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# W20.1a

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## STAFF REPORT: PERMIT AMENDMENT

**Amendment Application No.:** 9-16-0560-A1

**Applicant:** Cabrillo Power I LLC

**Location:** South Beach portion of Carlsbad State Beach adjacent to Encina Power Station, Carlsbad, San Diego County ([Exhibit 1](#)).

**Description of Previously Approved Project:** Decommissioning of the Encina Marine Oil Terminal, including removal of a seafloor fuel oil pipeline and ancillary structures, and dismantlement and removal of a riprap groin on the beach.

**Proposed Amendment:** Retention of a portion of the groin rock, reconstructed and reconfigured as a 150-foot long riprap protection structure, to protect a gap in the Carlsbad Blvd. seawall and State Parks beach access amenities.

**Staff Recommendation:** Approval with conditions.

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## SUMMARY OF STAFF RECOMMENDATION

Cabrillo Power I LLC proposes to amend coastal development permit (CDP) No. 9-16-0560 to account for several project changes, including (a) the temporary retention of a portion of a riprap groin previously slated for removal under [Special Condition 3](#) of the original CDP; (b) after-the-

fact authorization of the construction and temporary use of a new shoreline protection structure, termed a “stabilization platform,” to protect a 57-foot gap in the Carlsbad Blvd. seawall and public access uses at the project site; and (c) retention of several structures related to the oil pipeline conduit beneath Carlsbad Blvd., which previously had been proposed for removal under the original CDP. This temporary shoreline protection project is proposed to last for a period of five years, in order to allow time for stakeholders – including the applicant, the City of Carlsbad, and California Department of Parks and Recreation (State Parks), which operates the South Beach portion of Carlsbad State Beach at the site – to develop a long-term plan to manage coastal hazards and public beach access and recreation for the area.

Carlsbad Boulevard is a major coastal access route for vehicles, bicycles and pedestrians, and the proposed shoreline protection structure will ensure that safe access along the shoreline is maintained while long-term alternatives for the site are being evaluated. The 57-foot gap in the existing seawall is also the primary beach access point to the South Beach portion of Carlsbad State Beach, and the only practical access route for State Parks emergency vehicles. The area atop the former groin also provides a stable platform on which to locate State Parks’ lifeguard tower. The proposed shoreline protection structure has been designed to provide interim protection for these public access uses. While the Commission has not typically authorized temporary shoreline armoring that is larger than the minimum to protect an existing structure at risk, in the present case there are no immediately-available, feasible alternatives for locating the tower and otherwise assuring safe coastal access and recreation at this popular public beach.

To minimize potential adverse impacts to public access, beach recreation and sand supply, [Special Condition 13](#) limits authorization of the revetment segments for a period of five years. This condition also requires submission of a coastal development permit application to implement the Hazards Management Plan within five years of approval of this permit. [Special Condition 14](#) requires Cabrillo to submit revised final plans implementing several changes to the shoreline protection structure, including restacking of the riprap to steepen the seaward face of the revetment and removal of unnecessary rock, to minimize the footprint of the structure and beach encroachment and lateral access impacts. [Special Conditions 15](#) and [16](#) require Cabrillo to maintain the structure in its approved alignment, and to conduct monitoring to ensure that settling and seaward movement of the rock over time does not increase beach encroachment or further affect lateral access. Finally, [Special Condition 17](#) requires Cabrillo to assume all risks and indemnify the Commission for authorizing the project.

Commission staff recommends **approval** of coastal development permit amendment application No. 9-16-0560-A1 as conditioned. The standard of review is Chapter 3 of the Coastal Act. The motion to approve with conditions is on page four.

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### APPENDICES

[Appendix A](#) – Substantive File Documents

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### EXHIBITS

[Exhibit 1 – Project Location & Site Overview](#)

[Exhibit 2 – Project Plans – Proposed](#)

[Exhibit 3 – Project Plans – As-Built](#)

[Exhibit 4 – February 2018 Site Conditions](#)

[Exhibit 5 – Site Photos](#)

## I. MOTION AND RESOLUTION

### Motion:

*I move that the Commission **approve** the amendment to Coastal Development Permit 9-16-0560 subject to conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit amendment 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 9-16-0560-A1 and adopts the findings set forth below on grounds that the development, as amended, will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the amended 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 amended development on the environment.*

## II. STANDARD AND SPECIAL CONDITIONS

The Standard Conditions 1-5 and Special Conditions 1-12 of CDP 9-16-0560 remain in full force and effect, except that **Special Condition 3** is modified as shown below in ~~bold strikethrough~~ and **bold underlined** text. Also, **Special Conditions 13 – 17** have been added to address additional project impacts stemming from the proposed amendment. [Appendix B](#) provides the text of all special conditions that would be applicable following approval of this amendment.

### Revised Special Condition

3. **Removal of Riprap Groin.** The Permittee shall remove the existing riprap groin in its entirety, **except as provided for under Special Condition 13 of this CDP,** and shall submit for Executive Director review and written approval a plan to properly dispose of the rock comprising the groin at a location off of the beach and outside coastal waters.

### New Special Conditions

13. **Limited Authorization Period and Long-Term Hazards and Beach Management**
  - (a) Authorization Period. This coastal development permit amendment authorizes the shoreline protection for five years from the date of this permit approval (i.e., to June 12,

2024) or until such time when the currently existing structures warranting armoring are no longer present or no longer require armoring for such protection, whichever occurs first. No later than the end of this authorization period, the permittee or its successor in interest shall remove the remainder of the groin material and temporary stabilization platform pursuant to [Special Condition 3](#) of the original CDP No. 9-16-0560, except as provided for in subsections (b) – (d) of this special condition.

- (b) Stakeholder Engagement. Within one year of the approval of this permit (i.e., by June 12, 2020), the permittee or its successor shall make a good-faith effort to convene a meeting of other stakeholders and regulatory agencies, including but not limited to the City of Carlsbad, California Department of Parks and Recreation, the U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board, California State Lands Commission, and Coastal Commission staff, to discuss the development of a long-term plan to address coastal hazards and public beach access at the project site. The permittee shall submit evidence of this effort (e.g., meeting report or minutes) for the Executive Director’s review by June 12, 2020. Subsequent to this initial meeting, the permittee shall submit annual written updates, due by June 12 of each year through 2023, detailing planning progress.
- (c) Long-term Management Plan. No later than five years after the approval of this permit (i.e., by June 12, 2024), the permittee or its successor in interest, or, if applicable, a third-party stakeholder, shall apply for a regular coastal development permit to implement a Long-term Management Plan for the existing gap in the South Carlsbad Beach seawall, public access and beach recreation that addresses current and future coastal hazards present at the site. The Management Plan shall do all of the following: (i) Provide for the longer-term protection of Carlsbad Boulevard and other existing structures that are in danger from erosion, and maintain or enhance coastal access, public opportunities for coastal recreation, public views, and other coastal resources, including beach and shoreline habitat, at the project site, and incorporate measures to adapt to sea level rise; (ii) Evaluate alternatives for ensuring the protection of existing structures and public access while avoiding, eliminating or reducing impacts to shoreline processes and sand supply, public access and recreation, public views, and other coastal resources at the site. Alternatives considered shall include, but need not be limited to, managed retreat, beach nourishment and other “soft” protection measures, hard protection, including retention of the existing temporary stabilization platform, and combinations of these approaches; (iii) Evaluate and consider all potential constraints, including geotechnical and engineering constraints, potential phasing options with timelines, project costs for the preferred project and alternatives, and potential funding options, and shall be submitted with documentation sufficient to support all analyses, methodologies, and conclusions; (iv) Provide a timeline or event-driven schedule for implementation of the plan.
- (d) Retention of Shoreline Protection. If, as a part of the permit application required by subsection (c) of this Special Condition or in a separate amendment to this permit, the permittee or its successor proposes to retain any portion of the permitted shoreline protection structure beyond the five year authorization period, the permittee is required to include in the permit application an evaluation of alternatives to the shoreline protection and related elements that are capable of protecting the coastal-dependent

uses and the existing structures in danger from erosion while eliminating or reducing impacts to public access, public views, shoreline processes including sand supply, marine resources, and other coastal resources at the site. The information concerning these alternatives must be sufficiently detailed to enable the Coastal Commission to evaluate the feasibility of each alternative for addressing site issues under the Coastal Act. The permittee must also include mitigation for the effects of any remaining portion of the shoreline protection on public access and recreation and other coastal resources during the expected life of the remaining shoreline protection beyond, but not including, the initial five year period of authorization.

- (e) Condition Compliance by a Third Party. With the written permission of the permittee or its successor, the requirements of subsections (b), (c) and (d) of this Special Condition may be assigned to, and fulfilled by, a third party, such as the City of Carlsbad or another stakeholder.
- (f) Extension of Authorization Period. The five-year authorization term may be extended, for good cause, through Commission approval of a CDP amendment. Any application for such an amendment shall include a description of the grounds for extending the authorization of the temporary shoreline protection structure, provide evidence that preparation of the Long-Term Management Plan required under subsection (c) has been initiated and include a status report, and include the alternatives analysis required under subsection (d) of this Special Condition.

14. **Revised Final Temporary Shoreline Protection Plans.** WITHIN 90 DAYS OF COMMISSION APPROVAL, the permittee shall submit Revised Final Temporary Shoreline Protection Plans to the Executive Director for review and written approval. The Plans shall be prepared by a licensed professional engineer, shall be based on current professionally-surveyed and certified topographic elevations, referenced to an identified vertical datum, for the entire site, shall include a graphic scale, and shall depict the shoreline protection structure in both plan view and cross-section. The Revised Final Plans shall be in substantial conformance with the previously submitted project plans (entitled “Construction Plan”, dated April 19, 2018; later revised and updated as the “Progress Topographic Map As-Built Overlaying Proposed Design, dated July 19, 2018) except that they shall be modified to incorporate the required project changes details below:

- (a) Riprap Restacking & Removal. To the maximum extent feasible, the riprap comprising the seaward face of the temporary stabilization platform shall be restacked at a 2:1 (horizontal to vertical) slope or steeper, and shall be sited and designed to occupy the minimum area and use the minimum amount of revetment-suitable riprap necessary to protect the gap in the Carlsbad Boulevard seawall and the existing public access point, to provide for public and State Parks vehicle access to the beach, and to provide a stable platform for locating a State Parks lifeguard tower. Additional required specifications are as follows:
  - i. The portion of the riprap extending approximately 60 feet north of the main arc of the stabilization platform shall be removed, or otherwise relocated and reduced in area to the minimum necessary to protect the gap in the seawall, the existing

concrete pedestrian ramp, State Parks vehicle access to the beach, and a stable platform for the lifeguard tower.

- ii. The face of the stabilization platform may transition to lesser slopes at the northern and southern ends of the structure to allow for the provision of safe public access ramps.
  - iii. The size of riprap material used during restacking shall be sufficient to allow for the construction and retention of a stable 2:1 (h:v) revetment slope, or steeper, capable of withstanding storm wave conditions typical of the project site. Undersized riprap present in the seaward face of the shoreline protection structure shall be removed to the extent feasible to prevent potential dislodging and encroachment on the beach.
  - iv. To the extent feasible, the required modifications to the stabilization platform shall use riprap available on-site; however, rock imported from off-site (e.g., larger stone) may be used if necessary to achieve stability at the steeper slopes required in this condition.
  - v. The toe elevation of the stabilization platform can be modified if necessary to protect against undermining and assure the stability of the structure while achieving the steeper slopes required in this condition.
  - vi. The top of the stabilization platform shall remain at an elevation enabling unrestricted public access from the Carlsbad Blvd. sidewalk. The radius of the top of the platform shall not exceed 38 feet, as shown in the July 19, 2018 As-Built Plans.
- (c) Riprap Removal and Restoration. All riprap and related armoring debris that are not part of the approved reconfigured shoreline protection structure shall be removed from the site and disposed of consistent with Special Condition 3 of the original CDP, and the affected areas restored to natural conditions. Any excess riprap and debris currently scattered around the periphery of the structure shall also be subject to this requirement. Natural beach cobble native to the site shall be left in place.

All requirements above and all requirements of the approved Revised Final Armoring Plans shall be enforceable components of this CDP. The Permittee shall undertake development in conformance with this condition and the approved Revised Final Armoring Plans unless the Commission amends this CDP or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.

Construction associated with carrying out the requirements of this condition shall be conducted in compliance with all other special conditions of this CDP, including (but not limited to) those restricting the seasonal timing of project activities (Special Conditions 4 and 7) to protect California grunion and avoid peak recreational periods, and Special Condition 11, requiring the submittal of a Shoreline Access Plan assuring continued public access during construction periods.

15. **Shoreline Protection Monitoring Program**

- (a) WITHIN 90 DAYS OF COMMISSION APPROVAL, the permittee shall submit, for review and written approval of the Executive Director, a monitoring plan for the existing temporary shoreline protection structure. The purpose of the plan is to monitor and identify damage or changes to the shoreline protection structure such that repair and maintenance is completed in a timely manner to avoid further encroachment on the beach. The monitoring plan shall incorporate, but not be limited to, the following:
- i. An evaluation of the current condition and performance of the structure, addressing any migration or movement of rock which may have occurred on the site and any significant weathering or damage to the revetment that may adversely impact its future performance.
  - ii. Measurements, taken from permanent benchmarks, to determine settling or seaward movement of the shoreline protection structure. Changes in the beach profile fronting the site shall be noted and the potential impact of these changes on the effectiveness of the revetment evaluated.
  - iii. Recommendations on any necessary maintenance needs, changes or modifications to the shoreline protection to assure its continued function and to assure no encroachment beyond the permitted toe.
- (b) The above-cited monitoring information shall be prepared by a licensed engineer familiar with shoreline processes. Monitoring shall occur at least once per year and continue throughout the life of the revetment or until the revetment is removed or replaced under an amendment to this coastal development permit or pursuant to a separate coastal development permit. Results of the annual monitoring shall be submitted to the Executive Director each year.

16. **Future Maintenance.** The permittee or its successor shall maintain the existing shoreline protection structure in its approved state. Any change in the design of the structure or future additions to or reinforcement of the structure beyond exempt repair or maintenance as defined in Section 13252 of Title 14 of the California Code of Regulations to restore the structure to its original condition will require a coastal development permit. However, in all cases, if after inspection it is apparent that repair and maintenance is necessary, the applicant shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is legally required, and, if required, shall subsequently apply for a coastal development permit or permit amendment for the required maintenance.

17. **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from storm waves, flooding, and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project

against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

18. **Liability for Costs and Attorneys' Fees.** By acceptance of this permit, the Applicant/Permittee agrees to reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees -- including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys' fees that the Coastal Commission may be required by a court to pay -- that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Applicant/Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission. WITHIN 45 DAYS OF COMMISSION ACTION, the Permittee shall enter into a separate written agreement with the Executive Director agreeing to reimburse the Coastal Commission for all court costs and attorney's fees, consistent with the requirements of this condition.
19. **Deed Restriction:** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property. The deed restriction may be removed by the applicant or its successor once all terms and conditions of this permit, including those regarding removal of the temporary shoreline protection development, have been satisfied, and upon receiving written confirmation from the Executive Director that the terms and conditions of this permit have been fulfilled.

### III. FINDINGS AND DECLARATIONS

#### A. PROJECT BACKGROUND

On November 4, 2016, the Commission approved coastal development permit (CDP) 9-16-0560 authorizing Cabrillo Power I LLC (Cabrillo) to carry out the decommissioning of marine oil terminal (MOT) facilities previously serving the Encina Power Station (EPS) in the City of Carlsbad, San Diego County ([Exhibit 1](#)). The MOT, originally constructed in 1953 to transfer bunker fuel oil between tanker vessels and onshore storage facilities, consisted primarily of a 3,855-foot long, 20-inch diameter oil pipeline extending from the EPS to a point approximately

2,525-feet offshore. The pipeline passed beneath Carlsbad Blvd. in a concrete conduit, and beneath the South Beach segment of Carlsbad State Beach, where it was covered and protected by a riprap groin extending across the beach and into the surf zone. In its original CDP application, Cabrillo had proposed to temporarily remove the groin to allow for the excavation and removal of the beach and surf zone segments of the oil pipeline, and then replace the riprap on the beach in its prior configuration. However, at the November 2016 hearing the Commission found that the groin – a structure altering natural shoreline processes under Section 30235 of the Coastal Act – was not required to serve coastal dependent uses or protect existing structures or public beaches in danger from erosion, and thus included in its approval [Special Condition 3](#), which required that the groin be removed, and not replaced, following removal of the oil pipeline.

Along the South Beach shoreline, Carlsbad Blvd. is separated from the beach and protected from coastal hazards by an approximately 720-foot long seawall ([Exhibit 1](#)), authorized by the Commission in 1994 (CDP # 6-94-091) and constructed as a joint project of the City of Carlsbad and U.S. Army Corps of Engineers in 1996. At the time CDP #9-16-0560 was approved, both Cabrillo and the Commission believed the seawall to be a continuous structure extending behind the groin and passing above the oil pipeline; subsequently, in preparing to carry out the pipeline and underpass conduit removal work, Cabrillo discovered that the designers of the seawall had left a 57-foot gap in the wall where it intersected the groin in order to avoid excavation of a seawall footing into the pipeline right-of-way and groin footprint.

Cabrillo commenced onshore decommissioning activities on February 12, 2018, and began to remove the groin riprap from atop the oil pipeline, beginning with the offshore sections and working landward across the beach. By February 21, Cabrillo had dismantled approximately 140 feet (54%) of the 260-foot long structure ([Exhibits 1, 4](#)). However, at this point Cabrillo suspended the groin removal work due to significant beach erosion caused by the high wave conditions coincident with the removal operations, which, if the groin removal had proceeded, threatened to expose the recently discovered 57-foot gap in the seawall to direct wave action, and potentially undermine the adjacent sidewalk, roadway and beach access point ([Exhibit 4](#)).

Cabrillo contacted Commission staff on February 23, 2018, seeking input on how to address the problem of beach erosion and the vulnerability of public infrastructure along the gap in the seawall, while allowing the pipeline removal work to be completed. During a series of discussions in March 2018, Commission staff advised Cabrillo that the groin removal work could be suspended temporarily without resulting in any inconsistency with [Special Condition 3](#). The short-term retention of the groin remnant would provide a measure of protection for the seawall gap, road, and public access point, while allowing Cabrillo time to complete the onshore pipeline removal work and prepare a CDP amendment application proposing a longer-term solution for the site.

As documented in its CDP amendment application materials and in several written project updates, between February 22, 2018 and the week of May 27, 2018, Cabrillo successfully removed the remaining pipeline segments from beneath the beach, but also found it necessary to substantially reconfigure the remnant groin riprap to provide adequate protection to the site during and after the pipeline work. Cabrillo did not notify Commission staff of this project

change, or apply for and receive a CDP amendment or emergency authorization from the Commission prior to completing the work. As described in more detail below, this replacement, restacking, and relocation of the groin material created a more stable and effective shoreline protection structure for the gap in the Carlsbad Blvd. seawall, but went beyond simple retention of the remnant groin, and thus represented new, unpermitted development under the Coastal Act. The CDP Amendment application received by the Commission on May 8, 2018 (and filed as complete on December 21, 2018) is thus a request for after-the-fact (ATF) authorization of the shoreline protection development carried out between February and May of 2018.

## **B. PROPOSED PERMIT AMENDMENT**

Cabrillo proposes to amend the previously-approved project to include the following changes:

- (1) Temporary retention of a portion of the groin riprap previously slated for removal under [Special Condition 3](#) of the original CDP;
- (2) After-the-fact authorization for the construction and temporary use of a new shoreline protection device, termed a “stabilization platform,” using the available groin riprap, to provide protection for the 57-foot gap in the Carlsbad Blvd. seawall; and
- (3) Retention of structures (“End Structure Vertical Vault/Underpass Structure) associated with the oil pipeline conduit beneath Carlsbad Blvd., which had been proposed for removal under the original CDP.

The proposed project changes would require changes to [Special Condition 3](#) to allow for the temporary retention (up to five years, see below) of groin rock that is currently required to be removed in its entirety.

### *Stabilization Platform*

The project description and plans submitted with the CDP amendment application describe the reconstruction and re-engineering of the existing groin riprap to create a semi-circular revetment, referred to by Cabrillo as a “stabilization platform,” in front of the seawall gap ([Exhibit 2](#)). The structure was designed to be a multi-use structure that would both protect the existing gap in the Carlsbad Blvd. seawall and benefit public access and State Parks operations at the beach. Thus, the arc of the revetment was designed with a sufficiently large radius (38 feet measured from the center of the gap, in line with the seawall) to allow for a flat platform at the top of the structure that could accommodate a State Parks lifeguard tower in addition to pedestrian and vehicular access to the beach via sand-covered lateral access ramps on either side of the platform. The top of the platform is at an elevation of +19 ft above mean lower low water (MLLW) to match that of the adjacent sidewalk and beach access point. The seaward face of the structure is shown as being built at a 2.6:1 (horizontal:vertical) slope, using previously removed 10-ton stone, down to a toe elevation of +10 ft MLLW. Project plans also show a narrow “wing wall” of rock extending northward from the base of the semi-circle for a distance of approximately 75 feet. Measured from the toe of the structure (at +10 ft. MLLW) to the line of the seawall, the stabilization platform is shown as extending approximately 75 feet onto the beach.

Subsequent submittals from Cabrillo, as well as photographs taken by Cabrillo and Commission staff during site visits, indicate that the as-built structure deviates somewhat from the initial

plans. Updated plans (dated July 19, 2018) provided by Cabrillo show the footprint of the replaced/re-engineered groin riprap (“rock limits”) in relation to the original design ([Exhibit 3](#)). As built, the seaward face of the stabilization platform has gentler slopes (ranging from 3:1 to 4:1 (h:v)) than in the original design, extending the footprint up to 20 feet farther seaward. Similarly, the northward-extending arm of rock is both longer (by about 20 feet) and wider (by about 18 feet) than in the original plans. Although not shown on the revised plans, Cabrillo has confirmed that, with the exception of the northern arm of the structure, most areas behind and landward of the revetment footprint as shown in the revised plans are occupied by undisturbed, remnant groin materials, typically with a veneer of beach sand. Although the original project description indicated that the seaward face of the structure would be composed of large, 10-ton riprap, protecting a core of smaller material, photographs of the site indicate that the exposed face of the structure actually consists of a mixture of large rocks and smaller materials, including rocks, cobble and concrete debris ([Exhibits 4, 5](#)).

At its largest dimensions, the stabilization platform extends approximately 150-feet feet alongshore and 75 feet across-shore (measured from the line of the seawall). The total beach footprint of the stabilization platform, including both the reconfigured/re-engineered seaward face of the structure and the never-removed groin remnant, is approximately 6,320 square feet.

#### *Temporary Project*

As noted above, Cabrillo is proposing to retain the stabilization platform and remaining groin material on a temporary basis. The project is intended as an interim measure to prevent further erosion of the beach, protect Carlsbad Blvd., and provide for public access and State Parks uses at the site until a more permanent solution can be developed to remediate the existing gap in the Carlsbad Blvd. seawall, or otherwise develop a long-term plan to protect the existing infrastructure and public access and recreational uses at the site.

Following discussion with Commission staff, Cabrillo has subsequently clarified that it is requesting approval of a five-year project term. Cabrillo has also indicated that it has held preliminary discussions with stakeholders, including the City, State Parks, and U.S. Army Corps of Engineers, regarding long-term hazards management at the South Beach project site.

#### *End Structure Vertical Vault/Underpass Structure*

Additionally, Cabrillo seeks to modify the previously approved project to allow the retention in place portions of the side- and wing walls of the so-called “End Structure Vertical Vault/Underpass Structure”, which comprises the terminus of the concrete conduit through which the MOT oil pipeline previously passed beneath Carlsbad Blvd ([Exhibit 2](#)). Above-ground portions of the structure, including a vent pipe and above-grade walls, would be demolished, but below-grade walls would be abandoned in place in order to avoid the need to remove the landward portions of the remnant groin.

#### **Standard of Review**

The proposed development is located within the City of Carlsbad in an area of deferred certification not presently included in the City’s certified Local Coastal Program (LCP). Thus, the standard of review is Chapter 3 of the Coastal Act.

## **C. OTHER AGENCY APPROVALS**

### **California State Lands Commission**

On December 18, 2015, the California State Lands Commission (CSLC) certified a Mitigated Negative Declaration (MND) and Mitigation Monitoring Program pursuant to CEQA for the proposed project, and issued a five-year general lease of state submerged lands (Lease No. PRC 791.1), beginning March 24, 2015, for the continued maintenance and removal of the Marine Oil Terminal. The CSLC lease approval was based on the original project description, which included the replacement of the rip rap groin following removal of the pipeline. CSLC has not required additional environmental review or changes to the lease terms to cover the proposed project changes.

### **California Department of Parks and Recreation (State Parks)**

The proposed project would occur on a beach parcel owned by Cabrillo Power but currently under easement to and managed by State Parks as part of Carlsbad State Beach. Construction of the stabilization platform was conducted under a Right-of-Entry (ROE) Permit issued by State Parks for the full Encina Marine Oil Terminal Decommissioning Project. The ROE has recently been extended through December 31, 2019. The ROE was based on the original project description which included the replacement of the riprap groin following the removal of the pipeline, and no changes to the ROE are required.

### **City of Carlsbad**

Although the City of Carlsbad has a certified LCP, the project area is located within the Agua Hedionda Lagoon LCP segment, an area of deferred certification. Thus, the Commission is reviewing this CDP amendment application with the Coastal Act as the standard of review. City-issued permits (e.g., demolition permit, grading permit, roadway encroachment permit) may be required for certain project activities.

### **San Diego Regional Water Quality Control Board (RWQCB)**

The RWQCB regulates pollutant discharges into receiving waters in the project area. Construction of the current stabilization platform is covered by a previously issued water quality certification pursuant to Clean Water Act Section 401.

### **U.S. Army Corps of Engineers**

The U.S. Army Corps of Engineers (ACOE) has regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 1344) and Section 404 of the Clean Water Act. Construction of the current stabilization platform was conducted under previously-issued Nationwide Permit Nos. 3 (Maintenance) and 27 (Aquatic Habitat Restoration, Establishment and Enhancement Activities) for the Encina MOT Decommissioning Project, and no changes to the permits have been required. Pursuant to Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Commission's concurrence in a certification to the permitting agency that the project will be conducted consistent with California's approved coastal management program. The subject coastal development permit amendment (9-16-0560-A1) will serve as Commission review of the project under the CZMA.

**D. COASTAL HAZARDS AND SHORELINE PROTECTION**

Coastal Act Section 30235 states:

*Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.*

Section 30253 of the Coastal Act states in relevant part:

*New development shall do all of the following:*

*(a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*

*(b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

The Coastal Act acknowledges that seawalls, revetments, retaining walls, groins and other such structural or “hard” methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Accordingly, unless necessary to serve coastal-dependent uses, Coastal Act Section 30235 only requires approval of shoreline protection when necessary to protect existing structures or public beaches in danger from erosion, and when Section 30235’s other provisions are satisfied. Furthermore, Section 30253 requires that new development be sited, designed, and built in a manner to not require construction of shoreline protective devices that would substantially alter natural landforms along bluffs and cliffs. The Coastal Act provides these limitations because shoreline structures can have a negative effect on the coastal environment, including adverse effects on sand supply, public access, coastal views, natural landforms, and shoreline beach dynamics on- and off-site, that can result in the loss of public beach areas.

Under Coastal Act Section 30235, shoreline protective structures shall be permitted if: (1) there is an existing structure, coastal-dependent use or public beach; (2) the existing structure, coastal dependent use or public beach is in danger from erosion; (3) shoreline altering construction is required to protect the existing threatened structure, coastal-dependent use or public beach; and (4) the required protection is designed to eliminate or mitigate the adverse impacts on shoreline sand supply.

***Existing Structures, Public Beaches & Coastal-Dependent Uses***

As described previously, the remnant groin and stabilization structure are located on the South Beach segment of Carlsbad State Beach, a public beach and important coastal recreation area.

Carlsbad Boulevard (Highway 101) was constructed prior to the effective date of the Coastal Act on January 1, 1977, and thus is considered an existing structure. It is also the primary north-south

coastal access route for cars and bicycles in the City of Carlsbad. The sidewalk on the seaward side of the road is a popular coastal promenade, offering sweeping views of the coastline and ocean. The Carlsbad Blvd. sidewalk also provides the only lateral access for pedestrians between portions of Carlsbad State Beach (Middle Beach and South Beach) that are otherwise separated by the Agua Hedionda outfall channel and jetties ([Exhibit 1](#)). The Carlsbad Boulevard roadway, bike lane, and sidewalk are thus also integral to supporting coastal-dependent public access and recreational uses at Carlsbad State Beach.

As discussed previously, Carlsbad Boulevard is separated from the South Beach shoreline by a 700-foot long seawall, permitted by the Commission in 1994 and constructed in 1996. The top of the seawall (or, south of the groin, a metal fence) rises approximately four feet above the level of the sidewalk, and thus acts as a barrier to beach access from the sidewalk and street. Although there is a narrow, pedestrian-only break in the wall at the north end of South Beach, the 57-ft gap in the seawall at the intersection with the pipeline groin and immediately adjacent to the project site is the primary point of access to South Beach for the public, and, for practical purposes, the only point of access for State Parks' emergency and patrol vehicles (the nearest alternative vehicle access is at Ponto State Beach, more than 2.5 miles to the south and with connectivity to South Beach only at extreme low tide). At present, the remnant groin and stabilization platform provide informal ramps along which both pedestrians and State Parks vehicles can descend safely from the level of the sidewalk (at +19 feet MLLW) to the level of the beach (variable). The elevated, typically sand-covered platform atop the groin at its landward end has also historically been used by State Parks as a convenient, effective and stable location to place a seasonal lifeguard tower, from which State Parks lifeguards have clear lines of sight along the entirety of the South Beach portion of Carlsbad State Beach. The stabilization platform was designed and constructed to be large enough to accommodate both a lifeguard tower and vehicle and pedestrian access route to the beach ([Exhibits 2, 3](#)). The Commission finds that the multiple public access and recreational amenities concentrated at the seawall gap and project site also represent coastal-dependent uses under the Coastal Act.

### ***Danger from Erosion***

Cabrillo Power has provided evidence that a large storm wave event on or around February 21, 2018, coincident with the on-going oil pipeline and groin removal efforts, resulted in unexpectedly severe sand removal and rapid retreat of the beach. Sand loss was particularly acute in the area south of the groin remnant ([Exhibit 4](#)), where wave run up is known to contact the Carlsbad Blvd. seawall on a semi-regular basis. This portion of the beach has historically been narrower than the more northerly segment, in part due to the effect of the groin in capturing and retaining sand from the mean southerly littoral drift in this area. If the groin and pipeline removal activities had proceeded as planned, it is reasonable to conclude that bluff and/or roadbed fill materials within the 57-foot gap in the seawall would have been exposed to wave action, placing the Carlsbad Boulevard roadway, sidewalk and the beach access point in danger from erosion. Independent of any erosion of bluff materials in the gap, the lowering of sand levels on the beach threatened to render the beach accessway more dangerous to use, and potentially impassable, for vehicles and pedestrians. Reduced sand levels would have impeded or prevented use of the beach access point at least temporarily, and possibly for a more extended period, depending on factors such as seasonal beach profile changes and the placement of dredged sand during the periodic dredged-material disposal/beach nourishment events that occur

at South Beach, most recently from February to May 2018. At least on a short-term basis, the existing development and coastal-dependent uses at the project site were in danger from erosion.

It is more difficult to assess the degree to which the acute danger to existing development and public access experienced in February 2018 would have persisted over time if Cabrillo had not halted the groin removal and constructed the stabilization platform. The width and profile of a beach vary over multiple timescales in response to seasonal changes in wave and current conditions, storm events, and nearshore sediment supply, and to interannual and decadal-scale processes (e.g., El Nino/Southern Oscillation, Pacific Decadal Oscillation) that modulate these primary factors. Even under natural conditions, variations in beach width can be extreme, with beaches reduced to cobble following a major winter storm recovering much of their former width over time as sand is returned to the beach and new sand is provided by sediment transport within the littoral cell. At South Beach, variability in beach width and volume has been heavily influenced by human interference with natural shoreline processes and sediment supply, including the use of Agua Hedionda Lagoon for cooling water at the Encina Power Station, the construction of large jetties to maintain intake and discharge channels in the outer basin of the lagoon, periodic dredging of the lagoon and placement of the spoils on local beaches, and major regional beach nourishment projects.

In assessing the “danger” from erosion in this complex and much-altered system, it is necessary to differentiate between short-term, seasonal or episodic narrowing of a beach, and longer-term that may result in a chronically narrow beach or an unacceptably frequent occurrence of low-sand conditions. In reviewing coastal armoring proposals, the Commission has typically considered a structure, use or public beach to be “at risk” if it could be damaged by erosion or coastal retreat within three to five years. Given the high degree of variability inherent to beaches, the risk determination for a public beach also takes into account the potential for recovery after an episodic erosion event, such as a large storm.

Based on historical photographs of the site, it is apparent that the beach width has varied significantly over time, with relatively narrow conditions prevailing at times, and relatively wide conditions at other times ([Exhibit 5](#)). Nonetheless, it is also apparent that the long-term effect of the groin, which was installed in the 1950s, has been to preferentially retain sand on the 400-foot wide segment of beach between it and the warm water outfall jetties to the north, which was consistently wider than the segment to the south (and down-drift) of the groin. With the removal or shortening of the groin structure, it is logical to expect that the northern portion of the beach will narrow, and the sand retention time here will decrease. A modeling study prepared for Cabrillo as part of its original CDP application projected that without the groin, the northern segment of South Beach could narrow by up to 17 feet over 20 years (though with little initial change in response to removal) (Jenkins 2013). On the ground, the beach appears to have experienced an episode of rapid retreat in February 2018, and the higher elevation portion of the beach appears now to be somewhat narrower than in recent years ([Exhibit 5](#)), but the beach is still within the range of historical conditions and retains its public access and recreational value. The longer-term response of the beach to the partial removal of the groin remains unclear, and will be influenced by both management decisions (i.e., future beach nourishment frequency and volume) and natural processes.

The Commission’s senior coastal engineer and staff geologist have reviewed the available evidence, and agree that under present beach conditions the existing roadway and public access amenities would be vulnerable to erosion in the absence of shoreline protection, and that even with beach recovery this danger is likely to reemerge during future storm seasons. In contrast, the beach itself, though likely still adjusting to changed conditions, is not in imminent danger.

Based on these considerations, the Commission finds that the existing structures and coastal-dependent uses at the site are in danger from erosion, fulfilling the second test of Section 30235, but that the beach itself is not currently in danger.

### ***Alternatives Analysis***

Shoreline armoring is only permitted if it is the least damaging feasible alternative capable of protecting the existing threatened structure, coastal-dependent use or public beach, including being the minimum necessary to protect the structure or use. Other alternatives to shoreline protective devices typically considered include the “no project” alternative; managed retreat (including abandonment and demolition of threatened structures); relocation of threatened structures; beach and sand replenishment programs; drainage and vegetation measures; and combinations of each.

In this case, the applicant is proposing to retain the remnant groin rock, including the unpermitted stabilization platform, on a temporary basis while stakeholders, including the applicant, the City of Carlsbad, State Parks and the U.S. Army Corps of Engineers, develop a long-term approach for managing coastal hazards and public access and recreation at South Beach. The alternatives analysis provided by the applicant in its initial application considered only interim options for addressing coastal hazards at the site, and is not sufficient to serve as the basis for long-term planning. At the request of Commission staff, Cabrillo supplemented this analysis with additional consideration of alternatives which, if implemented now, could also have the potential to serve over the long term. Additional studies would be required to fully evaluate potential long-term alternatives and understand the potential impacts of each to public access, recreation, visual resources, sand supply, and habitat. Nonetheless, the current feasibility of several categories of project alternatives is reviewed below.

### **“No project” Alternative**

Cabrillo’s analysis indicates that the “no project” alternative (full removal of the remnant groin and unpermitted stabilization platform), would leave the 57-foot gap in the Carlsbad Blvd. seawall unprotected from erosion and wave action. During high wave events, such as occurred in February 2018, beach narrowing and sand loss could expose the unprotected soil and fill material in the gap to erosion by wave runup. In short order, erosion of this material would begin to undercut the Carlsbad Blvd. sidewalk, and, eventually, the southbound bike and vehicle lanes. The lowering of sand levels and erosion of the seawall gap would also hinder and eventually prevent use of the existing beach access point by State Parks and members of the public. These threats to existing City infrastructure and public access could emerge as soon as the first winter season – or even during a single large storm event -- following removal of the riprap protection. Thus, the “no project,” full removal alternative is not a viable option for protecting the existing structures and coastal-dependent uses at the site.

### Managed Retreat

Though not considered by Cabrillo, various “managed retreat” alternatives can be envisioned that would combine removal of the remnant groin and stabilization platform with the phased relocation of the public access point and City infrastructure (i.e., sidewalk, bike lane driving lanes), allowing natural shoreline to occur in the area currently occupied by the protection structures, sidewalk and roadway. It is obvious, however, that any such managed retreat strategy, applied in isolation to an area as small as the 57-foot seawall gap, have the same fatal flaws as the “no project” alternative, and would need to be implemented as part of a broader hazards adaptation strategy for the Agua Hedionda area or the City as a whole, addressing such issues as traffic, coastal access and recreation, public utilities and infrastructure, and on-going shoreline change. While the City has recently taken steps toward developing long-term adaptation strategies, including the adoption of a *Climate Action Plan* (September 2015) and preparation of a *Sea Level Rise Vulnerability Assessment* (December 2017), the development and implementation of any coordinated plan of managed retreat would take years, and could not address the more immediate hazards to existing structures and coastal-dependent uses at the project site.

### Vertical Seawall & “Hard” Protection Alternatives

At the request of Commission staff, Cabrillo evaluated the alternative of constructing a vertical seawall, contiguous with and of similar design to the existing seawall, to protect the 57-foot gap in the seawall. A new beach access point, such as a stairway or ramp, could be incorporated into the seawall design to serve the needs of the public and State Parks, as could a platform on which to locate the State Parks lifeguard tower. An example of this type of multi-use seawall design can be found at Middle Beach, just to the north of the project site.

As a general matter, a vertical seawall would occupy a smaller footprint than a riprap revetment, reducing the area of encroachment onto the beach. Even in the present case, where there is a need to include public access structures (accessway, lifeguard tower platform) into the design, and with minimal space available to place such amenities landward of the seawall due to the presence of Carlsbad Blvd., it is likely that a vertical seawall alternative would reduce beach encroachment. However, seawall would be more expensive to build and maintain. A crucial complication at the project site is the fact that the existing seawall was constructed by the U.S. Army Corps of Engineers, in coordination with the City of Carlsbad, and any alteration to or expansion of this structure is expected to require a Section 408 permit (33 USC 408 – Use or Alteration of a Civil Works Project by another party). Based on initial conversations with Army Corps staff, the amount of time necessary to design, fund and undergo Section 408 review for a new seawall project, in combination with the permit review processes of other agencies, is on the order of two years or more. As discussed above, the threats from erosion to City infrastructure and public access at the project site are immediate, and would have to be addressed in the interim even if a vertical seawall alternative were to be implemented.

### Soft Protection/Beach Nourishment

A third category of potential alternatives includes “soft” protection strategies, including the beach nourishment or the construction of winter berms to rebuild the beach and provide a natural buffer against coastal storms. Any such strategy would need to place on the beach -- and periodically replenish -- quantities of sand sufficient both to protect the 57-foot gap in the

seawall against winter storm waves and to assure public and State Parks access to the beach. The quantity of sand required to maintain the beach and sustain the necessary level of protection would also increase over time as sea level rises. Alternatively, a winter berm could be constructed on an annual basis by scraping sand from the foreshore beach zone or importing sand.

Beach nourishment of Carlsbad Beach in the form of sand dredged from nearby Agua Hedionda lagoon has been carried out by Cabrillo every one to three years since 1955; in recent decades, the individual sand placement events have been authorized by the Commission under multiple CDPs (e.g., CDP Nos. F5536, 6-93-193, 6-97-045, 6-00-111, 6-01-080, 6-04-054, 6-06-061, 6-08-047, 6-10-046, 6-14-1128, 6-17-032). Since 1988, approximately 1.1 million cubic yards of sand have been placed at South Beach in 12 individual nourishment events, most recently in 2018. Under the generally sand-starved conditions at South Beach due to updrift impoundment (e.g., at Oceanside Harbor and Agua Hedionda), the recent frequency (1-3 years) and volumes (60,000 to 100,000 cubic yards per event since 2000) of dredged sand placement at South Beach have been sufficient to maintain a modest pocket beach in the area between the former groin and outfall jetties, but not to prevent wave contact with the base of the Carlsbad Blvd. seawall in the area immediately south of the groin during high tides and/or high wave conditions ([Exhibit 5](#)). In the absence of the groin or other shoreline protection, beach nourishment at historical levels would not assure protection of the gap in the seawall, particularly during winter storms. A beach nourishment program involving more frequent placement events, larger sand volumes, and/or a modified distribution of sand could potentially provide enough protection to reduce or eliminate the need for armoring at the project site, but the specific nourishment regime that would be required is unknown, and would need to be determined through a detailed, site-specific study. Similarly, the dimensions and configuration of a seasonal sand berm sufficient to protect the seawall gap and public access at the project site have not been determined. Given that the amount of dredged sand from Agua Hedionda is finite, and must be distributed among multiple nourishment sites, it may also be necessary to identify additional sand sources in order to implement an augmented nourishment program at the project site. Additional study would also be required understand the ongoing costs associated with frequent nourishment or annual berm construction, and evaluate potential adverse impacts to sensitive species, public views, public access and recreation.

As discussed previously, the threats from erosion to City infrastructure and public access at the project site are immediate, and would have to be addressed in the interim even if a beach nourishment or “soft” protection alternative were to be implemented over the longer term. Based on the above considerations, the Commission finds that temporary shoreline protection is necessary in this case to protect the existing development and coastal-dependent uses at the site that are in danger from erosion.

#### Design Alternatives & Minimization of Impacts

Even in situations where a shoreline protective structure is the only feasible alternative for protecting existing structures or coastal-dependent uses, Section 30235 requires that the required protection be designed to eliminate or mitigate adverse impacts to shoreline sand supply. Such impacts include beach encroachment (the displacement of recreational beach area with hard structures), and the fixing of the backshore, reducing the supply of sand to the nearshore from

natural erosion and making the beach more vulnerable to narrowing or loss with sea level rise and shoreline retreat. In the present case, a protective structure of sufficient size to protect both the gap in the seawall and public access at the site is necessary; nonetheless, in order to assure that impacts to sand supply, beach access, and other coastal resources are minimized, design alternatives that could feasibly reduce the beach footprint of the structure must be evaluated.

In the present configuration, the remnant groin and stabilization platform occupy over 6000 square feet of public beach and extend seaward up to 75 feet from the seawall at the back of the beach. As built, the structure also includes a 30-foot wide arm of rock extending approximately 75-feet northward along the beach scarp from the semi-circular portion of the stabilization platform ([Exhibits 3, 5](#)). The shoreline protection structure was constructed using available riprap materials, including large stone (of up to 10 tons) and a mixture of smaller rocks, concrete debris, and beach cobbles, left over from the prior groin. The footprint of the proposed shoreline protection structure is larger than is strictly necessary to protect the 57-foot gap in the Carlsbad Blvd. seawall because it was also designed to provide for public access through the gap and onto the beach, to allow access for State Parks emergency vehicles and to preserve a flat, stable platform on which to locate the State Parks lifeguard tower that has historically served South Beach.

The existing seawall gap is the primary public access point for the South Beach portion of Carlsbad State Beach, and warrants protection as a coastal-dependent use (see above). This access point is, for practical purposes, the only viable route through which State Parks emergency vehicles can access the beach. Thus, while it would be technically feasible to protect the seawall gap with a significantly smaller, linear revetment descending immediately from the edge of the sidewalk, such a structure would not provide for adequate public access to the beach, nor provide the emergency vehicle access which State Parks has stated is necessary for assuring safe beach access and recreation during the crowded summer months (L. Urbach, pers. comm.).

Similarly, safe public access and recreation at this segment of Carlsbad State Beach is promoted by the positioning of a lifeguard tower at or near the seawall gap. The current position of the lifeguard tower atop the stabilization platform, at an elevation of +19 feet MLLW also affords clear lines of site along South Beach to the north and south. Moreover, based on information provided by the applicant and State Parks district superintendent Lisa Urbach, there are no feasible alternative locations for the lifeguard tower that would allow for the use of a smaller shoreline protective structure. Although there are several lifeguard towers along the seawall at Middle Beach to the north, they are separated from South Beach by the Agua Hedionda outfall channel, and are too distant to allow for adequate lifeguard response times during an emergency. In contrast to Middle Beach, the seawall and sidewalk at South Beach were not designed to accommodate a lifeguard tower; placing a tower on the sidewalk here would assure its safety and stability, but would interfere with pedestrian access along this popular shoreline walkway. The higher elevation back-beach areas between the stabilization platform and the outfall jetty are currently above typical wave run-up (and may provide adequate lines of sight), but nonetheless have the potential to be exposed to erosion and high waves during future storms, particularly given the reduced beach widths expected to result from the partial removal of the groin. During a May 22, 2019 site visit, Commission staff estimated that the higher elevation portion of the beach is at present approximately 25 to 35 feet wide. While this back beach area could likely

provide a stable site for the lifeguard tower over the coming summer, it is unclear how the beach profile will evolve in the future, and it is possible that a lifeguard tower located on the northern portion of the beach could be undermined and require new protection of its own in future winters. The beach to the south of the gap is narrow, subject to frequent tidal and wave action, and at present cannot provide a stable location to site a lifeguard tower. Based on these considerations, the Commission agrees that including a platform for the lifeguard tower in the design of the temporary shoreline protection structure is warranted to protect public access amenities at the site.

However, even with these allowances, the structure, as built, does not minimize encroachment on the beach to the extent feasible. The Commission's senior engineer, Dr. Lesley Ewing, has reviewed the stabilization platform design, and concludes that the footprint of the structure could be further reduced by (1) restacking the riprap along the seaward face of the platform (using imported larger rock, if necessary) to achieve slopes of 2:1 (horizontal to vertical) or steeper; (2) removing undersized riprap from the face of the structure and where it is scattered around the periphery of the platform; and (3) removing the 75-foot long, 25-foot wide northern extension of riprap and conforming more closely to the original, semi-circular design of the stabilization platform shown in the May 2018 plans.

The seaward face of the stabilization platform was constructed at slopes ranging from 3:1 to 4:1, using a mixture of rocks, concrete debris and natural cobble of varying sizes remaining from the pre-existing groin, some of which is undersized for the wave conditions to which it could be exposed. With proper engineering, careful rock placement, and use of larger rock, the Commission's senior engineer has concluded that it should be feasible to increase the slope (and reduce the beach footprint) of the stabilization platform, without reducing the radius at the top. Further, she has observed that some of the rock on the beach scattered around the edges of the structure – generally the smaller rock and debris – is not serving any protective purpose and can be removed.

Cabrillo has argued that the extension of riprap to the north of the semi-circular stabilization platform serves to maintain the northern portion of the beach and protects the access route (for pedestrians and vehicles) descending to the north from the top of the platform, and should be retained. Dr. Ewing has reviewed this aspect of the proposed structure, and agrees that the riprap extension protects the sand immediately behind it from wave attack, but sees no substantial evidence that it is this alongshore extension of riprap, rather than the cross-shore length of the full structure, or other factors such as the recency of beach nourishment, that controls the width of the northern portion of the beach. Moreover, as discussed above, the public beach is not, at present, in imminent danger of erosion, and if it were, no analysis has been completed to demonstrate that the northern riprap extension is the most effective and least environmentally-damaging way to protect the beach.

Based on this analysis, the Commission is including [Special Condition 14](#), which requires Cabrillo to submit, for the Executive Director's review and approval, revised final project plans which include several changes to the shore protection structure to minimize its beach footprint and encroachment impacts, including (i) restacking of the riprap on the seaward face of the structure to achieve a 2:1 (h:v) slope, or steeper, (ii) removing all excess riprap and debris from

the beach; and (iii) removing the northern riprap extension and reconfiguring the northwestern face of the stabilization platform to reduce the footprint on the beach.

Even as modified, the reconfigured shoreline protection structure will continue to encroach on public sandy beach area, and, over longer timeframes, can be expected to combine with the adjacent seawall to prevent bluff (and roadway fill) erosion from contributing sand to the beach and littoral cell. However, on a short-term basis, these impacts are offset by the benefit to the public from ensuring that the Carlsbad Blvd. sidewalk and southbound bike and vehicle lanes are not undermined by erosion, and that the existing public access and State Parks uses at the seawall gap are maintained until a long-term solution for the site can be developed and implemented. To this end, [Special Condition 13](#) clearly states that the remnant groin and unpermitted stabilization platform are being authorized for a five-year period and are intended as a temporary measure. Thus, the sand supply impacts are limited to the time during which the revetments are in place, and will not be permanent or otherwise unmitigated.

### ***Conclusion***

Consistent with Coastal Act Section 30235, the Commission finds that Carlsbad Boulevard is an existing structure in danger from erosion that requires temporary shoreline protection. The Commission also finds that the existing beach access point, located at the gap in the Carlsbad Blvd. seawall, is necessary to provide adequate public access to the beach and represents a coastal-dependent use that is also threatened by erosion. Furthermore, State Parks' use of the existing beach access point for the ingress and egress of emergency vehicles, and as a stable location for placing a lifeguard tower, are necessary to ensure safe public access and beach recreation. These uses are also threatened by erosion.

To ensure that any adverse impacts on local shoreline sand supply are temporary, [Special Condition 13](#) authorizes the retention of the groin remnant and the unpermitted stabilization platform for a five-year term beginning from the date of Commission action. In combination with [Special Condition 3](#) of the original CDP, [Special Condition 13](#) requires that Cabrillo or its successor remove the shoreline protection structures at the end of the authorization period unless the Commission authorizes further retention of the revetment under an amendment to this permit or a separate CDP. In addition, in order to assure that potential long-term shoreline sand supply impacts are minimized, the applicant, or its successor in interest, is required to submit a coastal development permit application for implementation of a Long-term Management Plan for this section of Carlsbad Boulevard prior to the end of the five-year authorization period.

In order to minimize beach encroachment impacts in the interim, [Special Condition 14](#) requires Cabrillo to modify the design of the shoreline protective structure to reduce its footprint on the beach. To ensure that the reconfigured structure remains in its approved state, and to ensure it continues to be configured to minimize beach encroachment and impacts to public access, [Special Condition 15](#) requires Cabrillo undertake a monitoring program and submit a monitoring report to the Executive Director to determine settling or seaward movement of the structure. [Special Condition 16](#) requires Cabrillo to maintain the shoreline protection structure in its approved state, and to contact the Executive Director if repair or maintenance is necessary to determine whether a coastal development permit or other authorization is required.

Finally, due to the inherent risk of shoreline development, [Special Condition 17](#) requires Cabrillo to waive liability and indemnify the Commission against damages that might result from the proposed shoreline protective devices. [Special Condition 19](#) further requires Cabrillo to execute and record a deed restriction on the revetment prior to any conveyance of the property. The risks of the proposed development include that the proposed shoreline protective devices will not protect against damage to the street or other structures from waves, storm waves, flooding, and erosion. Although the Commission has sought to minimize these risks, the risks cannot be eliminated entirely. Given that the applicant has chosen to construct the proposed development despite these risks, the applicant and any future property owner must assume the risks.

All of these special conditions will ensure that the revetment remains in a configuration that can be considered the least impactful to coastal resources, consistent with Sections 30235 and 30253 of the Coastal Act and with the California Environmental Quality Act.

#### **E. PUBLIC ACCESS**

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 30211 of the Coastal Act states:

*Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30212 of the Coastal Act states in relevant part:

*(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

Section 30212.5 of the Coastal Act states:

*Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

Section 30214 of the Coastal Act states:

*(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*

*(1) Topographic and geologic site characteristics.*

*(2) The capacity of the site to sustain use and at what level of intensity.*

*(3) The appropriateness of limiting public access to the right to pass and repass depending on such factors as the fragility of the natural resources in the area and the proximity of the access area to adjacent residential uses.*

*(4) The need to provide for the management of access areas so as to protect the privacy of adjacent property owners and to protect the aesthetic values of the area by providing for the collection of litter.*

Public access onto the South Beach portion of Carlsbad State Beach is limited due to the presence of the Agua Hedionda outfall channel directly to the north, the presence of the existing seawall sidewalk barrier, and the relatively high relief and lack of vertical public accessways on the coastal bluffs to the south. The nearest public beach access to the south occurs approximately 0.7 miles away, at Terra Mar Point. Thus, the access point at the project site, corresponding to the location of the remnant groin and the gap in the seawall, is critical for maintaining public access and beach recreation at South Beach. The stabilization platform is designed to protect and maintain this access point for the benefit of the public and State Parks' operations, and would not have adverse impacts on vertical access.

Lateral access is available along the South Beach except during high tide or storm events when the area south of the remnant groin may become impassable due to wave runup. Although the intent of the project is to maintain public access on Carlsbad Boulevard, including access to the beach, the stabilization platform and remnant groin occupy physical beach space that would otherwise be available for lateral beach access and recreation. The structure's location and configuration is such that, during lower tides or high wave conditions, it is likely to interfere with lateral access along the shoreline.

As discussed above, the Commission's senior engineer has reviewed the stabilization platform design and has concluded that the structure does not minimize encroachment on the beach to the extent feasible. The seaward face of the stabilization platform was constructed at slopes ranging from 3:1 to 4:1, using a mixture of rocks, concrete debris and natural cobble of varying sizes remaining from the pre-existing groin. Recent site photographs suggest that at present the riprap extends for a relatively large distance beyond the "rock limits" identified in the project, and that some of the smaller rocks and debris have been dislodged from the revetment slope and have scattered ([Exhibit 5](#)). With the proper selection of rock sizes, if necessary including the importing of off-site materials, along with proper engineering and careful rock placement, the Commission's engineer has concluded that it is likely feasible to refigure the seaward face of the stabilization platform at a 2:1 slope, or steeper, which would significantly reduce the footprint of the structure on its seaward side and reduce impacts to lateral access. Similarly, the Commission's senior engineer has concluded that the northern riprap extension is not necessary

to protect existing structures and public access uses, and can largely be removed and reconfigured to reduce encroachment impacts. [Special Condition 14](#) requires Cabrillo to submit revised final project plans implementing these and other changes to minimize the footprint of the structure, and thus its impacts on public beach access and recreation.

Future impacts may include the dislodging and/or scattering of riprap onto the public beach, as well as more subtle settling or seaward movement of the revetment over time. [Special Condition 15](#) requires Cabrillo to submit a monitoring report to the Commission to determine the status of the shoreline protection structure, including any settling or seaward movement, to ensure that the structure revetment to be configured to minimize impacts to public access. [Special Condition 16](#) requires the Cabrillo to maintain the shoreline protection structure in its approved state, and to contact the Executive Director if repair or maintenance is necessary to determine whether a coastal development permit is required.

Despite these conditions to minimize the footprint of the shoreline protection structure on the public beach, if the structure were to remain in place indefinitely, this segment of Carlsbad's beach would be expected to narrow over time, and eventually be lost, due to sea level rise. In order to avoid and/or mitigate for this incremental, but foreseeable loss of public beach access, the Commission is including [Special Condition 13](#), which authorizes the retention of the remnant groin and stabilization platform for a period of five years from Commission approval, to expire in 2024. This five-year period is intended to allow the applicant and other stakeholders time to develop and implement a Long-term Management Plan that addresses the vulnerability of Carlsbad Boulevard and existing public access amenities and uses in this location to coastal hazards, while minimizing long-term impacts to shoreline sand supply, public access and beach recreation. Public access amenities, including access points and viewpoints, are limited in this area due to constraints imposed by geography and existing development. To ensure future public access improvements, [Special Condition 13](#) also requires that the Long-term Management Plan also provide for continued coastal access and avoid or minimize adverse impacts to sensitive coastal resources.

All of these special conditions will ensure that while the remnant groin and stabilization platform structure remains on the beach, it will be maintained in a configuration that can be considered as having the least impact to public access and recreation, consistent with the public access and recreation policies of the Coastal Act.

#### **F. UNPERMITTED DEVELOPMENT**

Unpermitted development, including the use of remnant groin materials to construct a new, approximately 150-foot long riprap shoreline protection structure, as described in this staff report, has occurred on the subject site. Although development has taken place prior to submission of this permit amendment application, consideration of the application by the Commission has been based solely on the Chapter 3 policies of the Coastal Act. Approval of this permit amendment does not constitute a waiver of any legal action with regard to the alleged violation, nor does it constitute an admission as to the legality of any development undertaken on the subject site without a coastal permit. In order to ensure that the unpermitted development component of this application is resolved in a timely manner, the subject permit amendment will issue upon Commission approval, with [Special Conditions 14](#), [15](#) and [17](#) required to be fulfilled

within 60-90 days of Commission action. Should the applicant not comply with all of the Special Conditions, the applicant may be subject to future enforcement action to require compliance with the approved permit conditions. Only as conditioned is the proposed development consistent with the Coastal Act.

**G. 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 proposed development has been conditioned in order to be found consistent with the Chapter 3 policies of the Coastal Act. Mitigation measures, including conditions addressing biological resources, environmentally sensitive habitat areas, water quality and oil spill prevention and response, will minimize all adverse environmental impacts. 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 is consistent with the requirements of the Coastal Act to conform to CEQA.

**Appendix A: Substantive File Documents**

Application File and Adopted Findings for Coastal Development Permit No. 9-16-0560

Application File for Coastal Development Permit Amendment No. 9-16-0560-A1

City of Carlsbad Local Coastal Program 2017 (dated August 9, 2017).

Jenkins, S.A. (2013). *Technical Memorandum: Shoreline Evolution Analysis of Impacts Related to Removal of the South Beach Groin at Encina Power Station, Carlsbad, California*. Prepared for NRG Cabrillo Power Operations Inc., February 2013.

Jenkins, S.A., 2018. *Coastal Processes Analysis of Remedial Dismantling Procedures for the Cabrillo Power I LLC South Groin at the Encina Power Plant Station, Carlsbad, California*. Prepared for Cabrillo Power I LLC, March 26, 2018.

Noble Consultants-G.E.C. Inc., 2019. *Project Memorandum: Encina Marine Terminal Groin Removal Assessment*. Prepared for Padre Associates, Inc., May 15, 2019.

**Appendix B:**

**Special Conditions of Coastal Development Permit No. 9-16-0560**

**Following Adoption of CDP Amendment 9-16-0560-A1**

1. **Other Permits and Approvals.** PRIOR TO THE START OF CONSTRUCTION, the Permittee shall provide to the Executive Director copies of all other local, state, and federal permits required to perform project-related work. These permits and approvals include:
  - a. Regional Water Quality Control Board – Los Angeles Region: Final approved 401 Water Quality Certification.
  - b. U.S. Army Corps of Engineers: Authorization under Nationwide Permit #3 and #27, pursuant to Rivers and Harbors Act Section 10 and Clean Water Act Section 404.
  - c. California Department of Parks and Recreation: Right of Entry (ROE) Permit.

Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally necessary.

2. **Mitigated Negative Declaration (MND) Mitigation Measures.** This permit incorporates those mitigation measures identified in the December 2015 *Mitigated Negative Declaration for the Cabrillo Power I LLC Encina Marine Oil Terminal Decommissioning Project* (State Clearinghouse No. 2015101064) concerning marine habitats, biological resources, water quality, and fishing, that are attached to this report as **Appendix B**.

PRIOR TO THE COMMENCEMENT OF DECOMMISSIONING ACTIVITIES, copies of all plans, reports and other materials required under the listed MND mitigation measures shall be provided to the Executive Director for review and approval. No project activities may begin until the Executive Director has provided written approval of these submissions.

3. **Removal of Riprap Groin.** The Permittee shall remove the existing riprap groin in its entirety, **except as provided for under Special Condition 13 of this CDP**, and shall submit for Executive Director review and written approval a plan to properly dispose of the rock comprising the groin at a location off of the beach and outside coastal waters.
4. **Grunion Run Protection & Monitoring.** To the maximum extent feasible, project activities occurring in the intertidal zone and on the beach shall be scheduled outside of the grunion spawning season defined for this permit as the seasonally-predicted grunion run and egg incubation period as identified at the beginning of each year by the California Department of Fish and Wildlife (generally April through August). If scheduling is not possible outside of the grunion spawning season, prior to project activities in the intertidal zone or on the beach, the applicant shall have a qualified biologist conduct a survey of the project site to determine presence of California grunion. If the biologist determines that any grunion spawning activity is occurring and/or that grunion are present in any lifestage in or adjacent to the project site, then no project activities shall occur below or within

25 feet of the semilunar high tide mark during the grunion spawning activity. The observed and shall provide copies of such reports to the Executive Director.

5. **Marine Wildlife Monitoring and Contingency Plan (MWMCP).** PRIOR TO THE COMMENCEMENT OF MARINE OPERATIONS (including offshore and surf zone project activities), the Permittee shall prepare a MWMCP for review and approval by the Executive Director. The Permittee shall implement the MWMCP during all marine operations (e.g., pipeline removal, mooring system removal, pre- and post-project inspection surveys). The MWMCP shall include the following elements, and shall be implemented consistent with vessel and worker safety:
- (a) Prior to the start of offshore activities the Permittee shall provide awareness training to all Project-related personnel and vessel crew, including viewing of an applicable wildlife and fisheries training video, on the most common types of marine wildlife likely to be encountered in the Project area and the types of activities that have the most potential for affecting the animals.
  - (b) A minimum of two qualified marine mammal observers shall be located on the derrick barge or other nearby project vessel to conduct observations, with two observers on duty during all pipeline removal activities. The MWMCP shall identify any scenarios that require an additional observer on the barge or other Project vessel and, in these cases, make recommendations as to where they should be placed to ensure complete coverage of the surrounding marine environment.
  - (d) Shipboard observers shall submit a daily sighting report to the Executive Director no later than noon the following day that shall be of sufficient detail to determine whether observable effects to marine mammals are occurring.
  - (e) The observers shall have the appropriate safety and monitoring equipment adequate to conduct their activities (including night-vision equipment, when applicable).
  - (f) The observers shall have the authority to temporarily halt any project activity that could result in harm to a marine mammal, sea turtle or other special status species, and to and to suspend those activities until the animals have left the area. For monitoring purposes, the observers shall establish a 1,640 foot (500 meter) radius avoidance zone around the derrick barge and other Project vessels for the protection of large marine mammals (i.e., whales) and a 500-foot (152-meter) radius avoidance zone around the derrick barge and other Project vessels for the protection of smaller marine mammals (i.e., dolphins, sea lions, seals, etc.) or sea turtles.
  - (g) In the event that a whale becomes entangled in any cables or lines (e.g., vessel mooring lines), the observer shall immediately notify NMFS and the Executive Director, so appropriate response measures can be implemented. Similarly, if any take involving harassment or harm to a marine mammal or sea turtle occurs, the observer shall immediately notify the Executive Director, NMFS and any other required regulatory agency.
  - (i) Propeller noise and other noises associated with pipeline removal and other decommissioning activities shall be reduced or minimized to the extent feasible.

- (j) In addition to on-site monitoring, the MWMCP shall describe measures to be taken during the transit of project vessels and equipment to the project site in order to minimize the risk of collisions with marine mammals and/or sea turtles. Such measures shall include, but are not limited to, restrictions on vessel speed.
  - (k) Marine observers and vessel operators shall monitor for and take steps to avoid observe fishing gear during vessel transit and project operations.
  - (l) The captain of the derrick barge and the Permittee's project management team shall be responsible for ensuring that the MWMCP is implemented.
  - (m) A final report summarizing the results of monitoring activities shall be submitted to the Executive Director and other appropriate agencies no more than 90 days following completion of pipeline removal and other offshore activities. The report shall include:
    - (a) an evaluation of the effectiveness of monitoring protocols and
    - (b) reporting of (i) marine mammal, sea turtle, and other wildlife sightings (species and numbers); (ii) any wildlife behavioral changes; and (iii) any project delays or cessation of operations due to the presence in the project area of marine wildlife species subject to protection.
6. **Limitations on Night Operations:** Project activities shall be limited to daylight hours to the maximum extent feasible. Night work shall be allowed only when necessary to (a) ensure conformance to the seasonal timing restrictions outlined in Special Condition 7, and (b) when necessary to take advantage of low-tide conditions needed for the proposed work in the surf zone and intertidal areas. Night-lighting required for Project activities shall be shielded and directed to the immediate work area to minimize light spillage into surrounding areas. Night lighting of any project vessels remaining on site shall be limited to that necessary to maintain navigational safety and to serve the nighttime site monitors who will be present on board the derrick barge.
7. **Project Timing; Closed Areas**
- A. **Seasonal Timing.** Project activities shall be conducted between September 5 and May 31 of any set of years, and must be conducted consistent with the timing restrictions in **Special Condition 4**. Project activities shall not be conducted on weekends and holidays, with the exception of instances when the work requires an extreme low tide that only occurs on a weekend or holiday. No changes to the seasonal timing of the approved project shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally necessary.
  - B. **Closed Areas.** Open water areas closed to commercial fishing and recreational boating during project activities shall be minimized and limited to those areas necessary to carry out the project and maintain the safety of divers, other project personnel and the public. All project vessels shall be marked and lighted so as to be visible to boaters, and sea surface areas above active underwater project operations shall be clearly and appropriately demarcated.
8. **Revised Spill Prevention and Response Plan.** PRIOR TO COMMENCEMENT OF DECOMMISSIONING ACTIVITIES, the Permittee shall submit a revised, project specific

Spill Prevention and Response Plan to the Executive Director for review and approval. The Plan shall identify the worst-case spill scenario and demonstrate that adequate spill response equipment will be available. The Plan shall also include preventative measures the Permittee will implement to avoid spills and clearly identify responsibilities of onshore and offshore contractors and the Permittee personnel and shall list and identify the location of oil spill response equipment (including booms), appropriate protocols and response times for deployment. Petroleum-fueled equipment on the main deck of all vessels shall have drip pans or other means of collecting dripped petroleum, which shall be collected and treated with onboard equipment. Response drills shall be in accordance with Federal and State requirements. Contracts with off-site spill response companies shall be in-place and shall provide additional containment and clean-up resources as needed.

9. **Prohibition on Marine Discharge.** There shall be no marine discharge of sewage or bilge/ballast water from project vessels during offshore project activities. A zero-discharge policy shall be adopted for all project vessels.
10. **Stormwater Management Plan:** PRIOR TO ANY ONSHORE PROJECT ACTIVITIES, the Permittee shall provide for the Executive Director's review and approval a Stormwater Management Plan that describes all structural and non-structural measures the Permittee will implement to avoid and minimize erosion and stormwater-related impacts during construction activities. The Plan shall identify measures the Permittee will implement to store and/or contain materials, soils, and debris originating from the project in a manner that precludes their uncontrolled entry and dispersion into nearby waters or habitat areas. Any debris that inadvertently enters coastal waters or waters shall be removed immediately. The Plan will identify Best Management Practices (BMPs) that will be implemented during project activities to prevent erosion and excessive sedimentation and to protect coastal waters and upland habitats from stormwater runoff associated with project activities.
11. **Future Soil Remediation.** The Permittee shall apply for and receive a Coastal Development Permit Amendment prior to undertaking any future soil remediation work stemming from compliance with State Lands Commission MND measure **MM HAZ-3a**, unless the Executive Director determines that no amendment is legally necessary.
12. **Shoreline Public Access Plan.** PRIOR TO THE COMMENCEMENT OF ONSHORE DECOMMISSIONING ACTIVITIES, the Permittee shall provide, for the Executive Director's review and approval, a Shoreline Access Plan. At a minimum, the Plan shall: (1) provide an alternate lateral access route for pedestrians (including appropriate signage and demarcation) along Carlsbad Boulevard, consistent with safety considerations, during periods when the western sidewalk must be closed; (2) identify the minimum necessary beach work area to be closed during the beach segment of the project; and (3) provide for lateral access along the beach to the maximum extent feasible consistent with public safety.
13. **Limited Authorization Period and Long-Term Hazards and Beach Management**

- (a) Authorization Period. This coastal development permit amendment authorizes the shoreline protection for five years from the date of this permit approval (i.e., to June 12, 2024) or until such time when the currently existing structures warranting armoring are no longer present or no longer require armoring for such protection, whichever occurs first. No later than the end of this authorization period, the permittee or its successor in interest shall remove the remainder of the groin material and temporary stabilization platform pursuant to **Special Condition 3** of the original CDP No. 9-16-0560, except as provided for in subsections (b) – (d) of this special condition.
- (b) Stakeholder Engagement. Within one year of the approval of this permit (i.e., by June 12, 2020), the permittee or its successor shall make a good-faith effort to convene a meeting of other stakeholders and regulatory agencies, including but not limited to the City of Carlsbad, California Department of Parks and Recreation, the U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board, California State Lands Commission, and Coastal Commission staff, to discuss the development of a long-term plan to address coastal hazards and public beach access at the project site. The permittee shall submit evidence of this effort (e.g., meeting report or minutes) for the Executive Director’s review by June 12, 2020. Subsequent to this initial meeting, the permittee shall submit annual written updates, due by June 12 of each year through 2023, detailing planning progress.
- (c) Long-term Management Plan. No later than five years after the approval of this permit (i.e., by June 12, 2024), the permittee or its successor in interest, or, if applicable, a third-party stakeholder, shall apply for a regular coastal development permit to implement a Long-term Management Plan for the existing gap in the South Carlsbad Beach seawall, public access and beach recreation that addresses current and future coastal hazards present at the site. The Management Plan shall do all of the following: (i) Provide for the longer-term protection of Carlsbad Boulevard and other existing structures that are in danger from erosion, and maintain or enhance coastal access, public opportunities for coastal recreation, public views, and other coastal resources, including beach and shoreline habitat, at the project site, and incorporate measures to adapt to sea level rise; (ii) Evaluate alternatives for ensuring the protection of existing structures and public access while avoiding, eliminating or reducing impacts to shoreline processes and sand supply, public access and recreation, public views, and other coastal resources at the site. Alternatives considered shall include, but need not be limited to, managed retreat, beach nourishment and other “soft” protection measures, hard protection, including retention of the existing temporary stabilization platform, and combinations of these approaches; (iii) Evaluate and consider all potential constraints, including geotechnical and engineering constraints, potential phasing options with timelines, project costs for the preferred project and alternatives, and potential funding options, and shall be submitted with documentation sufficient to support all analyses, methodologies, and conclusions; (iv) Provide a timeline or event-driven schedule for implementation of the plan.
- (d) Retention of Shoreline Protection. If, as a part of the permit application required by subsection (c) of this Special Condition or in a separate amendment to this permit, the permittee or its successor proposes to retain any portion of the permitted shoreline protection structure beyond the five year authorization period, the permittee is required

to include in the permit application an evaluation of alternatives to the shoreline protection and related elements that are capable of protecting the coastal-dependent uses and the existing structures in danger from erosion while eliminating or reducing impacts to public access, public views, shoreline processes including sand supply, marine resources, and other coastal resources at the site. The information concerning these alternatives must be sufficiently detailed to enable the Coastal Commission to evaluate the feasibility of each alternative for addressing site issues under the Coastal Act. The permittee must also include mitigation for the effects of any remaining portion of the shoreline protection on public access and recreation and other coastal resources during the expected life of the remaining shoreline protection beyond, but not including, the initial five year period of authorization.

- (e) Condition Compliance by a Third Party. With the written permission of the permittee or its successor, the requirements of subsections (b), (c) and (d) of this Special Condition may be assigned to, and fulfilled by, a third party, such as the City of Carlsbad or another stakeholder.
- (f) Extension of Authorization Period. The five-year authorization term may be extended, for good cause, through Commission approval of a CDP amendment. Any application for such an amendment shall include a description of the grounds for extending the authorization of the temporary shoreline protection structure, provide evidence that preparation of the Long-Term Management Plan required under subsection (c) has been initiated and include a status report, and include the alternatives analysis required under subsection (d) of this Special Condition.

14. **Revised Final Temporary Shoreline Protection Plans.** WITHIN 90 DAYS OF COMMISSION APPROVAL, the permittee shall submit Revised Final Temporary Shoreline Protection Plans to the Executive Director for review and written approval. The Plans shall be prepared by a licensed professional engineer, shall be based on current professionally-surveyed and certified topographic elevations, referenced to an identified vertical datum, for the entire site, shall include a graphic scale, and shall depict the shoreline protection structure in both plan view and cross-section. The Revised Final Plans shall be in substantial conformance with the previously submitted project plans (entitled “Construction Plan”, dated April 19, 2018; later revised and updated as the “Progress Topographic Map As-Built Overlaying Proposed Design, dated July 19, 2018) except that they shall be modified to incorporate the required project changes details below:

- (b) Riprap Restacking & Removal. To the maximum extent feasible, the riprap comprising the seaward face of the temporary stabilization platform shall be restacked at a 2:1 (horizontal to vertical) slope or steeper, and shall be sited and designed to occupy the minimum area and use the minimum amount of revetment-suitable riprap necessary to protect the gap in the Carlsbad Boulevard seawall and the existing public access point, to provide for public and State Parks vehicle access to the beach, and to provide a stable platform for locating a State Parks lifeguard tower. Additional required specifications are as follows:
  - vii. The portion of the riprap extending approximately 60 feet north of the main arc of the stabilization platform shall be removed, or otherwise relocated and reduced in

area to the minimum necessary to protect the gap in the seawall, the existing concrete pedestrian ramp, State Parks vehicle access to the beach, and a stable platform for the lifeguard tower.

- viii. The face of the stabilization platform may transition to lesser slopes at the northern and southern ends of the structure to allow for the provision of safe public access ramps.
  - ix. The size of riprap material used during restacking shall be sufficient to allow for the construction and retention of a stable 2:1 (h:v) revetment slope, or steeper, capable of withstanding storm wave conditions typical of the project site. Undersized riprap present in the seaward face of the shoreline protection structure shall be removed to the extent feasible to prevent potential dislodging and encroachment on the beach.
  - x. To the extent feasible, the required modifications to the stabilization platform shall use riprap available on-site; however, rock imported from off-site (e.g., larger stone) may be used if necessary to achieve stability at the steeper slopes required in this condition.
  - xi. The toe elevation of the stabilization platform can be modified if necessary to protect against undermining and assure the stability of the structure while achieving the steeper slopes required in this condition.
  - xii. The top of the stabilization platform shall remain at an elevation enabling unrestricted public access from the Carlsbad Blvd. sidewalk. The radius of the top of the platform shall not exceed 38 feet, as shown in the July 19, 2018 As-Built Plans.
- (d) Riprap Removal and Restoration. All riprap and related armoring debris that are not part of the approved reconfigured shoreline protection structure shall be removed from the site and disposed of consistent with **Special Condition 3** of the original CDP, and the affected areas restored to natural conditions. Any excess riprap and debris currently scattered around the periphery of the structure shall also be subject to this requirement. Natural beach cobble native to the site shall be left in place.

All requirements above and all requirements of the approved Revised Final Armoring Plans shall be enforceable components of this CDP. The Permittee shall undertake development in conformance with this condition and the approved Revised Final Armoring Plans unless the Commission amends this CDP or the Executive Director provides a written determination that no amendment is legally required for any proposed minor deviations.

Construction associated with carrying out the requirements of this condition shall be conducted in compliance with all other special conditions of this CDP, including (but not limited to) those restricting the seasonal timing of project activities (**Special Conditions 4 and 7**) to protect California grunion and avoid peak recreational periods, and **Special Condition 11**, requiring the submittal of a Shoreline Access Plan assuring continued public access during construction periods.

15. **Shoreline Protection Monitoring Program**

- (a) WITHIN 90 DAYS OF COMMISSION APPROVAL, the permittee shall submit, for review and written approval of the Executive Director, a monitoring plan for the existing temporary shoreline protection structure. The purpose of the plan is to monitor and identify damage or changes to the shoreline protection structure such that repair and maintenance is completed in a timely manner to avoid further encroachment on the beach. The monitoring plan shall incorporate, but not be limited to, the following:
- i. An evaluation of the current condition and performance of the structure, addressing any migration or movement of rock which may have occurred on the site and any significant weathering or damage to the revetment that may adversely impact its future performance.
  - ii. Measurements, taken from permanent benchmarks, to determine settling or seaward movement of the shoreline protection structure. Changes in the beach profile fronting the site shall be noted and the potential impact of these changes on the effectiveness of the revetment evaluated.
  - iii. Recommendations on any necessary maintenance needs, changes or modifications to the shoreline protection to assure its continued function and to assure no encroachment beyond the permitted toe.
- (b) The above-cited monitoring information shall be prepared by a licensed engineer familiar with shoreline processes. Monitoring shall occur at least once per year and continue throughout the life of the revetment or until the revetment is removed or replaced under an amendment to this coastal development permit or pursuant to a separate coastal development permit. Results of the annual monitoring shall be submitted to the Executive Director each year.

16. **Future Maintenance.** The permittee or its successor shall maintain the existing shoreline protection structure in its approved state. Any change in the design of the structure or future additions to or reinforcement of the structure beyond exempt repair or maintenance as defined in Section 13252 of Title 14 of the California Code of Regulations to restore the structure to its original condition will require a coastal development permit. However, in all cases, if after inspection it is apparent that repair and maintenance is necessary, the applicant shall contact the Executive Director to determine whether a coastal development permit or an amendment to this permit is legally required, and, if required, shall subsequently apply for a coastal development permit or permit amendment for the required maintenance.

17. **Assumption of Risk, Waiver of Liability and Indemnity Agreement.** By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from storm waves, flooding, and erosion; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project

against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

18. **Liability for Costs and Attorneys' Fees.** By acceptance of this permit, the Applicant/Permittee agrees to reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees -- including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys' fees that the Coastal Commission may be required by a court to pay -- that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Applicant/Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission. **WITHIN 45 DAYS OF COMMISSION ACTION**, the Permittee shall enter into a separate written agreement with the Executive Director agreeing to reimburse the Coastal Commission for all court costs and attorney's fees, consistent with the requirements of this condition.
  
19. **Deed Restriction:** PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against the parcel(s) governed by this permit a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and enjoyment of that property; and (2) imposing the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The deed restriction shall include a legal description of the entire parcel or parcels governed by this permit. The deed restriction shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the terms and conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes, or any part, modification, or amendment thereof, remains in existence on or with respect to the subject property. The deed restriction may be removed by the applicant or its successor once all terms and conditions of this permit, including those regarding removal of the temporary shoreline protection development, have been satisfied, and upon receiving written confirmation from the Executive Director that the terms and conditions of this permit have been fulfilled.