. 98-21 and MRP No. 98-21 based on sand cap monitoring results and because PCB sources at the former Teledyne Ryan Aeronautical (TDY) facility had been cleaned up and the storm water conveyance system (SWCS) located beneath and adjacent to the former TDY facility had been demolished or cleaned. The SWCS was responsible for conveying contaminated sediment from the facility and other upstream sources to the lagoon.
 - a. The Dischargers have monitored the sand cap for over 15 years. The monitoring results demonstrate that PCB contaminated sediment has not breached the sand cap. The sand cap, therefore, has successfully isolated the contaminated sediment in Convair Lagoon from the environment and is expected to do so into the future if properly maintained, repaired, and monitored.
 - b. Pursuant to CAO No. R9-2004-0258 and Addendum, the Dischargers identified, cleaned up, and abated the sources of PCBs that were being transported from the former TDY facility to Convair Lagoon. The PCB sources at the former TDY facility consisted of:

Building Materials and Surface Soils. PCB contaminated surface soils at the former TDY facility were principally derived from the weathering of building materials (paint, joint compound, and concrete including slabs and foundations). In 2012, the San Diego Unified Port District (Port District) removed this PCB source via demolishing the facility. All above grade and subsurface structures were demolished including a majority of the SWCS. The Dischargers confirmed removal of all historical connections from the former TDY facility to the SWCS draining into Convair Lagoon.

Storm Water Conveyance System Sediment. The Dischargers (1) confirmed that all historical storm water laterals that connect to the Convair Lagoon and San Diego Bay storm drains were demolished, (2) cleaned out the remaining

storm drains beneath and downstream of the former TDY facility, and (3) cleaned out the energy dissipation channel located at the end of the 60-inch storm drain.

Soil. Localized areas with PCB contaminated soil were excavated.

Groundwater. Detectable concentrations of PCBs in groundwater were found in two on-site locations. Soil and groundwater at these two locations were excavated and remediated, respectively. Trace concentrations of PCBs were also detected in the Convair Lagoon shoreline monitoring wells. Based on the monitoring results of these wells, PCB concentrations appear to be stable at trace to non-detect levels.

The requested modifications are reasonable based on the sand cap's demonstrated ability to successfully isolate PCB contaminated sediment from the environment, and because PCB sources were cleaned up at the former TDY facility and the SWCS was eliminated as a pathway for PCB contaminated sediment to be conveyed to Convair Lagoon.

6. The Dischargers completed Maintenance Specifications B.11 of Order No. 98-21, which required the Dischargers to (1) plant and maintain eelgrass in accordance with the procedures and schedule contained in the U.S. Army Corps of Engineers' (Army Corps) Eelgrass Mitigation Plan, and (2) submit a copy of the Eelgrass Mitigation Plan to the San Diego Water Board by September 1, 1998. The success criteria established in the Mitigation Plan (Ogden, 1996) were documented to have been achieved in the Convair Lagoon Eelgrass Mitigation Transplant Five-Year Post-Transplant Survey (MBC-AES, 2003).
7. Maintenance Specification B.12 of Order No. 98-21 required the Dischargers to provide, by November 30, 1998, assurances of financial responsibility in an amount sufficient to provide for repair, monitoring, and maintenance of the sand cap. The Dischargers submitted (1) a letter of credit dated November 30, 1998 from Chase Manhattan Bank, (2) an amended letter of credit dated December 1, 1998 from Chase Manhattan Bank, and (3) a letter of credit dated July 22, 2003 from PNC Bank. The letter of credit from PNC Bank is currently in effect until PNC Bank notifies the Dischargers by certified mail that they have decided not to extend the letter of credit beyond the expiration date of November 30 of each year. PNC Bank will issue the notification by certified mail at least 120 days before the November 30 expiration date.

CONVAIR LAGOON SAND CAP

8. For the purposes of these WDRs, the term "discharge of wastes" or similar terms refers to the disposal of PCB contaminated sediment isolated under the sand cap and any release of PCBs from through the sand cap.

9. The sand cap covers approximately seven acres of San Diego Bay sediment within Convair Lagoon. The sand cap is divided into three parts: (1) the main cap covering sediment with PCB concentrations equal to and greater than 4.6 mg/kg (dry weight), (2) the thin cap, which transitions between the main cap and the shore topography, and (3) the outer cap which covers sediment with PCB concentrations less than 4.6 mg/kg (dry weight) outside the perimeter berm. See Figure 1.
10. The main cap in Convair Lagoon consists of a geogrid on the existing sediment, a minimum of one foot of gravel on the geogrid, and a minimum of two feet of sand on the gravel. The geogrid provides separation between the existing sediments and the gravel. The gravel layer is provided to prevent animals from burrowing into contaminated sediment. The sand layer isolates the contaminated sediment and provides habitat for plants and animals. The perimeter berm provides containment for the main cap and acts as a physical barrier limiting boat traffic and erosive currents/waves. The perimeter berm is approximately five feet high with 3:1 (horizontal:vertical) side slopes and is constructed of rock riprap.
11. The thin cap is used to transition between the main cap and the existing topography. The thickness of the thin cap at the PCB boundary lines shown in is equal to the thickness of the main cap and tapers shoreward to a thickness of 4 inches of sand over 4 inches of gravel on the existing sediment. The thin cap only covers areas that have PCB concentrations less than 4.6 mg/kg (dry weight).
12. The outer cap is outside the perimeter berm covering sediment that has PCB concentrations less than 4.6 mg/kg (dry weight) and consists of 3 feet of sand placed directly on existing sediment for a distance of 50 feet from the toe of the perimeter berm. Beyond 50 feet, the outer cap tapers off at a rate of the natural repose of sand.
13. A 60-inch storm drain discharges storm water to the central portion of the sand cap. An energy dissipation channel is located at the end of the storm drain. The channel is 180 feet long and is designed to protect the sand cap from eroding.
14. The majority of the sand cap is submerged. Approximately 1,400 square feet of intertidal land has been converted to upland as a result of this project. The remaining area is intertidal or below.

STATUTORY AND REGULATORY FINDINGS

15. This Order is based on (1) the Porter-Cologne Water Quality Control Act (division 7 of the Water Code, commencing with section 13000); (2) Water Code section 13267; (3) applicable State regulations including California Code of Regulations (CCR) title 27; (4) 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* (9) (Basin Plan)

adopted by the San Diego Water Board including beneficial uses, water quality objectives, and implementation plans; and (5) all applicable State Water Board policies, including State Water Board Resolution No. 68-16 *Statement of Policy with Respect to Maintaining High Quality of Waters in California*.

16. Water Code section 13267 provides that the San Diego Water Board may require Dischargers, past Dischargers, or suspected past or present Dischargers to furnish those monitoring reports as the San Diego Water 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. In requiring the reports, the San Diego Water Board must provide the person with a written explanation with regard to the need for the reports, and identify the evidence that supports requiring that person to provide the reports.
17. Monitoring reports are needed to provide information to the San Diego Water Board regarding the thickness of the sand cap and potential breakthrough of PCBs from the sediment below the main cap. The reports will provide technical information to determine what measures are necessary, if any, to bring the sand cap into compliance with this Order. Based on the nature and possible consequences of a sand cap breach, the Dischargers 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.
18. The Basin Plan and the *Water Quality Control Plan for Enclosed Bays and Estuaries - Part 1 Sediment Quality* (Bays and Estuaries Plan) designate the following beneficial uses of San Diego Bay which apply to Convair Lagoon in the area of the sand cap and are applicable to the discharges regulated under this Order.
 - a. Commercial and sport fishing
 - b. Preservation of biological habitats of special significance
 - c. Estuarine habitat
 - d. Wildlife habitat
 - e. Rare, threatened, or endangered species
 - f. Marine habitat
 - f. Migration of aquatic organisms
 - h. Shellfish harvesting
19. The WDRs in this Order were derived to achieve the water quality objectives in the Bays and Estuaries Plan and the Basin Plan, which support the beneficial uses in Convair Lagoon.
20. The Port District prepared and certified a final Environmental Impact Report (EIR) for the sand cap dated October 1993, with Addenda No. 1, No. 2, and No. 3, in accordance with the California Environmental Quality Act (CEQA).¹ The San Diego

¹ Public Resources Code, division 13, chapter 3, section 21000 et seq.

Water Board, as a responsible agency under CEQA, considered the EIR when it adopted Order No. 98-21. Adoption of this Order is categorically exempt from CEQA pursuant to section 15301 of title 14 of the CCR (existing facility). The San Diego Water Board approved construction and maintenance of the sand cap in 1998. This Order establishes updated monitoring, maintenance, and reporting requirements for the sand cap but involves no expansion of the existing use within the meaning of section 15301.

IT IS HERBY ORDERED that this Order supersedes Order No. 98-21 except for enforcement purposes. It is further ordered that, pursuant to the provisions contained in division 7 of the Water Code and regulations adopted thereunder, the Dischargers shall comply with the following:

A. PROHIBITIONS

1. Discharges of wastes to lands or waters which have not been specifically described to the San Diego Water Board and for which valid WDRs are not in force are prohibited.
2. The discharge of wastes and the sand cap shall not cause:
 - a. The occurrence of objectionable tastes or odors in San Diego Bay water or fish;
 - b. The presence of toxic materials in waters or sediment of San Diego Bay; and
 - c. Pollution, contamination, or nuisance that would adversely affect the beneficial uses of San Diego Bay as established in the Basin Plan.
3. The sand cap shall not cause a violation of any Basin Plan prohibition or any water quality objective established for San Diego Bay.

B. MAINTENANCE SPECIFICATIONS

1. The sand cap, eelgrass, and energy dissipation channel shall be maintained, and monitored in accordance with MRP No. R9-2015-0029 in Attachment A to this Order.
2. The sand cap shall be maintained such that it continues to cover the impacted sediments in Convair Lagoon over which it was placed. Those sediments were determined to exceed a PCB concentration of 4.6 mg/kg (dry weight) at the time of placement of the sand cap in 1998.
3. The main cap shall be maintained such that it continues to isolate the contaminated sediment and provide habitat for plants and animals.

4. The main cap shall be maintained at an average thickness of three feet including one foot of gravel and two feet of sand. Additional sand and/or gravel shall be added to any area where the sand layer of the main cap is less than 18 inches or if the average of the entire sand cap falls below 24 inches in thickness if directed to do so by the San Diego Water Board Executive Officer. WDRs may be necessary for a discharge of sand and/or gravel greater than 5,000 cubic yards.
5. The perimeter berm shall be maintained such that it continues to provide containment for the main cap and acts as a physical barrier limiting boat traffic and erosive currents/waves. The perimeter berm's structural integrity shall be inspected for damage such as settling, cracking, etc. Additional rock shall be placed to return the berm to its design dimensions if visual inspections identify unacceptable erosion, settlement, or other damage to the berm.
6. If the sand cap has been breached, appropriate emergency measures shall be taken as described in MRP No. R9-2015-0029.
7. The energy dissipation channel located at the end of the 60-inch storm drain shall be inspected, maintained, and repaired as necessary to protect the sand cap from eroding.
8. All navigational warning signs shall be maintained in good condition. The anchoring piles shall be stable and the signs shall be intact, legible, and firmly attached to the piles.
9. The Dischargers shall, within 30 days, provide updated assurances of financial responsibility to the San Diego Water Board upon expiration of PNC Bank's July 2003 letter of credit, which is currently in effect. The updated assurances of financial responsibility shall be in an amount sufficient to provide for repair, monitoring, and maintenance of the sand cap, which funding shall become available to the San Diego Water Board upon a determination that the Dischargers have failed or refused, or is failing or refusing, or threatens to fail or refuse, to comply with the requirements of this Order or any order issued by the San Diego Water Board to enforce obligations associated with the sand cap and the PCBs contained by the sand cap. This financial assurance shall be irrevocable and accessible by the San Diego Water Board regardless of approval from the Dischargers.

C. STANDARD PROVISIONS

1. **Duty to Comply.** The Dischargers must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the Water Code and is grounds for (a) enforcement action; (b) termination,

revocation and reissuance, or modification of this Order; or (c) denial of a report of waste discharge in application for new or revised WDRs.

2. **Proper Operation and Maintenance.** The Dischargers shall, at all times, properly operate and maintain all facilities (and related appurtenances) which are installed or used by the Dischargers to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate laboratory and process controls including appropriate quality assurance procedures.
3. **Change in Ownership.** This Order is not transferable to any person except after notice to the San Diego Water Board Executive Officer. The Dischargers shall submit this notice in writing at least 30 days in advance of the proposed transfer. The notice must include a written agreement between the existing and new Dischargers containing a specific date for the transfer of this Order's responsibility and coverage between the current Dischargers and the new Dischargers. This agreement shall include an acknowledgment that the existing Dischargers are liable for violations up to the transfer date and that the new Dischargers are liable from the transfer date on. The San Diego Water Board may require modification or revocation and reissuance of this Order to change the name of the Dischargers and incorporate such other requirements as may be necessary under the Water Code.
4. **Review and Revise Order.** Upon application by any affected person, or on its own motion, the San Diego Water Board may review and revise this Order.
5. **Terminate or Modify Order.** This Order may be terminated or modified for cause, including, but not limited to, all of the following:
 - a. Violation of any condition contained in this Order.
 - b. Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts.
6. **Conditions not stayed.** The filing of a request by the Dischargers for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.
7. **Duty to minimize or correct adverse impacts.** The Dischargers shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.

8. **Confidentiality.** Except as provided for in 40 Code of Federal Regulations (CFR) 122.7, no information or documents submitted in accordance with or in application for this Order will be considered confidential, and all such information and documents shall be available for review by the public at the offices of the San Diego Water Board.

D. REPORTING AND RECORD KEEPING REQUIREMENTS

1. **Monitoring and Reporting Program.** The Dischargers shall conduct monitoring and submit reports in accordance with MRP No. R9-2015-0029 in Attachment A to this Order. Monitoring results shall be reported at the intervals specified in this Order and the MRP.
2. **General Reporting Requirement.** The Dischargers shall furnish to the San Diego Water Board Executive Officer of the San Diego Water Board, within a reasonable time, any information which the Executive Officer may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Dischargers shall also furnish to the Executive Officer, upon request, copies of records required to be kept by this Order.
3. **Retention of Records.** The Dischargers shall retain records of all monitoring information, including all calibration and maintenance records, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the San Diego Water Board Executive Officer.
4. **Incomplete Reports.** Where the Dischargers becomes aware that it failed to submit any relevant facts or submitted incorrect information in a Report of Waste Discharge or in any report to the San Diego Water Board, it shall promptly submit such facts or information.
5. **Report Declaration.** All applications, reports, or information submitted to the San Diego Water Board Executive Officer shall be signed and certified as follows:
 - a. The Report of Waste Discharge shall be signed as follows:
 - i. For a corporation - by a principal executive officer of at least the level of vice-president.
 - ii. For a partnership or sole proprietorship - by a general partner or the proprietor, respectively.
 - iii. For a municipality, state, federal or other public agency by either a principal executive officer or ranking elected official.

- b. All other reports required by this Order and other information required by the San Diego Water Board Executive Officer shall be signed by a person designated in paragraph (a) of this provision or by a duly authorized representative of that person. An individual is a duly authorized representative only if all of the following are true:
 - 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.
 - iii. The written authorization is submitted to the Executive Officer.
 - c. Changes to Authorization - If an authorization under paragraph (b) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this provision must be submitted to the San Diego Water Board prior to or together with any reports or information to be signed by an authorized representative.
 - d. Any person signing a document under this Section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
6. **Endangerment of Health and Environment.** The Dischargers shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board Executive Officer within 24 hours from the time the Dischargers becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the Dischargers becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the

anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

7. **Hazardous Releases.** Except for a discharge which is compliance with these WDRs, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan², and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control Plan.
8. **Document Submittals.** All documents prepared in compliance with this Order shall be submitted to the San Diego Water Board via electronic mail (email) and the State Water Board's Geotracker database. The San Diego Water Board may also request hard copies and/or electronic copies on a CD or other appropriate media.
 - a. **Electronic Mail.** The Dischargers shall submit a complete copy (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 San Diego Water Board shall use the email date and time to determine compliance with the regulatory due dates specified in this Order. Note the following regarding email document submittals:

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

Executive Officer

² Adopted pursuant to article 3.7 (commencing with section 8574.7) of chapter 7 of division 1 of title 2 of the Government Code.

California Regional Water Quality Control Board, San Diego
Region
2375 Northside Drive, Suite 100
San Diego, California 92108-2700
Attn: <Staff Contact>

- ii. **Geotracker Global ID.** All documents submitted to the San Diego Water Board shall include the following Geotracker Global ID in the header or subject line: **SL209054180**.
 - iii. **Document Size.** Documents larger than 100 megabytes (MB) shall be divided into separate files at logical places in the report to keep the file sizes under 100 MB.³
- b. **State Water Board Geotracker Database.** In addition to the email submittal requirement described above, the Dischargers shall submit all documents electronically to the Geotracker database located at:

<https://geotracker.waterboards.ca.gov/esi>

The Electronic Reporting Regulations require electronic submission of any report or data required by a regulatory agency from a cleanup site after July 1, 2005.⁴ The electronic data shall be uploaded on or prior to the regulatory due dates set forth in the Order or addenda thereto. To comply with these requirements, the Dischargers shall upload 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. **Locational Data.** The latitude and longitude of all probe and/or core sampling locations for which data are reported in EDF, accurate to within 3 meters.
- iii. **Site Map.** Site map or maps that display streets adjacent to the sand cap, and sampling locations for all sediment samples. The site map shall be a stand-alone document and can be submitted in various electronic formats.⁵ A site map shall also be uploaded to show the results of the most recent sampling on the sand cap. An updated site map may be uploaded at any time.

³ Email attachments, in contrast with Geotracker submittals, cannot exceed 25 MB in size.

⁴ Chapter 30, division 3 of title 27, California Code of Regulations.

⁵ Acceptable formats include .gif, .jpeg, .jpg, tiff, .tif, and .pdf.

- c. **California Environmental Data Exchange Network.** The Dischargers shall submit laboratory analytical data in the appropriate format for upload into the California Environmental Data Exchange Network (CEDEN), or an alternative State database if directed by the San Diego Water Board Executive Officer.

The Dischargers shall check the CEDEN website at <http://www.ceden.org/> for information on procedures for submitting data for upload into CEDEN.

- d. **Hard Copies and CDs.** If requested by the San Diego Water Board, the Dischargers shall also provide any or all of the following to the San Diego Water Board: a hard copy of the complete document, a hard copy of the cover/transmittal letter, a hard copy of oversized drawings or maps, and an electronic copy (on a CD or other appropriate media) of the complete document.

E. NOTIFICATIONS

1. **Vested Rights.** This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Dischargers from liability under federal, state or local laws, nor create a vested right for the Dischargers to continue the waste discharge.
2. **U.S. Environmental Protection Agency Review.** These requirements have not been officially reviewed by the U. S. EPA Environmental Protection Agency and are not issued pursuant to section 402 of the Clean Water Act.
3. **Severability.** The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.
4. **Discharge is a Privilege.** No discharge of waste into waters of the State, whether or not the discharge is made pursuant to WDRs, shall create a vested right to continue the discharge. All discharges of waste into waters of the State are privileges, not rights.
5. **Civil Monetary Remedies.** The Water Code provides that any person who intentionally or negligently violates any WDRs issued, reissued, or amended by the San Diego Water Board is subject to a civil monetary remedy of up to 20 dollars per gallon of waste discharged or, if a CAO is issued, up to 15,000 dollars per day of violation or some combination thereof.

6. **Penalties for Investigation, Monitoring, or Inspection Violations.** The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and is subject to a civil liability of up to 5,000 dollars for each day in which the violation occurs.

7. **Effective Date.** This Order becomes effective on the date of adoption by the San Diego Water Board.

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

David W. Gibson
Executive Officer

ATTACHMENT A

TENTATIVE MONITORING AND REPORTING PROGRAM NO. R9-2015-0029

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

1. **Legal and Regulatory Authority.** This Monitoring and Reporting Program (MRP) conforms to and implements policies and requirements of the Porter-Cologne Water Quality Control Act including (1) sections 13267; (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) 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. 88-63, Sources of Drinking Water; California Code of Regulations (CCR) title 23, chapter 16, article 11; CCR title 23, section 2720 (3) and section 3890 et. seq., and (5) relevant standards, criteria, and advisories adopted by other State and federal agencies.

The San Diego Water Board Executive Officer is authorized to modify this MRP as appropriate.

2. **Purpose and Scope of the MRP.** This MRP prescribes monitoring and reporting requirements for the sand cap in Convair Lagoon. The purpose of this MRP is to collect information on the condition of the cap to confirm that it is maintained in good condition, is functioning properly, or if repairs are needed. This MRP consists of visually inspecting the sand cap and eelgrass mitigation area (including the control eelgrass bed), sampling and analyzing the sand layer of the main cap for concentrations of total polychlorinated biphenyls (PCBs), measuring the thickness of the sand layer of the main cap, and submitting monitoring reports and compliance statements to the San Diego Water Board.
3. **Monitoring Questions.** The monitoring requirements in this MRP should answer the following questions.
 - a. Is the sand cap maintained and in good condition?
 - b. Are the navigational warning signs intact and legible?
 - c. Is the eelgrass planted in Convair Lagoon generally healthy as compared to the control eelgrass bed?
 - d. Is there a potential breach in the sand cap and are PCBs being released from beneath the cap to San Diego Bay?
4. **Basis for Requiring Monitoring Program Reports.** Water Code section 13267 provides that the San Diego Water Board may require Dischargers, past

Dischargers, or suspected past or present Dischargers to furnish those monitoring reports that the San Diego Water Board requires. The burden, including costs, of these reports must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring the reports, the San Diego Water Board must provide the person with a written explanation with regard to the need for the reports, and identify the evidence that supports requiring that person to provide the reports.

5. **Need for and Benefit of Monitoring Program Reports.** Monitoring reports are needed to provide information to the San Diego Water Board on the effectiveness of the sand cap in sequestering PCB contaminated sediment. The reports will provide technical information to determine if measures are necessary to bring the sand cap into compliance with the requirements of Order No. R9-2015-0029. Based on the nature and possible consequences of a sand cap breach, the Dischargers 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.
6. **California Environmental Quality Act.** The San Diego Unified Port District prepared and certified a final Environmental Impact Report (EIR) for the sand cap dated October 1993, with Addenda No. 1, No. 2, and No. 3, in accordance with the California Environmental Quality Act (CEQA).¹ The San Diego Water Board, as a responsible agency under CEQA, considered the EIR when it adopted Order No. 98-21. Adoption of this Order is categorically exempt from CEQA pursuant to section 15301 of title 14 of the CCR because the sand cap is an existing facility. The San Diego Water Board approved construction and maintenance of the sand cap in 1998. This MRP establishes updated monitoring and reporting requirements for the sand cap but involves no expansion of the existing use within the meaning of section 15301.
7. **Qualified Professionals.** The Dischargers' reliance on qualified professionals promotes proper maintenance, repair, and monitoring of the sand cap. Professionals shall 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 the direction of licensed professionals.

IT IS HEREBY ORDERED that this MRP supersedes MRP No. 98-21 except for enforcement purposes. It is further ordered that, pursuant to Water Code section 13267, the Dischargers shall comply with the following:

¹ Public Resources Code, division 13, chapter 3, section 21000 et seq.

A. MONITORING PROVISIONS

1. Samples and measurements taken as required herein shall be representative of the nature of the monitored element. Measure thickness of all sand layer samples at the monitoring points specified in this Order. Collect all sand layer core samples as specified in this Order. Monitoring points shall not be changed without notification to and the approval of the San Diego Water Board Executive Officer.
2. Laboratory methods or test procedures must be conducted according to the most current version of "Test Methods for Evaluating Solid Waste, Physical /Chemical Methods, SW-846" (U.S. Environmental Protection Agency) or 40 Code of Federal Regulations (CFR) section 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants; Procedures for Detection and Quantification*. If other laboratory methods or test procedures are proposed, the exact methodology must be submitted for review and approval by the San Diego Water Board prior to use.
3. Perform all sample analyses by a laboratory certified under the Environmental Laboratory Accreditation Program or by a laboratory approved by the San Diego Water Board Executive Officer. Specific analytical methods must be identified.
4. If the Dischargers monitor any element more frequently than required by this MRP, using test procedures as specified in Directive A.2. above, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharger's monitoring report(s). The increased frequency of monitoring shall also be reported.
5. Retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Maintain all records for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the San Diego Water Board Executive Officer.
6. Records of monitoring information shall include:
 - a. The date, and exact place and time of sampling, measurements, or observations;
 - b. The individual(s) who performed the sampling, measurements, or observations;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;

- e. The analytical techniques or method used; and
 - f. The results of such analyses.
7. All monitoring instruments and devices, which are used by the Dischargers to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.
 8. Report all instances of noncompliance not reported under Reporting and Record Keeping Requirement D.6 of Order No. R9-2015-0029 at the time monitoring reports are submitted.

B. VISUAL INSPECTIONS

1. Divers shall inspect the main cap for damage, including cracks in the sediment, gashes from boat keels, localized erosion, debris penetrating the cap, bioturbation, or other visual evidence of damage. Divers shall measure the thickness of the sand layer using probing methods (see Figure 1 for locations). Measuring the thickness of the sand layer will reveal whether the sand layer has eroded or accumulated sediment on the cap.
2. Inspect the perimeter berm for damage such as settling, cracking, etc. Berm monitoring requires a survey of the average elevation of the crest of the berm and the average width at both the base and crest of the berm. Survey berm dimensions with a stadia rod and an underwater surveying tape, or equivalent.
3. Divers shall verify navigational warning piles are in good condition, and that the warning signs mounted on the piles are intact and legible.
4. If possible, to identify changes, the same divers should conduct each visual inspection. Prior to conducting the inspections, the divers shall review the design of the cap and the results of previous inspections.
5. The energy dissipation channel located at the end of the 60-inch storm drain shall be inspected, maintained, and repaired as necessary to protect the sand cap from eroding.
6. Inspect the eelgrass planted in Convair Lagoon to document its general health and density as compared to the control eelgrass bed.
7. Take photographs of the cap to document the condition of the sand layer, perimeter berm, eelgrass mitigation area, control eelgrass bed, and the energy dissipation channel. Photographs and a narrative description of the inspection results shall be included in the monitoring reports required in Section E.3.

C. MAIN CAP SAMPLING AND ANALYSIS

1. Collect three sand layer core samples from the main cap. Collect core samples adjacent to one of the probe thickness sampling locations shown in Figure 1 and at different locations from the previous monitoring event. Prior to collecting the three core samples, the locations shall be approved by the San Diego Water Board.

Collect samples by pushing an aluminum or brass core tube, with a recommended length of 4 feet and a diameter of 2 inches, into the sand layer of the cap. Use a vibracore or similar methodology to collect a core from the sediment surface to the top of the gravel layer, without penetrating into the gravel. Record and report the depth of penetration of the core tube at each sample location. After the core tubes are withdrawn, they should be checked to verify that the sand layer material remained in the tube, photographed, logged, and then sampled at the designated core interval depths.

2. Collect three samples from each core tube; from the bottom, middle, and top of the sand layer. Each sample shall be a 3-inch segment of sediment from its respective location in the core tube.
3. Perform sample collection, handling, and custody using protocols and techniques appropriate for sampling PCB-contaminated materials. Sampling equipment shall be decontaminated after each use to avoid potential cross-contamination or direct contact by personnel handling the samples.
4. Analyze surface samples for total PCB congeners using the latest version of USEPA Method 8270 SIM or another method approved by the San Diego Water Board Executive Officer. Sum the Total PCB congeners using the 41 PCB congeners² used in the Southern California Bight Regional Monitoring Program, the Regional Harbors Monitoring Program, and by the Southern California Coastal Water Research Project. The 41 PCB congeners were compiled in consideration of their potential toxicity and the occurrence of the congeners in the common Aroclors 1242, 1248, 1254, and 1260.
5. Analyze intermediate and deep samples for PCB Aroclors using the latest version of USEPA Method 8082 or another method approved by the San Diego Water Board Executive Officer.

D. COMPLIANCE STATEMENTS

Submit statements indicating compliance or noncompliance of the sand cap with the requirements of Order No. R9-2015-0029. Compliance statements shall

² 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.

indicate if the sand cap was subjected to any of the physical disturbances described in Section F.4, and if so what actions, if any, were taken. Submit compliance statements annually for each year in which monitoring occurs, or in any year in which a physical disturbance occurs. Compliance statements may be included in the annual monitoring report required in Section E.3. Compliance statements shall be signed and certified as required in Section E.5.

E. MONITORING SCHEDULE AND REPORTING

1. The monitoring program shall be conducted (1) in perpetuity unless the San Diego Water Board determines that monitoring is no longer necessary unless the schedule is modified per Section E.2, (2) at five-year intervals beginning in year 2018 (2018, 2023, 2028, etc.), and (3) in April or May of each year in which monitoring is required. The San Diego Water Board Executive Officer can adjust the frequency of the monitoring program including the monitoring tasks as appropriate.
2. If an inspection or sampling indicates that the cap has in some way been breached, then the following sampling schedule shall be implemented:
 - a. Monitoring each year for the first five years after discovering a breach;
 - b. Monitoring in years 7 and 10; and
 - c. Monitoring at five year intervals (years 15, 20, 25, etc.).
3. Submit monitoring reports annually for the years when monitoring occurs and shall contain the results of all monitoring which was conducted including photographs. Reports shall be due July 30th of the monitoring year and shall cover the period from July 1 to June 30 of the previous 12 months.
4. Address monitoring reports to the San Diego Water Board Executive Officer and upload reports into the Geotracker database. Submittal of hard copies is not required. Reference code **L10008531269** shall be included in the subject line of the monitoring reports.
5. The Dischargers' principal executive officer of at least the level of vice-president shall sign and certify all monitoring reports and compliance statements. The Dischargers may designate a duly authorized representative to sign the monitoring reports and compliance statements. An individual is a duly authorized representative only if all of the following are true.
 - a. The authorization is made in writing by the Dischargers' principal executive officer.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

- c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If an authorization under this paragraph is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this paragraph 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.

Any person signing a document under this Section shall make the following certification:

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

F. CONTINGENCY MONITORING PLAN

1. The following emergency measures shall be taken if the sand cap has been breached or damaged:
 - a. Notify the San Diego Water Board by telephone, by voice mail, or by email **within 24 hours** from the time that (1) the Dischargers have knowledge of the breach or damage, (2) notification is possible, and (3) notification can be provided without substantially impeding cleanup or other emergency measures.
 - b. Submit an initial report to the San Diego Water Board **within 24 hours** after the notification required in paragraph F.1.a. The initial report shall include information on when, where, and how the breach or damage was discovered, and the proposed investigation and/or corrective actions.
 - c. Initiate an investigation and/or corrective actions **within 72 hours** after the notification. Additional sand layer core samples shall be collected and analyzed for total PCB congeners to determine the extent of the breach. The extent of damage shall be photographed and measured including area and depth of sand and gravel missing and area of gravel exposed.
 - d. An investigation work plan or correction action plan may be required by the San Diego Water Board as necessary.

- e. Submit a written report to the San Diego Water Board **within 30 days** after submitting the initial report that (1) provides an update on the proposed investigation and/or corrective actions, or (2) documents the completion of the proposed investigation and/or corrective actions. Subsequent written reports, if necessary, shall be submitted monthly by the 30th day of the following month (February 28th for January) until the damage or potential breach has been repaired or otherwise resolved:

Report Period

Report Due

Monthly

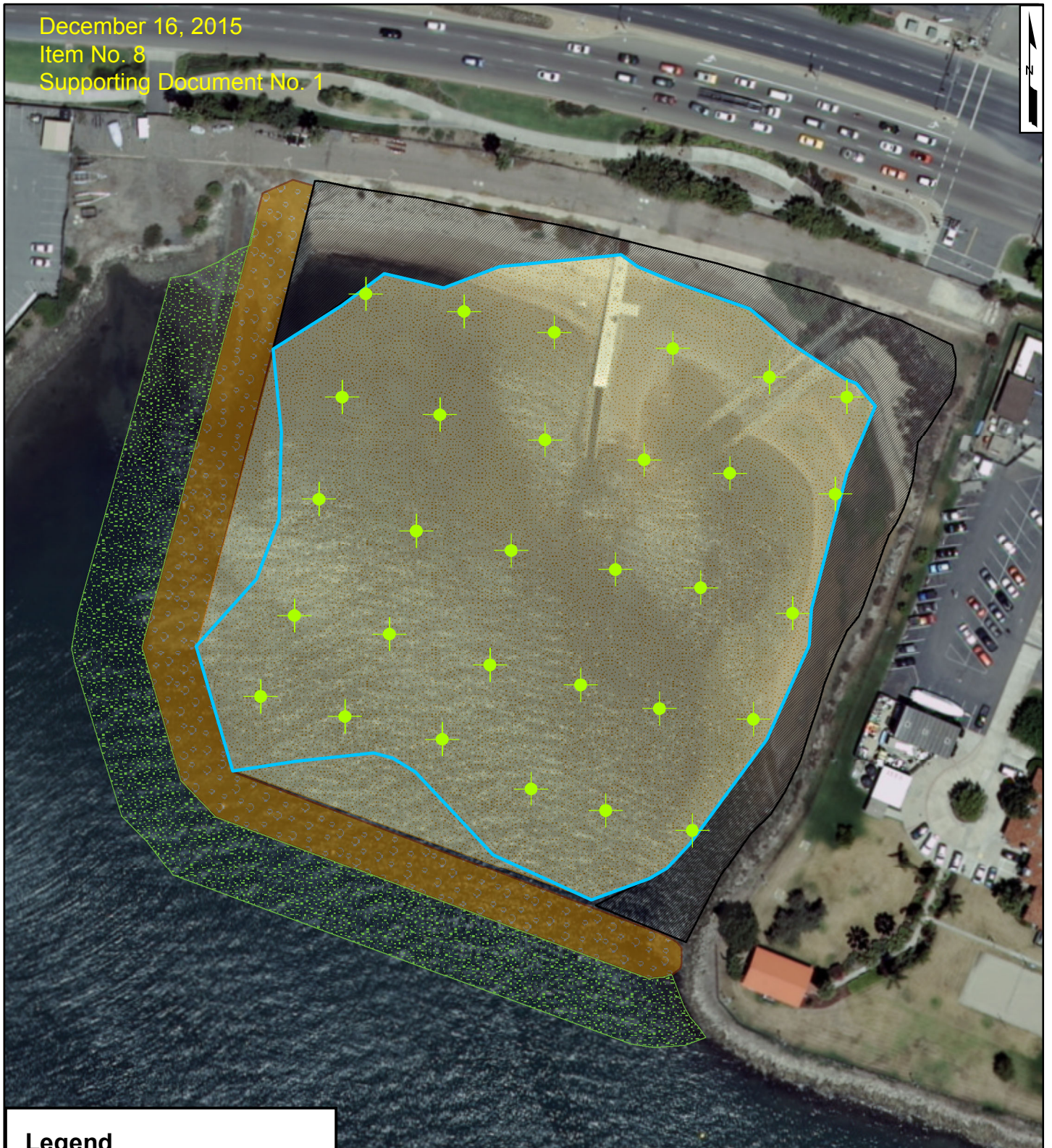
By the 30th day of the following month
(February 28 for January)

2. Notify the San Diego Water Board by telephone, by voice mail, or by email **within 24 hours** if any of the samples collected on the surface of the sand cap is found to contain PCBs in excess of 84 micrograms per kilogram (ug/kg) from a source(s) not associated with a breach in the sand cap such as waste discharges from storm drains. If needed, the San Diego Water Board, under a separate Order, will require additional investigations and/or remedial actions by the person(s) responsible for the discharge of wastes not associated with a breach in the sand cap.
3. If the main cap's thickness is determined to be less than 18 inches at a specific station, collect additional thickness measurements near the observation to determine if the low measurement is an anomalous reading. If the additional measurements indicate thinning of the main cap, the Dischargers shall define the extent of the thinned region through step-out probing. Place additional sand in the thinned region as expeditiously as practical. Waste discharge requirements may be necessary for a discharge of sand and/or gravel greater than 5,000 cubic yards.
4. Visual inspections of the sand cap shall be conducted **within two weeks** of a physical disturbance such as boat impacts, a major earthquake, a tsunami, or a storm event with winds of strong gale or higher (47 mph or higher). In the case of devastating disaster, the San Diego Water Board Executive Officer may extend the two-week requirement at his or her discretion. For purposes of this monitoring program, a major earthquake is one that inflicts significant damage to property in the metropolitan San Diego area, and/or measures 5.5 or greater on the Richter scale with an epicenter within 30 miles of Convair Lagoon. A major tsunami is one that inflicts noticeable damage to structures or property in San Diego Bay. If a physical disturbance occurs, the Dischargers shall submit a compliance statement to the San Diego Water Board describing the physical disturbance, summarizing the results of the visual inspection, indicating if the physical disturbance compromised the







functionality of the cap in any way, and describing any actions taken to restore the sand cap as a result of the physical disturbance.

I, David W. Gibson, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an MRP adopted by the California Regional Water Quality Control Board, San Diego Region, on _____.

David W. Gibson



Legend

-  Measurement Location
-  Extent of PCBs >4.6 mg/kg
-  Outer Cap
-  Thin Cap
-  Main Cap
-  Perimeter Berm

100 50 0 100 Feet



**Approximate Probe
 Sampling Locations**

Geosyntec
 consultants

Figure

1

San Diego

December 2015