CALIFORNIA COASTAL COMMISSION
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F13b

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STAFF REPORT: REGULAR CALENDAR

Application No.:	**4-18-0206**
Applicant:	**California Department of Parks and Recreation**
Location:	Gaviota State Beach, Santa Barbara County.
Project Description:	Repair, protect and reopen pier at Gaviota State Park through installation of 1700 tons of rock rip-rap, 90-ft. seaward extension, replacement of pilings as well as removal and replacement of timber decking and supports, and after-the-fact authorization for installation of upgraded boat hoist.
Staff Recommendation:	Approval with conditions

SUMMARY OF STAFF RECOMMENDATION

The California Department of Parks and Recreation (State Parks) has submitted a coastal development permit for the repair and reconstruction of the 570 foot long pier at Gaviota State Park as well as the installation of rip-rap rock slope protection at the landward pier abutment. The Gaviota pier has provided important public access and recreation amenities since its construction in 1951, and for the past several decades it has also provided the only public boat

launch facility for the over 100 miles of coastline between Port San Luis to the north and Goleta Beach Park to the south. Because the pier is located adjacent to the access-restricted Hollister and Bixby Ranches, the boat launch system it is equipped with has traditionally seen extensive use by members of the public seeking access to the fishing, diving, and surfing areas offshore of the Ranches.

The Gaviota pier has been closed to the public since it suffered severe storm and wave damage in March of 2014. In order to repair and re-open it, State Parks is proposing to remove and replace all of the pier's timber decking, guardrails and support bracing, as well as roughly 11 damaged and deteriorated pilings. Because the most seaward approximately 90 foot section of the pier collapsed and was lost in the 2014 storm, State Parks is also proposing to replace it in-kind with a new, approximately 90 foot long seaward extension that would involve installation of 40 new vertical pilings and 15 new batter pilings (piles installed at an angle rather than completely vertical). Re-opening the pier is an important project that, if carried out correctly, will help maintain and maximize access to the coast, as well as help protect and upgrade recreational boating facilities, as called for by the Coastal Act .

As part of the project, State Parks is additionally requesting after-the-fact authorization for activities carried out in 2005, without benefit of a CDP, to remove a three-ton capacity boat hoist and associated electrical equipment from the pier and replace it with a four-ton capacity hoist, new electrical equipment, an automated access card reader, and video surveillance equipment. State Parks is also requesting after-the-fact authorization for its implementation, also without benefit of a CDP, of a Boat Hoist Program that established new operational requirements and use limitations for the hoist. Based on an initial review by Commission permitting and enforcement staff, additional unpermitted development may also be present at the project site. The permit history of this development - an approximately 150 foot long rock rip-rap revetment that extends along the foot of the pier access road - is still being evaluated, and State Parks has not included it in its request for after-the-fact authorization.

State Parks is also proposing to install up to 1,700 tons of rock at the pier's landward abutment. A similar revetment was also proposed as part of a previous repair project in 1999 but was abandoned at that time due to concerns about adverse impacts to coastal resources. Although the pier abutment is protected by a natural rock slope face and an area of intertidal reef, the proposed rip-rap rock is intended to reduce wave energy and uprush towards the bottom of the pier during storm conditions. The installation of the proposed rip-rap would result in the loss of public beach areas and an approximately 1,200 square foot section of the intertidal rocky reef that is present below the pier landing – a marine habitat recognized as having special biological significance due to its relative rarity and inclusion within the Kashtayit State Marine Conservation Area. Commission staff therefore worked closely with State Parks and its engineering consultant to evaluate alternative means of protecting the pier from wave uprush and limiting deterioration of the natural rock slope around key elements of the pier's abutment. These efforts resulted in the identification of feasible alternative means of protecting the pier and abutment without the need for a rock revetment. However, State Parks has decided not to revise its project to pursue these alternatives and continues to propose the revetment. Similar to when it was proposed in 1999, this revetment would raise a variety of conflicts with the Coastal Act. Therefore, **Special**

Condition 5 would prohibit installation of a rock revetment at the pier landing and require State Parks to submit revised project plans that do not include it.

Additional Coastal Act issues raised by the proposed project include the fill of coastal waters due to the installation of pier piles; potential adverse impacts to coastal water quality due to accidental discharges or releases of construction materials; the potential for injury or disturbance to marine mammals during piling installation activities; and the temporary loss of public beach use and access during construction.

To address these issues, State Parks has proposed to implement a variety of resource protection and mitigation measures, including: (1) employing marine wildlife observers during piling installation work; (2) following best management practices to prevent spills or storm water contamination; and (3) installing mesh netting below active construction and demolition areas to prevent accidental release of construction or demolition materials into marine waters. The marine wildlife protection measures for pile driving would be memorialized and clarified through **Special Condition 1**. In addition, **Special Conditions 2, 3, 4 and 6** would provide additional protection and enhancement of coastal water quality, marine wildlife, habitats, and public access through the implementation of measures that would help ensure that (1) the pier decking and support structures are constructed from materials that would not adversely affect the water quality or marine life of the marine protected area in which the pier is located; (2) biological surveys are carried out within the pier's construction footprint; (3) public access to and use of the beach area at Gaviota State Beach is protected during the estimated 11 month construction period; and (4) management and operation of the boat hoist and launch system on the Gaviota pier is carried out in a manner that increases recreational boating use and facilitates maximum public access and use.

With implementation of State Parks' proposed impact avoidance and minimization measures and the special conditions described above, the Commission staff believes the project will be carried out consistent with the Coastal Act policies related to wetlands, open coastal waters, marine resources, public access, and water quality. It will also help carry out the Coastal Act's mandate to protect and encourage recreational boating, fishing, and access to the coast. The Commission staff recommends the Commission **approve** CDP Application No. 4-18-0206. The standard of review is the Chapter 3 policies of the Coastal Act.

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APPENDICES

EXHIBITS

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit No. 4-18-0206 pursuant to the staff recommendation.*

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

Resolution:

The Commission hereby approves Coastal Development Permit 4-18-0206 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit amendment is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittees or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittees to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

1. Marine Mammal Precautions.

A. A qualified marine mammal observer approved by the Executive Director shall be present at all times during pile driving and underwater sound-generating installation activities. The monitor shall ensure that the California Department of Parks and Recreation (State Parks) and its contractors fully comply with the conditions of this permit related to biological protection.

B. A gradual ramp-up period shall occur whenever starting pile driving and underwater sound-generating installation activities, and the pile driving and installation equipment shall be operated at its lowest practicable power setting and shall employ the use of sound dampening techniques and/or devices if such techniques and/or devices can be safely used without interfering with effective operations.

C. Pile driving and underwater sound-generating installation activities shall be suspended if any marine mammal is observed within 500-meters of the installation site. Prior to the start of pile driving or underwater sound-generating installation activities, the 500-meter zone shall be monitored for 30 minutes to ensure that it is clear of marine mammals. Pile driving or underwater sound-generating installation activities shall only commence once the observer has declared the 500-meter zone clear of marine mammals. If the 500-meter zone is not entirely visible (e.g., due to dark, fog, etc.), pile driving or underwater sound-generating installation activities shall not commence or, if they are already underway, shall not continue. If a marine mammal approaches or enters the 500-meter zone during the course of pile driving or underwater sound-generating installation activities, those activities shall be halted and delayed until either the animal has voluntarily left and been visually confirmed beyond the shutdown zone or 15 minutes have passed without redetection.

D. The observer shall have the appropriate safety and monitoring equipment adequate to conduct their activities.

2. Protection of Public Access.

Construction shall protect and maximize public access, including by complying with the following:

A. Staging and storage of construction equipment and materials (including debris) shall not take place on any area of public beach. Staging and storage of construction equipment and materials shall occur in inland areas at least 50 feet from coastal waters, creeks or drainage courses, if feasible. Construction is prohibited outside of the defined construction, staging, and storage areas.

B. Use of public parking areas for staging and storage of construction equipment, materials and parking of construction staff vehicles shall be minimized to the extent feasible, shall not exceed a total of 29 parking spaces and shall not reduce the current number of ADA compliant parking spaces. Additionally, continued access to the public shall be maintained throughout the duration of the project construction to beach access trails and routes used for beach launching of boats and other vessels.

C. All beaches, beach access points, and other recreational use areas impacted by

construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any beach sand impacted shall be filtered as necessary to remove all construction debris from the beach.

D. Sand from the beach, cobbles, or shoreline rocks shall not be used for construction material.

3. Boat Hoist Operations and Public Access.

A. PRIOR TO COMPLETION OF CONSTRUCTION ACTIVITIES, State Parks shall provide, for Executive Director review and approval, a revised version of the Boat Hoist Program (included as **Exhibit 4**) and shall implement it upon approval. The revised Boat Hoist Program shall include (a) at least five training and boat inspection opportunities per year; (b) increased outreach and noticing efforts that, at a minimum, include posting notice on-site at Gaviota State Park and its website regarding closures, the Boat Hoist Program's requirements and upcoming training and inspection opportunities; (c) same day training and inspection opportunities; (d) reduced timeframe for activation of hoist access cards; and (e) minimum operational hours of 7AM to sunset, although State Parks shall evaluate future expansion of those hours, as feasible. State Parks may limit these hours when it determines that weather or ocean conditions do not allow for safe boat hoist operations.

Upon approval by the Executive Director, the Boat Hoist Program shall be authorized for a five year assessment period (staring on the date of approval). At the conclusion of the fourth year of the assessment period, the Boat Hoist Program would be subject to re-evaluation and re-authorization through an amendment to this coastal development permit.

B. This coastal development permit authorizes the approved Boat Hoist Program for a period of five years from commencement of program implementation. During this five year period, State Parks shall provide the Executive Director with annual reports documenting boat hoist usage and the actions taken to implement the revised Boat Hoist Program measures included above. No later than six months prior to the end of the five year period, State Parks shall submit a final program implementation report and a coastal development permit amendment application to re-evaluate and re-authorize the Boat Hoist Program. The final report and amendment application shall evaluate the effectiveness of the program; address any changed circumstances and/or unanticipated issues; and consider program modifications to improve public usage based on State Parks' assessment and public feedback.

4. Water Quality Protection.

A. The applicant shall comply with the following Best Management Practices (BMPs) to minimize the water quality impacts of using preservative-treated wood ("treated wood") in the marine environment:

   a. All treated wood shall be treated to the standards of the lowest appropriate Use Category for that component, as specified by the American Wood Protection Association, to ensure that the treated wood does not exceed the minimum preservative retention level appropriate for each component.

b. Lumber treated with Ammoniacal Copper Zinc Arsenate (ACZA) may be used to construct the pier decking if State Parks determines that it would be infeasible to instead use alternative material such as untreated wood, concrete, metal, fiberglass, plastic, wood-plastic composite, or other alternatives that pose a minimal risk of leaching toxic chemicals into the marine environment.
c. Replacement piles shall be ACZA-treated wood that is wrapped with high-density polyethylene (HDPE) to prevent leaching of preservative chemicals into coastal waters. The pile wrapping material shall extend two feet below the mudline and two feet above ordinary high water (OHW), at a minimum. State Parks shall exercise due diligence in periodically inspecting HDPE-wrapped piles on the Gaviota State Beach Pier, and shall immediately undertake any repairs necessary to maintain the wrapping in an intact condition that would not result in leaching of preservative chemicals or discharge of plastic material into the marine environment.
d. Where available, treated wood shall be used that has been certified as produced for use in aquatic environments (in accordance with industry standards such as the Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments, by the Western Wood Preservers Institute), as indicated by a BMP Quality Mark or Certificate of Compliance.
e. Cutting, drilling, or sanding of treated wood shall be conducted a minimum of 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible. The resulting sawdust and wood debris shall be contained and removed for disposal. If treated wood must be cut, drilled, or sanded over water during installation, maintenance, or demolition, all sawdust and wood debris generated shall be contained and removed.
f. Application of a topical preservative to cut ends and drilled holes in treated wood shall be conducted a minimum of 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible. The topical preservative shall not be applied in the rain. Field-treated wood shall be fully dry and free of excess preservative before the wood is used in construction. If a topical preservative must be applied to the treated wood overwater, containment devices shall be used to prevent any preservative drips or spills from entering the water below.
g. Application of a sealant or coating to treated wood shall be conducted a minimum of 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible. If a sealant or coating must be applied to treated wood overwater, such as for an in situ sealant reapplication to decking during maintenance, containment devices shall be used to prevent any drips or spills from entering the water below.
h. Maintenance and reapplication of sealants or coatings on treated wood shall follow BMPs to minimize the release of treated wood particles and leaching of preservative chemicals into coastal waters. To the extent feasible, treated wood shall not be pressure-washed, sanded, or scraped; all sawdust and debris generated shall be contained and removed, to prevent treated wood particles from entering the water below. Deck cleaners and brighteners, especially those containing acid-based or highly oxidizing chemicals (such as bleach, sodium hydroxide, sodium percarbonate, oxalic acid, and citric acid) shall not be used for maintenance of

treated wood, as they may increase the leaching of wood preservatives, and contain chemicals that may directly harm aquatic life.

B. An onsite water quality monitor shall be present during all pile installation operations. If the water quality monitor observes any persistent turbidity plumes or uncontrolled discharge of wastes into the marine environment (not including filtered and treated seawater), the applicant shall cease pile driving operations and repair, correct, or modify those operations or associated waste containment systems to prevent the occurrence of additional uncontrolled discharges or turbidity plumes.

C. The discharge of pollutants (such as chemicals, paints, vehicle fluids, petroleum products, asphalt and cement compounds, debris, and trash) into creeks, stormwater runoff, or coastal waters resulting from construction activities shall be minimized through the use of appropriate BMPs, including:

    1. Materials management and waste management BMPs (such as stockpile management, spill prevention, and good housekeeping practices) shall be installed or implemented as needed to minimize pollutant discharge and polluted runoff resulting from staging, storage, and disposal of construction chemicals and materials. BMPs shall include, at a minimum:
        a) Covering stockpiled construction materials, soil, and other excavated materials to prevent contact with rain, and protecting all stockpiles from stormwater runoff using temporary perimeter barriers.
        b) Cleaning up all leaks, drips, and spills immediately; having a written plan for the clean-up of spills and leaks; and maintaining an inventory of products and chemicals used on site.
        c) Proper disposal of all wastes; providing trash receptacles on site; and covering open trash receptacles during wet weather.
        d) Prompt removal of all construction debris from the beach.
        e) Detaining, infiltrating, or treating runoff, if needed, prior to conveyance off-site during construction.
    2. Fueling and maintenance of construction equipment and vehicles shall be conducted off site, if feasible. Any fueling and maintenance of mobile equipment conducted on site shall not take place on the beach, and shall take place at a designated area located at least 100 feet from sensitive habitat areas, coastal waters, creeks, or drainage courses, if feasible. The fueling and maintenance area shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area (such as cranes) may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills.

D. Removal of existing piles shall observe the following conditions, where applicable:

    1. Work shall occur during favorable tidal, ocean, and weather conditions that will enhance the ability to remove, to the maximum extent, the full length of the pile and any associated debris generated during demolition.
    2. Piles and debris shall be placed directly into a vessel/container suitable for transport off-site.
    3. Degraded pile sections that cannot be recovered from the substrate shall be cut at the deepest feasible elevation to maximize partial-retrieval.

4. All used piles and debris shall be removed to an offsite, authorized disposal site. Sediment adhered to the removed pile shall be removed from coastal waters.
5. Piles shall be removed slowly and handled carefully to minimize turbidity. Vibratory extraction shall be prioritized over direct-pull methods, where feasible, in order to limit disturbance.

E. Construction taking place in, over, or adjacent to coastal waters and habitat shall protect the coastal waters and habitat by implementing additional BMPs, including:
   1. Mesh containment netting shall be installed below active construction and demolition areas to prevent accidental release of construction or demolition materials into marine waters.
   2. Other than pile installation, and installation and use of floating devices to aid in the construction effort or deployed to prevent construction debris from entering the water, construction activity shall not be conducted below the mean high tide line unless tidal waters have receded and the area is part of the authorized work area.
   3. Use of anchors and temporary moorings for construction vessels and barges shall be avoided to the extent feasible. Any moorings or anchors that are used shall not be placed within sensitive habitat areas such as eelgrass or kelp beds or areas of rocky reef.
   4. All work shall take place during daylight hours, and lighting of the beach and ocean area is prohibited.
   5. All construction equipment and materials placed on the beach during daylight construction hours shall be stored beyond the reach of tidal waters. All construction equipment and materials shall be removed in their entirety from the beach area by sunset each day that work occurs. The only exceptions shall be for erosion and sediment controls and/or construction area boundary fencing, where such controls and/or fencing are placed as close to the base of the road revetment/bluff as possible, and are minimized in their extent.
   6. Tarps or other devices shall be used to capture debris, dust, oil, grease, rust, dirt, fine particles, and spills to protect the quality of coastal waters.
   7. All erosion and sediment controls shall be in place prior to the commencement of construction, as well as at the end of each workday. At a minimum, if grading of an access road is taking place, sediment control BMPs shall be installed at the perimeter of the construction site to prevent construction-related sediment and debris from entering the ocean, waterways, and natural drainage swales or being deposited on the beach.
   8. Only rubber-tired construction vehicles shall be allowed on the beach; the only exception shall be that tracked vehicles may be used if the Executive Director agrees that they are required to safely carry out construction. When transiting on the beach, all construction vehicles shall remain as high on the upper beach as possible, and shall avoid contact with ocean waters and intertidal areas.
   9. All debris resulting from construction activities shall be immediately removed from the beach.

5. Final Revised Plans.
PRIOR TO THE INITIATION OF CONSTRUCTION, State Parks shall submit, for the review and written approval of the Executive Director, two sets of final plans, modified to eliminate the proposed rock revetment. The final plans may also include minor modifications to the design and/or materials to be used for repairing the pier abutment and decking, such as the use of grated decking materials at the shoreward end of the pier in place of solid timber decking, and necessary improvements for ADA access over areas of the pier if grated decking materials are used. Additional modifications included in the final plans may require a coastal development permit amendment, unless the Executive Director determines that no amendment is legally necessary due to the absence of new or increased impacts that the modifications to the project would have on public access, marine life, shoreline processes, or other coastal resources. State Parks shall undertake the development in accordance with the final approved plans.

6. Subtidal Marine Habitat Survey.
PRIOR TO THE INITIATION OF CONSTRUCTION ON THE SEAWARD PIER EXTENSION, State Parks shall carry out a complete underwater Marine Habitat Survey (survey) of the area that would be occupied or covered by the pier extension. The survey shall be carried out during the appropriate season by personnel approved by the Executive Director of the Coastal Commission ("Executive Director") with appropriate training and expertise in carrying out marine biological surveys and shall be consistent with the appropriate scientific standards and protocols, including the October 2014 California Eelgrass Mitigation Policy and Implementing Guidelines developed by the National Marine Fisheries Service. The survey area shall include the entire shading footprint of the proposed pier extension, all pile installation sites and all areas in which construction support vessels or their associated anchors would be placed. The survey shall identify, map and provide a narrative description and representative photographs of the types, amounts and locations of marine habitat within the surveyed area, including any areas of exposed rock reef, kelp habitat, and eelgrass beds. The survey shall also record the presence and abundance of any invasive marine algae (such as *Sargassum horneri*) or black abalone (*Haliotis cracherodii*) within the surveyed area. Within 30 days of survey completion, the results of the survey shall be provided to the Executive Director for review. If the results of the survey indicate that kelp habitat, eelgrass, black abalone, or invasive marine algae is present within the surveyed area, State Parks shall not proceed with construction and shall submit a coastal development permit amendment application for Commission review that includes proposed methods to avoid, minimize, and compensate for any adverse impacts to these habitats and species of concern.

7. Required Approvals
PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, State Parks agrees to obtain, and provide evidence to the Executive Director of, all other State or Federal permits that may be necessary for construction of the proposed development (including permits/authorizations from California Department of Fish and Wildlife, California Regional Water Quality Control Board, and the United States Army Corps of Engineers) and/or evidence that notice has been provided to such agencies and no permit is required. No changes to the Coastal Commission approved plans that may be required by the above-

stated resource agencies shall occur without an amendment to the coastal development permit, unless the Executive Director determines that no amendment is legally required.

8. **Assumption of Risk, Waiver of Liability and Indemnity.**
By acceptance of this permit, State Parks acknowledges and agrees (i) that the site may be subject to hazards from episodic and long-term coastal erosion, tsunami, earthquake, wave and storm events, and geologic instability, and the interaction of same; (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.

IV. FINDINGS AND DECLARATIONS

A. BACKGROUND AND PROJECT DESCRIPTION

Gaviota State Park is located in Santa Barbara County, approximately 33 miles west of the City of Santa Barbara along U.S. Highway 101 and adjacent to the Hollister Ranch (**Exhibit 1**). The Park is managed by the California Department of Parks and Recreation (State Parks) and includes hiking trails, a campground, parking, picnicking and day use facilities, as well as a pier and boat launch facilities. The pier at Gaviota State Park was constructed in 1951 and has been an important recreational asset since that time. In addition to providing fishing, wildlife viewing, and recreation opportunities for Santa Barbara County residents and visitors, the Gaviota State Park pier also supports a boat hoist and launch system used to launch vessels and provide access for fishing and recreational pursuits such as surfing and diving along the Gaviota coastline. Access is also provided at Gaviota State Park for shore-launching of small boats and similar vessels. A significant number of those who launch vessels from Gaviota State Park travel upcoast to sites offshore of the Hollister and Bixby Ranches.

Since its construction in 1951, the Gaviota pier has required significant repair and replacement work approximately every 10 to 15 years (in 1953, 1963, 1975, 1987, 1999 and currently). The current repairs are needed because the 570-foot long pier was most recently damaged as a result of severe winter storm and wave action in 2014 when the most seaward approximately 90 foot section of the pier collapsed into the ocean. The pier has been closed to public access and use since that time. This collapse occurred 15 years after the last round of significant pier repairs (authorized by the Commission through CDP No. 4-99-111) carried out in 1999 and 2000. Based on this recurring pattern of repairs, State Parks anticipates the current repairs will last for up to 20 years (since its construction, the pier has required major repairs every 12 years, on average). At that point, the condition of the pier would be evaluated and the results of that evaluation used to develop an appropriate response strategy. This strategy may include further repairs or more significant efforts to respond to threats such as sea level rise by increasing the pier's overall elevation, redesigning it to be more robust, or relocating its landing further shoreward.

To complete the current efforts to repair and re-open the Gaviota pier, State Parks is proposing to carry out the following work:

- Remove and dispose of all timber guardrail;
- Remove all timber decking, salvage for reuse as cross bracing and dispose of unused material;
- Remove and dispose of all timber cross bracing and hardware;
- Remove timber stringers where necessary for removal of piling caps;
- Remove and salvage existing boat hoist system to facilitate pier repair;
- Remove electrical conduits, light poles and fixtures on pier and clean for reuse and reinstallation;
- Remove water line, fire water line, and hydrant remnants on pier;
- Demolish and remove existing fish cleaning station;
- Remove all signage and clean for reuse and reinstallation;
- Repair existing concrete abutment at landward base of pier by removing deteriorated concrete and applying epoxy crack injection material;
- Extract and replace approximately 11 existing deteriorated pilings by direct pulling or cutting five feet below the seafloor surface;
- Pile drive approximately 51 new vertical pilings and 15 batter pilings (piles installed at an angle rather than completely vertical). Pilings would be treated timber encased in PVC plastic wraps and polyethelene liners. The 40 vertical pilings and 15 batter pilings would be 18-inch diameter and the approximately 11 replacement pilings would be 14-inch diameter.
- Install new/salvaged timber stringers, cross bracing, guardrail, and decking;
- Install approximately 1,700 tons of new rock slope protection (rip-rap rock boulders) at and around landward pier abutment and out to third row of pilings;
- Rebuild electrical, water and lighting systems;
- Reinstall boat hoist; and
- Construct new fish cleaning station.

Through this work, the pier is proposed to be restored to its pre-2014 condition, including through the installation of an approximately 90-foot seaward extension to replace the section that collapsed and was lost.

In addition to repairing the pier itself, the pier's landward abutment is proposed to be provided with enhanced wave protection through the installation of a 2:1 (horizontal:vertical) rock rip-rap slope. This rock would be placed over the existing natural rock slope face that is present below the pier and would tie into an existing rock rip-rap revetment that ends approximately 30 feet to the east of the pier abutment and extends roughly 150 feet inland, along the base of the pier's access road. Based on an initial review by Commission permitting and enforcement staff, this existing revetment may have been installed several decades ago without benefit of a coastal development permit. The permit history of this structure is still being evaluated and State Parks is not requesting after-the-fact authorization for it as part of this permit application.

Once installed, the new proposed rip-rap would extend the existing eastern rip-rap through the underside of the pier to an exposed shale rock formation on the west side of the pier. The total amount of proposed rock would weigh approximately 1,700 tons, have a volume of 1,030 cubic yards, and would extend across up to 2,500 square feet of intertidal and subtidal marine habitat at a height of between three and 19 feet (including approximately 1,200 square feet of intertidal and subtidal natural rocky reef habitat). State Parks also proposed to install a similar rock revetment at the pier landing as part of the previous round of pier repairs in 2000. The repairs to the pier were authorized by the Commission through CDP No. 4-99-111 but prior to the Commission hearing, State Parks revised its application to remove installation of the revetment from its proposed project due to concerns that it would result in adverse impacts to coastal resources, including marine habitat, beach areas, and recreational opportunities.

Installation of the rock rip-rap proposed as part of the current project would involve initial placement/dumping of rock from the pier landing above the beach and would involve removal of the timber pier decking and framing as well as operation of a crane and/or backhoe from above the beach to position the rock into its final configuration. State Parks is not proposing to operate construction equipment or vehicles on the beach itself during this work.

Completion of repair and construction activities would take place Monday through Friday from 7 AM to 5 PM, excluding holidays, and would last approximately 11 months. The pier would remain closed throughout the duration of construction, and project staging would take place in the existing day use parking area adjacent to the pier and Gaviota State Park. Approximately 29 of the beach parking lot's 126 spaces would be occupied by equipment, construction vehicles, and/or materials throughout the 11 month construction period.

Through its CDP application, State Parks is also seeking after-the-fact authorization for efforts carried out without benefit of a CDP in 2004 and 2005 to replace the pier's aging three-ton capacity boat hoist system with a new four-ton capacity system and associated electrical equipment. As part of these efforts, State Parks also installed a video surveillance system for the new boat hoist (to help address concerns about vandalism of the hoist) and an automated access card reader to restrict use of the hoist to card holders. This work involved demolition and removal of the old hoist system and associated equipment as well as construction and installation of the new systems. State Parks is also requesting after-the-fact authorization for its implementation, without benefit of a CDP, of a Boat Hoist Program that established new operational requirements and use limitations for the hoist. This Boat Hoist Program is further described in **Exhibit 4**.

Prior to development and implementation of the Boat Hoist Program, members of the public were able to enter the Park with a trailered vessel and use the pier's boat hoist to launch it. These launch operations were typically supervised by State Parks Lifeguards or other available staff but such supervision was not required. With implementation of the Boat Hoist Program, this type of use was eliminated and requirements were established for vessel inspections, hoist operations trainings, and annual use fees. Only members of the public that had completed the hoist training, completed a vessel inspection and paid the annual use fee for that vessel would be allowed to use the hoist. The Boat Hoist Program was developed and implemented in response

to concerns that improper use of the hoist would result in damage to the equipment and/or public safety issues.

B. COORDINATION AND OTHER AGENCY APPROVALS

Santa Ynez Band of Chumash
The proposed project area has a long history of use by the Chumash people. The traditional territory of the Chumash people "encompassed 7,000 square miles that spanned from the beaches of Malibu to Paso Robles. The tribe also inhabited inland to the western edge of the San Joaquin Valley" and the offshore Channel Islands (Santa Ynez Band of Chumash Indians 2009). The area of Gaviota State Beach near the mouth of the Gaviota Creek is also the historic Chumash village site of Kashtayit, a Traditional Cultural Place that plays a significant role in Chumash maritime culture. Consistent with the requirements of AB 52, State Parks has coordinated and consulted with members of tribes potentially affected by this project, including the Santa Ynez Band of Chumash Indians.

In September 2017, State Parks consulted Native American Tribes that could be traditionally and culturally affiliated with the Project area. In addition, a literature search and field survey were conducted in October 2017. State Parks' Archaeologists conducted an underwater cultural survey on November 30, 2017, as requested by tribal representatives. No cultural resources were identified during these surveys but State Parks incorporated into its project several protocols for addressing project changes, use of staging areas outside of the proposed paved road and parking areas, and inadvertent finds or discovery of human remains.

California Fish and Game Commission
California's Fish and Game Commission is one of the key state agencies responsible for management and protection of California's network of marine protected areas. While State Parks is not actively seeking discretionary approval from the Fish and Game Commission (FGC) for the proposed pier project, Commission staff coordinated with FGC staff because the project would be located within one of the state's marine protected areas – specifically, the Kashtayit State Marine Conservation Area. Commission staff provided input about the project, its potential to result in adverse impacts to the marine protected area, its marine habitat and wildlife, and solicited input from Fish and Game Commission staff regarding potential options for avoiding, minimizing and mitigating those impacts.

California Department of Fish and Wildlife
The California Department of Fish and Wildlife (Department) is also a key marine protected area management agency, and Commission staff coordinated closely with the Department's Marine Region staff regarding potential project impacts to the Kashtayit State Marine Conservation Area. An area in which all marine life and habitat is protected from damage, disturbance and loss. State Parks also coordinated with and solicited input from staff of the Department's Marine Region during the project's environmental review by the State Lands Commission. As described in correspondence provided by Department's staff:

> *The California Department of Fish and Wildlife (Department) reviewed the Project Evaluation (PEF) for the Pier Repair and State Lands Commission Lease Renewal for the*

Gaviota Pier (CEQA ID No. 11790) in March of 2018. The pier is located at Gaviota State Park within the Kashtayit State Marine Conservation Area (SMCA) and was damaged during a 2014 storm.

The Department conducted a site visit, reviewed the PEF, and responded to State Parks in March 2018. The review and response focused on replacement and maintenance best management practices such as pile replacement with wrapped piles, pile driving and sound minimization measures, marine mammal monitoring, and a spill response plan. The Department response did not address the 1700 tons of proposed rock rip rap at the base of the pier due to our understanding at the time that the rip rap would be above mean high water.

In revisiting the existing project [during the Commission's review], *some of the proposed rip rap will be placed below Mean High Water and will likely result in impacts to intertidal species and loss of habitat in the Kashtayit SMCA.*

In response to these anticipated adverse impacts to the marine protected area, the Department's Marine Region staff provided the following additional statement regarding the status of its review, "given the Department's understanding of likely impacts to intertidal habitat and species from the proposed project, additional evaluation of the proposed project and discussions with State Parks prior to implementation is warranted." Although encouraged by Commission staff to engage in these additional discussions with the Department, State Parks has declined. In order to address this outstanding need for additional consultation, review and authorization from the Department, **Special Condition 7** would require State Parks to obtain, and provide evidence to the Executive Director of, all other State or Federal permits that may be necessary for construction of the proposed development (including authorization from the Department) unless evidence is provided that no such authorization is required.

California State Lands Commission

In 2018, the California State Lands Commission (CSLC) reviewed and approved State Parks' application to extend the term of the pier's state tidelands lease and evaluated the proposed pier repair, reconstruction and protection activities. Coastal Commission staff worked closely with CSLC staff during its review of the proposed project to share information regarding the project's potential adverse impacts to coastal resources and potential approaches for addressing them. Discussions with CSLC staff helped inform the analysis included below and the recommended Special Conditions.

Central Coast Regional Water Quality Control Board

In April of 2018, the Central Coast Regional Water Quality Control Board issued to State Parks a Clean Water Act Section 401 Water Quality Certification for the proposed project. This authorization includes a variety of specific conditions focused on the protection of water quality and implementation of best management practices during pier construction and pile driving activities. For example, the 401 Certification requires the maintenance of spill containment and cleanup kits onsite; the use of heavy-duty mesh containment netting below all work areas on or beneath the fixed pier deck; the implementation and update of the site's Stormwater Control

Plan; and the use of spill prevention and containment measures during the use of heavy equipment and pile drivers.

U.S. Army Corps of Engineers
The U.S. Army Corps of Engineers (ACOE) is responsible for reviewing and authorizing the proposed project under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. State Parks has submitted permit application materials to the ACOE for review and Commission staff have shared with ACOE permitting staff relevant project information and the results of its analysis and review – including the various approaches staff is recommending to address the project's potential to adversely affect coastal resources.

C. FILL OF WETLANDS AND OPEN COASTAL WATERS

Section 30233(a) of the Coastal Act states:

> *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged depths on existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
>
> *(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
>
> *(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
>
> *(6) Restoration purposes.*
>
> *(7) Nature study, aquaculture, or similar resource dependent activities.*

Coastal Act Section 30108.2 defines "fill" as "earth or any other substance or material … placed in a submerged area." As part of its project, State Parks proposes to install into nearshore and intertidal waters a total of 66 pilings. These 66 proposed piles would be made up of 40 18-inch diameter vertical piles, 15 18-inch diameter batter piles (piles installed at an angle rather than completely vertical), as well as approximately 11 14-inch diameter vertical piles. **Exhibit 2**

shows the anticipated location and configuration of these piles. Installation of the 66 PVC and polyethylene wrapped timber piles into the submerged nearshore zone would constitute "fill" of approximately 110-square feet of open coastal waters, as that term is defined in the Coastal Act.

In addition, State Parks also proposes to place up to 1,700 tons of rip-rap rock within approximately 2,500 square feet of subtidal and intertidal coastal waters located at the landward pier abutment. This area estimate is Commission staff's maximum estimation based on the size, scale and configuration of the rock slope protection proposed for the landward abutment. This estimate is supported by information provided by State Parks to Commission staff via letter dated January 2, 2018 about the species and habitat located within the proposed footprint of the rip-rap as well as several site visits carried out by Commission staff in 2018 and 2019. As shown in Exhibit 2, the proposed revetment would have a roughly half-circle shape with a radius of approximately 40 feet centered on the middle of the pier's abutment/landing. Installation of this material within intertidal and subtidal coastal waters also would constitute "fill," as that term is defined in the Coastal Act.

The Commission may find a project that includes filling of open coastal waters to be consistent with Section 30233 of the California Coastal Act if the project meets the three tests of Section 30233. The first test requires that the proposed activity fit within one of seven use categories described in Coastal Act Section 30233(a)(1)-(7). The second test requires that no feasible less environmentally damaging alternative exists. The third and final test mandates that feasible mitigation measures are provided to minimize any of the project's adverse environmental effects.

Allowable use

The overall purpose of the proposed project is to repair and protect a pier structure that provides public access and recreational opportunities – both on the pier itself and throughout the greater Gaviota coast (through the boat hoist and launch system provided on the pier). Construction of the project would require the installation of structural pilings and would expand the footprint and configuration of the pier through placement of pilings and rip-rap rock slope protection. Additionally, as required in **Special Condition 3**, the project would also result in increased access to and use of a boat hoist system. As such, the project would result in the creation of "expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities," described as an allowed use in in open coastal waters, pursuant to Coastal Act Section 30233(a)(3).

Therefore, the Commission finds that the project meets the allowable use test for fill of open coastal waters under Coastal Act Section 30233(a).

Alternatives

To find a proposed project consistent with section 30233, the Commission must further find that there is no feasible less environmentally damaging alternative to placing the fill in open coastal waters. Coastal Act Section 30108 defines "feasible" as "…capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors."

In addition to the proposed pile replacement and installation activities (most of which would be associated with the installation of the approximately 90 foot seaward extension of the pier to replace the section that collapsed and was lost in 2014), Commission staff also evaluated a reduced repair effort focused solely on rehabilitating the approximately 480-foot long section of pier that currently remains intact. This alternative would have decreased the number of piles to be installed from 66 to 11, thus reducing the amount of proposed fill and the extent and duration of pile driving activities. However, this alternative would not meet State Parks' objective of restoring the pier to its pre-collapse condition in order to maximize public access and recreational opportunities. Returning the pier to its original length and configuration would provide for increased recreational fishing opportunities because it would allow access to deeper waters and a greater total area. In addition, the seaward-most 90 feet of the pier have often been the most heavily used for fishing because they are located in deeper waters and are seaward of the pier's boat hoist in an area that is not disturbed by boat launching activities. Additionally, the potential adverse environmental effects associated with pile installation and use of pile driving equipment would be managed and avoided through implementation of the protective measures included in the project by State Parks, in coordination with the Central Coast Regional Water Quality Control Board, and California State Lands Commission (use of marine wildlife monitors, spill prevention and response plans, etc.), and as expanded and clarified through the Special Conditions of this permit. Accordingly, eliminating the seaward extension element of the project would not be a feasible less environmentally damaging alternative.

Because of the loss and damage to rocky intertidal and shallow subtidal marine habitat that would be caused by the installation of the proposed 1,700 tons of rock slope protection at the base of the pier's landward abutment, Commission staff also closely considered project alternatives that would reduce or eliminate this element of the project. The presence of a natural rock cliff face at the abutment and an exposed natural rock reef at the base of the cliff suggests that these areas have existing natural armoring and that additional rock slope protection may be unnecessary, particularly given the 20 year anticipated life of the repairs proposed by State Parks and the historical pattern of the pier needing repairs every 12 years on average. An engineering report prepared for State Parks by Skelly Engineering in 2000 estimates that erosion of the rock face varies between six inches and one foot per year. These estimates appear to have been developed based on a comparison of a photograph of the pier landing taken in 2000 with a historic photograph (from 1974) of the entire pier area taken from atop the train trestle nearly ¼ mile to the west of the pier. Both of these photographs are provided below. However, the resolution of the historic photograph and its angle and distance from the pier landing makes it very difficult to interpret and use to confirm the accuracy of the erosion estimates. Initial analysis by Commission staff using higher resolution close-up photographs focused on the pier landing indicates that over the last 20 years, erosion of the natural shale slope face below the pier has occurred at an estimated average rate of closer to one inch per year. Although the convention of reporting an annual rate of erosion tends to obscure this, the erosion process on the rock slope is almost certainly dominated by episodic events – losses of larger fragments of shale during high wave conditions – with periods of relative stasis in between.

Photograph 2. Gaviota Pier Abutment circa 1974 taken from RR trestle.

Photograph 3. Gaviota Pier March 2000

Regardless of the exact rate of erosion, however, State Parks staff have stated that the erosion of the rock slope below the pier does not currently threaten the pier and that the primary purpose of the proposed rock rip-rap would not be to reduce shoreward erosion of the natural cliff face around the pier abutment. Although some erosion of the rock slope is occurring in this area, it has not yet reached the point of putting the pier at risk. In order to help ensure that it doesn't get to that point, State Parks is proposing to repair the existing concrete abutment at the landward base of the pier by removing deteriorated concrete and applying epoxy crack injection material. Similar efforts to clean, backfill and cement other areas at the pier landing – such as some sections along the edges of the vehicle turn-around area at the base of the pier – would also be carried out to prevent those areas from eroding further and could be repeated over time as part of a regular maintenance program. In addition to these efforts, the proposed revetment would also help limit erosion of the shale bluff. An engineering report prepared for State Parks in 2000 by Skelly Engineering notes that the portion of shale slope located above the existing rock revetment downcoast of the pier appears to have experienced less erosion than the exposed area under the pier. The report also speculates that differences in wave exposure between the two sites may have contributed to this:

> *The pier is currently undergoing repairs of damage that occurred during the 1997 El Nino winter and is closed to the public. The undercutting and erosion of the shale were most likely exacerbated at that time. While the shale material is relatively hard, it is particularly susceptible to erosion due to the inclination and layering of the material. The action of waves and wave driven cobbles breaks up the shale near the water line. As the wave runs up the shale abutment face and back down, it loosens and peels off the layers. Photograph 4 shows the shale material behind the existing revetment. The material is actually smooth and unfractured. This is due to the presence of the quarry stone eliminating direct wave action of the shale and breaking up wave runup if the revetment is overtopped.*

Although State Parks is hopeful that the revetment would help limit erosion of the shale slope, the main purpose of the rip-rap is to dampen wave action at the cliff face during storm events in order to prevent waves from running up the cliff face and impacting the underside of the pier, a situation exacerbated by the angle of the existing cliff slope. This is highlighted in a letter provided to Commission staff in January 2019 by State Parks' consultant, Dudek:

> *Since the pier abutment is situated on a relatively resistant shale outcrop, the need for the rock revetment is not to prevent shoreline erosion but rather to absorb incoming wave energy that runs up on the smooth shale incline, which then pounds on the concrete abutment and pier deck from below.*

The analysis from State Parks' consultant suggests that the number of wave run-up events reaching the pier deck elevation would be reduced from 23 to 3 (under existing sea level conditions) through the installation of the proposed 2:1 rip-rap slope on top of the existing natural rock cliff face. This analysis shows an even greater reduction under future sea level rise scenarios towards the end of the proposed project life. For example, using the projected range of sea level rise in 2040 (at the end of the 20 year project life) in the Santa Barbara area (0.7 to 1.1 feet[1]), the number of wave run-up events would be reduced from between 92 and 230 to between 6 and 8. For this analysis, each "run-up event" represents one hour in which the largest waves may be able to move up the natural rock slope at the landward end of the pier and make contact with the bottom of the pier deck.

This wave contact with the underside of the pier decking has the potential to damage and dislodge not only the decking but also the pile caps used to help connect the pier structure to the pilings. By dampening and breaking up the wave energy at the base of the pier and on the natural rock slope - thus preventing waves from moving up and contacting the pier decking - the proposed rock revetment would reduce the potential for this damage. However, the risk of wave damage at the pier landing is currently minimal due to the rarity of wave run-up in this area in the past and low number of run-up events projected to occur under current conditions. Towards the end of the estimated 20 year duration of the proposed repairs, State Parks expects this risk to increase. However, given the much more limited duration of the past five repair efforts (none of which have lasted more than 15 years), it may be optimistic to think that the current repairs will endure to the point where wave action may cause damage to the landward end of the pier. In other words, based on experience from the past 60+ years of pier damage and repair work, the seaward end of the pier is likely to be at risk or damaged before wave run-up at the landward end becomes a dominant threat.

In order to evaluate potential alternatives to the proposed revetment, Commission staff focused on efforts that would both respond to and reduce existing erosion around the pier abutment and prevent the pier from becoming damaged due to wave run-up for the 20 year projected life of the proposed pier repairs. At the end of this period, the pier is expected to require a new round of significant repairs and/or retrofits to address weathering, degradation and sea level rise. This work may include strengthening the pier, raising its elevation, and/or moving its landing further inland so that it would be further protected from wave action and erosion of the shale bluff. Such efforts were rejected by State Parks for the current project because of concerns they would significantly increase the project budget and further delay the pier's opening.

[1] Projection range reflects the low risk aversion and medium-high risk aversion sea level rise scenarios based on the methodology recommended by the California Coastal Commission's Sea Level Rise Policy Guidance (2018) and the Ocean Protection Council's State of California Sea Level Rise Guidance (2018).

As part of its evaluation of alternatives, Commission staff requested information from State Parks regarding the other options it considered before deciding to move forward with the proposed rock revetment. The following excerpts from correspondence between Commission staff and State Parks' consultants, Dudek and Moffatt and Nichol, summarizes the information State Parks provided.

Dudek (2019):

> *Most alternatives, such as spot repair, patching the eroded sections of the natural rock outcrop, relocating the pier landing landward, re-surfacing or reinforcing the rock face with concrete, and installing more robust or deeply set shoreward pilings in combination with a reinforced abutment, fall under the category of "No Rock Protection". Although these alternatives may repair the damaged pier section or improve the project surrounding for the time being, the repair work will not mitigate the future wave exposure. Furthermore, these alternatives do not meet the applicant's desire to minimize structural maintenance over the next 20 years, and does not recognize the reality of the time required to affect structural repairs when needed, possibly leading to collapse and pier closure once again. It is expected that future SLR will drastically accelerate and exacerbate storms, causing the pier to be at an even higher risk without the rock revetment.*
>
> *Additionally, the landward relocation of the pier is not financially feasible at this time. California State Parks can only afford to finance the current project with a 20 year life. Moreover, the location of the park is highly vulnerable in the 100 year sea level rise scenarios. Many areas of the park, including the entrance to the pier, may be inaccessible at that time (Figures 3 and 4). As such, it does not make sense to invest in or plan the project for a longer life span than proposed.*
>
> …
>
> *The proposed alternative is the preferred option based on consideration of compatibility with the existing site conditions, feasibility of construction with least impact on the beach and coastal processes, and minimization of the risk of a catastrophic abutment collapse. The revetment will dissipate wave energy using properly sized and placed quarry stones to prevent the waves from pounding and rushing up the smooth shale formation face and flaking away material.*

Moffatt and Nichol (2019) – the following includes requests from Commission staff (underlined) for clarification and supplementation of information previously provided in the January 2019 letter from Dudek cited above:

> *<u>The letter notes that "the potential combination of water levels and waves… may result in the wave pounding/uplifting on the pile cap and pier deck or wave undercutting the smooth shale formation face at the pier abutment." Does this mean that the revetment is intended to protect the pile caps and pier deck from uplifting?</u> Yes – we are using the revetment to dissipate wave energy/uprush and its impact on the underside of the pier, especially since it is expected to increase due to rising sea level.*

If so, what alternative means of providing that protection/addressing that risk were considered? For example, what about as-needed replacement/repair of the pier decking and pile caps after storms? Yes – we considered periodic repair after storms but it was eliminated as a practical answer since the work could take years to complete during which public use would be prevented. It should not take years, but that is the reality of the current budget and permit processes; the current repair cycle is now in its 6th year since the pier was closed to the public, and still has no firm completion date.

[Or the] use of grated decking material at the pier landing (first ~10ft of pier) to reduce the uplift force generated by wave run-up? Yes – but one of the goals of the pier is to make it fully ADA accessible, which means we may not have gaps in the decking greater than ¼" wide, which we consider too limiting to provide sufficient open deck area to allow release of sufficient wave uprush forces.

Or reinforced pile caps that can better withstand the potential uplift? Yes – If this were a concrete or steel pier we would definitely consider strengthening of the understructure and deck to withstand the wave uprush forces, or better yet, rebuild the pier at a higher elevation to minimize (or avoid altogether) the problem; but we have an old timber pier that we are trying to save with a limited repair budget and very constrained public access between the shoreline and the upland (RR) property giving us few options to rebuild/retreat the abutment. We considered a (near) vertical concrete abutment wall and recessing the revetment at a steeper slope into the existing shale bluff, but neither did as well to reduce uprush and both required significant rock excavation on the beach.

The letter also mentions "wave undercutting the smooth shale formation face at the pier abutment." If the purpose of the revetment is to prevent or minimize this undercutting, it would be helpful to know: (a) the amount and rate of undercutting that has occurred at the pier abutment; See Skelly's 2000 report; we made no independent estimate of the rate of undercutting/recession. (b) what alternatives were considered for preventing or addressing that undercutting (for example, repair/reinforcement of the abutment to prevent/withstand undercutting?) Yes – we are requiring repair of the undercutting since the 2000 repair, but that in itself will not address the problem on wave uprush.

Or surfacing the rock face in concrete to prevent or slow the rate of undercutting? Yes – we considered facing the bluff with a concrete overlay to prevent undercutting, but that too would not solve the uprush problem.

Or replacement of the concrete block abutment with an alternative abutment design (such as pile supports drilled/driven into the rock slope) that would not be as vulnerable to undercutting? Yes – insofar as solving the undercutting is concerned, but the uprush would remain.

The letter describes several alternatives to the proposed revetment slope that were considered but doesn't provide much info on the non-revetment alternatives that were evaluated. Please provide a list of the non-revetment alternatives that were considered

along with the evaluation that was carried out on to inform the decision that the rock revetment is the preferred approach.

Alternatives were evaluated based on degree to which the Alternative satisfied the following criteria:

1) *Reduced wave uprush under the Pier at the abutment*
2) *Reduced wave undercutting of the shale face at the abutment*
3) *Reduced excavation of the shale face for project installation*
4) *Reduced encroachment on the beach face after installation*
5) *Reduced impact on the beach during construction*
6) *Increased ease of structure removal to permit beach and shale face restoration after the abutment is no longer needed (i.e. upon Pier demolition)*

In addition, we needed to consider the ADA access requirements and the clients desire to minimize the risk of repairs to the structure (and Pier closure) within the expected 20 year maintenance cycle. Alternatives that did not satisfy criteria 1 AND 2 were eliminated from further consideration.

Replace Decking with Grating to reduce uprush force? ADA compliance reduces % open deck area so uprush force is not significantly reduced - eliminated

Strengthen Piles, caps and connection to resist uprush forces? Use of timber precluded, unless a 'blow away' deck is accepted, which has increased risk of a deck repair/closure - eliminated

Retreat Abutment to more protected location? Site access and roadway too constrained by property limits to permit abutment relocation – eliminated

Replace Abutment with a (near) vertical concrete sea wall? Did not solve uprush problem; required beach rock removal – eliminated

Replace Abutment with alternative pile/substructure design? Did not solve uprush problem – eliminated

Repair Abutment including concrete facing of bluff? Did not solve uprush problem – eliminated

Repair Abutment [and] *construct 1.5:1 revetment? Required beach rock removal to reduce revetment encroachment on beach – geometric study – not preferred*

Repair Abutment [and] *construct 2:1 revetment? No beach rock removal; minimized wave uprush; slighlty greater revetment encroachment – preferred option*

Repair Abutment similar to 2000 repair [with] *no revetment? Does not solve uprush problem, but restores 2000 condition; there is an increasing risk of damage as sea level rises (but the risk while not quantified in absolute terms is still real and greater than the*

preferred option); though we could quantify the number of uprush incidents striking the underside of the deck as in 1. above, it does not necessarily follow that every uprush incident will result in deck damage and pier closure. The preferred revetment, which will tie into an existing revetment just 30 ft to the east of the pier appears to be the most cost - effective approach of the considered alternatives against future damage and pier closure. And it can be readily removed to facilitate beach and shale face restoration upon completion of the structure's life.

I also noticed that this revetment was considered during the permitting for the last round of pier repairs back in 1999 but was ultimately not pursued. If possible, it would be helpful to understand why the work was abandoned at that time and what has changed to make it necessary now. Speaking with the engineers at [Moffatt and Nichol] *that were involved at the time it seems the issue was similar – CCC objection to the revetment so the project was allowed to proceed without it. Although the abutment has experienced some damage due to undercutting by wave uprush, the pier deck at the abutment has not seen significant wave damage. No way to know if a similar decision this time to forgo the revetment will, after another 20 years, provide a similar outcome, but this is a decision that must be made by the owners of the pier. As engineers, we recommend the prudent protective measures that help insure the safety and security of the structure in the face of escalating risk (increased sea level and storminess).*

Seemingly, the condition of the abutment has not significantly degraded over the past 20 years so the approach taken in 1999/2000 to repair and reinforce it appears to have been effective over that time period. If we're now considering another 20 year project period, why can that approach no longer be pursued now? See photos for pictures of the abutment circa 2000 (see Skelly photo) and latest (2016) – the concrete abutment reinforcement added in 2000 to protect from undercutting is itself being undercut. However the time to complete failure cannot be known, except that it will surely come without some repair; And the encroachment of the wave action on the pier access (turnaround area) embankment behind the abutment which is eroding is also apparent and will need repair or access will be prevented; the revetment tie-in to the existing revetment will extend the useful life of these repairs as well as reduce the risk of a pier closure due to deck failure.

To summarize, State Parks' consultant, Moffatt and Nichol, considered a variety of alternatives to the proposed revetment and determined that no single option would provide the same level of cost-effective protection against wave run-up and erosion at the concrete pier abutment and embankment edge as the proposed revetment. However, in comparing costs between alternatives, Moffatt and Nichol did not consider the additional costs of the revetment option associated with the potential need for mitigation due to adverse impacts to marine biological resources, beach access and recreational uses and sand supply. Additionally, Moffatt and Nichol's initial analysis also did not fully consider combinations of approaches for separately addressing the primary and secondary objectives of the revetment – reducing the damaging effects of wave run-up on the pier structure and addressing erosion of the shale slope around the pier abutment and embankment edge.

Commission staff therefore engaged in additional discussions with State Parks and Moffatt and Nichol to further explore such alternatives.

As a result of these discussions, an alternative that had previously been rejected by Moffatt and Nichol was re-considered and identified by Commission staff as a technically and economically feasible means of protecting the pier from the damaging effects of wave run-up. This alternative involves replacement of the solid timber decking proposed to be installed at the pier's landward end with grated metal, fiberglass or composite decking. Grated decking with sufficiently large openings would address the risk of wave run-up damage to the pier by allowing the uprush force of wave spray from below the pier to pass through the pier and dissipate rather than colliding with it. Moffatt and Nichol had previously rejected this alternative due to concerns that the grating pore size needed to allow the wave uprush force to pass through the pier without excessive drag would be greater than the ½ inch maximum width required for ADA accessible surfaces. Its preliminary analysis indicated that in order to provide the target level of protection from wave run-up, the grating would need to have a pore size width greater than one inch.

To address this issue, however, an ADA compliant pathway surface could be placed over and lightly affixed to the top of the grated decking in such a manner as to provide a safe movement surface that could also be dislodged and shifted by wave uprush without risk of damage to the primary pier decking or structure. To ensure that the pathway surface does not move or become dislodged while the pier is in use, occasional pier closures may be required during high surf and storm conditions that have the potential to result in wave run-up events. Many piers throughout the state are already closed during such conditions as a matter of general public safety. Implementing such closures for the Gaviota pier would not have a significant impact on its overall use and availability as a recreational resource – particularly since ocean conditions would mean that many of the amenities provided by the pier (boat launching, fishing, etc.) would not be available at such times anyway.

To address the ancillary purpose of the proposed rock revetment - erosion of the shale slope at the pier's concrete abutment and several locations around the edge of the embankment leading to the temporary parking area/turnaround at the pier landing - several alternatives have also been identified that would not result in placement of material on the beach area below the pier. Among these alternatives would be cleaning-out, backfilling, and injecting cement or epoxy into the areas in which small voids or cracks have formed – an approach that was authorized by the Commission and successfully implemented in 2000 and one that State Parks has proposed to implement as part of this project even if the revetment is also installed. If necessary, this process could be repeated over time as part of a periodic maintenance program.

If State Parks determines that more substantial efforts are also required to strengthen or protect the abutment in the absence of the rock revetment, some of the alternatives that Moffatt and Nichol listed in its alternatives analysis above and rejected as inadequate to address the wave up-rush issue could also be pursued since wave uprush would be addressed by the grated decking. Such alternatives include more widespread use of concrete on the surface of the shale slope face to limit further fracturing and sloughing of the rock as well as replacement of the concrete abutment with an alternative pile or substructure design that could be driven or drilled into the

rock slope so as not to be susceptible to erosion. Additionally, the concrete block abutment could be replaced and reinstalled in its entirety.

Because these combinations of alternatives to address the primary and ancillary purposes of the rock revetment could all be implemented without placement of fill material on up to 2,500 square feet of beach and marine habitat area below the pier (as would occur as a result of the proposed revetment), they would all be less environmentally damaging than the proposed project. The adverse impacts to marine life and habitats in the Kashtayit State Marine Conservation Area would be avoided and the area below and directly adjacent to the pier landing – further described in the subsequent section of this report on marine resources – would be protected in its current condition. Adverse impacts to public access would also be avoided or lessened. Though such alternatives would be environmentally preferable, they would still need to be analyzed to determine whether they differ in significant respects from the project and would have other types of impacts as compared to the project, as conditioned, and thus whether they would require a permit amendment. Special Condition 5 addresses the possible need for a permit amendment if State Parks modifies the project .

As such, the Commission finds that the proposed project does not pass the second test of Coastal Act Section 30233 because feasible less environmentally damaging alternatives to the project are available. However, with implementation of **Special Condition 5** and its requirement that State Parks submit revised plans that eliminate the revetment element of the project, it would be consistent with this policy.

For the reasons described above, the Commission therefore finds that the project, as conditioned, is the least environmentally damaging feasible alternative and therefore the second test of Coastal Act Section 30233(a) is satisfied.

Mitigation Measures

The final requirement of Coastal Act Section 30233(a) is that filling of coastal waters may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental impacts. The mitigation measures associated with this project (included as part of State Parks' proposal, Special Conditions, and other agency authorizations) include: construction and water quality best management practices; spill prevention measures to prevent spillage and/or run-off of construction related materials, sediment, or contaminants; a requirement to immediately recover and remove fugitive project materials that enter ocean or beach areas; limits on when and how pile driving can occur, in order to minimize its disturbance to marine life; a sensitive marine species survey and adverse impact avoidance requirements; and prohibitions on the use of chemical preservative treated timber construction materials without appropriate containment coatings, or wraps. These mitigation measures are discussed in further detail in the subsequent section of this report.

These feasible mitigation measures will minimize the project's adverse environmental impacts. Thus, with implementation of State Parks' proposed protective measures and imposition of the Special Conditions described above, the Commission finds that the third and final test of Coastal Act Section 30233(a) has been met.

Conclusion
Because the three tests have been met, the Commission finds the proposed project, as conditioned, to be consistent with Section 30233 of the Coastal Act.

D. COASTAL HAZARDS

Section 30235 of the Coastal Act addresses the use of shoreline protective devices:

> *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 fish kills should be phased out or upgraded where feasible.*

Section 30253 of the Coastal Act addresses the need to ensure long-term structural integrity, minimize future risk, and to avoid landform altering protective measures for new development. Section 30253 provides, in part:

> *New development shall do all of the following:*
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
> *(2) 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.*

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall coastal erosion also alter natural landforms and natural shoreline processes. Because shoreline structures can have a variety of negative impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beaches, such structures generally are inconsistent with various Coastal Act resource protection policies. Although shoreline protective devices are generally disfavored under the Coastal Act, the law recognizes that they should still be permitted in some circumstances. Section 30235 is essentially an "override" provision that requires approval of shoreline protection in certain situations even when such devices conflict with other Coastal Act resource protection policies. Specifically, Section 30235 states that such shoreline protective works shall be approved if they are required to serve coastal dependent uses or protect existing structures or public beaches in danger from erosion.

To determine whether a shoreline structure may be permitted under Section 30235, despite having impacts that would otherwise be inconsistent with other Coastal Act provisions, the following factors must be met: (1) there is a coastal dependent use or existing structure; (2) shoreline-altering construction is required to serve the coastal dependent use or protect the existing endangered structure; and (3) the required protection is designed to eliminate or mitigate

its adverse impacts on shoreline sand supply. Any impacts to resources other than shoreline sand supply—e.g., public access—must also be mitigated.[2] The first two questions relate to whether the proposed armoring is necessary, while the third question applies to mitigating the impacts from it.

Existing Structure/Coastal Dependent Use

As noted above, the first of the three "tests" required by Coastal Act Section 30235 for this project is that there is a coastal dependent use or existing structure. In past actions, including in its 2015 Sea Level Rise Guidance (as amended), the Commission has interpreted "existing structure" to mean structures that legally existed prior to the effective date of the Coastal Act—January 1, 1976. In the case of this project, the proposed rock revetment is intended to provide protection for the Gaviota Pier. The Gaviota Pier has been in place since approximately 1951. However, the proposed project includes extensive replacement and retrofit activities on the pier, including the complete replacement of all timber decking and railings and the replacement of several support pilings and sections of cross bracing. Additionally, the project also involves the re-installation of an approximately 90 foot section of the pier that was destroyed and lost in 2014. Further, the pier has undergone similarly extensive repair efforts in approximately 1975, 1987 and 1999. Considered cumulatively, these activities would result in the replacement of well over 50% of the pier structure. As such, the project, in combination with past projects, would result in a redeveloped pier that would be considered new development and no longer be an "existing structure" for the purposes of Coastal Act Section 30235.

However, the first test of Coastal Act Section 30235 also allows revetments and other construction that alters natural shoreline processes to protect "coastal dependent uses." Defined in the Coastal Act, "coastal dependent uses" are those "which require a site on, or adjacent to, the sea to be able to function at all." Under this definition, the Gaviota Pier – which extends into the ocean to provide ocean fishing, boat launching and wildlife viewing opportunities - is a coastal dependent use and therefore passes the first test of Coastal Act Section 30235.

Feasible Protection Alternatives to the Proposed Revetment

The second test of Coastal Act Section 30235 that must be met is that the proposed armoring must be "required" to protect the existing threatened structure. In other words, shoreline armoring can be permitted if it is the only feasible[3] alternative capable of protecting the structure. When read in tandem with other applicable Coastal Act policies cited in these findings, Commission regulations, as well as the Commission's obligations under the California Environmental Quality Act, the Commission has in the past conceptualized this Coastal Act Section 30235 evaluation as a search for the least environmentally damaging feasible alternative that can serve to protect existing endangered structures. See 14 Cal. Code Regs §§ 13053.5(a) (applications for development "shall [] include any feasible alternatives or any feasible mitigation measures available which would substantially lessen any significant adverse impact

[2] *Ocean Harbor House Homeowners Assn. v. California Coastal Com*. (2008) 163 Cal. App. 4th 215, 242

[3] Coastal Act Section 30108 defines feasibility as follows: "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

which the development may have on the environment."); Public Resources Code § 21080.5(d)(2)(A).

State Parks has a similar policy governing the use and placement of structural protection in coastal areas. This policy, Section 0307.3.2.1 of the Natural Resources Chapter of the California Department of Parks and Recreation's Operations Manual states that:

> *It is the policy of the Department that natural coastal processes (such as wave erosion, beach deposition, dune formation, lagoon formation, and seacliff retreat) should be allowed to continue without interference. The Department shall not construct permanent new structures and coastal facilities in areas subject to ocean wave erosion, seacliff retreat, and unstable cliffs. New structures and facilities located in areas known to be subject to ocean wave erosion, seacliff retreat, or unstable bluffs shall be expendable or movable. Structural protection and re-protection of existing developments is appropriate only when:*
> *a. The cost of protection over time is commensurate with the value of the development to be protected, and*
> *b. It can be shown that the protection will not negatively affect the beach or the near-shore environment.*
> *Where existing developments must be protected in the short run to achieve park management objectives, including high-density visitor use, the Department should use the most natural-appearing method feasible, while minimizing impacts outside the threatened area.*

As stated in the introduction to the Natural Resources Chapter:

> *The policies, definitions, processes, and procedures contained in this chapter guide the management of the natural resources under the jurisdiction of the Department of Parks and Recreation, including naturally occurring physical and biological resources and associated intangible values, such as natural sounds and scenic qualities…Adherence to policy will be mandatory unless waived or modified by the Director or designee.*

Commission staff is unaware of a waiver or modification to this policy issued for the proposed project.

As described in the previous section of this report on Coastal Act Section 30233(a), feasible, less environmentally damaging alternatives to the proposed rock revetment have been identified. Such alternatives include the use of grated decking material at the landward end of the pier to reduce the potential damage caused by wave uprush as well as the use of grout, epoxy crack injection material and concrete to fill the eroded areas around the pier infrastructure and slow the rate of ongoing erosion. Other potentially feasible means of addressing the erosion of the rock slope are also available including the replacement of the concrete block abutment that is starting to be undercut, use of concrete on the rock face to protect it from wave action, or embedding a more robust abutment system into the rock slope itself. All of these alternatives would eliminate the need for the proposed rock revetment.

Therefore, the proposed project would not pass the second test of Coastal Act Section 30235.

Sand Supply/Beach/Shoreline Area Impact Assessment and Mitigation
The final test of Section 30235 that must be met in order to compel Commission approval is that shoreline structures must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply. As described above, other resource impacts of such armoring must also be mitigated.

Shoreline Processes
Some of the effects of engineered armoring structures on the beach (such as scour, end effects and modification to the beach profile) are temporary or are difficult to distinguish from all the other actions that modify the shoreline. Others are more qualitative (e.g., impacts to the character of the shoreline and visual quality). Some of the effects that a shoreline structure may have on natural shoreline processes can be quantified, however, including: (1) the loss of the occupied beach and shoreline recreational area on which the structure is located; (2) the long-term loss of beach and shoreline recreational area that will result when the back-beach location is fixed on an eroding shoreline; and (3) the amount of material that would have been supplied to the beach and shoreline recreational area if the back-beach or bluff were to erode naturally.[4] The first two calculations affect beach and shoreline use areas, and the third is related more explicitly to shoreline sand supply impacts, but all three impact public recreational access to the beach and shoreline recreational area.

Encroachment on the Beach/Shoreline Recreational Area
With respect to loss of beach and other shoreline recreational area, shoreline protective devices such as the revetment proposed in this case are physical structures that occupy space. Typically when a shoreline protective device is placed on a beach or other recreational area, the underlying area cannot be used for beach and other recreation. This generally results in a loss of public access as well as a loss of sand and/or areas from which sand generating materials can be derived. The area where the structure is placed will be altered from the time the protective device is constructed, and the extent or area occupied by the device will remain the same over time, until the structure is removed or moved from its initial location, or in the case of a revetment, as the rocks that comprise it spread seaward over time. The beach/recreational area located beneath a shoreline protective device, referred to as the encroachment area, is the area of the structure's footprint.

In this case, the proposed revetment would have an approximate encroachment area of up to 2,500 square feet. This is a reasonable, worst-case estimate based on the project plans (provided in **Exhibit 2**) that show the proposed area to be occupied by the revetment. These plans show that the revetment would occupy an area beneath and adjacent to the pier on either side. The shape of the revetment would be irregular but has been simplified for the purposes of this discussion as roughly a half-circle with a radius of up to 40 feet from the center of the pier. A half-circle with those dimensions would occupy approximately 2,500 square feet. This area

[4] This third impact associated with sand supply refers to the way in which the project impacts creation and maintenance of beach sand. Although this ultimately can translate into beach and other recreational impacts, the discussion here is focused on the sand supply/maintenance issue and the way in which the proposed project would impact sand supply processes.

would include the shale rock slope below the pier as well as the adjoining beach area and rocky intertidal habitat.

However, because the proposed revetment would be placed within an access corridor used by the public to reach the approximately 10,000 square foot beach area on the upcoast (west) side of the pier, it's adverse impacts to shoreline recreation would extend beyond the revetment's simple encroachment area. This is because the revetment would block that access corridor and thereby limit public use of the beach on the pier's upcoast side, as discussed further in the following section of this report on Public Access and Recreation.

While mitigation could be developed to address the loss of beach and shoreline recreational areas that would result from the installation of the proposed revetment, no such mitigation was developed or proposed by the project applicant. In such situations, it is not uncommon for Commission staff to devise and recommend an appropriate mitigation approach, assuming that the other tests of Coastal Act Section 30235 have been satisfied. In this case, however, not all of those other tests have been satisfied. Therefore, mitigation of the project's adverse impacts on local shoreline sand supply would not be enough to bring it into compliance with the requirements of Coastal Act Section 30235.

Fixing Beach Location and Limiting Sand Creation

Shoreline armoring devices such as revetments are also known to adversely affect local shoreline sand supply by slowing or eliminating bluff erosion. This both prevents the landward migration of a beach over time and cuts it off from an important source of sand. However, because the proposed revetment on this project would be installed on top of an existing rock slope that is fairly resistant to erosion, it would take a substantial amount of time for the project to result in measurable effects to sand creation or shoreward migration of the beach. Nevertheless, estimates of the rate of erosion of the natural rock slope are available that could be used to inform the project's adverse impacts. These estimates range from the high-end of one foot per year (discussed in the 2000 report prepared for State Parks by Skelly Engineering) to the low-end initial estimate of one inch per year made by Commission staff. Using this range of estimates, it would be possible to establish how much sand creation and shoreward beach movement opportunity would be lost due to the proposed revetment and to develop and recommend an appropriate mitigation approach to address these losses. However, because not all of the preceding tests of Coastal Act Section 30235 have been satisfied, this effort would not be enough to bring the project into compliance with the requirements of Coastal Act Section 30235.

Summary of Coastal Act Section 30235 Analysis

As proposed, the project does not meet the requirements of Coastal Act Section 30235. Specifically, although the proposed revetment would serve a coastal dependent use, the revetment is not required to protect it because alternative, feasible methods of providing protection exist that do not involve shoreline armoring. As such, **Special Condition 5** would require State Parks to revise its project plans to eliminate the proposed revetment. As conditioned, the project would be carried out in a manner that meets the requirements of Coastal Act Section 30235.

New Development
The proposed project involves new development, as that term is defined in Section 30106 of the Coastal Act because it includes the placement and erection of solid materials and structures on land and in and under water; changes in the intensity of use of water and access thereto; and construction, demolition and reconstruction activities within the Coastal Zone. Coastal Act Section 30253 requires that new development "assure stability and structural integrity" and not "in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs."

The purpose of the proposed pier repairs – which include strengthening and repairing the pier's concrete abutment, the complete removal and replacement of the pier's decking and extensive repair and replacement of its cross-bracing, piles, and other support structures – is to restore the pier's stability and structural integrity so that it can be re-opened to the public. Additionally, State Parks is proposing other activities as part of the project that are intended to help increase the longevity of the pier repairs.

However, these other activities – specifically, the installation of the 1700 ton rock revetment on top of the natural rock slope and adjacent intertidal and subtidal habitat at the base of the pier – would involve the construction of a protective device that would substantially alter the natural landform along a bluff. This alteration would occur as a result of the burial of the rock bluff in an approximately nine foot thick layer of ¼ ton and two ton rock boulders. Coastal Act Section 30253 specifically prohibits the authorization of such protective devices as part of new development. As described above, Section 30235 provides an override that permits such armoring in certain cases; however, this project does not meet the criteria of Section 30235. As such, **Special Condition 5** would require State Parks to submit and implement revised project plans that do not include the rock revetment.

Although the revetment is being proposed to increase the longevity of the pier repairs, available information demonstrates that it is not currently necessary to assure the stability and structural integrity of the pier. During the last round of pier repairs in 1999/2000 (required due to storm damage that occurred in the winter of 1997/1998 and authorized by the Commission in CDP No. 4-99-111), a revetment similar to the one currently proposed was also considered. However, in response to concerns about adverse impacts to coastal resources associated with that revetment, it was eliminated from the project by State Parks and the project was limited to pier repairs only. At the seaward end of the pier, those repairs provided stability and structural integrity for approximately 15 years (until this portion of the pier was lost as a result of extreme storm and wave action in March 2014) and at the landward end of the pier – despite the lack of rock revetment – the repairs continue to provide the pier with stability and structural integrity today, 20 years later. For reference, State Parks estimates the period between significant repairs for a timber pier like the one at Gaviota State Park to be 20 years. Since its initial construction in 1951, however, the repair interval for the Gaviota pier has been about 12 years (significant repair projects required in 1953, 1963, 1975, 1987, 1998, and 2014). Therefore, the proposed project, as conditioned through Special Condition 5 to eliminate the rock revetment, would still assure the pier's stability and structural integrity over its expected lifetime. Further, **Special Condition 5** also provides State Parks with the option of revising its project plans to pursue a non-revetment alternative to increase the longevity of the pier repairs. As discussed in previous sections of this

report, such alternatives include the installation of grated decking at the pier's landward end and further strengthening or replacement of the pier's concrete abutment with a new abutment or subsurface design.

Conclusion
For the reasons discussed above, the Commission finds that the proposed project, as conditioned by **Special Condition 5,** would be carried out in a manner that assures the stability and structural integrity of the pier, does not require the construction of protective devices that substantially alter natural landforms along bluffs, and otherwise meets the Coastal Act's hazards policies. Therefore, the proposed project, as conditioned, is consistent with Coastal Act Sections 30235 and 30253.

E. WATER QUALITY AND MARINE RESOURCES

Section 30230 of the Coastal Act states:

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

Section 30231 of the Coastal Act states:

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

Section 30240(b) of the Coastal Act states:

> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

The proposed project site is within and immediately offshore of Gaviota State Beach, a unit of the Central Coast State Parks District, and also included within the one of the state's marine protected areas, the Kashtayit State Marine Conservation Area[5]. These protective designations

[5] The Kashtayit State Marine Conservation Area's regulations (CCR Title 14, Section 632) allows some take of marine life associated with the "maintenance of artificial structures and operation and maintenance of existing

are in place in this location in part due to the abundance and variety of rare, sensitive and important marine habitats and wildlife species it supports. For example, extensive intertidal and subtidal rocky reefs can be found within and adjacent to the proposed pier footprint and large areas of subtidal rocky reef that are colonized by macro-algae and kelp are located both upcoast and downcoast of the pier site. Additionally, the rare black abalone (*Haliotis cracherodii*) may also be present in the area.

As shown in **Exhibits 1 and 2**, the pier repair project site is located within and above nearshore coastal waters and areas of intertidal and subtidal rocky reef. Repair of the 570-foot long pier would include replacement of all of the pier's timber decking, railings, and supports, removal of approximately 11 deteriorated vertical pilings, and placement of a new approximately 90-foot seaward extension to replace a section that was damaged and lost in 2014 (including associated installation of up to 40 vertical pilings and 15 better pilings). In addition, State Parks would install roughly 1,700 tons of rip-rap rock across roughly 2,500 square feet of intertidal and subtidal habitat around the pier's landward abutment.

A hydraulic pile driver would be used to install the approximately 11 14-inch diameter vertical treated timber piles and up to 55 18-inch diameter vertical and batter treated timber piles (all of which would be encased in PVC plastic wrappings and polyethylene liners). Approximately 110-square feet of subtidal and intertidal seafloor would be occupied by the proposed piles. Additionally, the project includes installation of approximately 16,000-square feet of treated lumber pier decking above these waters.

Pier

The installation and presence of these pier elements has the potential to adversely affect coastal and marine water quality, habitats and wildlife through habitat loss and disturbance from pile installation; release of plastic debris (due to degradation of plastic pile wrappings) and construction waste; and leaching of wood preservative chemicals over time.

Pile Installation

The project includes installation via pile driving of approximately 66 timber piles from slightly above the mean-high-tide line to nearly 600-feet offshore (as shown in **Exhibit 2**). Because these activities would be carried out both above and within marine waters, the project has the potential to result in adverse impacts to both marine organisms and the marine environment. Specifically, the proposed pile driving would result in the generation of elevated levels of underwater sound in nearshore waters known to support several species of marine mammals, including harbor seals, California sea lions, several species of common dolphin and whales. Marine mammals, in particular cetaceans such as whales and dolphins, are known to be susceptible to disturbance and injury from high levels of human-generated underwater sound. In addition, a variety of fish and invertebrate species are also known to suffer disturbance and injury as a result of elevated underwater sound levels.

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facilities…pursuant to any required federal, state, and local permits, or as otherwise authorized by the Department [of Fish and Wildlife]."

Marine mammals rely on sound to navigate, and to find food, mates, and companions. Elevated levels of human generated underwater sound have been shown to interfere with these activities and in some cases to cause internal injury, stranding, and mortality. To prevent and minimize these damaging effects of sound to marine mammals, State Parks is proposing to use a qualified biological monitor to search for marine mammals, sea turtles, and special status bird species in the project area and to suspend project activities if those activities pose a threat. Additionally, State Parks proposes to use a vibratory hammer (which generates lower levels of underwater sound than an impact hammer) to the greatest extent possible during pile installation. When an impact hammer is used, it would be equipped with a 12-inch thick wooden cushion block and would employ a "soft start" or ramp-up technique with three strikes at 40 percent power followed by a one minute waiting period and two additional three strike sets. This proposal is memorialized through **Special Condition 1** which would provide for the Executive Director's approval of the protected species observers and additionally require pile-drilling activities to be conducted using the lowest available power setting on the equipment - thus reducing the resulting sound energy transmitted into the marine environment.

Further, **Special Condition 1** would also clarify the extent of the wildlife shutdown zone around the pile driving operations (a radius of 500 meters) and help ensure that feasible sound dampening devices and techniques are used to further reduce the underwater sound levels during pile drilling. These measures would help ensure that the sound levels during pile drilling are as low as possible and thus reduce the potential for sound to pass outside of the 500-meter shutdown zone that exceeds the marine wildlife injury and disturbance thresholds. Although the size of shutdown areas for marine wildlife protection is typically based on underwater sound propagation modeling showing the distance from the sound source to sound levels considered to be safe for marine wildlife, in nearshore and shallow water areas (such as those around the pier), this modeling can be technically difficult to complete and prone to error. This is because sound waves can bounce between the ocean surface and submerged features such as rocks and become magnified rather than attenuating at a steady rate as can be the case in deeper waters with more homogenous conditions. For example, underwater sound recording carried out as part of a causeway repair project in shallow, nearshore waters near Rincon Island in Ventura County showed that after declining steadily between 150 meters and 300 meters from the pile driving, sound levels rose again at roughly 450 meters from the source and reached levels that nearly exceeded those at the 150 meter distance. Therefore, rather than relying on sound propagation modeling for such situations in the past, the Commission has accepted an alternative, conservative approach that instead establishes the size of the shutdown area based on worst-case assumptions about sound propagation levels and distances. In other words, assumptions are used that underwater sound levels are degrading at the lowest rate and maintaining high levels beyond the distances typically seen for similar types of sound sources. Using such assumptions and considering the proposed piling materials and maximum diameters for this project, as well as the proposed pile driving equipment, available data indicates with a high degree of confidence that underwater sound pressure levels would not exceed 160 dB dB re: 1 µPa (root mean square, unweighted) at 500 meters from the pile driving source. This sound pressure level is typically considered to be the lowest level at which behavioral changes and disturbance to large whales – such as gray whales - can occur. Smaller marine mammals such as sea lions, harbor seals, and dolphin species do not typically demonstrate an adverse response at such sound levels and it is assumed that a shutdown zone established for larger marine mammals will protect these smaller species as well.

The Executive Director-approved protected species observers on site would have the authority to suspend pile driving if a marine mammal passes within the shutdown zone. Therefore, although underwater noise from the project could disturb or injure marine mammals known to be occasionally present in the area, **Special Condition 1** would establish an approach that would minimize these potential effects and therefore ensure that healthy populations of marine organisms are maintained and special protection is provided for the Kashtayit State Marine Conservation Area – an area of special biological significance – and the marine species of special biological significance that may be present within it.

In addition to the potential adverse impacts to marine biological resources associated with the underwater sound levels generated by the proposed pile driving, the proposed placement of the project's 66 pier piles into the seafloor (and the extraction of approximately 11 deteriorated piles) may also adversely affect marine biological resources at the project site due to the disturbance and destruction of habitat within the individual footprint of these piles. Although the footprint of each pile is relatively small – roughly between one and three square feet – in total they would cover roughly 110-square feet of habitat and have both an individual and cumulative negative effect on the habitat offshore of Gaviota State Beach. This effect would be made more significant if the habitat within the proposed pile installation sites were found to be rare or sensitive or supported rare or sensitive species. While the initial investigations and analysis carried out by State Parks staff in October 2018 indicates that no such habitats or species are present within the offshore footprint of the proposed 90 foot long seaward pier extension, and that the entire site is made up of either sand, sand laying atop buried bedrock or highly mobile cobblestones that do not support kelp, detailed information from these underwater surveys or others carried out more recently is not available. As such, **Special Condition 6** would require State Parks to carry out a series of confirmation surveys to verify that eelgrass, kelp, and rocky reef habitat is not present within the installation footprint of the pier extension. In addition, the surveys would also document any black abalone or invasive marine algae that is observed. While neither of these species is expected to be found at the pier site, the survey would be able to confirm this assumption.

If any of these target species or habitats are encountered during the underwater surveys, **Special Condition 6** would require State Parks to submit this information to the Executive Director within 30 days and not proceed with construction. Instead State Parks would prepare and submit an application to amend its coastal development permit. This amendment would include State Parks' proposed approach for addressing the project's potential adverse impacts to the identified species or habitats of concern. The additional review and coordination afforded under this process would allow for the Commission and State Parks to consider and evaluate the potential need for additional impact avoidance, minimization and mitigation measures.

Pier Decking

While the proposed pier pilings would be made up of treated wood encased and wrapped in PVC and polyethylene to prevent leaching of toxic preservative chemicals into the marine environment, State Parks proposes to use exposed preservative-treated lumber for the surface decking of the pier – specifically, ACZA treated lumber. ACZA is a mix of preservative chemicals and compounds used to prevent insect infestation, rot, and other sources of wood

degradation and breakdown. This mix includes both copper and arsenic, substances that are known to be toxic to marine life.

Dissolved copper is highly toxic to a broad range of aquatic species. However, the arsenic, chromium, and zinc in the metal-arsenate preservatives are less toxic than copper to aquatic organisms in both freshwater and marine environments. The U.S. EPA has determined it is unlikely that arsenic or chromium leaching from metal-arsenate treated wood would result in significant water or sediment contamination, and therefore there is a "relatively low likelihood of significant ecological exposure to arsenic and/or chromium" from metal-arsenate treated wood. However, arsenic has high mammalian toxicity and is a known human carcinogen, and thus raises human and marine mammal health concerns if used where human or mammal contact may occur.

Due to the large area of the proposed pier that would be covered with ACZA treated lumber – nearly 16,000-square feet – and the location of the pier within a designated marine protected area (the Kashtayit State Marine Conservation Area) that supports a wide variety of sensitive marine habitats and wildlife species, the possible leaching of toxic compounds from the pier into adjacent marine waters presents a potential source of adverse impacts to both water quality and marine biological productivity. To address this issue, **Special Condition 4** would require State Parks to use an alternative decking material for the pier, such as untreated wood, composite lumber, concrete, or metal grating, unless it determines that the use of such alternative materials would be infeasible. In addition, **Special Condition 4** would also require State Parks to implement a variety of best management practices during construction in order to protect coastal water quality. Such measures would include the use of treated wood that has been certified for use in aquatic environments and does not exceed the minimum preservative retention level; requirements for treated wood cutting, drilling, or sanding to be carried out at least 50 feet from coastal waters; requirements for all sawdust and wood debris to be collected, contained, and removed for disposal; use of an onsite water quality monitor during piling installation; requirements for the use of mesh containment netting during over-water construction activities; and implementation of water quality protection measures during piling removal activities. In this way, the project would be carried out in manner that would ensure that healthy populations of marine organisms are maintained and special protection is provided for the Kashtayit State Marine Conservation Area – an area of special biological significance – and the marine species of special biological significance that may be present within it.

Hard Substrate

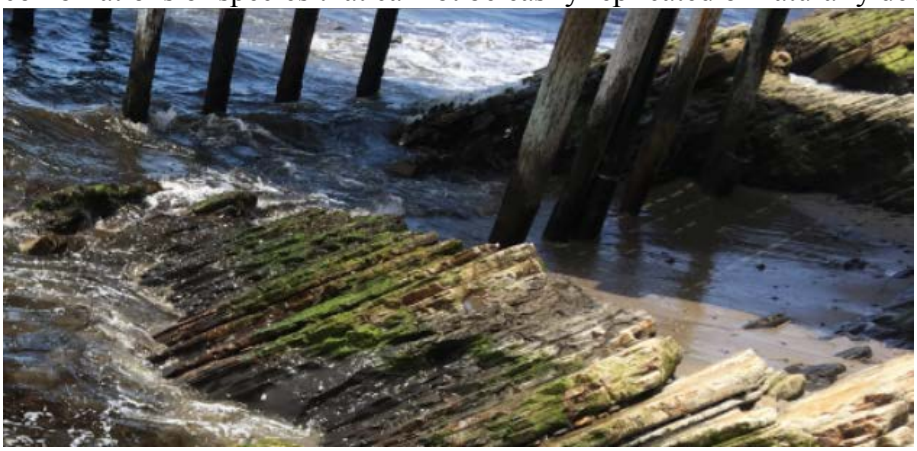
The proposed installation of a rock rip-rap revetment at the landward pier abutment would result in adverse impacts to hard substrate habitat and associated biota. Hard substrate is exposed rocky seafloor or intertidal area that provides habitat for a diverse group of plants and animals. Common epifaunal invertebrates occurring in the hard substrate areas vary based on depth, substrate relief height, and air, sun, and wave exposure. Along much of the California coast, there is a strong positive association between the types of communities and the depths and substrate types in which they occur. Hard substrates, including rocky bottoms, rock outcrops, tidepools, and rock crevices, provide habitat and shelter for numerous sessile organisms, fishes, and mobile invertebrates such as lobsters and crabs. In shallower waters and intertidal areas, many species of algae, surfgrass, anemones, starfish, and shellfish are present on hard substrates.

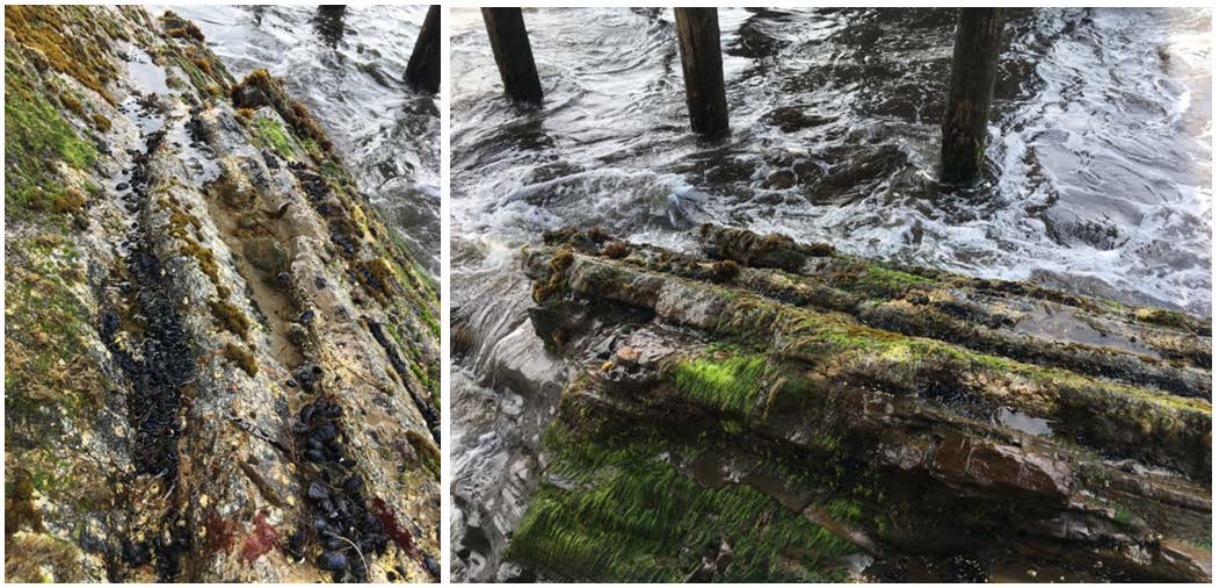
Hard substrate (especially high-relief substrate) and its associated biota are relatively rare in the Southern California Bight, and therefore any effect to them is potentially significant. Impacts to high-relief substrate in particular are significant because: (a) they support a diverse assemblage of epifaunal invertebrates; (b) they can attract fish as a nursery ground, food source, and as shelter; and (c) epibiota residing on rocky substrates are sensitive to mechanical disturbance and increased sediment loads.

Although portions of the hard substrate reef within the approximately 2,500 square foot area proposed to be covered by the rip-rap revetment near the base of the pier appear to provide less productive habitat due to shading from the pier and natural mechanical disturbance, scour and burial by sand and cobblestones, other portions of this natural reef have higher-relief and provide more stable habitat for a diverse range of marine species (as shown in the images on the following page and in **Exhibit 3**). Because of the layered configuration of the natural rock outcroppings that make up these higher-relief areas, they provide particularly high quality intertidal habitat with a high surface area and extensive systems of natural cracks and crevices used as refuge from predation and desiccation stress.

Adverse impacts (e.g., crushing, scraping, physical displacement, burial, and shading) to this hard substrate and the habitat and marine life it supports would occur during initial placement of the proposed rip-rap revetment materials at the pier abutment as well as their positioning into the revetment's final proposed location and configuration. As these proposed rip-rap boulders shift and move over time due to natural settlement and wave impacts, additional adverse impacts to surrounding marine habitat would also occur as a result of crushing, burial, and mechanical disturbance.

Although the proposed rip-rap boulders would also be made of rock, the surface structure and composition of rock proposed to be installed is different than that of the naturally occurring rock at the project site. Specifically, the proposed rock has a smoother surface without the networks of layers and cracks that provide such productive habitat on the naturally occurring shale formation. A comparison between the natural rocky reef areas and the existing rip-rap to the east of the pier abutment shows that although the rip-rap has been in place for several decades, it supports a much lower density and diversity of marine life. Additionally, the naturally occurring rock features have been in place long enough to develop a unique assemblage and community of organisms, including a diversity of size and age classes as well as variable densities and combinations of species that cannot be easily replicated or naturally developed.





In its application materials, State Parks estimates the total area of marine habitat below the high tide line to be covered by the proposed rip-rap as 1,210 square feet. Including marine habitat within the adjacent intertidal zone, this estimate would increase to approximately 2,500 total square feet of intertidal and subtidal marine habitat, of which an estimated 1,200 square feet is made up of hard substrate habitat. As described above, the proposed revetment installation activities and any subsequent movement of the rock boulders over the life of the project has the potential to damage or crush existing rocky reef habitat and its associated biota. Although Commission and State Parks staff worked to explore an approach for minimizing these adverse impacts by reducing the scale and size of the proposed revetment and installing new rip-rap rocks in a strategic manner that builds around natural high relief rock outcroppings and features (such as those shown in the figure below) rather than crushing or burying them, the extent to which this would be possible and the amount of impact reduction it would result in is still uncertain. As such, this approach cannot be relied upon to reduce the adverse impacts of the proposed revetment from the worst-case estimate of up to 2,500 square feet of intertidal and subtidal marine habitat.

While in many cases, this level of loss and damage to marine life and habitats could be found consistent with the Coastal Act's marine resource protection policies (Sections 30230 and 30231) with the implementation of an adequate and appropriate mitigation approach (such as creation, enhancement, or restoration of the same type of habitat that would be lost), the siting of the proposed revetment within a state designated marine protected area (MPA) raises unique issues and concerns. As noted in the "Other Agency Approval and Coordination" Section of this report, the primary MPA management agency, the California Department of Fish and Wildlife, believes that additional review and discussion with State Parks is warranted prior to implementation of the project. Such additional coordination would help ensure that the project does not violate the marine life protection requirements of the MPA, result in adverse impacts that could be avoided or proceed without appropriate mitigation for unavoidable adverse impacts.

Although not the primary marine protected area management agency, since the statewide network of MPAs was established, the Commission has consistently considered them to be marine "areas of special biological significance" under Coastal Act Section 30230 and has therefore required that they be provided with "special protection." To ensure that this "special protection" is provided, the magnitude, likelihood and avoidability of a project's adverse impacts are closely considered. In this case, the project's impacts are fairly modest but they are also highly likely and avoidable. The impacts are likely because placement of the rock rip-rap would result in the loss, damage, and burial of the underlying marine life and habitats with a high degree of certainty. However, as discussed in previous sections of this report, these impacts are also avoidable because a feasible alternative to the proposed revetment is available that would not result in the loss and damage of marine life and habitats. Therefore, in order for the marine protected area to be provided with the special protection required by Section 30230 of the Coastal Act, this alternative would need to be pursued in place of the proposed project. As such, **Special Condition 5** would require State Parks to develop and submit updated project plans that eliminate the proposed rock revetment and potentially replace it with installation of a section of grated metal decking at the landward end of the pier or other modified design. As discussed previously in this report, this alternative to the proposed revetment would satisfy the intended purpose of the revetment by providing extra protection for the pier structure from the damaging effects of wave uprush. Alternatively, State Parks could simply proceed with the project as proposed, minus the revetment.

Conclusion
For the reasons discussed above, the Commission finds that the proposed project, as conditioned by **Special Conditions 1 and 4 through 6,** would be carried out in a manner that maintains marine resources and sustains the biological productivity and quality of coastal waters and protects against the spillage of hazardous substances into the marine environment and is therefore consistent with Coastal Act Sections 30230, 30231 and 30232.

F. PUBLIC ACCESS AND RECREATION

Section 30210 of the Coastal Act states:

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

Section 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 30213 of the Coastal Act states (in relevant part):

> *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.*

Section 30220 of the Coastal Act states:

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

Section 30221 of the Coastal Act states:

> *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Section 30234 of the Coastal Act states:

> *Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. Existing commercial fishing and recreational boating harbor space shall not be reduced unless the demand for those facilities no longer exists or adequate substitute space has been provided. Proposed recreational*

> *boating facilities shall, where feasible, be designated and located in such a fashion as not to interfere with the needs of the commercial fishing industry.*

The proposed project consists of repairing and replacing the deteriorated portions of the Gaviota State Park pier as well as constructing and re-installing portions that collapsed and washed away five years ago (during the 2014 winter storm season). In addition, the project also includes a request for after-the-fact authorization for activities carried out in 2005 to remove a three-ton capacity boat hoist and associated electrical equipment from the pier and replace it with a four-ton capacity hoist, new electrical equipment, an automated access card reader, and video surveillance equipment. State Parks is also requesting after-the-fact authorization for its implementation of a Boat Hoist Program that established new operational requirements and use limitations for the hoist. Finally, the project would result in the installation of a rock rip-rap revetment at the landward base of the pier.

The Gaviota State Park pier is a major visitor-serving destination point and recreational facility along the coast of Santa Barbara County, and it serves both local and out-of-area visitors. The pier is also a popular fishing resource and lower cost recreational asset. Repairing and reopening the Gaviota State Beach pier would ensure the continued functioning of an important visitor-serving facility along the California coast, as well as an important point of access to nearshore waters.

As noted by the State Lands Commission in its authorization of a recent lease extension for the land on which the pier is located:

> *The Gaviota Pier (Pier) is a public recreational pier adjacent to Gaviota State Park that, before its closure in 2014, was open to and used by the public for recreation, fishing, and recreational boating. The Pier is operated and maintained by State Parks and provides public recreational access to the beach and the ocean. A boat hoist is located on the Pier which facilitates recreational boating. Users of the boat hoist are required to take a training program and pay an annual fee, and funds generated from the annual fee and training program fee are used to support maintenance and repairs to the boat hoist. Approximately 100 people used the boat hoist per year before storm damage forced the Pier's closure. No vehicles are allowed on the Pier.*
>
> *Consequently, only small boats that can be manually pulled on their trailer may be launched from the Pier. After boats are lowered into the water, trailers are stored at the parking lot. Upon return to the Pier, boat operators retrieve their trailers and again pull them down the Pier to reload their boats after use.*
>
> *Anglers and surfers comprised the majority of boat hoist users due to the Pier's close proximity to Hollister Ranch, a popular surfing destination. Because Hollister Ranch is a private, gated community, the only way to access the surfing location is by boat. The Pier, located 2 miles from the closest Ranch surf break, is the closest boat access to Hollister Ranch. The next closest launching facility is Santa Barbara Harbor, which is 32 miles away. Fishing from the Pier is also popular. In addition to the boat hoist, the Pier also provided fish cleaning tables and other amenities to support and facilitate recreational*

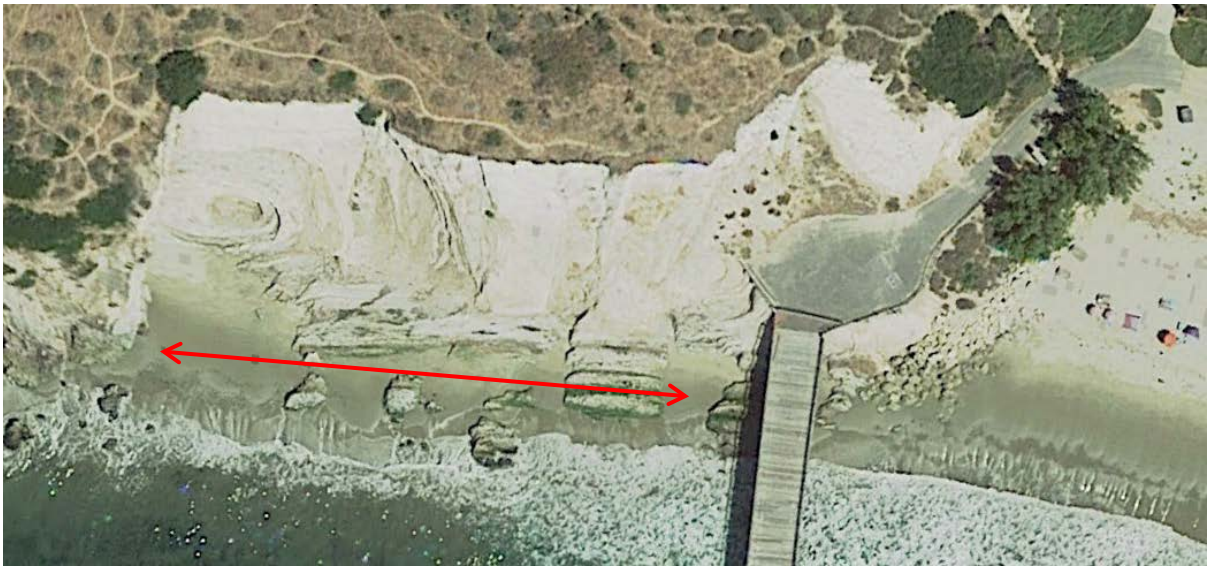
fishing by the public from the Pier. The upland park area has a campground, a Caltrans rest stop along the highway, and multiple hiking trails and backcountry roads.

The Gaviota State Park pier facilities are proposed to be replaced or repaired in the same location, and built to the same size and configuration, as the original pier facilities (**Exhibit 2**).

Rock Revetment

Installation of the proposed rock revetment below the Gaviota Pier and at its base would adversely affect coastal access and recreation is several ways. Most directly, the revetment would result in the loss of a section of sandy beach and exposed rocky reef that is currently available to State Park visitors and beachgoers. This area, estimated at up to 2,500 square feet, would extend roughly 30 feet to either side of the pier and include the entirety of the intertidal area below the pier itself. While not as heavily used as other areas on Gaviota beach, this section of beach nevertheless attracts frequent visitation and use by beachgoers interested in the pier and the portions of rocky reef and exposed Monterey shale formations that can be found near the pier landing.

In addition to the loss of access to these areas and their recreational assets due to their proposed burial by the rock revetment, the revetment would also sever access between the beach areas on either side of the pier. Because the only shoreline access available to the area of beach and exposed geologic formations on the upcoast (west) side of the pier is provided by passing under the pier at its base, burial of this pier area in the proposed rock boulders would create a significant impediment to access and likely preclude use of the adjacent upcoast beach during typical tidal heights by all but the most nimble and physically capable individuals. In effect, therefore, the revetment would result in the loss of access and recreational opportunities for the entire area between the pier and the shale bluffs roughly 250 feet upcoast, as shown with the arrow in the figure below.



In addition to beach, this approximately 10,000 square foot area contains a number of rocky reef tidepool areas and unique geological formations. Some of these features are photographed and

provided as noteworthy examples of Monterey shale formations in the State Parks publication "Geological Gems of California State Parks" (including the one shown in the image below). Numerous visitors to Gaviota beach are known to frequent and explore this area during appropriate tides and wave conditions – most often during summer months. Although it would not be permanently lost or damaged as a result of the proposed revetment at the pier, access to it would be adversely affected and its availability as a recreational resource would be greatly diminished.

Therefore, due to its size and location, the adverse impact of the proposed rock revetment on coastal access and recreation would significantly exceed its approximately 2,500 square foot footprint area and extend to include an additional roughly 10,000 square feet of beach and shoreline, including one of the popular and unique natural features of this section of coast.

The loss and restriction of access to these beach areas at the base of the pier and upcoast (west) would be inconsistent with the Coastal Act requirement established in Section 30211 that development not interfere with the use of dry sand and rocky coastal beaches as well as the requirement established in Section 30221 that "oceanfront land suitable for recreational use shall be protected for recreational use." To address these conflicts between the Coastal Act and the proposed project, **Special Condition 5** would require State Parks to develop and submit updated project plans that eliminate the proposed rock revetment, with the option to replace it with installation of a section of grated metal decking at the landward end of the pier or another design alternative. As discussed previously in this report, this alternative to the proposed revetment would satisfy the intended purpose of the revetment by providing extra protection to the pier structure from the damaging effects of wave uprush. It would also provide the additional benefit of preserving the existing coastal access and recreational use opportunities currently provided at and around the pier landing.

Construction Staging Area

As noted above, the pier was damaged by winter storms and has been closed to the public since March 2014. The proposed work on the pier itself would therefore not restrict or eliminate access to an area currently used by the public. Proposed project equipment and materials staging and onsite storage may, however, adversely affect public beach and coastal access.

As shown in the figure above, the proposed project staging area (outlined in red) would encompass much of the beach parking area and may preclude public use of beach accessways that connect the parking area to the beach (numbered in red).

State Parks estimates that a total of between 29 and 47 of the estimated 126 available public parking spaces in the main Gaviota State Park beach parking lot (including two of the four available ADA compliant spaces) would be occupied by construction equipment, materials, and vehicles throughout the approximately 11 month construction period. This could reduce by up to roughly 1/3 the number of available parking spaces serving the beach at Gaviota State Park, potentially leading to overflow conditions that may restrict overall access and availability of this beach to the public. Although overall use of Gaviota State Park has declined with the pier closure, it still remains one of the most accessible and heavily used beaches in this part of Santa Barbara County and is a popular destination during holidays, weekends and summer months.

In addition, the proposed location and configuration of the staging area may block or limit access to three of the four beach access points between the beach and parking area, including all of those that provide access for beach launching of small boats and other vessels. Since the closure of the Gaviota pier and its boat hoist, beach launching of small vessels has provided one of the only means for the public to access surfing, diving, and fishing areas located offshore of the Hollister and Bixby Ranches.

While State Parks is committed to ensuring that the beach at Gaviota State Park remains open and available to visitors throughout the construction period, **Special Condition 2** would address these potential limits to public coastal access by establishing that the staging area would take up no more than State Parks' low-end estimate of 29 total parking spaces and be configured to avoid the loss of any ADA compliant parking spaces or blockage of public beach access trails and accessways.

Although these requirements may result in a smaller than proposed staging area within the main beach use parking lot, State Parks has identified an approximately 8,000 square foot area near its entrance kiosk that could be used for construction employee parking or staging. In addition, the pier access road and landing also provide areas that could be used for project staging without adversely affecting public coastal access or recreational use.

Boat Hoist and Launch System

In addition to the access it provides for shore-launching of small boats and vessels, the boat hoist and launch system on the Gaviota Pier is one of Gaviota State Park's key assets for providing coastal access and recreation benefits. When the pier is open and the hoist is operational, it can receive heavy use by those seeking access to the coastline between Santa Barbara and Point Conception, and in particular, those areas immediately upcoast of Gaviota State Park in the Hollister and Bixby Ranches for which landside public access is not available. According to a State Parks report in 2005, an average of 800 boaters per year would make use of the hoist.

This level of use and the unique location and access provided by the hoist has led the California Department of Boating and Waterways (DBAW) to consider it "extremely important for recreational boaters." Throughout the 2000s and prior to closure of the pier and hoist in 2014, DBAW had provided the majority of funding for repairs and improvements to the hoist and had also provided State Parks with grant funding to commission an independent report on hoist operations, maintenance, and opportunities for increasing safe, reliable use. Based on input received by Commission staff from the public and interested stakeholders at the time, this grant was prompted by a series of breakdowns and accidents involving the hoist and a growing level of public frustration about its limited accessibility and susceptibility to vandalism and sabotage by those allegedly seeking to limit public access to the Hollister Ranch coastline and other adjacent coastal areas.

Completed in May 2005, an independent report by Northeast Engineers & Consultants, Inc. (NE&C) provided a fairly strong critique of the hoist equipment and operations in use at that time and provided a variety of specific recommendations for safety and operational improvements. The following excerpt from the report's introduction summarizes these recommendations and the report's findings:

NE&C found the facility to be very exposed (used in waves reaching 5 feet in height) warranting a previously assigned factor of safety of 2.0 that reduced the original lifting capacity from 4-tons to 2. With boat launching facilities in such short supply within the Channel Coast Region, the Gaviota Boat Hoist sees high frequency use throughout the year. Overuse has led to numerous breakdowns and equipment failures. The current Stahl chain hoist has been problematic and unreliable. Operations are monitored by CA-DPR [California Department of Parks and Recreation] *staff only 20% of the time, leaving untrained boaters access to the facility without any knowledge of standard operational procedures and safety guidelines. Unfortunately, it has been reported and witnessed that people disregard even the most fundamental rules due to either their lack of experience or ignorance. Seeing that the hoist services vessels upwards of 2-tons, simple neglect and lack of knowledge could quite possibly lead to serious physical injury.*

NE&C recommends CA-DPR replace the current hoist with a Columbus McKinnon (CM) Powerstar 5-Ton 2-speed double-reeved chain hoist with integrated motorized trolley system. The CM Powerstar Hoist is known to be the largest and most rugged hoists available in the marketplace most commonly selected for industrial applications where downtime is to be avoided at all cost. Although the hoist has a 5-ton capacity, the overall facility will continue to be limited to 2-tons. The only way to increase this capacity will be to retrofit the pier's pile foundation, deck and hoist to manage a total load of 6-tons in order to support a 3-ton vessel while continuing to respect the 2.0 factor of safety due to extreme wave conditions. In addition to mechanical improvements, NE&C recommends that CA-DPR monitor all hoist activities starting immediately up until the majority of the public is sufficiently trained in the use of the facility. Utilizing the hoist volunteer group can reduce the burden of such monitoring. In addition to monitoring, CA-DPR needs to adopt various items including improved signage, procedures and safety regulations, and reconfiguration of the electrical system. In an effort to properly protect the facility from unauthorized use and vandalism NE&C has recommended CA-DPR also consider purchasing a card reader and closed circuit surveillance system.

It is believed that by implementing the recommended improvements to the facility and operation, the Gaviota State Beach Boat Hoist will be able to safely and securely continue servicing boaters along the Southern and Central California Coast for years to come.

Based on the recommendations and findings of this study – particularly those focused on public and operator safety issues – State Parks implemented a variety of changes to hoist operations between late 2005 and when the pier was closed in 2014. These changes were carried out without benefit of a CDP and included removal of the pier's aging three-ton capacity hoist and the purchase and installation of a new, more robust four-ton capacity hoist, electrical system, hoist access card reader, and video surveillance system (also partially funded by DBAW). State Parks also developed and implemented a Boat Hoist Program (more fully described in **Exhibit 4**), also without benefit of a CDP, that changed access to and the intensity of use of coastal waters by establishing new operational requirements and use limitations for the hoist.

As described in information provided with its CDP application, State Parks proposes to continue to use this program to manage hoist operations once the pier is repaired and re-opened. Prior to its implementation, hoist operations were much more informal and less regulated, as described in the NE&C 2005 report:

> *The Gaviota Boat Hoist operations is actively monitored by CA-DPR Lifeguard Staff from June through August and monitored by an organized group of volunteers on weekends from March through November. Monitoring hoist activities typically includes checking vessel size, inspecting slings, assessing environmental conditions, inspecting vessel equipment, collecting "Vessel Hoist Services Use Agreement and Waiver" from each user and monitoring the user when operating the hoist. CA-DPR estimates staff and volunteers monitor approximately 20% of all boats that use the facility.*
> …
> *During times when the hoist is open and not monitored, the public is expected to use the hoist based on the 'honor system' including filling out waivers, knowledge of launching protocol and correct equipment. Due to the lack of security at the hoist, it has been reported that many infrequent users fail to follow CA-DPR's Hoist Launching Procedures and Safety Requirements including but not limited to improper use of slings, uncertified slings and placing passengers in the vessel when lifted by the hoist. Although no significant accidents have been reported at the hoist, it is believed that they have occurred but not reported in order to avoid punishment for self-preservation and/or the preservation of the current hoist protocol (a significant injury would force CA-DPR to consider stricter launching policies).*

As noted in the Boat Hoist Information Handbook (**Exhibit 4**), State Parks' efforts to implement several of the recommendations of the NE&C 2005 report have led to safer and more consistent hoist operations:

> *An indication of the new Hoist Program's success is that no boater or other visitor has suffered injury or property loss from hoist operations since the program began. In addition, no mechanical or electrical failures have occurred to the hoist or its support systems that have forced its closure.*

However, available information also indicates that they may also have contributed to a significant reduction in access to and use of the boat hoist. Prior to implementation of the new hoist operations program in late 2006, the NE&C 2005 report estimated use of the hoist at around 800 boaters per year on average[6]. In the years immediately before closure of the pier in 2014, this usage had fallen to approximately 100 boats per year (as described by State Lands Commission staff in the excerpt included above). There are a variety of factors that may have contributed to this decline but the training, certification, and inspection requirements – and their associated costs - implemented as part of the 2006 Boat Hoist Program may have been among them.

[6] State Parks staff have indicated that this number may mis-represent the historic level of boat hoist use because it may combine both beach launches and launches made using the pier's boat hoist. Additionally, it is not clear if the number refers to individual vessels or the people operating those vessels.

Prior to 2006, one would only be required to pay the $8 vehicle entrance fee and an additional $8 boat launch fee at the park's entrance in order to use the hoist. Once State Parks' Boat Hoist Program was implemented in 2006, however, it became necessary for one to pay the vehicle entrance and boat launch fees as well as to complete the following 10 step process in order to use the boat hoist:

- Join the waitlist for the Hoist Operator Training at least eight weeks before the next scheduled training;
- Be among the first 20 on the waitlist to be invited to a training;
- Submit $100 training fee;
- Attend and complete eight hour training on hoist operations (including three hour classroom training session and 15-30 minute practical exam);
- Complete, sign, and submit Hoist User Agreement;
- Receive Hoist Operator ID Card within 30 days of submitting signed agreement;
- Join vessel inspection waiting list and wait to be invited to the next available inspection;
- Attend and pass one hour vessel inspection;
- Submit $100 vessel inspection fee; and
- Receive and activate Hoist Proximity Card.

After these steps had been followed, the requirements to continue using the hoist in future years were more limited. Once issued, a Hoist Operator ID Card would be valid in perpetuity and would not require additional fees to maintain. The Hoist Proximity Card – issued for a vessel once it had passed inspection – would require a $150 annual fee to continue using but an additional vessel inspection would not be required as long as three or more years did not elapse in which the annual fee was not paid. As such, the $200 in fees required in the first year to begin using the boat hoist was reduced to $150 in subsequent years.

As indicated above, available records indicate that installation of the more robust, larger capacity hoist and implementation of the Boat Hoist Program has increased safe, reliable use of the hoist. However, the multiple waiting lists, scheduled training and inspection events, and the initial and annual fees associated with the Boat Hoist Program appear to have contributed to a decline in its use by the public. For example, the hoist operations training and vessel inspection process required as part of the current hoist program has likely eliminated or significantly reduced use by "one-time" and low-frequency users as well as those that do not reside near Gaviota State Beach. Because the current program requires multiple trips to Gaviota State Beach before the hoist can be used to launch a vessel - one trip for the day-long hoist training, a separate trip for the vessel inspection, and a third to actually use the hoist once the requisite operator ID card and Hoist Proximity Card arrive in the mail – it would take a significant commitment of time, money, and resources for anyone outside the region to use the hoist. These barriers – and the requirement to pay fees for the whole year for even a single use of the hoist – may also present impediments to use by more local residents that can't afford to become consistent regular users or accommodate that level of use in their life.

Although beach-launching from Gaviota State Beach would still be an option for such individuals (and would only require payment of an $8 vehicle access fee and $8 launch fee), because vessels must be hand carried or towed by hand from the parking lot and across the sandy

beach in order to beach-launch, it is only an alternative during calm ocean conditions for smaller, lighter vessels (small boats, kayaks, Zodiacs, and other inflatable vessels) and the most physically capable users.

While input received by State Parks' Channel Coast District staff suggest that the current program is widely supported by the base of consistent, local users that the program appears to be oriented around with its focus on annual passes and authorizations, other user groups have not expressed the same level of support to Commission staff. A frequent concern raised to Commission staff during its review of this application has been the significant difference in hoist operations and level of accessibility to boaters provided between the hoist at Gaviota State Beach and a very similar one operated by Santa Barbara County at the Goleta Beach Park pier roughly 30 miles downcoast. Whereas the Gaviota pier hoist requires the lengthy multi-step process described above, use of the Goleta pier hoist simply requires payment of a $20 use fee and supervision by the park's resident ranger. It should be noted, however, that the County's hoist is only available for use on weekends and holidays instead of the seven days a week proposed by State Parks for its hoist facility.

Between the apparent decline in use of the hoist by the public after implementation of the Boat Hoist Program and the barriers it presents to some sectors of the public such as less frequent users and those from outside areas, it appears that some reexamination of the hoist program may be warranted to help ensure that the hoist is managed in a way that continues to maximize safety and reliability while also facilitating accessibility and use by a wide range of the public. In addition to helping to protect and expand coastal access and recreation, a more optimally designed boat hoist program would also help meet the Coastal Act requirements that call for boat launching facilities to be increased and upgraded, where feasible.

Although the more robust, larger capacity four-ton hoist that State Parks installed in 2005 as a replacement for the aging three-ton capacity hoist can certainly be considered an upgrade of the pier's boat launching facility – particularly since it is conservatively required to only be used for vessels that do not exceed two tons in order to enhance reliability and reduce maintenance issues – increasing overall use of the hoist would best be accomplished through the Boat Hoist Program.

Through conversations between staff of the Commission and State Parks' Channel Coast District, State Parks' conveyed its commitment to considering updates and improvements to the Boat Hoist Program as well as to continuing Gaviota State Park's long history of providing a wide range of boating facilities and launch opportunities – including the boat hoist and the simpler, lower-cost option of launching small vessels from the beach. To memorialize this commitment and help facilitate the development of a hoist operations program that prioritizes maximum public access and recreational opportunities along with safe and reliable operations, **Special Condition 3** would require State Parks to develop a revised version of the Boat Hoist Program that includes (1) at least five training and boat inspection opportunities per year; (2) increased outreach and noticing efforts regarding the Boat Hoist Program's requirements and upcoming training and inspection opportunities; (3) minimum operational hours of 7AM to sunset; (4) same-day training and inspection opportunities; and (5) a reduced timeframe for activation of hoist access cards. **Special Condition 3** would also establish that this program be

implemented for a five year assessment period with annual reporting to help determine progress on implementing the measures described above. At the end of the five year term, State Parks may seek to continue implementation of the program through an amendment to this permit.

These measures would remove or reduce several of the known impediments to increasing public use of the Gaviota Pier boat hoist by allowing more opportunities for individuals to be trained and authorized to use the hoist; reducing the time commitment for completing the training and vessel inspections process; providing more advance notice of hoist closures due to weather and ocean conditions; and shortening the waiting period between completion of the training and inspection process and access card activation.

The Commission finds that the proposed project, as conditioned, is consistent with and adequate to carry the provisions of Coastal Act Sections 30210, 30211, 30213, 30220, and 30221, 30234.

G. UNPERMITTED DEVELOPMENT

As noted above in the Summary, violations of the Coastal Act exist on the subject property, including, but not limited to, implementation of a Boat Hoist Program that established limits and restrictions on coastal access and recreation opportunities, removal of a three-ton capacity boat hoist and installation of a new four-ton capacity boat hoist, associated electrical systems, an automated access card reader and video surveillance system, all without benefit of the required coastal development permit. In response to notification by Commission permitting and enforcement staff about these Coastal Act violations, State Parks revised its CDP application to include a request for after-the-fact authorization of this unpermitted development. Approval of this application pursuant to the staff recommendation, issuance of the permit, and the applicant's subsequent compliance with all terms and conditions of the permit results in resolution of the future impacts from the violation.

Although development has taken place prior to the submission of this Coastal Development Permit application, consideration of this application by the Commission has been based solely upon the Chapter 3 policies of the Coastal Act. Commission review and action on this permit does not constitute a waiver of any legal action with regard to the unpermitted development described herein or any other violations at the site, nor does it constitute an implied statement of the Commission's position regarding the legality of development, other than the development addressed herein, undertaken on the subject site without a coastal permit or permit amendment. In fact, approval of this permit is possible only because of the conditions included herein and failure to comply with these conditions would also constitute a violation of this permit and of the Coastal Act. Accordingly, the applicant remains subject to enforcement action just as it was prior to this permit approval for engaging in unpermitted development, unless and until the conditions of approval included in this permit are satisfied.

Failure to comply with the terms and conditions of this permit may result in the institution of enforcement action under the provisions of Chapter 9 of the Coastal Act. Only as conditioned is the proposed development consistent with the Coastal Act.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

On January 18, 2018, State Parks determined that the Project, as described above, was categorically exempt from the California Environmental Quality Act (CEQA) pursuant to California Code of Regulations, title 14, section 15301, Class 1, Existing Facilities; section 15302, Class 2, Replacement or Reconstruction; section 15304, Class 4, Minor Alterations to Land; section 15305, Class 5, Minor Alterations in Land Use Limitations; and section 15331, Class 31, Historical Resource Restoration/Rehabilitation. State Parks filed a Notice of Exemption with the State Clearinghouse on January 18, 2018 (SCH No. 2018018242).

The proposed development has been conditioned to be found consistent with the Chapter 3 policies of the Coastal Act. Mitigation measures, including conditions addressing marine resources, public access, and water quality will ensure that the project does not result in any unmitigated significant 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

Coastal development permit application and supplementary letters, reports, and materials included in file no. 4-18-0206 (California Department of Parks and Recreation).

Adopted Findings for Coastal Development Permit No. 9-18-0647.

Adopted Findings for Consistency Determination number CD-0004-17.

National Park Service, 2017. Consistency Determination number CD-0004-17 (Scorpion Pier Replacement) and associated file.

Santa Ynez Band of Chumash Indians, 2009. Chumash History. Cited November 2017. Available from: http://www.santaynezchumash.org/history.html.

Northeast Engineers & Consultants, Inc. 2005. Gaviota State Park, Boat Launch and Retrieval Facility Assessment.

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Lissner, Andrew, Taghon, Gary, Diener, Douglas, Schroeter, Stephen, Dixon, John, 1991. Recolonization of Deep-Water Hard-Substrate Communities: Potential Impacts from Oil and Gas Development. Ecological Applications, Vol. 1, No. 3 (August 1991), pp. 258-267.

"Seadoc 2009-2014," spreadsheet developed by Cassidy Teufel and Kate Huckelbridge, California Coastal Commission, dated 6/17/16.