

CALIFORNIA COASTAL COMMISSION

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STAFF REPORT: AMENDMENT

Application No.: 6-20-0240-A1

Applicant: Channelside Water Resources LP

Agent: Marine Vié, Anchor QEA, Inc.

Location: Outer basin of Agua Hedionda Lagoon and Carlsbad State Beach, Carlsbad, San Diego County.

Original Project Description: Dredge up to 500,000 cubic yards of lagoon-bottom sand within the existing approved dredge limits of the outer basin of Agua Hedionda Lagoon and deposit on North, Middle and South Beaches in Carlsbad.

Proposed Amendment: Conduct two additional dredge cycles in 2024/2025 and 2027/2028.

Staff Recommendation: Approval with Conditions

SUMMARY OF STAFF RECOMMENDATION

On November 5, 2020, the Commission approved the underlying permit (ref. CDP No. 6-20-0240) to authorize maintenance dredging of up to 500,000 cubic yards of beach quality sand from the outer basin of Agua Hedionda Lagoon and beach deposition of the dredged material on North, Middle, and South Beaches in Carlsbad.

As currently approved, approximately 300,000 cubic yards of sand was dredged as part of the 2020/2021 dredging cycle and placed on the three beach segments. The Commission authorized the placement of up to 50% (150,000 cy) of dredged sand onto

North Beach. The remaining 150,000 cubic yards, approximately 55% (82,000 cubic yards) were approved to be placed on Middle Beach, and 45% (66,000 cubic yards) on South Beach.

This amendment would authorize two additional dredge cycles to occur in years 2024/2025 and 2027/2028. The applicant proposes to dredge approximately 400,000 cubic yards, not to exceed 500,000 cubic yards, of lagoon-bottom sand per dredge cycle from the outer basin of Agua Hedionda Lagoon, at a maximum depth of -22 feet mean lower low water, and deposit it on three Carlsbad beaches: North Beach, Middle Beach and South Beach. The applicant proposes to deposit up to 150,000 cubic yards (37%) of the sand on North Beach (Pine Avenue south to North Inlet Jetty). The remaining material will be placed at Middle Beach (139,000 cy or 34%) and South Beach (111,000 cy or 28%). The volume of dredged sand material and placement locations are similar in scope and scale to previously approved maintenance projects.

The Commission has approved regular dredging of Agua Hedionda Lagoon since 1977 in association with the needs of a former power plant dredging program. The dredge sediment has been placed on North, Middle, and South Beaches in varying amounts. Monitoring reports submitted by the applicant in compliance with past permits document that recent lagoon dredging operations have been successful in reducing coastal resource impacts to grunion spawning, eelgrass habitats, nearshore marine habitats, and water quality. The applicant proposes to conduct the dredging and placement consistent with past activities and in conformance with all existing special conditions. Staff is recommending several revisions to some of the conditions to update for current best practices.

Special Condition #5 maintains the monitoring and avoidance plan for grunion during the sand placement activities, and it has been revised to require a monitoring report to be submitted to the Commission to demonstrate that grunion monitoring was conducted as required. **Special Condition #6** requires the applicant to provide evidence that dredging of the outer lagoon can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia*. The condition has been updated to expand to all species of *Caulerpa* and to update the monitoring requirements for current best practices. **Special Condition #8** has been revised to match the amendment project description and to expand the permit term for two dredge cycles to occur in 2024/2025 and 2027/2028. **Special Condition #9** requires the applicant to submit all required agency permits, and it has been updated to include the Regional Water Quality Control Board (RWQCB) permit. **Special Condition #11** requires a Surf Monitoring Plan, which currently requires visual monitoring of surfing conditions at North Beach before and after sand placement. As recommended by staff, the condition has been revised to require a public notice to be posted at the site with an advisory of upcoming construction of beach quality sand placement, temporary changes to surf conditions, and a means of accessing a standardized questionnaire.

Over the last several years, there has been an increased focus and discussion of sand movement throughout the San Diego region. Therefore, **Special Condition #12** is a new condition to address the long-term coastal resource impacts by requiring the applicant to provide a discussion on the quality of the nearshore reef habitats and

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assess whether reef habitat quality has changed over time. The applicant will also be required to utilize the Beach Profile Monitoring data to provide an analysis of long-term sand management and movement. This information will allow the Commission to have a better understanding of sand movement in this area prior to the next request to conduct additional dredging events. **Special Condition #13 and #14** are new conditions to address the use of heavy equipment on the beach and to reduce water quality impacts during the sand placement aspect of the project. **Special Condition #13** requires that the applicant submit all monitoring reports and compliance statements required by the RWQCB throughout the permit term, and **Special Condition #14** requires the applicant to submit a final Construction and Pollution Prevention Plan that demonstrates that all construction, including, but not limited to, staging and storage of equipment and materials, complies with protecting public access, coastal waters, and habitat. Staff is not recommending any changes to **Special Conditions #1, 2, 3, 4, 7, and 10**, and thus those conditions for the original permit will remain in full force and effect for these additional project activities.

Commission staff recommends that the Commission **APPROVE** coastal development permit application 6-20-0240-A1, as conditioned. The motion is on **page 5**.

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EXHIBITS

[Exhibit 1 – Project Location](#)

[Exhibit 2 – Project Site Plans \(Dredge Footprint Bathymetry\)](#)

[Exhibit 3 – Proposed Sand Placement Locations](#)

I. MOTION AND RESOLUTION

Motion:

I move that the Commission approve the proposed amendment to Coastal Development Permit 6-20-0240-A1 pursuant to the staff recommendation.

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

Resolution:

The Commission hereby approves the Coastal Development Permit amendment for the proposed project and adopts the findings set forth below on grounds that the development as amended and conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

- 1. Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 5. Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicant to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

NOTE: Appendix A, attached, includes all standard and special conditions that apply to this permit, as approved by the Commission in its original action and modified and/or supplemented by all subsequent amendments, including this amendment No. 6-20-0240-A1. All of the Commission's adopted special conditions and any changes in the project description proposed by the applicant and approved by the Commission in this or previous actions continue to apply in their most recently approved form unless explicitly changed in this action. New conditions and modifications to existing conditions imposed in this action on amendment No. 6-20-0240-A1 are shown in the following section. Within Appendix A, changes to the previously approved special conditions are also shown in strikeout/underline format. This will result in one set of adopted special conditions.

1. [Special Condition No. 1 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
2. [Special Condition No. 2 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
3. [Special Condition No. 3 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
4. [Special Condition No. 4 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
5. Special Condition No. 5 of CDP No. 6-26-0248 shall be modified as follows:
 5. **Grunion Monitoring & Avoidance Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the applicant shall submit to the Executive Director for review and written approval, an updated Grunion Monitoring and Avoidance Plan that provides for the following:
 - a. Should sand placement activities be necessary below the high tide line between March 1 and April 30, the applicant shall avoid impacts to mature and/or spawning grunion and to grunion eggs. The applicant shall retain the services of a biologist with appropriate qualifications. The annually published California Department of Fish and Wildlife (CDFW) expected grunion runs shall be used to determine possible grunion spawning periods. The plan shall, at a minimum, include:
 - i. Sand placement sites shall be monitored for grunion runs beginning at least two weeks prior to commencement of sand placement activities, and throughout the period of planned sand placement work from March 1 through April 30. Monitoring is not necessary in areas where there is

no sand, such as areas supporting 100% cobble or bluff backed beaches with no sand exposed during high tide.

- ii. Grunion monitoring shall be conducted by a qualified biologist for 30 minutes prior to, and two hours following, the predicted start of each daily spawning event. Sufficient qualified biologists shall be employed to ensure that the entire proposed sand placement site is monitored during the predicted grunion run. The magnitude and extent of a spawning event shall be defined in 300-foot segments of beach using the Walker Scale ([Exhibit 5](#)). Every individual fish (males and females) shall be counted to determine the Walker Scale value (e.g. 0, 1, 2, 3, 4, or 5) of each 300-foot segment within the proposed work area. Sand placement activities shall be modified according to the following plan:
 - A. If a grunion run consisting of 0-100 individual fish per 300-foot segment (Walker Scale 0 or 1) is reported within two weeks prior to, or during, sand placement work, the applicant does not need to take any avoidance action for grunion eggs. No mature grunion may be buried or harmed as a result of sand placement.
 - B. Within two weeks prior to proposed work, if a grunion run consisting of 100 or more individual fish per 300-foot segment (Walker Scale 2, 3, 4, or 5) is reported, the applicant shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route, for a minimum of two weeks, to ensure that no grunion eggs are buried or disturbed.¹ These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of two weeks when the next scheduled grunion run will be monitored. The applicant shall adapt the sand placement schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be harmed as a result of sand placement.
 - C. If sand placement has already commenced, and a grunion run consisting of 100 to 500 individual fish, in one or more 300-foot segment (Walker Scale 2) in the work area is reported, the applicant shall avoid impacts to grunion eggs to the greatest extent feasible and then shall minimize impacts to grunion eggs through such measures as alteration of the truck route, sand

¹ During grunion spawning season, grunion spawn once every two weeks, on several nights, during the highest tides that occur during each month (called spring and neap tides). Grunion eggs take approximately 10 days to mature and hatch during the next high tide. Monitoring for grunion runs must happen, per the annual CDFW published grunion spawning schedule, because one cannot predict where grunion will spawn from one event to another.

discharge points, sand spreading areas, and sand placement locations.

- D. If sand placement has already commenced, and a grunion run consisting of 500 or more individual fish per segment (Walker Scale 3, 4, or 5) is reported, the applicant shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route, for a minimum of two weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of two weeks when the next scheduled grunion run will be monitored. The applicant shall adapt the sand placement schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be harmed as a result of sand placement.

b. Monitoring reports shall be submitted to the Executive Director within 90 days of any sand placement activities where grunion monitoring is required to occur, and consistent with the above monitoring requirements. Monitoring reports shall include any modification to sand placement activities, if applicable.

6. Special Condition No. 6 of CDP No. 6-26-0248 shall be modified as follows:

6. Invasive Species. PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall provide evidence that dredging of the outer lagoon can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia* sp. as follows:

- a. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit, the applicant shall undertake a survey of the project area (including the dredging area, anchoring areas and any other areas where the bottom could be disturbed by project activities) and a buffer area of at least ten (10) meters beyond the project area to determine the presence of any species in the genus of the invasive alga *Caulerpa taxifolia* sp.. The survey shall include a visual examination of the substrate. If any portion of the project commences in a previously undisturbed area after the last valid *Caulerpa* survey expires, a new survey is required prior to commencement of work in that area.
- b. The survey protocol shall follow the most recent *Caulerpa* Control Protocol be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the National Marine Fisheries Service (see <https://www.fisheries.noaa.gov/west-coast/habitat-conservation/caulerpa-species-west-coast>).

- c. Within ~~five~~fifteen (15) business days of completion of the survey, the applicant shall submit the survey:
 - i. For the review and written approval of the Executive Director, and
 - ii. To the California Department of Fish & Wildlife (Caulerpa@wildlife.ca.gov) and NOAA Fisheries (nmfs.wcr.caulerpa@noaa.gov) Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish and Wildlife (CDFW) (858-467-4218) or Bryant Chesney, National Marine Fisheries Service (NMFS) (562-980-4037).
 - d. If *Caulerpa* is identified at the project site during a survey or at any other time prior, during, or after completion of authorized activities, the Executive Director, and the NOAA Fisheries and CDFW Contacts described in subdivision (c)(ii) of this Special Condition shall be contacted within 24 hours of first noting the occurrence. If *Calurpa* is found, then the NMFS and CDFW contacts shall be notified within 24 hours of discovery.
 - e. If any *Caulerpa* species is found within the project or buffer areas, the applicant shall not proceed with the project until 1) shall, prior to the commencement of dredging, the applicant provides evidence to the satisfaction of the Executive Director for review and written approval either that all *Caulerpa* species discovered within the project and/or buffer area has been eradicated/eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicant has revised or that the dredging project has been revised to avoid any contact with any *Caulerpa* species. No changes to the dredging project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director provides a written determination ~~determines~~ that no amendment is legally required.
7. [Special Condition No. 7 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
 8. Special Condition No. 8 of CDP No. 6-26-0248 shall be modified as follows:
 - 8. Permit Term.** This coastal development permit authorizes development on a temporary basis only. The proposed maintenance dredging is authorized for two dredge cycles (2024/2025 and 2027/2028 cycles) ~~one dredge cycle (2020/2021 cycle)~~, commencing upon the date of permit amendment issuance ~~Commission approval~~, after which time the authorization for continuation of dredging and deposition of dredged sand on area beaches approved as part of this permit shall cease. After the authorization for the development expires, the continuation of dredging and deposition on area beaches will require either the

issuance of a new coastal development permit or an amendment to this coastal development permit.

All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved project plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is legally required.

9. Special Condition No. 9 of CDP No. 6-26-0248 shall be modified as follows:

9. Required Agency Permits. PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall submit to the Executive Director, all necessary local, state, and federal discretionary permits, including approval from the ACOE, the San Diego Regional Water Quality Control Board (RWQCB), and CDFW. The applicant shall inform the Executive Director of any changes to the project required.

10. [Special Condition No. 10 of CDP No. CDP 6-16-0248 remains unchanged and in effect]

11. Special Condition No. 11 of CDP No. 6-26-0248 shall be modified as follows:

11. Surf Monitoring Plan. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the applicant shall submit to the Executive Director, for review and written approval, an updated Surf Monitoring Plan to visually monitor surfing conditions at and adjacent to North Beach before and after sand placement.

The permittee shall post a physical public notice regarding surfing conditions.

- a. The notice shall be a minimum size of a typical 'Letter' size of 8.5 by 11 inches, or equivalent A4 size with text at least 12 pt. font;
- b. The notice shall include an advisory of upcoming construction of beach quality sand placement, temporary changes to surf conditions, a means of accessing a standardized questionnaire, and the permittee's contact information should the public have any questions;
- c. The notice shall be posted at a conspicuous location at North Beach;
- d. The notice shall be placed on the first day of the commencement of beach monitoring, and the notice shall be removed on the last day of beach monitoring after sand placement activities to avoid the notice becoming litter or potentially blocking views without a purpose.

In addition, tThe Surf Monitoring Plan shall include, at a minimum, the following:

- a. Identify the major surging breaks at and adjacent to North Beach and determine appropriate monitoring sites;
- b. Document morning conditions using a standardized data sheet, with video recording as appropriate, as follows:
 - i. Pre-construction monitoring shall begin four weeks prior to sand placement, and take place 3 times per week over 30 days; and
 - ii. Post-construction monitoring shall begin within two weeks following completion of sand placement, and take place 3 times per week over 30 days.
- c. Surf monitoring shall include estimates of wave height, type of wave (hollow or mushy), breaker distance from shore, length of peel, and existence of backwash;
- d. Conduct standardized interviews with surfers using a questionnaire;
- e. Estimate the density of surfers at each surfing site during monitoring; and
- f. A final report that includes the monitoring results and an analysis of any change in surfing conditions, which shall be submitted to the Executive Director within 90 days of the final survey.

The permittee shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.

12. Special Condition No. 12 shall be added as follows:

12. Long Term Coastal Resource Impact Analysis. Within six months of the 2027/2028 dredge cycle, the permittee shall provide a Long-Term Coastal Resource Impact Analysis that includes a discussion on 1) the quality of the nearshore reef habitats with an assessment whether reef habitat quality has changed over time, and 2) utilizing the Beach Profile Monitoring data, provide an analysis regarding long-term sand management. The report shall be subject to the approval of the Executive Director.

- a. The Nearshore Marine Habitat Monitoring Mapping aspect of the report shall include the following:
 - a. The analysis shall develop a methodology that addresses whether, how, and to what extent episodic sand deposition activities affect adjacent nearshore marine habitats, and incorporate the available data to provide baseline conditions for

the nearshore marine habitats adjacent to the sand placement activities;

- b. As feasible, the analysis shall include quantitative evidence and statistical methods to support the establishment of baseline conditions and the determination and quantification of adverse impacts. If available data do not support a statistical analysis, the report shall describe what monitoring data and sampling frequency are needed to reasonably establish baseline conditions and quantify adverse impacts; and
 - c. The analysis shall be revisited each permit amendment cycle and incorporated into all future monitoring reports to determine whether sand placement activities are adversely impacting the adjacent nearshore marine habitats.
- b. The Long-Term Sand Management aspect of the report shall inform future analysis of the inlet dredging program and shall be revisited each permit amendment cycle and incorporated into all future monitoring reports to determine whether sand placement activities are adversely impacting long-term changes in sediment supply. The report shall assess the following aspects:
- a. Whether placement of dredged material from Agua Hedionda Lagoon on beaches north of the Lagoon inlet contribute to beach erosion south of the inlet;
 - b. Whether the historic practice of back passing dredged material to north of the Lagoon inlet has changed the grain size distribution of sands in the dredge area and/or receiving beaches; and
 - c. Provide an evaluation that analyzes the fate of sand placed on each receiving beach location.

13. Special Condition No. 13 shall be added as follows:

13. Water Quality Monitoring and Reporting. The permittee shall submit copies of all monitoring reports and compliance statements required by the San Diego Regional Water Quality Control Board (RWQCB), to the Executive Director, including pre-dredging and post-dredging reports for each dredging cycle.

14. Special Condition No. 14 shall be added as follows:

14. Construction and Pollution Prevention Plan. PRIOR TO THE COMMENCEMENT OF DREDGING the permittee shall submit, for the review and written approval of the Executive Director, a final Construction and Pollution Prevention Plan. The final plan shall demonstrate that all construction, including, but not limited to, staging and storage of equipment and materials, complies with the following requirements.

- a. Protect Public Access. Construction shall protect and maximize public access, including by:
 1. Staging and storage of construction equipment and materials (including debris) shall not take place on the beach. Staging and storage of construction equipment and materials shall occur in inland areas at least 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible. Upon a showing of infeasibility, the applicant may submit a request for review and written approval to the Executive Director for staging and storage of construction equipment and materials closer than 50 feet from coastal water, drainage courses, and storm drain inlets.
 2. All construction methods to be used, including all methods to keep the construction areas separated from public recreational use areas (e.g., using unobtrusive fencing or equivalent measures to delineate construction areas), shall be clearly identified on the construction site map.

- B. Construction In, Over, or Adjacent to Coastal Waters and Habitat. Construction taking place in, over, or adjacent to coastal waters and habitat shall protect the coastal waters and habitat by implementing additional BMPs, including:
 1. No construction equipment or materials (including debris) shall be allowed at any time in the intertidal zone or during grunion runs.
 2. Construction activity shall not be conducted below the mean high tide line, unless tidal waters have receded and the area is part of the authorized work area.
 3. All work shall take place during daylight hours, and lighting of the beach and ocean area is prohibited.
 4. All construction equipment and materials placed on the beach during daylight construction hours shall be stored beyond the reach of tidal waters. All construction equipment and materials shall be removed in their entirety from the beach area by sunset each day that work occurs.
 5. Tarps or other devices shall be used to capture debris, dust, oil, grease, rust, dirt, fine particles, and spills to protect the quality of coastal waters. The use of plastic materials shall be minimized to the extent possible.
 6. Only rubber-tired construction vehicles shall be allowed on the beach; the only exception shall be that tracked vehicles may be

used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all construction vehicles shall remain as high on the upper beach as possible, and shall avoid contact with ocean waters and intertidal areas.

IV. FINDINGS AND DECLARATIONS

A. Project Description and Background

Original Project

Agua Hedionda Lagoon consists of three basins, the outer, middle, and inner basins ([Exhibit 1](#)). The outer Agua Hedionda Lagoon (approximately 66 acres) was originally dredged in 1954 as part of the construction for the Encina Power Station and has been subject to routine maintenance dredging since that time. The dredging is performed to remove sediment transported into the lagoon by tidal action through the existing jetty structure. Sand transport into the lagoon system is further accelerated by the seawater pumping activities historically associated with operation of the power plant and ongoing operation of the Claude “Bud” Lewis Carlsbad Desalination Plant. While the power plant stopped operating its once-through cooling system in 2018, the intake system continues for the desalination operations and requires on-going maintenance dredging of the lagoon. The dredging activities maintain tidal exchange throughout the lagoon and provide seawater to support the operation of the desalination plant. The desalination plant is located on the south shore of the outer basin on Agua Hedionda Lagoon within 300 feet of the Pacific Ocean.

Current lagoon maintenance operations involve the removal of up to 500,000 cubic yards (cy) of sand and cobble from the outer Agua Hedionda Lagoon in the vicinity west of the railway and east of Carlsbad Blvd. bridge crossings via conventional earthwork equipment (i.e., excavator and trucks), and placement of this material on North, Middle, and South Beaches in the City of Carlsbad ([Exhibit 3](#)). The dredging activity occurs approximately every two to three years. The original approval authorized the most recent dredge cycle of 2020/2021.

Since 1977, the Coastal Commission has approved regular dredging of Agua Hedionda Lagoon in association with the needs of the former power plant dredging program (ref. CDP Nos. F5536, 6-93-193, 6-93-193-A, 6-93-193-A2, 6-97-46, 6-97-83, 6-00-111, 6-01-80, 6-04-54, 6-06-61, 6-08-047, 6-10-046, 6-14-1128 and 6-17-0732). The dredge sediment has been placed on North, Middle, and South Beaches in varying amounts. Between 2000 and 2014, the Commission authorized similar projects with placement of approximately 30% of the dredged sand onto North Beach and the remaining 70% on Middle and South Beaches (ref. CDP Nos. 6-00-111, 6-01-80, 6-04-54, 6-06-61, 6-08-047, 6-10-046, and 6-14-1128). In 2018, the Commission authorized placement of 70% of the dredged sand onto Middle Beach and 30% on South Beach, with no sand placed on North Beach in that dredge cycle because the North Beach segment was already in a widened condition (ref. CDP No. 6-17-0732). The underlying permit (ref. CDP No. 6-

20-0240) was approved by the Commission on November 5, 2020 and authorized the placement of up to 50% (150,000 cy) of dredged sand onto North Beach. Of the remaining 150,000 cubic yards, approximately 82,000 cubic yards were approved to be placed on Middle Beach, and 66,000 cubic yards on South Beach.

Monitoring reports submitted by the applicant in compliance with past permits document that recent lagoon dredging operations have been successful in reducing coastal resource impacts to grunion spawning, eelgrass habitats, nearshore marine habitats, and water quality. Water quality monitoring reports indicate prior dredging activities were conducted in compliance with the water quality standards set by the San Diego Regional Water Quality Control Board. Recent lagoon dredging maintenance operations have also provided evidence that dredging activities have proceeded without the risk of spreading invasive species such as the invasive green alga *Caulerpa sp.* Lastly, the applicant has completed the surf monitoring plan to reduce impacts to public access to North Beach after sand placement.

Amendment Description

The amendment would authorize two additional dredge cycles to occur in 2024/2025 and 2027/2028. The applicant proposes to dredge up to 500,000 cubic yards of lagoon-bottom sand per dredge cycle from the outer basin of Agua Hedionda Lagoon, at a maximum depth of -22 feet mean lower low water ([Exhibit 2](#)), and deposit it on three Carlsbad beaches: North Beach, Middle Beach and South Beach. The dredging and sand placement activities and amounts are proposed to occur in the same manner as previously approved by the Commission pursuant to the underlying permit. Dredging of the Agua Hedionda Lagoon Outer Basin will be performed using a diesel-powered hydraulic dredging hull barge. During operations, the dredge hull would be stabilized by wire cables that are secured to existing anchors on the shore of the lagoon.

As described previously, the Commission has routinely authorized maintenance dredging of up to 500,000 cubic yards and placement of that sand on the three beach segments; however, past projects have typically resulted in less than 500,000 cubic yards of dredging. In the subject amendment, the applicant estimates that approximately 400,000 cubic yards, but no more than 500,000 cubic yards, of sand material is available to be dredged from the outer basin, similar in scope and scale to previously approved maintenance projects. The applicant proposes to deposit up to 150,000 cubic yards (37%) of the sand on North Beach (Pine Avenue south to North Inlet Jetty). The remaining material will be placed at Middle Beach (139,000 cy or 34%) and South Beach (111,000 cy or 28%). The dredged material will be a combination of water and sand in a slurry formation, and it will be pumped to each of the receiver beaches through a 20-inch diameter pipeline. Temporary dikes and berms will be constructed in the back-beach areas near the discharge points to dewater the slurry and aid in the retention of sand at the receiver beaches. Once the sand slurries have been dewatered, the dikes and berms will be spread downslope across the existing beach face to the waterline using conventional earthmoving equipment, in order to produce new beach slopes approximating typical beach profiles. Typically, work would be conducted from north to south, starting at North Beach location and then onto the Middle and South Beach locations, depending on beach conditions.

The City of Carlsbad has a certified LCP; however, development will occur within an area of the Commission's original permit jurisdiction and as such, the standard of review is the Chapter 3 policies of the Coastal Act with the certified Agua Hedionda Land Use Plan and Mello II LCP used as guidance.

B. Marine Resources, Water Quality, and Wetlands

Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimal populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Section 30233 of the Coastal Act states:

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.

(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(6) Restoration purposes.

(7) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division.

Marine Resources

As described previously, the project includes dredging of sediment from the lagoon and placement of material on three beaches. This amendment does not increase the volume of sand being dredged from the lagoon nor increase the volume of sand being placed on the beach. The dredged sediment will help nourish the beaches temporarily where the sand is initially placed, but the sand will ultimately be transported down coast to other beaches or nearshore areas within the littoral cell. Such activities, while a benefit to public access and recreation in the short term, can result in adverse impacts to marine resources in the longer term.

A number of marine resources are present in and adjacent to the lagoon. These include an endangered migratory bird species, the California least tern, as well as California grunion and eelgrass beds. Impacts to such resources can occur during dredging and sand placement, as the noise and activities can cause birds to move out of the area and can prevent grunion from spawning. In addition, dredging can cause removal of eelgrass. Furthermore, the highly invasive tropical species *Caulerpa taxifolia* has been found (and eradicated) in Agua Hedionda, thus the potential spread of *Caulerpa* is an additional marine resource impact concern. The sensitive marine ecosystems in and immediately adjacent to the proposed beach deposition sites include sandy beach, rocky intertidal supporting surfgrass beds, and subtidal rocky reefs, which previously

supported kelp beds and currently support understory algae. Beach nourishment can impact the diversity and abundance of invertebrates, plants, and birds present on sandy beaches and intertidal areas. Beach nourishment can bury kelp wrack washed ashore during high tides as well as disturb plants and invertebrates colonizing the sand. As such, sand replenishment must be carried out in a manner that sustains the biological productivity of coastal waters.

To address the potential impacts to marine resources, the applicant will continue to comply with special conditions that include: timing of construction to avoid tern breeding and grunion spawning periods (**Special Condition #1**), pre- and post-dredge surveys to determine the location of eelgrass so that it can be avoided during dredging operations and provide mitigation if necessary (**Special Condition #4**), and submittal of copies of the habitat monitoring reports required by the ACOE permit to the Executive Director (**Special Condition # 7**).

Beach deposition of dredged materials can bury grunion eggs that are deposited at South, Middle, and North Beach during high tides during the spawning season. **Special Condition #5** requires the applicant to submit an updated Grunion Monitoring and Avoidance Plan. As originally required, this condition provides guidance on impact avoidance to the grunions during sand placement activities and requires monitoring of expected grunion runs during sand placement. As revised, the applicant shall be required to submit these monitoring reports to the Executive Director within 90 days of any sand placement activities where grunion monitoring is required to occur. Monitoring reports shall include any modification to sand placement activities, if applicable. This will ensure that the Commission is aware of any placement activities that occur and require grunion monitoring.

The invasive green alga, *Caulerpa sp.* (referred to hereafter as *Caulerpa*), has proven to be detrimental to native habitats; and, in 1999 *Caulerpa* was designated a prohibited species in the United States under the Federal Noxious Weed Act. In June 2000, *Caulerpa* was discovered in Agua Hedionda Lagoon. Therefore, the Commission required **Special Condition #6**, which requires the applicant to provide evidence that dredging of the outer lagoon can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia*. However, additional species of *Caulerpa* have since been found in San Diego County waters. Therefore, the special condition has been updated to expand to all species of *Caulerpa*, and to update the monitoring requirements to current best practices and reporting procedures.

As part of this amendment, **Special Condition #12** is a new condition imposed to address the potential long-term coastal resource impacts by requiring the applicant to provide a discussion on the quality of the nearshore reef habitats and assess whether reef habitat quality has changed over time as a result of sand placement. The analysis should develop a methodology that addresses whether, how, and to what extent episodic sand deposition activities affect adjacent nearshore marine habitats and incorporate the available data to provide baseline conditions for the nearshore marine habitats adjacent to the sand placement activities. Where feasible, the analysis shall include quantitative evidence and statistical methods to support the establishment of baseline conditions and the determination and quantification of adverse impacts. If

available data do not support a statistical analysis, the report shall describe what monitoring data and sampling frequency are needed to reasonably establish baseline conditions and quantify adverse impacts. The comprehensive report must be updated for every permit amendment cycle, and it will be incorporated into all future monitoring reports to determine whether sand placement activities are adversely impacting the adjacent nearshore marine habitats. Given the growing discussion of sand placement in the region, the report will allow for the Commission to have a comprehensive understanding of any impacts to the adjacent nearshore marine habitats and provide guidance for mitigation to protect coastal resources in the future.

Distribution of Sand

The determination of the most beneficial location to put the sand dredged from Agua Hedionda Lagoon has been somewhat contentious over the years. Historically, the City of Carlsbad has desired much of the dredged sand be placed north of the lagoon as opportunistic beach fill. The power plant owners historically expressed concerns over putting sand on the beach north of Agua Hedionda Lagoon inlet because some studies have shown that much of the sand ends up right back in the lagoon, thus increasing the overall annual maintenance dredging burden. Furthermore, placement of a large portion of the dredged sand north of the Lagoon inlet has the potential effect of reducing the amount of sand that would have naturally been transported to downcoast beaches.

The applicant proposes to dredge approximately 400,000 cubic yards, but not to exceed 500,000 cubic yards, of lagoon-bottom sand per dredge cycle from the outer basin of Agua Hedionda Lagoon, at a maximum depth of -22 feet mean lower low water, and deposit it on three Carlsbad beaches: North Beach, Middle Beach and South Beach. The applicant proposes to deposit up to 150,000 cubic yards (37%) of the sand on North Beach (Pine Avenue south to North Inlet Jetty). The remaining material will be placed at Middle Beach (139,000 cy or 34%) and South Beach (111,000 cy or 28%). The volume of dredged sand material and placement locations are similar in scope and scale to previously approved maintenance projects. Since North Beach is the most heavily recreated of the three beach segments, the proposed project includes the placement of approximately 150,000 cy of sand on North Beach to improve beach widths and maximize recreational benefits. The distribution of sand placement is consistent with the underlying permit.

CDPs for past dredging have required monitoring of beach profiles to assess long-term changes in sediment transport and sand supply. For example, **Special Condition #2** requires a map of pre-dredge and post-dredge conditions of the outer lagoon including deposition profiles, and **Special Condition #3** requires beach profile monitoring before and after any sand placement activities. While this monitoring has been conducted, there has not been an analysis that addresses some of the key uncertainties regarding how the dredging and placement activities may impact regional sand supply. Over the last several years, there has been an increased focus and discussion of sand movement throughout the San Diego region. Therefore, **Special Condition #12** is a new condition added to address the potential long-term coastal resource impacts on

sand supply and movement. The condition requires the applicant to utilize the beach profile monitoring data required per **Special Condition #3** to provide an analysis of long-term sand management. As currently conditioned in **Special Condition #3**, the applicant is required to conduct beach profile monitoring before and after sand placement activities. The annual reports address whether the beach locations receiving sand return to their pre-deposition condition or are further modified by additional nourishment. Building on this monitoring and reporting, **Special Condition #12** requires further analysis within 6 months of the 2027/2028 dredge cycle regarding long-term sand management and impacts to the inlet dredging program. The applicant will be required to assess whether placement of dredged material onto North Beach contributes to beach erosion south of the inlet; whether the historic practice of back passing dredged material to North Beach has changed the grain size distribution of sands in the dredge area and/or receiving beaches; and provide an evaluation that analyzes the fate of sand placement on each receiving beach location. This information will allow the Commission to have a better understanding of sand movement in this area prior to the next request to conduct additional dredging events. As conditioned, the amended proposed project will be consistent with Section 30230 of the Coastal Act.

Water Quality

The California Coastal Act requires the protection and restoration of marine and coastal water resources, including water quality. The project is located within the Agua Hedionda Lagoon with sand placement adjacent to tidal waters at local Carlsbad beaches and construction staging area to occur at the Tamarack State Beach parking lot immediately adjacent to coastal waters. The project would use heavy equipment, such as dredger, barge, tugboat, etc., and construction equipment in and adjacent to coastal waters have inherent risks to water quality.

Section 30231 of the Coastal Act establishes the Commission's authority to protect coastal water quality by preventing or controlling polluted runoff generated by marine and land use activities. The Commission is tasked with providing for protection of coastal watersheds through implementation of management measures and BMPs, including but not limited to minimizing adverse effects of discharges and controlling runoff. The following condition revisions address the potential impact of water quality during the timing of construction. **Special Condition #9** outlines the required agency permits including all necessary local, state, and federal discretionary permits, including approval from the ACOE and CDFW. The San Diego Regional Water Quality Control Board (RWQCB) will be added to this list to reflect the Section 401 Certification (File No. R9-2020-0232) requirement.

Special Condition #13 and #14 are new conditions to address construction equipment and to reduce water quality impacts during the sand placement aspect of the project. **Special Condition #13** requires that the applicant submit all monitoring reports and compliance statements required by the Regional Water Quality Control Board (RWQCB) to the Executive Director throughout the permit term, including pre-dredging and post-dredging reports for each dredging cycle. Having these reports will enable the Commission to verify compliance and better inform future permit conditions. **Special**

Condition #14 requires the applicant to submit a final Construction and Pollution Prevention Plan. The final plan shall demonstrate that all construction, including, but not limited to, staging and storage of equipment and materials, complies with protecting public access, coastal waters, and habitat.

In conclusion, the revised and new conditions address construction equipment and reduce water quality impacts during the sand placement aspect of the project. As conditioned, impacts to sensitive species will be avoided or minimized to the maximum extent feasible, consistent with Section 30231 of the Coastal Act.

Wetlands

Section 30233(a) limits dredging and filling of open coastal waters and wetlands to specific permitted uses. The proposed dredging will occur within open coastal waters. In this particular case, the project is a permitted use as it is maintenance dredging for a minor incidental public service purpose (i.e., to assure the continued operation of the desalination plant). Section 30233(c) further limits the purpose of dredging in the 19 coastal wetlands identified in CDFW's report titled, "Acquisition Priorities for the Coastal Wetlands of California." Agua Hedionda is one of those listed wetlands, and consistent with Section 30233(c), the proposed dredge project is for "very minor incidental public facilities." The proposed dredge is routine maintenance dredging to ensure continued operation of the desalination plant and any impacts to the lagoon associated with the dredge will be temporary in nature. The proposed project is the least environmentally damaging feasible alternative. The no project alternative is infeasible because it would disrupt operation of the existing desalination plant, and as proposed the dredging is the minimum amount necessary to meet the project objectives. Additionally, periodic dredging may help maintain the lagoon's functional capacity. A lack of dredging could potentially create other environmental impacts (such as to water quality) and forego the opportunity to replenish sand on nearby public beaches. As identified in the remainder of this report, the Commission also finds that project impacts have been mitigated as also required in Section 30233.

In conclusion, the proposed dredging operation is necessary to maintain the necessary tidal prism in the outer lagoon to assure effective operation of the desalination plant and tidal exchange throughout the lagoon. Similar dredge operations have occurred over the years. The proposed dredging is a permitted use under Section 30233 of the Coastal Act, and the project will maintain or possibly enhance the functional capacity of the lagoon. The revisions to the special conditions will increase monitoring and reporting to allow for long-term coastal resource impact analysis and update requirements to current best practices. As conditioned, impacts to sensitive species will be avoided or minimized to the maximum extent feasible, consistent with Sections 30230, 30231 and 30233 of the Coastal Act.

C. Public Access and Recreation

Section 30210 of the Coastal Act states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30220 of the Coastal Act states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Agua Hedionda Lagoon is a prominent community resource and public asset. The lagoon and its surrounding uplands support numerous land uses and activities that depend on a healthy lagoon including Poseidon's Carlsbad Desalination Plant; Hubbs-Sea World Research Institute, aquaculture research and farming; a YMCA children's camp; commercial water sports entities; a residential boat harbor; private residences; and many other public recreational open space amenities and uses including kayaking and fishing.

Providing as much sandy beach area as possible for use by the public is also consistent with the intent of Sections 30210, which requires that public access and recreational opportunities be maximized in order to protect any one natural resource area (i.e., shoreline, park) from overuse. Providing additional recreational area, through the placement of sand along a useable shoreline, will result in less crowding and provide an alternative to existing resource areas that are highly utilized by the public based on the availability of sand. The provision of additional useable beach area provides a lower cost visitor and public recreational facility. When it is feasible for dredging projects that involve excavation of large volumes of beach suitable material to deposit the dredged material on the region's beaches that are suited for water-oriented recreational activities, such activity is also consistent with Section 30220.

While the Commission did not historically require surf monitoring for this routine maintenance dredging, the requirement was added during the 2014 review in response to public comments (ref. CDP No. 6-14-1128). Because the applicant was proposing to place a large quantity of sand on North Beach, the Commission again imposed **Special Condition #11** on the underlying permit that requires the applicant to monitor surf conditions near North Beach prior to commencement of nourishment activities and immediately following nourishment activities and to submit a monitoring report to the Commission. In order to further protect public access and recreation, **Special Condition #11** has been revised to also require that the applicant post a public notice sign at North Beach to advise the public on an advisory of upcoming construction of beach quality sand placement, temporary changes to surf conditions, and a means of accessing the standardized questionnaire about surf conditions, required by the original

permit condition. The public notice shall also include contact information should the public have any questions. **Special Condition #11** will continue to require a Surf Monitoring Plan to visually monitor surfing conditions at and adjacent to North Beach before and after sand placement. In addition, **Special Condition #10** is unchanged by the amendment and requires the applicant to continue outreach to community stakeholders regarding any ongoing concerns about potential impacts to coastal resources in future dredge cycles. **Special Condition #1**, which restricts placement of sand on beaches to outside of the summer season, also remains unchanged and will further protect public access and recreation. **Special Condition #14** requires the applicant to submit a final Construction and Pollution Prevention Plan. The final plan shall demonstrate that all construction, including, but not limited to, staging and storage of equipment and materials, complies with protecting public access, coastal waters, and habitat.

The additions and revisions to the existing conditions increase public awareness of the project and any temporary impacts to public access and recreation. As conditioned, the amended proposed project will be consistent with Section 30210 and 30220 of the Coastal Act.

D. Local Coastal Planning

Section 30604(a) also requires that a coastal development permit shall be issued only if the Commission finds that the permitted development will not prejudice the ability of the local government to prepare a Local Coastal Program (LCP) in conformity with the provisions of Chapter 3 of the Coastal Act. In this case, such a finding can be made.

The subject site is located in the City of Carlsbad; however, it is not part of the City's certified Local Coastal Program because it is located in an area of the Commission's original jurisdiction. Therefore, the Coastal Commission retains permanent permit authority in this area and Chapter 3 of the Coastal Act remains the legal standard of review with the certified Agua Hedionda Land Use Plan and Mello II LCP used as guidance. As conditioned, the proposed amendment is consistent with all applicable Chapter 3 policies of the Coastal Act. Approval of the project, as conditioned, will not prejudice the ability of the City of Carlsbad to obtain a fully certified Local Coastal Program for the Agua Hedionda plan area.

E. California Environmental Quality Act

Section 13096 of the Commission's Code of Regulations requires Commission approval of Coastal Development Permits to be supported by a finding showing the permit, as conditioned, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect which the activity may have on the environment. The City of Carlsbad found that the project was exempt pursuant to CEQA Guideline, California Code of Regulations, Title 14, Section 15304(g) [maintenance dredging].

The proposed project has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. As conditioned, there are no feasible alternatives, or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. Therefore, the Commission finds that the proposed project is the least environmentally damaging feasible alternative and can be found consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A – CONDITIONS OF APPROVAL

Permit No. 6-20-0240

II. STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicant to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. **Timing of Dredging and Beach Deposition Placement.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval, final plans that include the following:
 - a. Placement of sand on area beaches shall occur outside of the summer season (Memorial Day weekend through Labor Day of any year).
 - b. To avoid potential impacts to the California least tern breeding period and the California grunion spawning period, dredging and sand placement shall occur between September 15 and April 15. The permittee may extend the dredge period to April 30, if the extension is approved in writing by the Executive Director in consultation with the U.S. Army Corps of Engineers (ACOE) and the California Department of Fish and Wildlife (CDFW).

The permittee shall undertake the development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the plans shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

2. **Pre- and Post-Dredge Requirements.** At least two weeks prior to dredging and within 60 days of completion of the proposed dredge cycle, the applicant shall submit to the Executive Director for review and written approval the following:
 - a. A map of pre-dredge conditions of the outer lagoon and pre- and post-deposition profiles at the approved beach deposition locations; proposed dredge quantities; deposition plan and methodology; and a signage plan to ensure that coastal visitors will be made aware of the project and its boundaries.
 - b. A copy of the results of the approved sampling analysis plan submitted to the ACOE and evidence the ACOE has approved the proposed dredge sediment as suitable for deposition at the approved beach locations, pursuant to the ACOE permit.
3. **Beach Profile Monitoring.** Prior to the placement of any sand material, the applicant shall prepare a total of ten (10) profiles of the relevant beach and off-shore area (to closure or wading depth, consistent with the survey requirements of the ACOE permit) showing the pre-deposition conditions. Profiles shall be taken at the same locations annually thereafter until the area either returns to its pre-deposition condition or is further modified by additional nourishment. Reports shall be provided to the Executive Director following the one-month after deposition profiles and after each annual survey, which provide information on site conditions and an analysis of the long-term changes in sediment supply.
4. **Eelgrass Mitigation and Monitoring Plan.** PRIOR TO THE ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit for review and written approval of the Executive Director, an Eelgrass Mitigation and Monitoring Plan that includes, at a minimum, the following:
 - a. Performance of a pre-construction eelgrass survey of the project area by a qualified biologist immediately prior to the proposed maintenance dredging, in order to establish the location of all eelgrass habitat.
 - b. The location of all eelgrass habitat found in the pre-construction survey so that the contractor can avoid impacting these areas during the proposed maintenance dredging. No anchorage of dredging equipment is permitted outside the limits of the dredging operation.
 - c. Performance of a post-construction eelgrass survey of the project area by a qualified biologist no more than 30 days after the completion of the work to determine if any eelgrass habitat was impacted by dredging activities.

- d. Performance of mitigation if it is determined by the post-construction eelgrass survey that there has been a loss of eelgrass habitat. This mitigation must be performed in accordance with and subject to the requirements of the October 2014 *California Eelgrass Mitigation Policy* (http://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/Final%20CEMP%20October%202014/cemp_oct_2014_final.pdf) (1.38:1 starting ratio to achieve a final mitigation ratio of 1.2:1). The applicant shall consult with the Executive Director prior to construction to determine if an additional coastal development permit or amendment is required for any necessary mitigation.

The permittee shall undertake the development in accordance with the approved plans. Any proposed changes to the approved plans shall be reported to the Executive Director. No changes to the plans shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

5. **Grunion Monitoring & Avoidance Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and written approval, a Grunion Monitoring and Avoidance Plan that provides for the following:

- a. Should sand placement activities be necessary below the high tide line between March 1 and April 30, the applicant shall avoid impacts to mature and/or spawning grunion and to grunion eggs. The applicant shall retain the services of a biologist with appropriate qualifications. The annually published California Department of Fish and Wildlife (CDFW) expected grunion runs shall be used to determine possible grunion spawning periods. The plan shall, at a minimum, include:
 - i. Sand placement sites shall be monitored for grunion runs beginning at least two weeks prior to commencement of sand placement activities, and throughout the period of planned sand placement work from March 1 through April 30. Monitoring is not necessary in areas where there is no sand, such as areas supporting 100% cobble or bluff backed beaches with no sand exposed during high tide.
 - ii. Grunion monitoring shall be conducted by a qualified biologist for 30 minutes prior to, and two hours following, the predicted start of each daily spawning event. Sufficient qualified biologists shall be employed to ensure that the entire proposed sand placement site is monitored during the predicted grunion run. The magnitude and extent of a spawning event shall be defined in 300-foot segments of beach using the Walker Scale ([Exhibit 5](#)). Every individual fish (males and females) shall be counted to determine the Walker Scale value (e.g. 0, 1, 2, 3, 4, or 5) of each 300-foot segment within the proposed work area. Sand placement activities shall be modified according to the following plan:

- A. If a grunion run consisting of 0-100 individual fish per 300-foot segment (Walker Scale 0 or 1) is reported within two weeks prior to, or during, sand placement work, the applicant does not need to take any avoidance action for grunion eggs. No mature grunion may be buried or harmed as a result of sand placement.
- B. Within two weeks prior to proposed work, if a grunion run consisting of 100 or more individual fish per 300-foot segment (Walker Scale 2, 3, 4, or 5) is reported, the applicant shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route, for a minimum of two weeks, to ensure that no grunion eggs are buried or disturbed.² These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of two weeks when the next scheduled grunion run will be monitored. The applicant shall adapt the sand placement schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be harmed as a result of sand placement.
- C. If sand placement has already commenced, and a grunion run consisting of 100 to 500 individual fish, in one or more 300-foot segment (Walker Scale 2) in the work area is reported, the applicant shall avoid impacts to grunion eggs to the greatest extent feasible and then shall minimize impacts to grunion eggs through such measures as alteration of the truck route, sand discharge points, sand spreading areas, and sand placement locations.
- D. If sand placement has already commenced, and a grunion run consisting of 500 or more individual fish per segment (Walker Scale 3, 4, or 5) is reported, the applicant shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route, for a minimum of two weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of two weeks when the next scheduled grunion run will be monitored. The applicant shall adapt the sand placement schedule to avoid operations on such beach segments and their associated

² During grunion spawning season, grunion spawn once every two weeks, on several nights, during the highest tides that occur during each month (called spring and neap tides). Grunion eggs take approximately 10 days to mature and hatch during the next high tide. Monitoring for grunion runs must happen, per the annual CDFW published grunion spawning schedule, because one cannot predict where grunion will spawn from one event to another.

buffers. No mature grunion may be harmed as a result of sand placement.

6. **Invasive Species.** PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall provide evidence that dredging of the outer lagoon can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia* as follows:
 - a. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit, the applicant shall undertake a survey of the project area (including the dredging area, anchoring areas and any other areas where the bottom could be disturbed by project activities) and a buffer area of at least ten (10) meters beyond the project area to determine the presence of the invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate.
 - b. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the National Marine Fisheries Service.
 - c. Within five (5) business days of completion of the survey, the applicant shall submit the survey:
 - i. For the review and written approval of the Executive Director, and
 - ii. To the Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish and Wildlife (CDFW) (858-467-4218) or Bryant Chesney, National Marine Fisheries Service (NMFS) (562-980-4037).
 - iii. If *Caulerpa* is found, then the NMFS and CDFW contacts shall be notified within 24 hours of discovery.
 - d. If *Caulerpa* is found, the applicant shall, prior to the commencement of dredging, provide evidence to the Executive Director for review and written approval either that all *Caulerpa* discovered within the project and buffer area has been eradicated or that the dredging project has been revised to avoid any contact with *Caulerpa*. No changes to the dredging project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.
7. **Habitat Monitoring.** The applicant shall submit copies of the annual Nearshore Marine Habitat Monitoring Mapping reports, required by the ACOE, to the Executive Director. These reports shall monitor changes in turbidity/sedimentation, water quality, coverage of coastal aquatic resources, and biology within the proposed discharge site and the adjacent offshore area. The Nearshore Habitat Monitoring Mapping reports shall identify and delineate coastal habitat types, including

eelgrass beds, high-relief reef and low-relief vegetated reefs (with indicator species including giant and feather boa kelp, large sea fans, sea palms and surf-grass), located immediately adjacent up coast and down coast of the proposed discharge, with potential to be impacted by the proposed discharge.

8. **Permit Term.** This coastal development permit authorizes development on a temporary basis only. The proposed maintenance dredging is authorized for one dredge cycle (2020/2021 cycle), commencing upon the date of Commission approval, after which time the authorization for continuation of dredging and deposition of dredged sand on area beaches approved as part of this permit shall cease. After the authorization for the development expires, the continuation of dredging and deposition on area beaches will require either the issuance of a new coastal development permit or an amendment to this coastal development permit.

All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved project plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is legally required.

9. **Required Agency Permits.** PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall submit to the Executive Director, all necessary local, state, and federal discretionary permits, including approval from the ACOE and CDFW. The applicant shall inform the Executive Director of any changes to the project required.
10. **Future Permit Coordination and Informational Requirements.** By acceptance of this coastal development permit, the applicant agrees that prior to any request for a new coastal development permit or amendment to this coastal development permit to conduct future maintenance dredging within the outer basin of Agua Hedionda Lagoon, the applicant will work with Commission staff and community stakeholders to assess regional alternative options for the placement and volumes of dredged sand to address concerns about potential impacts to coastal resources.
11. **Surf Monitoring Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director, for review and written approval, a Surf Monitoring Plan to visually monitor surfing conditions at and adjacent to North Beach before and after sand placement. The Surf Monitoring Plan shall include, at a minimum, the following:
 - a. Identify the major surging breaks at and adjacent to North Beach and determine appropriate monitoring sites;
 - b. Document morning conditions using a standardized data sheet, with video recording as appropriate, as follows:
 - i. Pre-construction monitoring shall begin four weeks prior to sand placement, and take place 3 times per week over 30 days; and

- ii. Post-construction monitoring shall begin within two weeks following completion of sand placement, and take place 3 times per week over 30 days.
- c. Surf monitoring shall include estimates of wave height, type of wave (hollow or mushy), breaker distance from shore, length of peel, and existence of backwash;
- d. Conduct standardized interviews with surfers using a questionnaire;
- e. Estimate the density of surfers at each surfing site during monitoring; and
- f. A final report that includes the monitoring results and an analysis of any change in surfing conditions, which shall be submitted to the Executive Director within 90 days of the final survey.

The permittee shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.

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- 1. [Special Condition No. 1 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
- 2. [Special Condition No. 2 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
- 3. [Special Condition No. 3 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
- 4. [Special Condition No. 4 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
- 5. **Grunion Monitoring & Avoidance Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the applicant shall submit to the Executive Director for review and written approval, an updated Grunion Monitoring and Avoidance Plan that provides for the following:
 - a. Should sand placement activities be necessary below the high tide line between March 1 and April 30, the applicant shall avoid impacts to mature and/or spawning grunion and to grunion eggs. The applicant shall retain the services of

a biologist with appropriate qualifications. The annually published California Department of Fish and Wildlife (CDFW) expected grunion runs shall be used to determine possible grunion spawning periods. The plan shall, at a minimum, include:

- i. Sand placement sites shall be monitored for grunion runs beginning at least two weeks prior to commencement of sand placement activities, and throughout the period of planned sand placement work from March 1 through April 30. Monitoring is not necessary in areas where there is no sand, such as areas supporting 100% cobble or bluff backed beaches with no sand exposed during high tide.
- ii. Grunion monitoring shall be conducted by a qualified biologist for 30 minutes prior to, and two hours following, the predicted start of each daily spawning event. Sufficient qualified biologists shall be employed to ensure that the entire proposed sand placement site is monitored during the predicted grunion run. The magnitude and extent of a spawning event shall be defined in 300-foot segments of beach using the Walker Scale ([Exhibit 5](#)). Every individual fish (males and females) shall be counted to determine the Walker Scale value (e.g. 0, 1, 2, 3, 4, or 5) of each 300-foot segment within the proposed work area. Sand placement activities shall be modified according to the following plan:
 - A. If a grunion run consisting of 0-100 individual fish per 300-foot segment (Walker Scale 0 or 1) is reported within two weeks prior to, or during, sand placement work, the applicant does not need to take any avoidance action for grunion eggs. No mature grunion may be buried or harmed as a result of sand placement.
 - B. Within two weeks prior to proposed work, if a grunion run consisting of 100 or more individual fish per 300-foot segment (Walker Scale 2, 3, 4, or 5) is reported, the applicant shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route, for a minimum of two weeks, to ensure that no grunion eggs are buried or disturbed.³ These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of two weeks when the next scheduled grunion run will be monitored. The applicant shall adapt the sand placement schedule to avoid operations on such beach

³ During grunion spawning season, grunion spawn once every two weeks, on several nights, during the highest tides that occur during each month (called spring and neap tides). Grunion eggs take approximately 10 days to mature and hatch during the next high tide. Monitoring for grunion runs must happen, per the annual CDFW published grunion spawning schedule, because one cannot predict where grunion will spawn from one event to another.

segments and their associated buffers. No mature grunion may be harmed as a result of sand placement.

- C. If sand placement has already commenced, and a grunion run consisting of 100 to 500 individual fish, in one or more 300-foot segment (Walker Scale 2) in the work area is reported, the applicant shall avoid impacts to grunion eggs to the greatest extent feasible and then shall minimize impacts to grunion eggs through such measures as alteration of the truck route, sand discharge points, sand spreading areas, and sand placement locations.
- D. If sand placement has already commenced, and a grunion run consisting of 500 or more individual fish per segment (Walker Scale 3, 4, or 5) is reported, the applicant shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route, for a minimum of two weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of two weeks when the next scheduled grunion run will be monitored. The applicant shall adapt the sand placement schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be harmed as a result of sand placement.

b. Monitoring reports shall be submitted to the Executive Director within 90 days of any sand placement activities where grunion monitoring is required to occur, and consistent with the above monitoring requirements. Monitoring reports shall include any modification to sand placement activities, if applicable.

6. Invasive Species. PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall provide evidence that dredging of the outer lagoon can occur without the risk of spreading the invasive green alga *Caulerpa taxifolia* sp. as follows:

- a. Not earlier than 90 days nor later than 30 days prior to commencement or re-commencement of any development authorized under this coastal development permit, the applicant shall undertake a survey of the project area (including the dredging area, anchoring areas and any other areas where the bottom could be disturbed by project activities) and a buffer area of at least ten (10) meters beyond the project area to determine the presence of any species in the genus of the invasive alga *Caulerpa taxifolia* sp. The survey shall include a visual examination of the substrate. If any portion of the project commences in a previously undisturbed area after the last valid *Caulerpa* survey expires, a new survey is required prior to commencement of work in that area.
- b. The survey protocol shall follow the most recent *Caulerpa* Control Protocol be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Wildlife, and the National Marine Fisheries

Service (see <https://www.fisheries.noaa.gov/west-coast/habitat-conservation/caulerpa-species-west-coast>).

- c. Within ~~five~~ fifteen (15) business days of completion of the survey, the applicant shall submit the survey:
 - i. For the review and written approval of the Executive Director, and
 - ii. To the California Department of Fish & Wildlife (Caulerpa@wildlife.ca.gov) and NOAA Fisheries (nmfs.wcr.caulerpa@noaa.gov) Surveillance Subcommittee of the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish and Wildlife (CDFW) (858-467-4218) or Bryant Chesney, National Marine Fisheries Service (NMFS) (562-980-4037).
 - d. If *Caulerpa* is identified at the project site during a survey or at any other time prior, during, or after completion of authorized activities, the Executive Director, and the NOAA Fisheries and CDFW Contacts described in subdivision (c)(ii) of this Special Condition shall be contacted within 24 hours of first noting the occurrence. If *Calurpa* is found, then the NMFS and CDFW contacts shall be notified within 24 hours of discovery.
 - e. If any *Caulerpa* species is found within the project or buffer areas, the applicant shall not proceed with the project until 1) ~~shall, prior to the commencement of dredging, the applicant provides evidence to the satisfaction of the Executive Director for review and written approval either that all *Caulerpa* species discovered within the project and/or buffer area has been eradicated~~ eliminated in a manner that complies with all applicable governmental approval requirements, including but not limited to those of the California Coastal Act, or 2) the applicant has revised or that the dredging project has been revised to avoid any contact with any *Caulerpa* species. No changes to the dredging project shall occur without a Coastal Commission approved amendment to this coastal development permit unless the Executive Director provides a written determination ~~determines~~ that no amendment is legally required.
7. [Special Condition No. 7 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
 8. **Permit Term.** This coastal development permit authorizes development on a temporary basis only. The proposed maintenance dredging is authorized for two dredge cycles (2024/2025 and 2027/2028 cycles) ~~one dredge cycle (2020/2021 cycle)~~, commencing upon the date of permit amendment issuance ~~Commission approval~~, after which time the authorization for continuation of dredging and deposition of dredged sand on area beaches approved as part of this permit shall cease. After the authorization for the development expires, the continuation of

dredging and deposition on area beaches will require either the issuance of a new coastal development permit or an amendment to this coastal development permit.

All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions. Any deviation from the approved project plans must be submitted for review by the Executive Director to determine whether an amendment to this coastal development permit is legally required.

9. **Required Agency Permits.** PRIOR TO THE COMMENCEMENT OF DREDGING, the applicant shall submit to the Executive Director, all necessary local, state, and federal discretionary permits, including approval from the ACOE, the San Diego Regional Water Quality Control Board (RWQCB), and CDFW. The applicant shall inform the Executive Director of any changes to the project required.
10. [Special Condition No. 10 of CDP No. CDP 6-16-0248 remains unchanged and in effect]
11. **Surf Monitoring Plan.** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT AMENDMENT, the applicant shall submit to the Executive Director, for review and written approval, an updated Surf Monitoring Plan to visually monitor surfing conditions at and adjacent to North Beach before and after sand placement.

The permittee shall post a physical public notice regarding surfing conditions.

- e. The notice shall be a minimum size of a typical 'Letter' size of 8.5 by 11 inches, or equivalent A4 size with text at least 12 pt. font;
- f. The notice shall include an advisory of upcoming construction of beach quality sand placement, temporary changes to surf conditions, a means of accessing a standardized questionnaire, and the permittee's contact information should the public have any questions;
- g. The notice shall be posted at a conspicuous location at North Beach;
- h. The notice shall be placed on the first day of the commencement of beach monitoring, and the notice shall be removed on the last day of beach monitoring after sand placement activities to avoid the notice becoming litter or potentially blocking views without a purpose.

In addition, tThe Surf Monitoring Plan shall include, at a minimum, the following:

- a. Identify the major surging breaks at and adjacent to North Beach and determine appropriate monitoring sites;

- b. Document morning conditions using a standardized data sheet, with video recording as appropriate, as follows:
 - i. Pre-construction monitoring shall begin four weeks prior to sand placement, and take place 3 times per week over 30 days; and
 - ii. Post-construction monitoring shall begin within two weeks following completion of sand placement, and take place 3 times per week over 30 days.
- c. Surf monitoring shall include estimates of wave height, type of wave (hollow or mushy), breaker distance from shore, length of peel, and existence of backwash;
- d. Conduct standardized interviews with surfers using a questionnaire;
- e. Estimate the density of surfers at each surfing site during monitoring; and
- f. A final report that includes the monitoring results and an analysis of any change in surfing conditions, which shall be submitted to the Executive Director within 90 days of the final survey.

The permittee shall undertake development in conformance with the approved final plan unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.

12. Long Term Coastal Resource Impact Analysis. Within six months of the 2027/2028 dredge cycle, the permittee shall provide a Long-Term Coastal Resource Impact Analysis that includes a discussion on 1) the quality of the nearshore reef habitats with an assessment whether reef habitat quality has changed over time, and 2) utilizing the Beach Profile Monitoring data, provide an analysis regarding long-term sand management. The report shall be subject to the approval of the Executive Director.

- a. The Nearshore Marine Habitat Monitoring Mapping aspect of the report shall include the following:
 - i. The analysis shall develop a methodology that addresses whether, how, and to what extent episodic sand deposition activities affect adjacent nearshore marine habitats, and incorporate the available data to provide baseline conditions for the nearshore marine habitats adjacent to the sand placement activities;
 - ii. As feasible, the analysis shall include quantitative evidence and statistical methods to support the establishment of baseline

- conditions and the determination and quantification of adverse impacts. If available data do not support a statistical analysis, the report shall describe what monitoring data and sampling frequency are needed to reasonably establish baseline conditions and quantify adverse impacts; and
- iii. The analysis shall be revisited each permit amendment cycle and incorporated into all future monitoring reports to determine whether sand placement activities are adversely impacting the adjacent nearshore marine habitats.
- b. The Long-Term Sand Management aspect of the report shall inform future analysis of the inlet dredging program and shall be revisited each permit amendment cycle and incorporated into all future monitoring reports to determine whether sand placement activities are adversely impacting long-term changes in sediment supply. The report shall assess the following aspects:
- i. Whether placement of dredged material from Agua Hedionda Lagoon on beaches north of the Lagoon inlet contribute to beach erosion south of the inlet;
 - ii. Whether the historic practice of back passing dredged material to north of the Lagoon inlet has changed the grain size distribution of sands in the dredge area and/or receiving beaches; and
 - iii. Provide an evaluation that analyzes the fate of sand placed on each receiving beach location.
13. **Water Quality Monitoring and Reporting.** The permittee shall submit copies of all monitoring reports and compliance statements required by the San Diego Regional Water Quality Control Board (RWQCB), to the Executive Director, including pre-dredging and post-dredging reports for each dredging cycle.
14. **Construction and Pollution Prevention Plan. PRIOR TO THE COMMENCEMENT OF DREDGING** the permittee shall submit, for the review and written approval of the Executive Director, a final Construction and Pollution Prevention Plan. The final plan shall demonstrate that all construction, including, but not limited to, staging and storage of equipment and materials, complies with the following requirements.
- a. Protect Public Access. Construction shall protect and maximize public access, including by:

1. Staging and storage of construction equipment and materials (including debris) shall not take place on *the beach*. Staging and storage of construction equipment and materials shall occur in inland areas at least 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible. Upon a showing of infeasibility, the applicant may submit a request for review and written approval to the Executive Director for staging and storage of construction equipment and materials closer than 50 feet from coastal water, drainage courses, and storm drain inlets.
 2. All construction methods to be used, including all methods to keep the construction areas separated from public recreational use areas (e.g., using unobtrusive fencing or equivalent measures to delineate construction areas), shall be clearly identified on the construction site map.
- C. Construction In, Over, or Adjacent to Coastal Waters and Habitat. Construction taking place in, over, or adjacent to coastal waters and habitat shall protect the coastal waters and habitat by implementing additional BMPs, including:
1. No construction equipment or materials (including debris) shall be allowed at any time in the intertidal zone or during grunion runs.
 2. Construction activity shall not be conducted below the mean high tide line, unless tidal waters have receded and the area is part of the authorized work area.
 3. All work shall take place during daylight hours, and lighting of the beach and ocean area is prohibited.
 4. All construction equipment and materials placed on the beach during daylight construction hours shall be stored beyond the reach of tidal waters. All construction equipment and materials shall be removed in their entirety from the beach area by sunset each day that work occurs.
 5. Tarps or other devices shall be used to capture debris, dust, oil, grease, rust, dirt, fine particles, and spills to protect the quality of coastal waters. The use of plastic materials shall be minimized to the extent possible.
 6. Only rubber-tired construction vehicles shall be allowed on the beach; the only exception shall be that tracked vehicles may be used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all construction vehicles shall remain as high on the upper beach as possible, and shall avoid contact with ocean waters and intertidal areas.

APPENDIX B – SUBSTANTIVE FILE DOCUMENTS

1. City of Carlsbad Agua Hedionda Land Use Plan.
2. Coastal Development Permit No. 6-20-0240
3. California Regional Water Quality Control Board Section 401 Certification, File No. R9-2020-0232, August 28, 2024.
4. CEQA Determination of Exemption, October 7, 2024, prepared by City of Carlsbad.
5. CDP Nos. F55336, 6-93-193-A, 6-93-193-A2, 6-97-83, 6-00-111, 6-01-80, 6-04-54, 6-06-61, 6-08-047, 6-14-1128, and 6-17-0732.