CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

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Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

PROJECT: **Laurel Hawthorn Embayment Remedial Action for the 30-Inch Storm Water Conveyance System Outfall (CAO No. R9-2015-0018) Project**
Certification Number R9-2016-0088
WDID: 9 000003015

Reg. Meas. ID: 405044
Place ID: 822864
Party ID: 45354
Person ID: 63595

APPLICANT: **TDY Industries, LLC**
1000 Six PPG Place
Pittsburgh, PA 15222

ACTION:

☐ Order for Low Impact Certification	☐ Order for Denial of Certification
☑ Order for Technically-conditioned Certification	☐ Enrollment in Isolated Waters Order No. 2004-004-DWQ
☑ Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	

PROJECT DESCRIPTION

An application dated February 24, 2016 was submitted by the TDY Industries, LLC (a subsidiary of Allegheny Technologies, Inc.) (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (United States Code (USC) Title 33, section 1341) for the proposed Laurel Hawthorn Embayment Remedial Action for the 30-inch Storm Water Conveyance System Outfall (CAO No. R9-2015-0018) Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on July 7, 2016. The Applicant proposes to discharge dredged or fill material to waters of the United States and/or State associated with construction activity at the Project site. The Applicant has also applied for a Clean Water Act section 404 permit from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2015-00910-RRS).

The Project is located within the City of San Diego, San Diego County, California at 2701 North Harbor Drive. The Project center reading is located at latitude 32.726664 and longitude -117.17986. The Applicant has paid all required application fees for this Certification in the amount of $6,010.00. On an annual basis, the Applicant must also pay all active discharge fees and post discharge monitoring fees, as appropriate. On July 7, 2016, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San

Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The proposed Project is required for compliance with Cleanup and Abatement Order (CAO) No. R9-2015-0018 issued by the San Diego Water Board for the remediation of polychlorinated biphenyl (PCB) impacted sediment in San Diego Bay adjacent to the 30-inch storm water conveyance system (SWCS) outfall located in the eastern revetment of the U.S. Coast Guard facility, near the intersection of West Laurel Street and westbound North Harbor Drive. The proposed Project will include the following:

- **Targeted Sediment Removal.** Sediment in San Diego Bay at the base of the existing riprap below the storm drain outfall will be removed to a target depth of 3-feet below the current sediment surface. The targeted removal area covers approximately 205 square yards (0.04 acre), including 3:1 (horizontal to vertical) side slopes surrounding the removal area. The total excavated volume is estimated to be approximately 125 cubic yards. The dredged sediments will be placed into watertight roll-off bins on a barge where they will be dewatered and then stabilized by mixing in a cement slurry. The supernatant liquid separated from the dredged sediment will be pumped into an open-topped, baffled Frac tank located on the derrick barge. The liquid will be tested and then transferred into shore-side vacuum trucks for transport and disposal. The material barge will be transported to RE Staite's marine facility, where the roll-off bins will be off-loaded by crane. The dewatered stabilized sediment will be characterized and disposed of at an off-site facility permitted to receive such wastes. The dredged area in San Diego Bay will be backfilled with clean sand to the pre-existing bathymetric surface elevations.
- **Enhanced Monitored Natural Recovery (EMNR) Area.** The top 4 inches of sediment, which comprises the bulk of the bioactive zone, is targeted for treatment by the EMNR carbon-amended sand placement. As a factor of safety, 6 inches of sand (approximately 810 cubic yards) will be placed over the target area, encompassing an area of approximately 1 acre. The sand will be incorporated into the existing bay bottom sediment through settlement and bioturbation to provide a cleaner habitat for benthic invertebrates. Additional reduction in bioavailability of residual PCBs will be achieved through the incorporation of an activated carbon amendment into the sand material.
- **Shoreline Rip-rap Stabilization.** Approximately 5 cubic yards of the existing shoreline rip-rap material will be removed from the front of the existing outfall, which has become buried within the rip-rap over time, so that the storm drain can be extended to allow for free drainage of the SWCS outfall. The SWCS outfall will be extended approximately 8 feet to the face of the proposed overlying rip-rap.

  Two 15-foot-wide panels of 16-oz heavyweight non-woven geotextile will be installed over a gravel sub-base placed over the existing shoreline rip-rap from the mean high water line to the Bay floor, covering a total area of approximately 0.015 acres (675 square feet).

  New rip-rap of similar size to the existing rip-rap along the approximately 24 feet of the shoreline and below the high tide line (HTL) will be installed on top of the geotextile layer to hold the material in-place and protect the geotextile. Coarse gravel/cobbles will be placed

on the edges and over top of the installed armoring to transition back to the surrounding rip-rap grade to minimize potential under-scouring of the geotextile, and to protect the geotextile from UV damage. The total gravel and rip-rap volume will be approximately 25 cubic yards.

The removed rip-rap will be characterized for PCBs and polycyclic aromatic hydrocarbons (PAHs) and disposed at an appropriate off-site disposal facility based on the characterization results.

The San Diego Water Board has approved a final Remedial Action Plan (RAP) (dated September 20, 2016) that was submitted by TDY Industries, LLC in compliance with CAO Directive C.1. The RAP describes the process by which remediation will be managed, designed, planned, implemented, and monitored in accordance with the CAO. This Certification requires implementation of the activities set forth in the RAP pertaining to the Project. The RAP is incorporated in this Certification by this reference as if set forth herein.

The Project includes post-remediation monitoring described in the RAP and CAO to confirm remedy performance and monitor integration of the EMNR layer with Bay sediments, benthic community recolonization, and in-situ pore water at 1 year after remediation for the purpose of demonstrating natural recovery. The work is expected to begin in early 2017and be completed within 3 months of obtaining approval of all plans and permits.

Project construction will permanently impact 1.015 acre (245 linear feet) of bay waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

Project implementation will provide a long-term benefit to San Diego Bay (Bay) by removing and sequestering pollutants from the Bay ecosystem. Additionally, the EMNR remedial approach has been designed to incorporate into the existing sediment through settlement and bioturbation and will provide a cleaner habitat for benthic invertebrates to inhabit. Lastly, the Project's proposed permanent carbon-amended sand fill will not significantly change the existing bathymetric surface elevations of the Bay floor and will not result in a loss of waters or impact to eelgrass habitat. Therefore, no mitigation is required. All waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill.

Additional Project details are provided in Attachments 2 through 4 of this Certification.

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Attachments:

1. **Definitions**
2. **Project Location Maps**
3. **Project Site Plans**
4. **CEQA Mitigation Monitoring and Reporting Program**

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.

B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

A. **Term of Certification**. Water Quality Certification No. R9-2016-0088 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 USC Title 33, section1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.

B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.

C. **General Waste Discharge Requirements**. The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.

D. **Remedial Action Plan.** The Applicant shall comply with and implement all requirements of Cleanup and Abatement Order No. R9-2015-0018 and the Remedial Action Plan applicable to Project activities.

E. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

F. **Project Conformance with Water Quality Control Plans or Policies**. Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 USC section 1313). The Basin Plan is accessible at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml

The receiving water limitations set forth below for San Diego Bay waters are based on applicable water quality standards contained in the Basin Plan, other water quality control plans and policies and federal regulations and are a required part of this Certification. Project activities shall not cause or contribute to exceedances of these receiving water limitations in San Diego Bay. Compliance with these limitations shall be determined from samples collected at the points of compliance described in the Monitoring Requirements in section VI of this Certification.

1. **Visual**. Floating particulates and grease and oil shall not be visible.

2. **Color**. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.

3. **Hydrogen Ion Concentration**. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

4. **Hydrogen Ion Concentration**. The pH shall not be depressed below 7.0 nor raised above 9.0.

5. **Turbidity**. If natural turbidity is between 0 to 50 nephelometric turbidity units (NTUs), the maximum increase from dredge activities must not exceed 20 percent of the measured natural turbidity. If natural turbidity is between 51 to 100 NTUs, the maximum increase from dredge activities must not exceed 10 NTUs. If natural turbidity is greater than 100 NTUs, the maximum increase from dredge activities

must not exceed 10% above natural background levels.

6. **Dissolved Oxygen**. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally.

7. **Benthic Communities**. Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities.

8. **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.

9. **Water Quality Objectives**. Water quality objectives applicable to San Diego Bay established in Chapter 3 of the San Diego Water Board's Water Quality Control Plan for the San Diego Basin (Basin Plan) shall not be exceeded.

10. **Priority Pollutant Criteria.** Priority pollutant criteria applicable to San Diego Bay promulgated by the U.S. Environmental Protection Agency (USEPA) through the a) National Toxics Rule (NTR) (40 CFR 131.36 promulgated on December 22, 1992 and amended on May 4, 1995) and b) California Toxics Rule (CTR) (40 CFR 131.38, (65 Fed. Register 31682-31719), adding Section 131.38 to Title 40 of the Code of Federal Regulations, on May 18, 2000) shall not be exceeded.

G. **Project Modification**. The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water Board for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.

H. **Certification Distribution Posting**. During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.

I. **Inspection and Entry**. The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:

1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and

4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

J. **Enforcement Notification**. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

K. **Certification Actions**. This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:

1. Violation of any term or condition of this Certification;

2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of San Diego Bay;

3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;

4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and

5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

L. **Duty to Provide Information**. The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.

M. **Property Rights**. This Certification does not convey any property rights of any sort, or any exclusive privilege.

N. **Petitions**. Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

A. **Approvals to Commence Construction**. The Applicant shall not commence Project construction until all necessary federal, State, and local approvals are obtained.

B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.

C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.

D. **General Construction Storm Water Permit.** Prior to start of Project construction, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity*, (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.

E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.

F. **Waste Management**. Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.

G. **Construction Equipment**. All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.

H. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.

I. **Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving hazardous materials.

J. **Limits of Disturbance.** The Applicant shall clearly define the limits of Project disturbance to waters of the United States and/or State using highly visible markers such as flag markers, construction fencing, or silt barriers prior to commencement of Project construction activities within those areas.

K. **Dredge Volume Limit.** The volume of sediment dredged for upland disposal must not exceed 400 cubic yards of sediment.

L. **Silt Curtain Deployment**. The Applicant shall deploy and maintain a continuous length of double silt curtains, installed and maintained fully surrounding the active discharge activities, including active dredging, clean sand backfill placement, EMNR placement, rip-rap stabilization placement, and around the dredge barge/bucket area and offloading site area in conformance with the following requirements:

1. The silt curtains must be comprised of connected lengths of Type III geotextile material;

2. The silt curtains must restrict the surface visible turbidity plume to the area of construction and dredging and must control and contain the migration of re-suspended sediments at the water surface and at depth;

3. The silt curtains must be supported by floating debris booms in open water areas.

4. The bottom of the silt curtains must be weighted with ballast weights or rods affixed to the base of the fabric to resist the natural buoyancy of the silt curtain fabric and lessen its tendency to move in response to currents. Where feasible and applicable, the floating silt curtains must be anchored and deployed from the surface of the water to just above the substrate.

5. If necessary, silt curtains with tidal flaps must be installed to facilitate curtain deployment in areas of higher flow. Air curtains may be used in conjunction with silt curtains to contain re-suspended sediment, enhance worker safety, and allow barges to transit into and out of the work area without the need to open and close silt curtain gates.

6. The silt curtain must be monitored for damage, dislocation or gaps and must be immediately repaired where it is no longer continuous or where it has loosened.

M. **Sediment Dredging.** The Applicant shall conduct dredging in accordance with the applicable requirements of Cleanup and Abatement Order No. R9-2015-0018, the Remedial Action Plan, the Mitigation Monitoring and Reporting Program contained in Attachment 4 of the Certification and the requirements set forth below:

1. The dredging of contaminated sediment must be conducted using an environmental cable arm clamshell bucket, except where use of this bucket type will not dig the material due to hardness or debris. The clamshell bucket must be entirely closed during dredging activities when withdrawn from San Diego Bay waters and moved to the barge/scow.

2. The clamshell bucket must not be overfilled in order to prevent the spillage of dredged material back in to San Diego Bay waters.

3. Dredging must be conducted to remove dredge material and not stockpile material on the floor of San Diego Bay.

4. The drop height from the clamshell bucket onto the barge must be controlled to prevent splashing or sloshing of dredged material back into San Diego Bay waters.

5. The swing radius of unloading equipment must be controlled to prevent spillage of dredged sediments back into the water.

6. Dredged sediments must be loaded into material barges with watertight compartments and water collection systems to prevent return water from re-entering San Diego Bay.

7. Dredged material barges must not be filled to a point that overflow or spillage could occur. Each material barge must be marked in such a way to allow the operator to visually identify the maximum load point.

8. Load-controlled barge movement, line attachment, and horsepower requirements of tugs and support boats at the Project site must be specified to avoid resuspension of sediment and ensure that sea turtles and marine mammals are not injured or harassed through excessive vessel speed or propeller damage. Such measures may include speed restrictions, establishment of off-limit areas, and use of shallow draft vessels.

9. Excess or decanted water from dredged sediments must not be discharged into San Diego Bay.

10. Dredged sediments may be mixed with a cement slurry to stabilize the sediments.

11. The on-shore dredged sediment truck loading area must be designed as a no-discharge facility to prevent dredge water from flowing back into San Diego Bay. The design must also prevent storm water run-on or run-off from adjacent areas from entering the offloading area.

N. **Clean Sand and Gravel Placement Operations.** The Applicant shall conduct clean sand backfill placement, EMNR placement, and the rip-rap stabilization placement (including the gravel sub-base material) in accordance with the applicable requirements of Cleanup and Abatement Order No. R9-2015-0018, the Remedial Action Plan, the Mitigation Monitoring and Reporting Program contained in Attachment 4 of the Certification and the requirements set forth below:

1. All imported sand and gravel must be sourced from a local quarry and consist of non-recycled clean material.

2. Placement of clean sand covers must be done in layers of controlled lifts to ensure proper placement over the required areas, minimize the potential for disturbance and intermixing of underlying sediments and appropriate thicknesses are achieved.

3. The Applicant shall submit a Borrow Source Characterization Report, for review and verification by the San Diego Water Board, prior to any on-site placement of import materials. This characterization report shall include identification of import material source(s), map(s) documenting the origin of the materials, site inspection documentation, and material sampling results for characterization (physical and chemical testing, as specified) to ensure that the import material will uniformly meet

the specifications of its intended use and is freshly quarried, non-recycled clean materials.

O. **Upland Disposal of Dredged Sediments.** Dewatered dredged sediments for upland landfill disposal, classified as nonhazardous, must be transported for disposal at a landfill permitted for accepting this material. Dredged sediments classified as hazardous must be transported to a hazardous waste landfill permitted for accepting this material. Alternative disposal of dredge materials at non-permitted disposal facilities is not authorized by this Certification.

P. **On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.

Q. **Protection of Eelgrass Beds at the Project Site.** A pre-construction eelgrass survey must be completed in accordance with the requirements of the California Eelgrass Mitigation Policy (CEMP; National Marine Fisheries Service 2014) by a qualified biologist, prior to initiation of construction activities at the site. The Applicant shall also comply with the following requirements:

1. Prior to construction, the boundaries of the eelgrass beds within or adjacent to the Applicant's remedial action area must be staked with ridged PVC markers or self-centering buoys visible at all tide heights. The PVC markers or self-centering buoys must be protected, replaced, and maintained as needed to ensure that they remain in place and properly stake the boundaries of the eelgrass beds.

2. Silt curtains must be kept a minimum of 30 feet away from staked eelgrass beds in order to prevent damage to eelgrass beds from curtain drag or movement.

3. During project construction and regardless of the timing of the dredging or in-Bay placement of fill, the eelgrass beds must be protected with silt curtains deployed in a manner to protect eelgrass from excessive dredge or fill generated turbidity or sediment deposition.

R. **Green Sea Turtles and Marine Mammals.** The Applicant must provide Project oversight by a qualified marine biologist and include training of the dredging/construction crew on appropriate operation of barges and work vessels to minimize potential harm to green sea turtles and marine mammals. Construction activity must be temporarily stopped if a green sea turtle or marine mammal is sighted within 330 feet (100 meters) of the construction zone until all green sea turtles or marine mammals have left the Project site. A summary of observations shall be reported in the

monthly Receiving Water and Visual Observation Monitoring Reports required under section V.I of this Certification.

S. **California Least Tern.** In-water construction activities are anticipated to be scheduled to occur between September 16 and March 31outside the California least tern nesting season. Should in-water Project activities be conducted during the least tern breeding season, a qualified Biological Monitor familiar with the California least tern and other special status seabirds and waterfowl shall be retained by the Applicant to conduct monitoring within 500 feet of construction activities. The monitor shall be empowered to delay commencing work, and shall do so if terns are actively foraging (e.g., searching and diving) within the work area. Should adverse impacts to terns occur (e.g., agitation or startling during foraging activities), the Biological Monitor shall be empowered to delay or halt construction, and shall do so until California least terns have left the project site. A summary of observations shall be reported in the monthly Receiving Water and Visual Observation Monitoring Reports required under section V.I of this Certification.

T. **Beneficial Use Protection**. The Applicant must take all necessary measures to protect the beneficial uses of waters of San Diego Bay. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to San Diego Bay occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VI.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

IV. PROJECT IMPACTS AND COMPENSATORY MITIGATION

A. **Project Impact Avoidance and Minimization**. The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable.

B. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to San Diego Bay must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
San Diego Bay	1.015[a]	245[a]	NA[b]	NA[b]	NA[b]	NA[b]
Temporary Impacts[c]						
San Diego Bay	0.04[d]	80[d]	NA	NA	NA	NA

NA = Not Applicable

a. Permanent fill of 1 acre of San Diego Bay floor with 4-6 inches of clean sand/carbon mixture (EMNR carbon-amended sand placement) along 245 linear feet of Bay shoreline and 0.015 acre of geotextile and rip-rap over a gravel sub-base to provide rip rap stabilization along San Diego Bay shoreline.

b. The proposed Project will remediate contaminated sediment, providing a net benefit to San Diego Bay. Additionally, the Project will not result in a permanent loss of waters, not impact eelgrass habitat, and the benthic community is expected to recolonize. Therefore, no compensatory mitigation is required.

c. All areas of temporary impacts must be restored to pre-project bathymetric surface elevations.

d. Temporary impact from 125 cubic yards of targeted sediment removal impacting 0.04 acre of San Diego Bay floor. The removal area will be backfilled to pre-project bathymetric surface elevations with clean imported sand fill.

C. **Eelgrass.** A pre-construction eelgrass survey must be completed in accordance with the requirements of the California Eelgrass Mitigation Policy (CEMP; National Marine Fisheries Service 2014) by a qualified biologist, prior to initiation of construction activities at the site. This survey must include both aerial and density characterization of the beds. If eelgrass is found during the pre-construction survey, a post-construction survey must be performed by a qualified biologist within 30 days following project completion to quantify any unanticipated losses to eelgrass habitat. Impacts must then be determined from a comparison of pre- and post-construction survey results. Impacts to eelgrass, if any, must be mitigated through conformance with the CEMP, which defines the mitigation ratio and other requirements to achieve mitigation for significant eelgrass impacts. If required following the post-construction survey, the CEMP defined mitigation must be developed; submitted and approved by the San Diego Water Board, U.S. Army Corps of Engineers, and National Marine Fisheries Service; and implemented to offset losses to eelgrass.

D. **Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-

vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.

V. MONITORING AND REPORTING REQUIREMENTS

A. **Representative Monitoring**. Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.

B. **Monitoring Reports**. Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section V of this Certification.

C. **Monitoring and Reporting Revisions**. The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.

D. **Records of Monitoring Information.** Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements;

2. The individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed;

4. The individual(s) who performed the analyses;

5. The analytical techniques or methods used; and

6. The results of such analyses.

E. **Receiving Water Visual Observation Monitoring.** The Applicant shall conduct visual observation monitoring of the Project activities in San Diego Bay prior to, during, and after each period of project construction. The visual observation monitoring documentation must be included in the Receiving Water and Visual Observation Monitoring Report(s).

1. **Parameters.** The following parameters shall be visually monitored immediately outside of the construction area:

a. No floating particulates, suspended materials, grease, or oil; and

b. No significant discoloration of the water surface.

2. **Field Documentation.** All visual observations shall be recorded throughout Project construction activities. In addition to the requirements listed in Section V.D., monitoring field logs shall include observations of water quality conditions including sheen, color, odor, floating particulates, and surface visible turbidity plume. Logs shall also include observations of sensitive biological resources and weather conditions, such as wind speed/direction and cloud cover.

   If photo documentation is used in support of visual observations of water quality conditions, it should be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf. In addition, photo documentation should include Global Positioning System (GPS) coordinates for each of the photo points referenced.; and

3. **Response Actions.** If the condition of the silt curtain is observed to be damaged, has become dislocated, or has gaps where a visible turbidity plume is forming outside of the silt curtain at the Project Site, a response action shall be taken immediately to correct the situation. Response actions may include, but are not limited to, work stoppage until silt curtain repair is completed, implementation of operational modifications, and/or implementation of additional BMPs (e.g., a second silt curtain). Response actions, if needed, shall be documented in the monitoring field log.

F. **Receiving Water Quality Monitoring**. The Applicant shall conduct receiving water monitoring during dredging and construction activities at the Project Site to verify that applicable water quality standards for pH, dissolved oxygen and turbidity are not violated outside of the construction areas. The monitoring plan shall contain the following elements:

1. **Monitoring Stations**. During each monitoring event, water quality parameters including turbidity, dissolved oxygen, and pH shall be measured at four stations at the Project Site. Monitored water quality measurements shall be compared to "ambient" San Diego Bay reference measurements outside the construction area. Three stations shall be compliance stations and one station shall be a reference station. Monitoring station positions shall be located using a Global Position System (GPS) accurate to within ±3 meters. Station descriptions are as follows:

   a. ***Compliance Stations***. Two monitoring stations at the Project Site shall be located evenly along an arc located 100 feet from the edge of the construction area to capture all tidal and current conditions. The locations shall be adjusted in the field to better target a visible turbidity plume in accordance with incoming and outgoing tides and where a visible plume is observed.; and

b. **Reference *Station***. One reference station shall be located 1000 feet from the construction activity in the direction of the head of the bay and beyond the influence of construction activities. Natural turbidity, dissolved oxygen, and pH shall be determined through measurements at the reference station. A reference station shall be monitored during every event, because the turbidity water quality objective is based on an acceptably small increase in the vicinity of the construction activity relative to ambient reference levels. The location of the reference station shall remain the same for all monitoring events;

2. **Water Quality Measurements**. Monitored water quality measurements for turbidity, dissolved oxygen, and pH at the Compliance Stations shall be compared to Reference Station measurements outside the construction area. Water quality measurements shall be collected from a depth of 10 feet below the water surface at each of the stations. Monitoring depths shall be determined using a depth finder with an accuracy of ±0.5 feet. Water quality shall be monitored using instrumentation capable of measuring dissolved oxygen, pH, and turbidity (in nephelometric turbidity units (NTU's));

3. **Monitoring Frequency**. During dredging, manual water quality samples shall be collected once daily after dredging operations have been underway for a minimum of one hour. The reference station outside the influence of dredging shall also be sampled at similar depths and frequency for comparison to the samples collected from the dredge area. Sampling may be reduced to weekly sampling if no water quality exceedances of the Receiving Water Limitations described in section II.F of this Certification are observed or measured after 3 consecutive days of monitoring.

   If after 3 consecutive days without an exceedance the monitoring frequency is reduced to weekly, all water quality parameters may be measured during one monitoring event per week. The monitoring frequency must return to daily if a significant change in operations occurs (i.e., switching from dredging to material placement or debris removal) or an exceedance of the Receiving Water Limitations described in section II.F of this Certification is observed or measured. The monitoring frequency can again be reduced to weekly sampling if 3 consecutive days of monitoring show there are no exceedances of Receiving Water Limitations.

   During clean sand backfill placement, EMNR placement, and rip-rap stabilization placement water quality monitoring at all Compliance and Reference Stations shall be conducted on a weekly basis after discharge activities have been underway for at least 1 hour. The monitoring frequency shall be increased to daily if an exceedance of the Receiving Water Limitations described in Section II.F of this Certification is observed or measured. The monitoring frequency can again be reduced to weekly sampling if 3 consecutive days of monitoring show that there are no exceedances of Receiving Water Limitations.

4. **Sample Integrity**. The integrity of each water sample collected shall be maintained from the time of collection to the point of data reporting. Proper record keeping and chain of custody (COC) procedures shall be implemented to allow samples to be traced from collection to final disposition. After collection of water samples, documentation on various logs and forms shall be required to adequately identify and catalog sample information; and

5. **Compliance Criteria**. Receiving Water Limitations are provided in Section II.F of this Certification. The point of compliance with these receiving water limitations shall be located 100 feet from the edge of the construction area. The construction area is defined as the area(s) occupied by the equipment performing in-water work activities for dredging, material placement, dewatering, silt curtains, and other associated work activities.

G. **Response Actions to Monitoring Results**. In the event that visual observations or water quality monitoring described in Sections V.E and V.F of this Certification indicate an exceedance of an applicable Receiving Water Limitation described in Section II.F of this Certification, the Applicant shall implement the additional or enhanced operational or engineering BMPs described below:

1. Evaluate the concurrent measurements at background and compliance monitoring stations and supporting visual evidence to determine whether the exceedance is caused by construction activities or by other ambient conditions in San Diego Bay (e.g., wind waves, boat wakes, barge/ship traffic, and storm inflow).

2. Immediately re-take measurements at compliance and reference stations.

3. If the exceedance is confirmed, immediately notify the dredge contractor to immediately modify operations or implement additional BMPs to mitigate the exceedance. Operational modifications may include, but are not limited to the following modifications implemented individually or in combination:

    a. Adjust the sequence and/or speed of dredging, placement, and/or disposal operations;

    b. Reposition dredge operations in such a way as to ensure future exceedances do not occur;

    c. Fix, maintain, and/or upgrade floating silt curtains; and/or

    d. Modify, either on a temporary or permanent basis, dredge equipment (such as the dredging bucket size or type).

4. Re-evaluate field measurements at all relevant stations 30 minutes later, after additional BMPs or operational modifications are implemented.

5. If the receiving water limitation exceedance continues to persist, even with additional BMPs, determine and implement more aggressive BMPs or operational modifications that resolve the exceedance or stop work to further assess the source of the exceedance, identify effective mitigation measures, and allow the water column to recover.

H. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the start of project construction and GIS shape files of the Project mitigation sites within 30 days of mitigation installation. All impact and mitigation site shape files must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.

I. **Receiving Water and Visual Observation Monitoring Report**. The Applicant shall prepare and submit a monthly monitoring report that contains the results of receiving water quality and visual observation monitoring activities for each week of that month. The monthly monitoring report must be submitted no later than 30 days following each calendar month of in-water dredging and construction activities at the Project site and must include, at a minimum:

1. The names, qualifications, and affiliations of the persons contributing to the report;

2. A tabulation of the daily volume (in cubic yards) of dredged material, the location(s) from which the material was removed and the final disposal location(s) including waste manifests;

3. A summary table of the monitoring results with a comparison to receiving water limitation compliance criteria;

4. A presentation, evaluation, interpretation, and tabulation of the visual observations required under Section V.E and water quality data required under Section V.F including interpretations and conclusions as to whether applicable receiving water limitations were attained at each monitoring station;

5. A description of each incident of non-compliance and its cause, the period of the noncompliance including exact dates and times, and actions taken to reduce, eliminate, and prevent reoccurrence of the noncompliance; and

6. For any weekly monitoring period in which no dredging or active discharge activities were conducted, the reporting must include a statement certifying that no dredging or active discharge activities occurred during the monitoring period.

J. **Annual Project Progress Reports.** The Applicant must submit annual Project Progress Reports until this certification has expired or been terminated. The Project Progress Reports must describe the status of BMP implementation, compensatory mitigation (if required by CEMP), and compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the

issuance of this Certification, until the Project has reached completion. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1st through December 31st of each year. Annual Project Progress Reports must include, at a minimum, the following:

1. **Project Status and Compliance Reporting.** The Annual Project Progress Report must include the following Project status and compliance information:

   a. The names, qualifications, and affiliations of the persons contributing to the report;

   b. The status, progress, and anticipated schedule for completion of Project construction activities;

   c. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion;

   d. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and

   e. The pre- and post- construction eelgrass surveys, as applicable, required under Section IV.C of this Certification, including a description of any additional actions that will be taken by the Applicant to mitigate for impact to eelgrass habitat beyond what is expected.

K. **Final Project Construction Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project.** The final report must include the following information, at a minimum:

   1. Date of construction initiation;

   2. Date of construction completion;

   3. A summary describing the total volume (in cubic yards) of dredged material, the location(s) from which the material was removed and the final disposal location(s); and

   4. As-built drawings of the Project, no bigger than 11”X17”.

L. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.

M. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2016-0088:822864:lhonma
2375 Northside Drive, Suite 100
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2016-0088:822864:lhonma.

N. **Document Signatory Requirements**. All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.

3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

4. A duly authorized representative may sign applications, reports, or information if:

   a. The authorization is made in writing by a person described above.

   b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.

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

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

O. **Document Certification Requirements**. All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

VI. NOTIFICATION REQUIREMENTS

A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant 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 San Diego Water Board, 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.

B. **Caulerpa Taxifolia.** The Applicant must conduct a surveillance-level survey for *Caulerpa taxifolia*, in accordance with the requirements in the National Marine Fisheries Service's *Caulerpa* Control Protocol (version 4), dated February 25, 2008, not more than 90 days before the initiation of construction to determine presence/absence of this species within the immediate vicinity of the project. If *Caulerpa taxifolia* is identified during a survey, or at any other time before, during, or within 120 days following completion of authorized activities, both National Marine Fisheries Service and California Department of Fish and Wildlife must be contacted within 24 hours of first noting the occurrence. In the event *Caulerpa taxifolia* is detected, all disturbing activity must cease until such time as the infestation has been isolated and treated, or the risk of spread from the disturbing activity is eliminated in accordance with the Caulerpa Control Protocol.

C. **Hazardous Substance Discharge**. Except as provided in Water Code section 13271(b), 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 County of San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water 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 Applicant is in violation of a Basin Plan prohibition.

D. **Oil or Petroleum Product Discharge.** Except as provided in Water Code section 13272(b), any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such 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 California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.

E. **Anticipated Noncompliance**. The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.

F. **Discharge Commencement Notification.** The Applicant must notify the San Diego Water Board in writing at least 5 days prior to the start of initial Project construction.

G. **Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:

1. **Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification

to the San Diego Water Board **within 10 days of the transfer of ownership.**

2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**

3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of responsibility for compliance with this Certification in the event that a transferee fails to comply.

VII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

A. The San Diego Water Board is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated November 3, 2015 for the Mitigated Negative Declaration (MND) titled Cleanup and Abatement Order Number R9-2015-0018 Laurel Hawthorn Embayment: Excavation/Enhanced Monitored Natural Recovery Remedial Action for the 30-inch Storm Water Conveyance System Outfall Project (State Clearing House Number 2015021020). The approved MND considered the actions authorized by this Certification. The San Diego Water Board has determined the Project will not have a significant effect on the environment and mitigation measures were made a condition of the Project.

B. The San Diego Water Board has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the MND are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is

included and incorporated by reference in Attachment 4 to this Certification. The Applicant shall implement the MMRP described in the FMND, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in sections III, IV, and V of this Certification.

C. The San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision (i).

VIII. SAN DIEGO WATER BOARD CONTACT PERSON

Lisa Honma, Environmental Scientist
Telephone: 619-521-3367
Email: Lisa.Honma@waterboards.ca.gov

IX. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Laurel Hawthorn Embayment Remedial Action for the 30-inch Storm Water Conveyance System Outfall (CAO No. R9-2015-0018) Project** (Certification No. R9-2016-0088) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2016-0088 issued on November 18, 2016.

James 6. Smith, AEO
for DAVID W. GIBSON
Executive Officer
San Diego Water Board

18 Nov 2016
Date

ATTACHMENT 1
DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method**.**

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

Waters of the State - means any surface water or groundwater, including saline waters, within the boundaries of the State. [Water Code section13050, subd. (e)].

ATTACHMENT 2
PROJECT LOCATION MAPS

Figure 1 – 30-inch SWCS Outfall Overview Map
Figure 2 – Proposed Remedial Action Area

Figure 1. 30-inch SWCS Outfall Overview Map

Proposed Remedial Action Area

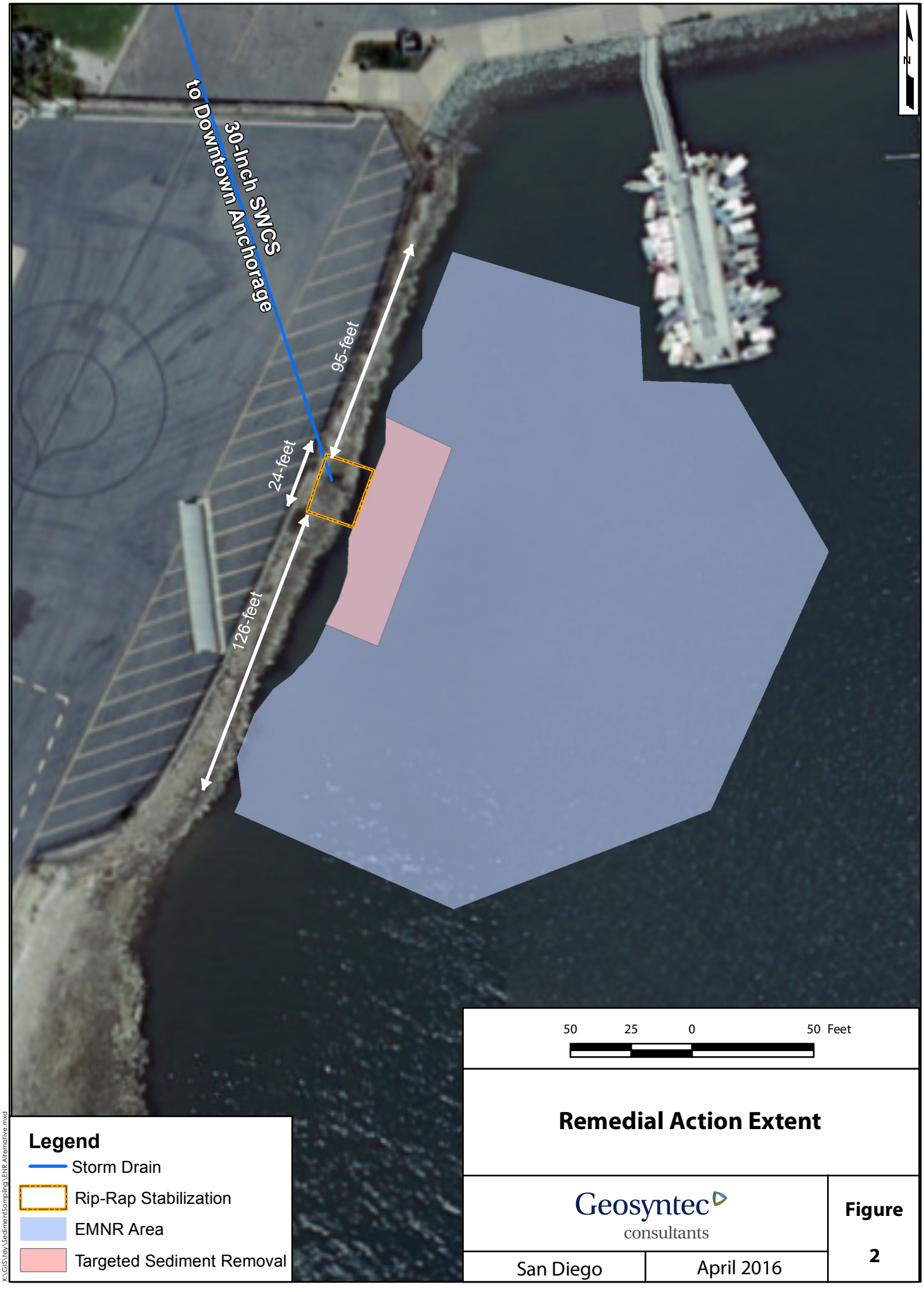
Geosyntec consultants

San Diego | January 2016

Figure 2

ATTACHMENT 3
PROJECT SITE PLANS

Figure 2 – Remedial Action Extent
Figure 3 – 30-inch SWCS to Downtown Anchorage EMNR and Dredging Extent
Figure 4 – Rip-Rap Stabilization Cross-Section Laurel-Hawthorn Embayment



Remedial Action Extent

Geosyntec consultants

San Diego | April 2016

Figure 2

0 20' 40'

SCALE IN FEET

30-INCH SWCS TO DOWNTOWN ANCHORAGE
EMNR AND DREDGING EXTENT

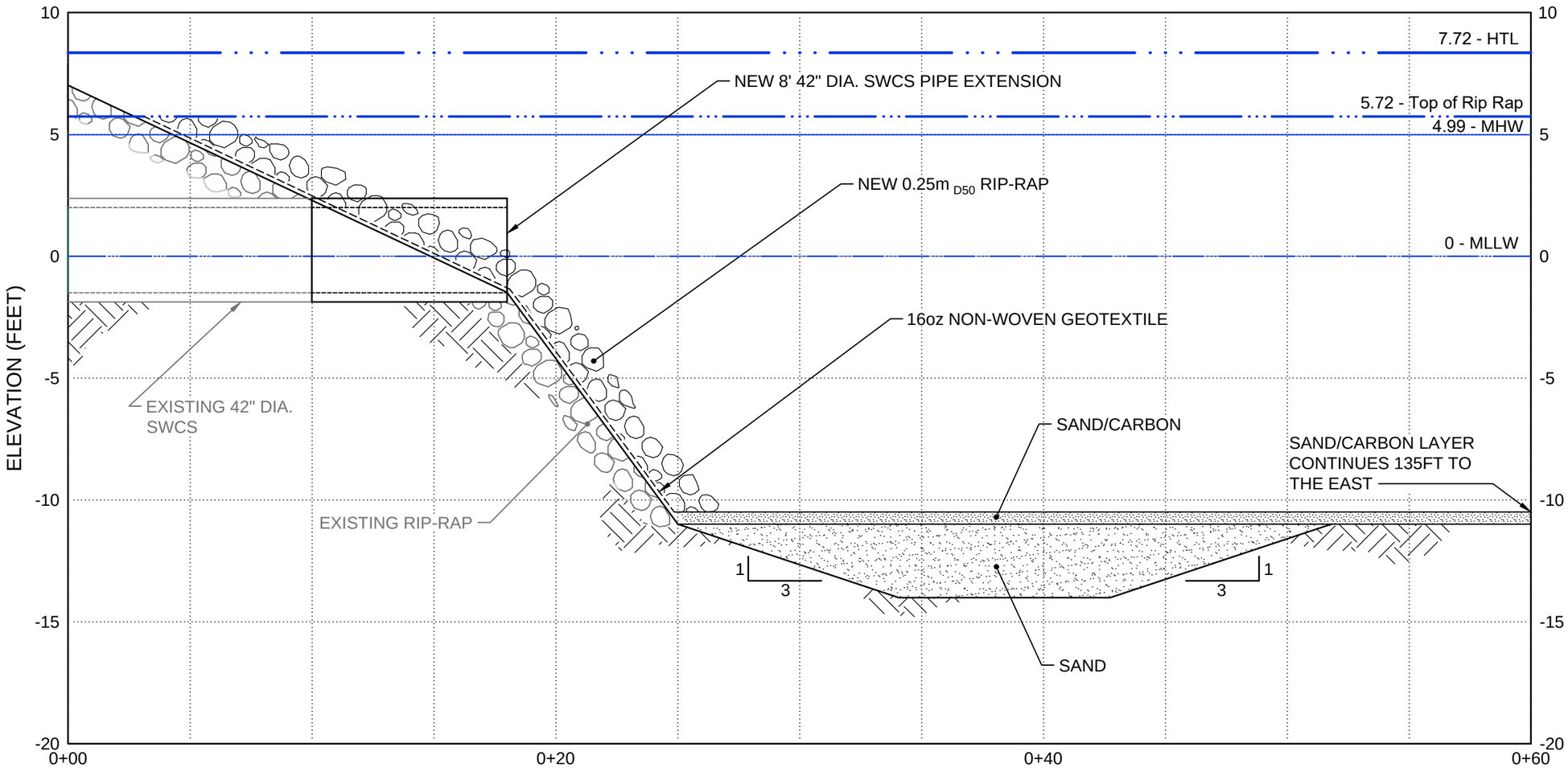
Geosyntec consultants

PROJECT NO:

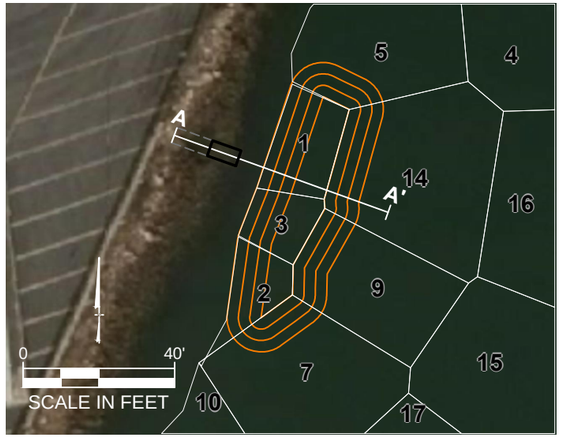
MARCH 2016

FIGURE
3

P:\PRJ\SDCADD\CADD_RANDOM REQUESTS\BRIAN H.-3-18-16\WORKING\DREDGING



SECTION A-A' PROFILE



LEGEND

- HTL - HIGH TIDE LINE
- TOP OF RIP-RAP STABILIZATION
- MHW - MEAN HIGH WATER
- MLLW - MEAN LOWER LOW WATER

RIP-RAP STABILIZATION CROSS-SECTION
LAUREL-HAWTHORN EMBAYMENT

Geosyntec consultants

PROJECT NO: SC0602 | JUNE 2016

FIGURE 4

P:\PRJ\SDCADD\CADD\SC0602 LHE\WORKING\DREDGING XSEC

TDY Industries, LLC
Laurel Hawthorn Embayment Remedial Action for the
30-Inch Storm Water Conveyance System Outfall
(CAO No. R9-2015-0018) Project
Certification No. R9-2016-0088

ATTACHMENT 4
CEQA MITIGATION MONITORING AND REPORTING PROGRAM

Mitigated Negative Declaration for Cleanup and Abatement Order Number R9-2015-0018 Laurel Hawthorn Embayment: Excavation/Enhanced Monitored Natural Recovery Remedial Action for the 30-inch Storm Water Conveyance System Outfall Project, Section 5 Mitigation Monitoring and Reporting Program

PCB-impacted sediments. The proposed Project would minimally increase the potential hazard impacts, potential impacts to biological resource and water quality, but the impacts were determined to be less than significant with implementation of the mitigation measures. Therefore, no significant health impacts or other adverse impacts to humans, water quality, or biological resources would occur, either directly or indirectly, due to the proposed Project.

5 MITIGATION MONITORING AND REPORTING PROGRAM

The Mitigation Monitoring and Reporting Program (MMRP) (See Attachment 3) was prepared to implement the mitigation measures identified in the 30-inch Storm Water Conveyance System (SWCS), EMNR (Project) Initial Study/Mitigated Negative Declaration (IS/MND). Section 21081.6 of CEQA requires agencies adopting MNDs take affirmative steps to determine that approved mitigation measures are implemented subsequent to Project approval.

As part of the CEQA environmental review procedures, section 21081.6 requires a public agency to adopt a monitoring and reporting program to ensure efficacy and enforceability of any mitigation measures applied to a proposed Project to reduce or avoid significant environmental effects. The lead agency must adopt a MMRP for mitigation measures incorporated into the Project or proposed as conditions of approval. The MMRP must be designed to ensure compliance during Project implementation. As stated in section 21081.6(a)(1):

> The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

Table 3 below is the final MMRP matrix. The table lists the mitigation measures proposed in the Final MND and specifies the party responsible for implementation of the mitigation measure and the time period for the mitigation measure.

ATTACHMENT 3 TABLE 5-1 Mitigation and Monitoring Program				
Mitigation and Avoidance Measures	**Responsibility for Compliance**	**Method of Compliance and Oversight of Implementation**	**Timing of Compliance**	**Verification**
Biological Resources				
BIO-1 The Project construction activities will be conducted outside of the federally listed endangered California Least Tern nesting season (mid-April to late September).	Project Applicant	Project Applicant will comply with all construction schedule requirements contained in Project Work Plan, San Diego Water Board 401 Certification and USACE section 404 Permit Conditions. Oversight of Implementation: San Diego Water Board Project Manager, USACE Project Manager, Project Biologist	Project Duration	Project Applicant shall submit notifications of commencement of work and completion of work in waters of the U.S. to the San Diego Water Board Project Manager and the USACE in accordance with permit conditions. San Diego Water Board Project Manager and USACE Project Manager will be responsible for verifying compliance.
BIO-2 Prior to Project implementation, the Project Applicant will be required to conduct an eelgrass habitat survey as part of the USACE CWA section 404 permit and the San Diego Water Board 401 Certification. If eelgrass is identified within the study area, the 401 Certification will require Project Applicant to prepare and submit an eelgrass Mitigation and Monitoring Plan acceptable to the USACE and the San Diego Water Board. The Project must and will comply with any and all mitigation requirements identified to reduce the effects of the Project to less than significant through the replacement of eelgrass within the Project footprint, or planting of eelgrass within a mitigation area, as may be required.	Project Applicant	Eelgrass survey conducted by a qualified biologist prior to Project implementation. If required, a qualified biologist shall prepare a Mitigation and Monitoring Plan to ensure appropriate mitigation methods are implemented. Project Applicant will comply with mitigation and monitoring requirements identified in an eelgrass Mitigation and Monitoring Plan acceptable to the USACE and the San Diego Water Board. Oversight of Implementation: San Diego Water Board Project Manager, USACE Project Manager, Project Biologist	Prior to Project implementation, review of Biological Resource Reports and ensure that appropriate mitigation measures are included as part of the Project. Mitigation measures implemented throughout Project duration as required.	Project Applicant shall submit Biological Resource Report presenting findings of Eelgrass Survey prior to Project implementation. Project Applicant shall submit an Eelgrass Mitigation and Monitoring Plan to USACE for approval prior to Project implementation if eelgrass is determined to be present within study area. Monitoring and Mitigation measures will be documented, as required by the USACE 404 permit conditions, San Diego Water Board 401 Certification, and reported, if necessary in the post-remediation performance report. San Diego Water Board Project Manager, USACE Project Manager, and Project Biologist responsible for verifying compliance.

ATTACHMENT 3 TABLE 5-1 Mitigation and Monitoring Program				
Mitigation and Avoidance Measures	**Responsibility for Compliance**	**Method of Compliance and Oversight of Implementation**	**Timing of Compliance**	**Verification**
Hazards and Hazardous Materials				
HAZ-1 Prior to Project implementation a Waste Management Plan shall be prepared and submitted as part of the Final Remedial Action Plan for approval by the San Diego Water Board Project Manager. The Plan will include excavation, and dewatering, and transportation plans to minimize the potential for discharge of pollutants during Project implementation. Best Management Practices (BMPs) will be implemented during sediment excavation, dewatering, and transport to minimize and prevent the discharge of pollutants.	Project Applicant	Project Applicant shall prepare a Waste Management Plan that includes excavation, dewatering, and transportation plans to ensure appropriate BMPs are implemented to minimize or eliminate discharge of pollutants during Project implementation. Project Applicant will comply with Plan requirements and USACE Section 404 and San Diego Water Board WQC 401 Permit Conditions. The remediation contractor will have the day-to-day responsibility of Plan implementation, with periodic inspection and confirmation by San Diego Water Board Project Manager.	Prior to Project implementation review Waste Management and ensure appropriate BMPs and procedures are implemented to minimize the potential for discharge of pollutants during remedial activities. Implement Plan throughout mitigation activities.	Documentation of proper waste management, implementation of BMPs, and waste manifests will be summarized in the post-remediation performance report. San Diego Water Board Project Manager responsible for verifying compliance.

ATTACHMENT 3 TABLE 5-1 Mitigation and Monitoring Program				
Mitigation and Avoidance Measures	**Responsibility for Compliance**	**Method of Compliance and Oversight of Implementation**	**Timing of Compliance**	**Verification**
Hydrology/Water Quality				
HYDRO/WQ-1 Prior to Project implementation a Water Quality Protection/BMP Work Plan shall be prepared and submitted as part of the Final Remedial Action Plan for approval by the San Diego Water Board Project Manager. The Plan will identify BMPs and procedures for managing sediment during removal and transport, minimizing potential impacts to water quality. BMPs will include the installation of silt curtains across the intake and discharge channels to trap sediment that may become suspended as a result of the limited remedial activity. The bottom of the silt curtain will be weighted with ballast weights or rods affixed to the base of the fabric to resist the natural buoyancy of the silt curtain fabric and lessen its tendency to move in response to currents. Where feasible and applicable, the floating silt curtains will be anchored and deployed from the surface of the water to just above the	Project Applicant	Project Applicant shall prepare a Work Plan that identifies BMPs to minimize the discharge of pollutants into the Bay during remediation, sediment staging, dewatering and transport activities. Project Applicant will comply with requirements identified in Work Plan and USACE section 404 and San Diego Water Board WQC 401 Permit Conditions. The remediation contractor will have the responsibility of Plan implementation, with periodic inspection and confirmation by San Diego Water Board staff.	During mitigation and transport activities.	The effectiveness of the turbidity controls will be documented by water quality monitoring conducted outside of the work area during implementation of mitigation activities. Documentation of preservation of water quality goals will be summarized in the post-remediation performance report. San Diego Water Board Project Manager responsible for verifying compliance.

ATTACHMENT 3 TABLE 5-1 Mitigation and Monitoring Program				
Mitigation and Avoidance Measures	**Responsibility for Compliance**	**Method of Compliance and Oversight of Implementation**	**Timing of Compliance**	**Verification**
substrate. The silt curtain will be monitored for damage, dislocation or gaps and will be immediately repaired where it is no longer continuous or where it has loosened. The silt curtain will restrict any surface visible turbidity plume to the intake and discharge channels and will control and contain the mitigation of re-suspended sediments at the water surface and depth.				