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Filed: 2/18/2025
Action Deadline: 8/17/2025
Staff: Eric Stevens - SC
Staff Report: 2/28/2025
Hearing Date: 3/12/2025

STAFF REPORT CDP APPLICATION

Application Number: 3-24-0747

Applicant: California Department of Transportation (Caltrans)

Project Location: Along Highway 1, the coastal bluff, and the shoreline on the Big Sur coast located approximately 1.5 miles south of the town of Gorda in unincorporated Monterey County.

Project Description: Recognize emergency work completed to stabilize the Mud Creek Landslide (including extensive grading, access roads and catchment basins, shoreline armoring, and redevelopment of the highway) as well as allow new proposed development (including highway realignment, concrete barriers/guardrails, visual screening, drainage improvements, and revegetation).

Staff Recommendation: **Approval with Conditions**

SUMMARY OF STAFF RECOMMENDATION

The proposed project is located along an approximately quarter mile of Highway 1 about 1.5 miles south of the town of Gorda in Big Sur in unincorporated Monterey County, fronting the Pacific Ocean. Highway 1 in Big Sur was initially constructed in the 1930s and provides an extremely important transportation, commerce, and public safety link to/for communities along the Big Sur coast, as well as an incredibly important coastal recreational link and destination for visitors from around the world. The winding two-lane highway that seems to be hanging off the hillsides in many cases provides dramatic and iconic views of the coast and ocean, but its precarious perch also means that it is quite susceptible to landsliding and other disturbances, with dozens and dozens of such landslides over the years, and several large landslides in recent years that have closed the highway multiple times. Highway 1 in Big Sur is currently closed at one location,

approximately 20 miles north of the Mud Creek site, due to the Regents Landslide that occurred in February 2024.

In 2017, the highway near Mud Creek was subject to one such landslide, but this was not just any landslide, rather it was one of the largest (if not the largest) active landslide in California history, and both the road and the bluff slid extensively into the Pacific Ocean, spreading about 15 acres of new land area into the sea. Due to its size and complexity, Caltrans' approach to stabilize the slopes and to reestablish the highway has required significant resources, innovative thinking, and in some ways an unprecedented response, as well as extensive collaboration with Commission staff. Indeed, the landslide here involved approximately five million cubic yards of rock and sediment, which buried Highway 1 up to 45 feet deep along an approximately quarter mile distance, severing access to and along the Big Sur coast.

In response, and under a series of temporary emergency coastal permits (five in total) reflecting extensive collaboration with and prompt authorization by the Commission, Caltrans sought to stabilize and reconstruct the highway in an area that was, and is essentially still, an active landslide, where the work necessary to re-open the highway was at its core quite extraordinary. To open the highway as quickly as possible and prevent further large landslide events on the site, Caltrans relocated the highway onto the slide debris itself, nearly 200 feet seaward of the highway's pre-slide location. To stabilize the slide debris, Caltrans constructed a massive shoreline armoring device around the newly created bench of landslide material, including an approximately 2,000-foot long, 40-foot tall, 60-foot wide rock revetment, a multi-acre bench area inland of the revetment, and an engineered embankment between the bench and the new highway. Inland of the highway, Caltrans installed hundreds of linear feet of 20-foot tall rock basket walls and created large catchment basins to collect ongoing landslide material and large rocks that continues to fall down the slope to this day. Following completion of these efforts, Caltrans was able to re-open the highway to the public in July 2018, just over a year after the landslide, a significant accomplishment.

The project before the Commission with this application includes a request for the required follow-up CDP approval for the development authorized temporarily by the five emergency coastal permits previously issued by the Commission, as well as for additional proposed development that the Commission has not previously authorized, and that has not been completed. The proposed additional development is relatively minor compared to the work that Caltrans has already completed, and includes minor re-alignment of the reconstructed highway, installation of guard rails and additional concrete barriers, installation of smaller new gabion walls along the basket walls to better visually obscure them, and revegetation of a large portion of the site.

Although the project is partly self-mitigating as proposed (i.e., by reopening the highway for residents and visitors, ensuring continued public access up and down the coast, providing some off-highway parking, revegetating the slopes on either side of the highway, etc.), there are public access and visual resources impacts from the overall development, particularly as it relates to the effects of the massive armoring structure that stretches along approximately one third of a mile of coastline. Unfortunately, due to ongoing dangerous landslide conditions, a compensatory on-site public access

mitigation package (e.g., adding off-highway trail components along the highway or public recreational improvements on the approximately 3-acre bench area just above the ocean, etc.) is not appropriate here, and thus staff and Caltrans were forced to look offsite. Specifically, there is another smaller bench area above the beach about one mile south of the Mud Creek site, created by a project approved in the Commission's CDP for Highway 1 armoring work Shale Point/Alder Cove in 2012. This site provides a ripe opportunity for recreational improvements and this CDP is conditioned to provide such enhancements there. In addition, Caltrans and Commission staff have long discussed developing a mitigation tool for ensuring that Caltrans projects in Big Sur, both include public recreational access components as part of the project design (e.g., bike lanes, off-highway coastal trails, overlooks, parking areas, etc.) where feasible and appropriate, and provide for an in-lieu fees program when such project components are not feasible and/or appropriate, and/or when what is feasible on-site is insufficient to commensurately offset impacts. As a means of ensuring that such a tool is timely developed, including so it can be used as a means of streamlining project design, review, and permitting for Caltrans projects on the Big Sur coast in a situation where such emergency projects are increasing, Caltrans and Commission staffs have agreed on a condition requiring an in-lieu fee program with specific terms. Altogether, such a mitigation package can appropriately offset applicable impacts (and here, staff has identified what equates to about \$4 million in impacts associated with the armoring).

As to public views, the Big Sur Coast represents one of the State's most acclaimed scenic resources, and Highway 1 in Big Sur is designated as an All-American Road (generally reserved for highways considered destinations in themselves), a National Scenic Byway, a State scenic highway, a part of the Pacific Coast Bike Route. It is an intrinsic and important element of what is commonly described as the one of the most scenic areas in the world. This project has necessarily inserted some decidedly unnatural elements into this critical public view, including rock wall barriers and catchment basins, k-rail barriers, construction access roads, and an artificial bench and rock revetment area. The project area looks like an active construction site, and because of its location in an active landslide, to some extent it must remain as such. Although completion of the originally proposed project will help to reduce that perception, it would also not fully address the range of public view impacts or ensure that this section of the highway reflects the rural, natural, shoreline aesthetic that is quintessentially Big Sur. Staff believes that it is critical that public views in this area be restored to as natural conditions as much as possible. Thus, Staff includes a series of conditions that Caltrans has agreed to that are intended to reduce view impacts, including revegetation of slopes, camouflaging/hiding elements, vegetation to obscure elements, and other measures that ensure that the proposed development is subordinate to the natural view setting to the greatest extent feasible as is required by the Coastal Act.

Thus, staff recommends that the Commission approve a CDP for the proposed project that can address coastal resource issues in a manner that is as protective of natural shorelines and natural shoreline processes as is possible with an armoring project like this, that is consistent with the objective of maximizing and enhancing public recreational access in this area and that protects the public view. The motion to approve the CDP with conditions is found on **page 5** below.

TABLE OF CONTENTS

1. MOTION AND RESOLUTION	5
2. STANDARD CONDITIONS	5
3. SPECIAL CONDITIONS	6
4. FINDINGS AND DECLARATIONS	19
A. Project Location and Description	19
B. Standard of Review.....	24
C. CDP Determination	24
1. Coastal Hazards.....	24
2. Public Views.....	47
3. Public Recreational Access	56
4. Marine Resources	63
5. Archaeological Resources and Tribal Consultation.....	67
6. Other.....	69
7. Conflict Resolution	70
8. California Environmental Quality Act (CEQA)	75
5. APPENDICES	76
A. Substantive File Documents.....	76
B. Staff Contact with Agencies and Groups.....	76

EXHIBITS

[Exhibit 1 – Location Map](#)

[Exhibit 2 – Site Area Photographs](#)

[Exhibit 3 – Historic Aerial Photographs](#)

[Exhibit 4 – Visual simulation](#)

[Exhibit 5 – Aerial Photograph of the Shale Point/Alder Cove Site](#)

1. MOTION AND RESOLUTION

Staff recommends that the Commission, after public hearing, **approve** a coastal development permit for the proposed development. To implement this recommendation, staff recommends a **yes** vote on the following motion. Passage of this motion will result in approval of the CDP as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Motion: *I move that the Commission **approve** Coastal Development Permit Number 3-24-0747 pursuant to the staff recommendation, and I recommend a **yes** vote.*

Resolution to Approve CDP: *The Commission hereby approves Coastal Development Permit Number 3-24-0747 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with 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.*

2. STANDARD CONDITIONS

This permit 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 Permittee 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 or 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 Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

3. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

- 1. Revised Final Plans.** PRIOR TO CONSTRUCTION OF NEW PROPOSED OR REQUIRED PROJECT COMPONENTS, the Permittee shall submit one electronic copy and two paper copies of Revised Final Plans to the Executive Director for review and written approval. The Plans shall be prepared by a licensed professional or professionals (i.e., geotechnical engineer, surveyor, etc.); be based on current professionally surveyed and certified topographic elevations for the project area; and include a graphic scale. The Plans shall be substantially in conformance with the proposed plans (titled “Project Plans for Construction on State Highway in Monterey County Near Gorda from 0.8 Miles North of Alder Creek Bridge to 1.2 Miles North of Alder Creek Bridge” and dated received in the Coastal Commission’s Central Coast District Office on December 14, 2024; and “Project Plans for Construction on State Highway in Monterey County Near Gorda and Near Lucia at 10.4 Miles North of Ragged Point to 4.1 Miles South of Gorda and From 0.1 Mile North of Pitkins Curve Bridge to 0.4 Mile South of Lucia” and dated received in the Coastal Commission’s Central Coast District Office on January 21, 2025) except that they shall be modified as necessary to meet the following requirements, all of which shall require Executive Directory review and approval prior to installation/implementation of any such measures:
 - a. Visual Treatments Required.** All publicly visible development shall be sited, designed, colored, screened, and camouflaged to maximize coastal view protection and minimize visual intrusion, including through use of materials appropriate to the shoreline context that blend with the natural environment and existing improvements in the area. Metallic elements in the public view shall be rust-colored (e.g., through the use of corten steel or treatments that emulate rust) and shall be treated as necessary to avoid any metallic sheen/glare.
 - b. Barriers.** All existing k-rail and other barriers along the highway in the project area shall be removed (except for the k-rails proposed to be camouflaged atop the gabion rock walls). The new concrete k-rail barriers (referred to by the Permittee as JJ-hooks) on the inland side of the highway shall be surfaced with a thin layer of decorative concrete or other material similar capable of making such walls appear as if one-solid masonry wall in public views (i.e., at least the seaward edge and top of such barriers) to the greatest extent feasible and shall be painted or stained to match the color of the bluff. Provisions for recreating any such decorative concrete after any episodes that require such barriers to be temporarily removed to provide for construction purposes or future landslide emergencies shall be identified.
 - c. Guard Rails.** All guard rails shall use traditional wooden uprights and supports (and not metal), shall be sited in soil (e.g., not sited in asphalt/concrete), and shall not include additional barriers of any type on their seaward side.
 - d. Guard Rail/Masonry Wall Transition.** The 20-foot long concrete barrier transition adjacent to the historical masonry wall at the northern portion of the

project site shall be limited in scale and scope to the maximum extent feasible.

- e. **Parking.** Public parking shall be provided throughout the area and shall be appropriately signed, as feasible. The permittee shall not install any signs limiting parking or public access in the created shoulder and pullout areas of the project.
- f. **Signs.** All existing signs and related elements along the highway in the project area shall be removed. All new signs shall be clearly identified, and shall be sited and designed: (1) to minimize their visibility in public views; (2) to seamlessly integrate into the natural landform (including using natural materials, earth tone colors and graphics, etc.); (3) to be of a unified design theme; and (4) to be subordinate to the natural setting, all to the maximum extent feasible.
- g. **Drainage.** All drainage and related elements, including all down drains seaward of the highway, and any related energy dissipation measures shall be sited and designed to reduce the potential for drainage-caused erosion, and shall be camouflaged (e.g., buried and vegetated, painted to match surrounding areas, etc.) to be hidden or inconspicuous as seen from public viewing areas, all to the maximum extent feasible. Plans shall, in particular, focus on camouflaging/hiding the existing down drains as much as possible.
- h. **Other Structures/Materials.** Other non-natural structures and materials along the highway in the project area (e.g., posts, fencing, concrete walls, etc.) shall be removed to the maximum extent feasible.
- i. **Revegetation.** All non-native and invasive plant species in the project area shall be removed and not be allowed to persist to the greatest extent feasible and cover of invasive species ranked high by Cal-IPC shall not eclipse 10 percent of the total area. All revegetation areas shall be landscaped with native and noninvasive plant species consistent with vegetated slopes in the vicinity, and with consideration that such areas appropriately blend into the natural landform and vegetation aesthetic of this portion of Big Sur, all to the maximum extent feasible. All such plants shall be kept in good growing condition and shall be replaced as necessary to maintain the approved vegetation over the life of the project. Regular monitoring and provisions for remedial action (such as regular replanting and invasives removal as necessary) shall be identified to ensure revegetation success is maintained over time.
- j. **Revetment/Rock Coverage.** To the greatest extent feasible, the Permittee shall use landslide materials and/or other soil to create a soil 'cap' atop the revetment/rocks seaward of the highway and in the bench area inland of the revetment, and that cap shall be revegetated pursuant to the revegetation requirements above, or use other planting or landscaping measures, where the objective shall be to camouflage/hide the revetment/rocks seaward of the highway in highway views to the maximum extent feasible and to better make the bench area look more natural. Regular monitoring and provisions for remedial action shall be identified to ensure camouflaging/hiding success is maintained over time. Such measures shall not be allowed to extend into the ocean area if black abalone are identified (see Special Condition 4).

k. Lighting. Lighting shall be prohibited in the project area.

l. Offsite Public Recreational Access Improvements. The Final Plans shall include plans for public access improvements of the overlook, lower bench area, and beach access trails at Shale Point/Alder Cove (see [Exhibit 5](#)). These plans shall include plans for enhancing public recreational access use, including through adding public recreational access amenities and signage (e.g., defined parking/pathways/overlook areas, benches, picnic tables, bicycle racks, interpretive signage, waste and recycling receptacles, doggie mitt stations, etc.). All such enhancements shall be sited and designed to seamlessly integrate into the natural setting and to maximize public view protection, including through use of siting/design approaches and materials that are appropriate to the beach shoreline context, and including to ensure that the approved development effectively blends into and enhances the natural environment, all to the maximum extent feasible. All such enhancements shall also be maintained in their approved state for public use (including through ongoing repair, maintenance, or relocation (if necessary to respond to shoreline erosion)) for at least as long as any portion of the development approved under this CDP remains present. All such enhancements shall be completed and available for public use prior to Memorial Day weekend in 2026 (i.e., by May 22, 2026)

m. Construction Plan. The approved Construction Plan (see Special Condition 2) shall be provided as notes and/or plan sheets on the Revised Final Plans.

All requirements above and all requirements of the Executive Director-approved Revised Final Plans shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the Executive Director-approved Revised Final Plans.

2. Construction Plan. PRIOR TO COMMENCEMENT OF CONSTRUCTION OF NEW PROPOSED OR REQUIRED PROJECT COMPONENTS, the Permittee shall submit one electronic copy and two paper copies of a Construction Plan to the Executive Director for review and written approval. The Construction Plan shall, at a minimum, include the following:

a. Construction Areas. The Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view. All such areas within which construction activities and/or staging are to take place shall minimize impacts on coastal resources to the maximum extent feasible, including staging impacts on public access areas or parking.

b. Construction Methods. The Plan shall specify the construction methods to be used, including all methods to be used to keep construction areas separated from public use areas and to ensure uninterrupted public use, and including verification that equipment operation and equipment and material storage will not significantly degrade public views during construction, all to the maximum extent feasible.

c. Construction Timing. The Plan shall include a complete construction schedule,

where no work shall occur during weekends and holidays in the peak summer months (i.e., from the Saturday of Memorial Day weekend through Labor Day, inclusive) unless, due to extenuating circumstances, the Executive Director authorizes such work as having no significant impacts to public access.

- d. **Construction BMPs.** The Plan shall identify the type and location of all construction best management practices that will be implemented during construction to protect coastal resources, including at a minimum all of the following:
1. **Runoff Protection.** Silt fences, straw wattles, and equivalent apparatus shall be installed at the perimeter of construction areas to prevent construction-related runoff and/or sediment from discharging from the construction area, and/or entering storm drains or otherwise offsite and/or towards the beach and/or ocean. Special attention shall be given to appropriate filtering and treating of all runoff, and all drainage points, including storm drains, shall be equipped with appropriate construction-related containment and treatment equipment. Tarps or similar such devices shall be used to capture debris, dust, oil, grease, rust, dirt, fine particles, and spills. Excess construction debris and materials, excess fill, vegetation spoils, and waste material shall be disposed of at an authorized disposal site(s) capable of receiving such materials.
 2. **Erosion and Sediment Controls.** All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday.
 3. **Equipment.** Equipment inspection, maintenance, washing, refueling, and/or servicing shall take place at an appropriate hard surface area (e.g., a road) where collection of materials associated with such activities is facilitated.
 4. **Good Housekeeping.** The construction site shall maintain good construction housekeeping controls and procedures at all times (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain, including covering exposed piles of soil and wastes; dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the project site; etc.).
 5. **Rubber-tired Construction Vehicles.** Only rubber-tired construction vehicles are allowed on the beach, except track vehicles may be used if the Executive Director determines that they are required to safely carry out construction and maximum feasible measures are applied to ensure maximum coastal resource protection to the maximum extent feasible. When transiting on the beach, all vehicles shall remain the maximum distance from the ocean as feasible and avoid contact with ocean waters and intertidal areas.
 6. **Intertidal Grading Prohibited.** Grading of intertidal areas is prohibited, except where expressly approved by this CDP or where approved

development is sited in such areas, and only when tidal waters are not present.

- 7. Construction Material Storage.** All construction materials and equipment shall be stored in existing developed areas, except for necessary erosion and sediment controls and/or construction area boundary fencing area allowed where such controls and/or fencing are placed as close to the work area, and are minimized in their extent, both to the maximum extent feasible.
- e. Archaeological/Tribal Cultural Resource Protection.** All archaeological/tribal cultural resource protection requirements identified in Special Condition 12 shall be identified as "Required Cultural Resource Protection Measures".
- f. Restoration.** All construction debris shall be removed, and all areas impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. Any native materials impacted shall be filtered as necessary to remove all construction debris.
- g. Construction Site Documents.** Copies of the signed CDP and the approved Construction Plan shall be maintained in a conspicuous location at the construction job site at all times where such copies are available for public review on request. All persons involved with the construction shall be briefed on the content and meaning of the CDP and the approved Construction Plan, and the public review requirements applicable to them, prior to commencement of construction.
- h. Construction Coordinator.** A construction coordinator shall be designated to be contacted during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies), and the coordinator's contact information (i.e., address, phone numbers, email address, etc.) including, at a minimum, a telephone number (with message capabilities) and an email that shall be made available 24 hours a day for the duration of construction, and that shall be conspicuously posted at the job site where such contact information is readily visible from public viewing areas while still protecting public views as much as possible, along with indication that the construction coordinator should be contacted in the case of questions regarding the construction (in case of both regular inquiries and emergencies). The construction coordinator shall record the contact information (address, email, phone number, etc.) and nature of all complaints received regarding the construction, and shall investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director on at least a weekly basis.
- i. Construction Specifications.** The construction specifications, materials, and contracts shall include appropriate penalty provisions that require remediation for any work done inconsistent with the terms and conditions of this CDP.
- j. Notification.** The Permittee shall notify planning staff of the Coastal Commission's Transportation unit and/or Central Coast District Office at least

three working days in advance of commencement of construction, and immediately upon completion of construction.

All requirements above and all requirements of the Executive Director-approved Construction Plan shall be enforceable components of this CDP. The Permittee shall undertake development in conformance with this condition and the Executive Director-approved Construction Plan.

- 3. Public Recreational Access Mitigation Framework.** Within one year of CDP approval (i.e., by March 12, 2026), the Permittee shall submit to the Executive Director for review and written approval a framework to address public recreational access mitigation for applicable Permittee projects along the Big Sur coast. The framework shall be designed to support outcomes that lead to appropriate public access enhancements being incorporated into Permittee projects, and/or using in-lieu fees to otherwise offset public recreational access impacts and identifying potential public recreational access enhancement projects designed to improve multimodal access opportunities, and/or to enhance public recreational access otherwise. The framework shall provide a vehicle to ensure public recreational access mitigation and enhancement opportunities are realized for all applicable Permittee projects along the Big Sur coast that require a CDP (whether an ECDP, CDP, CDP waiver, or CDP amendment) from the Commission and/or Monterey County. The framework shall include at least the following specific components:

 - a. Project Integration.** Procedures for identifying minimum public recreational access requirements to be built into projects (e.g., trails, bike lanes, parking areas, etc.), to the maximum extent feasible.
 - b. In-Lieu Fees.** Procedures for the Permittee to transfer in-lieu fees to public agencies and/or private entities approved by the Executive Director and subject to MOUs between such agencies/entities and the Coastal Commission governing use of such fees, including specifying that it is the intent of the framework to ensure that all fees are spent on projects to improve multimodal access opportunities and/or to enhance public recreational access otherwise along the Big Sur coast. In addition, procedures for determining the amount of fees that would be required of individual projects, where methods to calculate the amount of fees may include, but are not limited to, the following parameters: 1) that any projects that include shoreline armoring provide a fee consistent with typical Coastal Commission shoreline armoring impact/fee calculations; 2) that all projects provide public recreational access fees based on the estimated cost of completing a multimodal trail segment through the project corridor (e.g., through identifying a base cost per mile for multimodal trail segments that can be inflation adjusted over time); or 3) another method that provides a clear basis and methodology for identifying appropriate mitigation amounts.
- 4. Black Abalone Protection.** WITHIN 90 DAYS OF ISSUANCE OF THIS CDP, the Permittee shall submit a survey to determine the presence of black abalone on the revetment. Methodology for these protocol-level pre-construction surveys shall be developed in consultation with NMFS and approved by the Executive Director. If

black abalone are observed during the survey (or their presence is likely based on the habitat), the Permittee shall develop, in consultation with the Executive Director and NMFS, avoidance and minimization measures, including post-construction surveys for any authorized sediment or rock deposited within critical habitat. These measures may include, but are not limited to, relocation of black abalone, monitoring of impacts to black abalone and critical habitat over time, and/or protocols to avoid impacts to black abalone and critical habitat. These measures shall be included in the initial survey submitted to the Executive Director, or in a subsequent report submitted within 30 days of the submittal of the black abalone survey. If black abalone impacts are identified, a CDP amendment shall be required, which may require compensatory mitigation including, but not limited to, restoration of black abalone (e.g., through transplanting and/or captive breeding and field planting), support for existing black abalone restoration efforts (e.g., ongoing transplanting and captive breeding/field planting studies), and/or contributions to support black abalone recovery efforts, including with respect to emergency response efforts (e.g., support field training for response personnel, contribute to an emergency response fund). The Executive Director may extend the deadline for the abalone surveys and reporting for good cause.

5. **As-Built Plans.** WITHIN THREE MONTHS OF COMPLETION OF CONSTRUCTION OF NEW PROPOSED OR REQUIRED PROJECT COMPONENTS, the Permittee shall submit one electronic copy and two paper copies of As-Built Plans for Executive Director for review and written approval showing all development authorized by this coastal development permit, all property lines, and all project elements. The As-Built Plans shall be substantially consistent with the approved Revised Final Plans per Special Condition 1. The As-Built Plans shall include color photographs (in hard copy and jpg format) that clearly show the as-built project, and that are accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. At a minimum, the photographs shall provide complete photographic coverage of the project elements at this location (e.g., the new pullouts, guard rails, retaining walls, public access improvements, visual treatments, and associated development). Such photographs shall be at a scale that allows comparisons to be made with the naked eye between photographs taken in different years and from the same vantage points; recordation of GPS coordinates would be desirable for this purpose.
6. **Monitoring and Reporting.** The Permittee shall ensure that the location, condition, and performance of the approved development is regularly monitored and maintained. Such monitoring evaluation shall at a minimum address whether any significant damage has occurred that would adversely impact future performance and identify any structural or other damage or wear and tear requiring repair to maintain the approved development in a structurally sound manner and in its approved and/or required state. Monitoring shall also evaluate the level of danger associated with the landslide, and whether the level of danger has subsided to the degree that the bench area can be made available for safe public recreational access use of some type, in which case the report shall also identify measures that can be taken to facilitate such use, which shall be subject to the same provisions as accrue to the Shale Point/Alder Cove area bench requirements (see Special Condition

1), and shall be implemented after report approval. Monitoring reports shall be submitted to the Executive Director for review at five-year intervals by May 1st of each fifth year (with the first report due May 1, 2030, and subsequent reports due May 1, 2035, May 1, 2040, and so on) for as long as any portion of the approved development exists at this location. The reports shall identify the existing configuration and condition of approved development, shall provide photographs from all the same vantages and subject to the same criteria as the as-built plans (see Special Condition 5), and shall recommend actions necessary to maintain all project elements in their approved and/or required state consistent with the terms and conditions of this CDP. Any proposed actions necessary to maintain the approved development in a structurally sound manner and its approved state shall be implemented within 30 days of Executive Director approval, unless a different time frame for implementation is identified by the Executive Director. In addition to the every five year reporting requirement, separate and additional monitoring reports shall be submitted by June 1st of the year after either of the following occur (1) A 20-year or larger storm event, or (2) an earthquake of magnitude 5.5 or greater with an epicenter in Monterey County.

- 7. Future Maintenance/Repair.** This CDP authorizes future maintenance-oriented development associated with the approved development as described in this special condition. The Permittee acknowledges and agrees on behalf of itself and all successors and assigns that it is the Permittee's responsibility to: (1) maintain the approved development in a structurally sound manner, visually compatible with the beach and bluff shoreline surroundings, and in its approved and required states consistent with the terms and conditions of this CDP; (2) retrieve any failing portions of the approved development that might otherwise substantially impair the use, aesthetic qualities, or environmental integrity of the public recreational areas, including the beach and ocean areas, and restore affected areas to as good or better conditions as existed before such failures; and (3) monitor the approved development and take actions to ensure CDP compliance as described in Special Condition 6, including as directed by the Executive Director through the required five-year monitoring reports.

For maintenance-oriented development associated with non-armoring components of the approved development, this CDP authorizes limited future repair, maintenance, and/or improvement development that is determined by the Executive Director to: 1) fall within the overall scope and intent of this CDP; 2) be consistent with the Monterey County LCP; and 3) not have any significant adverse impacts to coastal resources. Any development that the Executive Director determines does not meet such criteria shall require a separate CDP or a CDP amendment, as directed by the Executive Director.

For maintenance-oriented development associated with the armoring components of the approved development, this CDP authorizes future maintenance and repair development be subject to the following:

- a. Maintenance/Repair.** "Maintenance" and "repair" as understood in this portion of this special condition means development that would otherwise require a CDP,

with the purpose to maintain and/or repair the approved armoring development in its approved and/or required state pursuant to the terms and conditions of this CDP.

- b. Other Agency Approvals.** The Permittee acknowledges that these armoring maintenance and repair stipulations do not obviate the need to obtain permits and/or authorizations from other agencies for any future maintenance or repair.
- c. Maintenance/Repair Notification.** At least two weeks prior to commencing any armoring maintenance and/or repair activity, the Permittee shall notify, in writing, planning staff of the Coastal Commission's Central Coast District Office. The notification shall include: (1) a detailed description of the maintenance/repair proposed; (2) any plans, engineering, geology, or other reports describing the event; (3) a construction plan that clearly describes construction areas and methods, and that is consistent with the parameters of Special Condition 2 above; (4) other agency authorizations; and (5) any other supporting documentation describing the armoring maintenance/repair event. Armoring maintenance/repair shall not commence until the Permittee has been informed by planning staff of the Coastal Commission's Central Coast District Office that the armoring maintenance proposed complies with this CDP. If the Permittee has not been given a verbal response or sent a written response within 30 days of the notification being received in the Central Coast District Office, the armoring maintenance shall be authorized as if planning staff affirmatively indicated that the armoring maintenance/repair complies with this CDP. The notification shall clearly indicate that armoring maintenance/repair is proposed pursuant to this CDP, and that the lack of a response to the notification within 30 days constitutes approval of it as specified in this CDP. If the notification does not clearly and explicitly indicate same, then the automatic authorization provision does not apply. In the event of an emergency requiring immediate armoring maintenance, the notification of such emergency shall be made as soon as possible, and shall (in addition to the foregoing information) clearly describe the nature of the emergency.
- d. Restoration.** The Permittee shall restore all beach and other public access areas impacted by construction activities 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. The Permittee shall notify planning staff of the Coastal Commission's Central Coast District Office upon completion of restoration activities to allow for a site visit to verify that all project and beach-area restoration activities are complete. If planning staff should identify additional reasonable measures necessary to restore project and/or beach areas, such measures shall be implemented as quickly as feasible.
- e. Noncompliance Provision.** If the Permittee is not in compliance with permitting requirements of the Coastal Act, including the terms and conditions of any Coastal Commission CDPs or other coastal authorizations that apply to the subject property, at the time that an armoring maintenance/repair event is

proposed, then such armoring maintenance/repair that might otherwise be allowed by the terms of this future maintenance/repair condition may be disallowed by the Executive Director until the Permittee is in full compliance with the permitting requirements of the Coastal Act, including all terms and conditions of any outstanding CDPs and other coastal authorizations that apply to the subject properties.

- f. Emergency.** Notwithstanding the emergency notifications set forth in subsection (c) of this special condition, nothing in this condition shall affect the emergency authority provided by Coastal Act Section 30611, Coastal Act Section 30624, and Subchapter 4 of Chapter 5 of Title 14, Division 5.5, of the California Code of Regulations (Permits for Approval of Emergency Work).
- g. Duration of Covered Maintenance/Repair.** Future armoring maintenance under this CDP is allowed subject to the above terms until the armoring authorization expires (see Special Condition 8), unless the Executive Director determines that circumstances have changed in such a way as to require a separate new CDP (or CDP amendment) review. subject to Executive Director review and written approval every 5 years (with the first approval due March 12, 2030, and subsequent approvals March 12, 2035, March 12, 2040, and so on) to verify that there are not changed circumstances, understandings, or other issues associated with such allowance of maintenance events that necessitate re-review. It is the Permittee's responsibility to request Executive Director approval prior to the end of each 5-year maintenance period (i.e., with the first period culminating on March 12, 2030). Maintenance can be carried out beyond March 12, 2030 (and beyond subsequent five-year periods) pursuant to these maintenance provisions only if the Permittee requests an extension and only if the Executive Director extends the maintenance term in writing, both prior to the end of each 5-year maintenance period. The intent of this CDP is to allow for 5-year extensions of the maintenance term for as long as the approved development remains authorized unless there are changed circumstances, understandings, or other issues that may affect the consistency of this maintenance authorization with the policies of Chapter 3 of the Coastal Act and thus warrant a re-review of this maintenance condition.

The Permittee shall maintain the approved development in its approved and required state, and consistent with the terms and conditions of the CDP.

- 8. CDP Authorization Duration.** This CDP authorizes the approved development for as long as Highway 1 remains present and useable, for as long as all approved and required public recreational access areas and features remain in good condition and available for public use, and for as long as the Permittee is in compliance with all terms and conditions of the CDP, whichever leads to a shorter time frame. At such time, and unless the Permittee restores Highway 1 and/or brings such areas and features into proper condition and available for public use and/or resolves any CDP compliance issues, whichever is applicable, all to the Executive Director's satisfaction, then the CDP shall expire, and all approved development shall become unpermitted at that time.

- 9. Future Coastal Resource Impact Mitigation.** This CDP accounts for mitigation of coastal resource impacts due to project armoring for the first 20 years from the date of the approval (i.e., until March 12, 2045). If the Permittee intends to keep the armoring in place after March 12, 2045, then the Permittee must submit a complete CDP amendment application prior to that time that analyzes the continued need for armoring, the feasibility of less coastal resource impactful alternatives, and any necessary and/or desired project modifications. If the information in the CDP amendment application demonstrates that the coastal resource mitigations applied/required under this approval will not sufficiently mitigate for the adverse coastal resource impacts associated with the retention of the armoring beyond the preceding 20-year period, additional mitigation may be required. Similarly, if the Permittee applies for a separate CDP or an amendment to this CDP to modify the armoring, or to perform repair work affecting 50 percent or more of the armoring, the Permittee shall be required to provide additional commensurate mitigation for the impacts of the enlarged or redeveloped armoring on public views, public recreational access, shoreline processes, environmentally sensitive habitat area (ESHA), and all other affected coastal resources that have not already been mitigated through this CDP.
- 10. Coastal Hazard Risks.** By acceptance of this CDP, the Permittee acknowledges and agrees on behalf of itself and all successors and assigns, that (a) the approved development is and may be subject to future coastal hazards including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, storms, tsunamis, tidal scour, wave overtopping, coastal flooding, landslides, bluff and geologic instability, bluff retreat, liquefaction and their interaction, all of which are likely to be exacerbated by sea level rise; and (b) the intent of this CDP is to allow for the approved project to be constructed and used consistent with the terms and conditions of this CDP for only as long as the approved development remains safe for use and access without additional substantive measures beyond ordinary repair or maintenance to protect the development from coastal hazards.
- 11. Assumption of Risks.** By acceptance of this CDP, the Permittee acknowledges and agrees on behalf of itself and all successors and assigns, that all risks – whether coastal hazard (see Special Condition 10) or other risks – to the Permittee and to the property that is the subject of this CDP are assumed by the Permittee in connection with this approved development; (2) any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage are unconditionally waived; (3) the Commission, its officers, agents, and employees are indemnified and held harmless by the Permittee with respect to the approval and/or issuance of this CDP, the interpretation and/or enforcement of CDP terms and conditions, or any other matter related to this CDP, 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; and (4) all responsibility for any adverse effects to people and/or property caused by the approved development is assumed by the Permittee.
- 12. Archaeological and Tribal Cultural Resource Protection.** The Permittee shall

undertake the approved project in compliance with the following measures to protect archaeological and/or tribal cultural resources to the maximum extent feasible.

- a. Notification.** At least one month prior to commencement of any ground-disturbing construction activities, the Permittee shall (1) notify the representatives of Native American Tribes listed on an updated Native American Heritage Commission (NAHC) contact list; (2) invite all Tribal representatives on that list to be present and to monitor ground-disturbing activities; and (3) arrange for any invited Tribal representative that requests to monitor and/or a qualified archaeological monitor to be present to observe project activities with the potential to impact archaeological and/or tribal cultural resources.
- b. Monitoring.** A tribal monitor, approved by relevant tribe(s), shall be on site to monitor all activities with the potential to impact archaeological and/or tribal cultural resources, including all ground-disturbing activities. The monitor(s) shall have experience monitoring for archaeological resources of the local area during excavation projects, be competent to identify significant resource types, and be aware of recommended tribal procedures for the inadvertent discovery of tribal cultural and/or archaeological resources and/or human remains.
- c. Discovery Protocol.** If any tribal cultural deposits are discovered during the course of the project, all construction within 200 feet of such deposits shall cease and shall not re-commence until a qualified cultural resource specialist (which could be a person identified in subpart (b), above), in consultation with the relevant tribe(s), analyzes the significance of the find and, if deemed significant, prepares a supplementary archaeological plan for the review and approval of the Executive Director that evaluates and provides suggested measures related to the discovery. The Executive Director shall review the plan and either: (1) approve it and determine that its recommended changes to the project or mitigation measures do not necessitate an amendment to this CDP, or (2) determine that the changes proposed therein necessitate a CDP amendment. The location of any and all identified archaeological and tribal cultural resources shall be kept confidential, and only those with a "need to know" shall be informed of their locations.
- d. Human Remains.** Should human remains be discovered on-site during the course of the project, immediately after such discovery, the on-site archaeologist and/or tribal monitor shall notify the Monterey County Coroner within 24 hours of such discovery, and all construction activities shall be temporarily halted until the remains can be identified. If the County Coroner determines that the human remains are those of a Native American, the Coroner shall contact the NAHC within 24 hours, pursuant to Health and Safety Code Section 7050.5. The NAHC shall deem the Native American most likely descendant (MLD) to be invited to participate in the identification process pursuant to Public Resources Code Section 5097.98. The Permittee shall comply with the requirements of Section 5097.98 and work with the MLD person(s) to discuss and confer with the descendants all reasonable options regarding the descendants' preference for treatment. Within 5 calendar days of notification to NAHC, the Permittee shall

notify the Coastal Commission's Executive Director of the discovery of human remains. The Executive Director shall maintain confidentiality regarding the presence of human remains on the project site.

- 13. Other Authorizations.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide to the Executive Director evidence of other required authorizations for, or alternatively evidence that no such authorizations are needed, for the development authorized by this CDP (e.g., Monterey Bay National Marine Sanctuary, National Marine Fisheries Service, U.S. Army Corps of Engineers, California State Lands Commission, Central Coast Regional Water Quality Control Board, California Department of Fish and Wildlife, etc.) The Permittee shall inform the Executive Director of any changes to the project required by such entities, where such changes shall not be incorporated into the project until the Permittee obtains a Commission-approved amendment to this CDP, unless the Executive Director determines that an amendment is not legally required.
- 14. Future Permitting.** Any and all future proposed development related to this project, this project area, and/or this CDP shall be subject to the Coastal Commission's continuing CDP jurisdiction. This CDP authorizes limited future repair, maintenance, and/or improvement development that is determined by the Executive Director to: 1) fall within the overall scope and intent of this CDP; 2) be consistent with the Monterey County LCP; and 3) not have any significant adverse impacts to coastal resources. Any development that the Executive Director determines does not meet such criteria shall require a separate CDP or a CDP amendment, as directed by the Executive Director.
- 15. Minor Modifications.** The Permittee shall undertake development in conformance with the terms and conditions of this CDP, including with respect to all Executive Director-approved plans and other materials, which shall also be enforceable components of this CDP. Any proposed project changes, including in terms of changes to identified requirements in each condition, shall either (a) require a CDP amendment, or (b) if the Executive Director determines that no amendment is legally required, then such changes may be allowed by the Executive Director if such changes: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.
- 16. Liability for Costs and Attorneys' Fees.** The Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys' fees (including but not limited to such costs/fees that are: (1) charged by the Office of the Attorney General; and/or (2) required by a court) that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Permittee against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this CDP, the interpretation and/or enforcement of CDP conditions, or any other matter related to this CDP. The Permittee shall reimburse the Coastal Commission within 60 days of being informed by the Executive Director of the amount of such costs/fees. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission. By acceptance of this CDP and its

terms and conditions, the Permittee irrevocably agrees to this obligation, which shall be continuing in nature and remain in full force and effect regardless of whether this CDP approval is invalidated as the result of the litigation contemplated by this condition or otherwise changed in any way.

4. FINDINGS AND DECLARATIONS

A. Project Location and Description

The California Department of Transportation (Caltrans) is proposing to complete its efforts to restore the Highway 1 corridor in Big Sur at the location of the Mud Creek Landslide, located approximately 1.5 miles south of the town of Gorda. See [Exhibit 1](#) for a location map, [Exhibit 2](#) for time series photographs of the site, [Exhibit 3](#) for current photographs of the site, [Exhibit 4](#) for photo simulations of what Caltrans expects the highway corridor will look like after the project is completed, and [Exhibit 5](#) for an aerial photograph of the Shale Point/Alder Cove site to the south.

Highway 1 in Big Sur was initially constructed in the 1930s and provides an extremely important transportation, commerce, and public safety link to/for communities along the Big Sur coast, as well as an incredibly important recreational link and destination for visitors from around the world. The winding two-lane highway that seems to be hanging off the hillsides in many cases provides dramatic and iconic views of the coast and ocean, but its precarious perch also means that it is quite susceptible to landsliding and other disturbances, with dozens and dozens of such landslides over the years, and several large landslides in recent years that have closed the highway multiple times. Highway 1 in Big Sur is currently closed at one location, approximately 20 miles north of the Mud Creek site, due to the Regents Landslide that occurred in February 2024.

In 2017, the highway near Mud Creek was subject to one such landslide, but this one was exceptional as one of the largest (if not the largest) landslide in California history, and it wiped out the road and the bluff and poured into the Pacific Ocean, leading to about 15 acres of new land area. Indeed, the landslide here involved approximately five million cubic yards of rock and sediment, which buried Highway 1 up to 45 feet deep along an approximately quarter mile of coast, and which closed the highway for over a year, severing access to and along the Big Sur coast. Due to its size and complexity, Caltrans' approach to stabilize the slopes and to reestablish the highway has required significant resources, innovative thinking, and in some ways an unprecedented response. Caltrans and Commission staff have also spent significant time over the past years since 2017 in extensive collaboration in how to best address the ongoing landslide while promptly supporting Highway 1 opening as quickly as possible.

In response, the Commission promptly authorized a series of temporary emergency coastal development permits (ECDPs) (five in total), under which Caltrans sought to stabilize and reconstruct the highway in an area that was (and is) essentially still an active landslide, where the work necessary to re-open the highway was at its core quite extraordinary. To open the highway as quickly as possible and prevent further large landslide events on the site, Caltrans relocated the highway onto the slide debris itself, nearly 200 feet seaward of the highway's pre-slide location. And to stabilize the slide

debris, around the newly created bench of landslide material, Caltrans constructed a massive shoreline armoring device. Inland of the highway, Caltrans installed hundreds of linear feet of rock basket walls and created huge catchment basins to collect ongoing landslide material and large rocks, where such material continues to fall down the slope to this day. Following completion of these efforts, Caltrans was able to re-open the highway to the public in July 2018, just over a year after the landslide.

A large volume of landslide debris remains on the slope above the highway, and data from the U.S. Geological Survey indicates that this landslide debris continued to move downslope during 2024. Though catchment structures are necessary to protect the highway from local rockfall of limited volume, a larger volume of landslide debris may mobilize down the slope and impact the highway in the future. Caltrans is aware of this situation, and they continue to monitor the slope above the highway to take necessary action to protect highway safety. The volume of landslide debris remaining on the upper slope is large enough to cover the highway if and when it mobilizes much farther downslope.

ECDPs require follow-up CDP approval before the Commission, and the project before the Commission with this application includes a request for the required follow-up CDP approval for the development authorized temporarily by the five ECDPs previously issued by the Commission, as well as for additional proposed development that has not been previously authorized or completed. The proposed additional development is relatively minor compared to the work that has already been completed. The following provides a more detailed accounting of the temporary development authorized by and completed under the five ECDPs, as well as the proposed new development.

Temporary ECDP Development

An initial landslide at the site occurred in early 2017, resulting in the failure of the embankments supporting the southbound lane of Highway 1 and several portions of the southbound lane itself, leaving a narrow section of the remaining northbound lane as the only passable route. On April 19, 2017, the Commission authorized ECDP G-3-17-0027 for debris removal and landslide stabilization over a 1,900 linear foot distance on the highway, installation of horizontal down drains, and repair, compaction, and repaving of the roadway.

Even after initial emergency work, downslope failures continued to advance under the highway from below, and landslide movement and springs above the road continued to deposit large quantities of slide debris and water onto both lanes of the highway. By mid-May, it was no longer possible to maintain the highway and it was closed in both directions. Gravity and erosion from winter rains then caused the aforementioned massive landslide on May 20, 2017. At that time, the material extended some 550 feet seaward of the pre-slide coastline location, resulting in 2,400 linear feet of new coastline around the debris toe. And the highway itself was covered by 35 to 45 feet of rock and debris over an approximately 1,700-linear-foot distance.

On July 31, 2017, the Commission authorized ECDP G-3-17-0040 for debris removal and landslide stabilization, relocation of the highway nearly 190 feet seaward of the pre-slide alignment across the body of the slide on a new alignment connected to the

original highway alignment to the north and south, construction of a rock revetment along the toe of the slide, placement of excavated material atop and behind the revetment to create a stable embankment beneath the highway, installation of wire mesh drapery and flexible rock-fall barriers on the slopes above the road, and revegetation along the fill-slopes and elsewhere within the slide scarp to help stabilize the slopes both above and below the highway.

Subsequently, and based on changing conditions and needs at the slide site, on January 24, 2018, the Commission authorized ECDP G-3-18-0005, which authorized changes to the revetment to increase its scale and scope, including allowing for it to extend along approximately 1,500 linear feet of the coast, with a footprint that extended out 37 feet, and a height of 31 feet. Ultimately, after this work and related work under the prior two ECDPs was completed and Caltrans determined that the highway could be safely used, Highway 1 at Mud Creek was reopened to the public in July 2018. With prompt Coastal Commission processing, the State of California, and Caltrans in particular, had accomplished at this time an amazing feat: namely, after one of if not the largest landslides in California history, where the slide occurred at a fairly remote and quite hazardous and challenging location, the highway was reopened in just over a year.

After that time, Caltrans continued to monitor, maintain, and deal with additional landsliding and other issues at the site. Then, heavy rain, storm surge, and king tides in January and February 2019 caused damage to the rock revetment and related measures along the bench and the engineered slope supporting the highway. On May 15, 2019, the Commission authorized ECDP G-3-19-0023 which included adding additional rock to the revetment, and adding additional slope protection on the bench area designed to stabilize and protect the engineered embankment beneath the highway. Specifically, the ECDP authorized placement of a series of boulders along the top of the entire length of the revetment to prevent over-topping of the revetment structure and to protect the upland slope during periods of high tides and storms. The new boulders increased the height of the revetment by up to ten feet. Additionally, the ECDP scope included clearing materials from the catchment areas above the roadway, from roadside drainages along the northbound lane, and from access roads above and below the roadway. Finally, the ECDP authorized repair and enhancement of the existing cable net rockfall drapery system.

Between 2019 and 2023, Caltrans continued to actively monitor, manage, and address continuing landslide activity, and continued to take actions to keep the road open. There was also extensive collaboration with Commission staff on short-term fixes and longer term approaches. Subsequently, storms and large waves during the last week of December 2023 and early January 2024 resulted in damage to and loss of rock from the revetment. Thus, on December 19, 2024, the Commission authorized ECDP G-3-24-0014 that allowed for placement of an additional 6,000 tons of 10–20 ton rocks¹ on the

¹ For reference, many revetments in a residential setting use 3-5 ton rocks, and occasional rocks up to about 8 tons. This is based on need but also because larger rocks are much more difficult to source and are significantly more expensive. Adding 6,000 tons of rock consisting of 10 to 20 ton rocks is quite possibly the most significant scale of rock augmentation that the Commission has ever seen.

existing revetment to restore the revetment to the dimension that was previously authorized, and for removal of rock and debris from an access road and from two catchment basins inland of Highway 1. Caltrans anticipates that placement of the rock will commence in April 2025.

In summary, and as described by Caltrans in the subject CDP application, the emergency measures undertaken included the following:

- Massive earthworks cuts and engineered embankments, measuring approximately 200 to 260 feet in height, were constructed between the seaward toe of the bluff and the top of the slide inland of the highway.
- Approximately 300,000 cubic yards of soil was imported to build the embankments supporting the new alignment for the highway. The imported soil came from a local borrow site (which is another landslide called Grey Slip at post mile 6.8, approximately two miles to the south of the Mud Creek site). Embankment slopes were built using compacted horizontal lifts of soil and geosynthetic reinforcing to provide local and global slope stability.
- Two 20-foot-high, approximately 250-foot-long Hilfiker rock basket walls (often referred to as gabion baskets) were constructed on the slope inland of the highway to add catchment capacity to the existing bowl-shaped depressions made by the landslide. Approximately 1,000 cubic yards of rock was used in the baskets, where only the outer 2 feet of the baskets are filled with rock. Compacted soil forms most of the material in the berms. Approximately 50,000 cubic yards of soil was used to create the berms.
- Installation of approximately 800-linear-feet of concrete k-rail barriers at the top of the rock basket walls.
- Construction of a shoreline armoring structure, consisting of a revetment, flat bench area, and engineered embankment. At the toe of the landslide, an approximately 2,000-foot long, 40-foot tall, 60-foot wide rock revetment was constructed using 1 to 20 ton rock. Approximately 200,000 tons of rock was placed. Most of the rock was imported from commercial material sources (quarries), although some of the usable native rock was also collected during earthwork operations and incorporated into the project. The revetment and flat bench area at the toe of the slope covers an area of approximately 8.1 acres, and the overall armoring structure including the engineered embankment slope supporting the highway covers approximately 11 acres, making this armoring structure one of the largest, if not the largest, in the state.
- Multiple drainage systems were installed to channel surface drainage down slope and avoid further erosion, including a 48-inch culvert and a 63-inch culvert to pass storm water beneath the highway. Additionally, six large black plastic drainpipes ranging from 24 to 63 inches in diameter were deployed on the engineered embankment's face seaward of the highway.
- A multi-stage erosion control treatment was also employed to encourage revegetation and improve erosion resistance. Erosion control, seeding, and planting

using native species took place on an approximately 13.3 acres covering the surface of the engineered embankment seaward of the highway.

- An approximately 100,000 square-foot rockfall wire mesh drapery system was installed on the slopes inland of the highway at the north end of the project area to protect the roadway from future possible and ongoing rockfall.
- Construction of an approximately 145-foot long gabion/Hilfiker wall just seaward of the highway to support the roadway structure and to avoid cutting into the inland hillside to help reduce the potential for additional landsliding.
- Placement of concrete k-rail barriers on both sides of the highway.
- New 4-foot wide roadway shoulders were constructed on both sides of the highway.

Proposed New Development

As to the proposed new development that has not yet been authorized and is proposed to be completed under this CDP application, Caltrans proposes all the following:

- Minor highway realignment that would move the highway up to six feet landward along approximately 480 linear feet on the south end of the project through shoulder widening and using a larger radius curve.
- Excavation and rebuilding of a 600 linear foot structural section of the highway on the north end to address settlement in the roadway pavement.
- Installation of 1,780 linear feet of 32-inch high concrete barriers (Type JJ) to replace the existing 32-inch high k-rail concrete barriers on the inland side of the roadway.
- Installation of 1,550-linear-feet of 32-inch-high metal guardrails along the seaward side of the roadway to replace the existing crash cushion and k-rail concrete barriers.
- Installation of a new 20-foot long 36-inch high concrete barrier transition/barrier slab adjacent to the historical masonry wall seaward of the roadway at the north end of the project area.
- Installation of 280 linear feet of 3-foot high by 3-foot wide gabion baskets in front of the existing k-rail concrete barriers at the top of the existing rock basket walls inland of the highway and up the slope.
- Minor regrading to improve drainage to existing drainage inlets along the highway.
- Erosion control, seeding, and planting using native species, of approximately 11.7 acres of slopes and other areas that have been reconstructed, show reasonable geotechnical stability, and were not seeded previously, using permanent erosion control that may include compost, punching, hydroseeding, hydromulching, and other measures.

B. Standard of Review

The proposed project includes proposed development that is partially located within the delegated CDP jurisdiction of Monterey County and partially located within the Commission's retained CDP jurisdiction. In cases like this where a proposed project requires CDPs from both a local government and the Commission, Coastal Act Section 30601.3 allows for the Commission to process a single 'consolidated' CDP application for the proposed development if (a) the applicant, the local government, and the Commission's Executive Director agree to such consolidation, and (b) public participation is not substantially impaired by such consolidation.

Most of the proposed development has already occurred over the past eight years and Caltrans has kept the public well informed of the ongoing construction. Caltrans, Monterey County, and the Commission's Executive Director have all agreed to consolidate the CDP application with the Commission. In addition, the Commission will hold a properly noticed public hearing on this proposed CDP application, and the project will be reviewed by the Big Sur Land Use Advisory Council, or LUAC,² prior to the Commission's hearing on this application. As a result, public participation has not been substantially impaired by consolidation in this case. The standard of review for a consolidated CDP application is the Coastal Act, with certified LCP provisions providing non-binding guidance.

C. CDP Determination

1. Coastal Hazards

Applicable Coastal Act and LCP Provisions

The Coastal Act is, at its core, a law that requires coastal resource protection. In adopting the Act in 1976, the State Legislature included a series of goals and objectives. For example, Coastal Act Sections 30001 and 30001.5 state:

Section 30001. The Legislature hereby finds and declares: (a) That the California coastal zone is a distinct and valuable natural resource of vital and enduring interest to all the people and exists as a delicately balanced ecosystem. (b) That the permanent protection of the state's natural and scenic resources is a paramount concern to present and future residents of the state and nation. (c) That to promote the public safety, health, and welfare, and to protect public and private property, wildlife, marine fisheries, and other ocean resources, and the natural environment, it is necessary to protect the ecological balance of the coastal zone and prevent its deterioration and destruction. (d) That existing developed uses, and future developments that are carefully planned and developed consistent with the policies of this division, are essential to the economic and social well-being of the people of this state and especially to working persons employed within the coastal zone.

² The Big Sur LUAC is the official Monterey County-designated body that provides recommendations to County (and here Coastal Commission) decision-making bodies regarding development and other issues in Big Sur.

Section 30001.5. *The Legislature further finds and declares that the basic goals of the state for the coastal zone are to: (a) Protect, maintain, and where feasible, enhance and restore the overall quality of the coastal zone environment and its natural and artificial resources. (b) Assure orderly, balanced utilization and conservation of coastal zone resources taking into account the social and economic needs of the people of the state. (c) Maximize public access to and along the coast and maximize public recreational opportunities in the coastal zone consistent with sound resources conservation principles and constitutionally protected rights of private property owners. (d) Assure priority for coastal-dependent and coastal-related development over other development on the coast. (e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the coastal zone. (f) Anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the coastal zone.*

In short, the law recognizes the coastal zone as a special place, where coastal resources are of “paramount concern”, and requires that it both be protected against degradation, and enhanced where feasible. To implement these objectives, Chapter 3 of the Coastal Act includes a series of specific provisions that clearly and emphatically require the protection of coastal resources, from public recreational access to coastal habitats to public views and landforms.³ Perhaps just as clearly, and as explained in detail subsequently, armoring generally has significant adverse impacts on the coastal resources protected by Chapter 3 of the Coastal Act, leading to unavoidable impacts on natural landforms, public recreational access, natural processes (which also significantly impacts public recreational access) and public views.⁴ These impacts are all inconsistent with the Coastal Act’s resource protection requirements, and consequently, the Coastal Act generally directs that armoring be denied in order to meet these coastal resource protection requirements. In other words, the Coastal Act generally prohibits armoring except under very limited circumstances, and this general prohibition is echoed by Coastal Act Section 30253, which makes it clear that all development, including armoring, is not to be approved if it will cause erosion or destruction of the site, or substantially alter natural landforms, which past cases have shown is predominately the case with armoring.⁵

³ See, for example, more than 40 sections nested in Chapter 3, including sections related to public access, recreation, the marine environment, and land resources.

⁴ See, for example, Commission findings in LCP amendments LCP-3-SCO-20-0066-2 (Santa Cruz County Hazards Update) and LCP-3-MRB-21-0047-1 (Morro Bay Land Use Plan Update), and in CDPs A-3-SCO-07-095/3-07-019 3-07-019 (Pleasure Point Seawall), 3-09-025 (Pebble Beach Company Beach Club Seawall), 3-09-042 (O’Neill Seawall), 2-10-039 (Lands End Seawall), 3-14-0488 (Iceplant LLC Seawall, 3-16-0446 (Rockview Seawall), 2-17-0702 (Sharp Park Golf Course), 3-18-0720 (Candau Armoring), 3-20-0166 (Wavefarer Partners LLC Armoring), 3-22-0440 (Casanova Armoring), and 2-21-0912 (SFPUC Ocean Beach Armoring).

⁵ Section 30253 states, in applicable part, that “New development shall...Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the

In fact, as contrasted with the numerous Coastal Act resource protection provisions, both broad and specific, there is only one Coastal Act section that specifically allows armoring, Section 30235, and it includes important – and severely limiting – criteria. Section 30235 states, in applicable part:

Section 30235. 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.

...

Section 30235 requires that the Commission approve armoring under only very limited circumstances, namely when required to serve coastal-dependent uses or to protect public beaches or existing structures in danger from erosion, and only when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.⁶ Given that armoring has significant adverse impacts on a variety of protected coastal resources and is only required to be approved in very limited circumstances, implementation of the Coastal Act's resource protection policies generally requires denial of proposals for armoring.⁷ Section 30235's limited requirement to approve shoreline armoring is probably best understood as an exception with respect to the Coastal Act's coastal resource protection provisions, that is, an 'override' of the other Coastal Act sections found in Chapter 3 that would require the Commission to otherwise deny the project, but an override that is only available in limited, specific circumstances.

The purpose and structure of the Coastal Act support such an interpretation as well, as reflected in numerous policies of the Act. For example, not only does Section 30009 require a liberal interpretation to protect shoreline and beach resources,⁸ but Section 30007.5 also directs the Commission to resolve conflicts in a manner that is "most

site or surrounding area **or in any way require the construction of protective devices** that would substantially alter natural landforms along bluffs and cliffs" (emphasis added).

⁶ Two of the three qualifying uses are based on protecting important State shoreline priorities (coastal-dependent uses and public beaches). Importantly, armoring rarely protects beaches; rather, armoring typically leads to the incremental loss of beaches. In fact, when public beaches are in danger of erosion, such danger is typically exacerbated by armoring as opposed to protected by it because armoring typically not only occupies beach and shoreline space that would otherwise be available to public recreational uses, but it also inhibits the transmittal of beach-generating materials from bluffs, and typically leads to loss of beaches over time as an eroding shoreline bumps up against such armoring (also referred to as the 'coastal squeeze' or passive erosion). Thus, bracketing groins in certain circumstances, armoring is typically not a viable/fruitful response to protect a public beach in danger from erosion. Finally, past these two important State shoreline priorities, the only other development allowed armoring by Section 30235 are existing structures, including both public and private (e.g., residences) structures.

⁷ In very rare circumstances, a project may include shoreline armoring and the overall project may still be consistent with Coastal Act, and the Commission may not need to invoke Section 30235.

⁸ Section 30009 requires that: "This division [i.e., the Coastal Act] shall be liberally construed to accomplish its purposes and objectives."

protective of significant coastal resources.”⁹ Courts have relied on Section 30009 to find that exceptions to the Act’s requirements must be read narrowly and courts have upheld that the Coastal Act’s requirements are to be implemented so as to be most protective of coastal resources, and this methodology applies to the limitations on allowable armoring including in light of the discernible adverse coastal resources impacts associated with such armoring.¹⁰

Similarly, the Monterey County LCP also reflects the Coastal Act’s coastal hazard avoidance theme. The LCP states:

Big Sur Coast LUP Key Policy 3.7.1. Land use and development shall be carefully regulated through the best available planning practices in order to minimize risk to life and property and damage the natural environment.

Big Sur Coast LUP Policy 3.7.2.3. All development shall be sited and designed to minimize risk from geologic, flood, or fire hazards to a level generally acceptable to the community. Areas of a parcel which are subject to high hazard(s) shall generally be considered unsuitable for development. For any development proposed in high hazard areas, an environmental or geotechnical report shall be required prior to County review of the project.

Big Sur Coast LUP Policy 3.7.3.A.8. Structures and roads in areas subject to landsliding are prohibited [unless] a certified engineering geology report indicates mitigations exist to minimize risk to life and property. Mitigation measures shall not include massive grading or excavation or the construction of protective devices that would substantially alter natural landforms.

Big Sur Coast IP Section 20.145.080.A.2.g. All development shall be sited and designed to conform to site topography, to minimize grading and disturbances resulting from site preparation, and to minimize the hazards of geologic instability. Projects requiring excessive or non-essential site grading shall not be approved. Likewise projects which would create a geologic hazard or diminish the stability of the areas shall not be approved. Areas which are determined by the geologic report or otherwise as being unstable, or subject to geologic hazards which can not be reasonably mitigated, shall generally be considered as unsuitable for development. Exceptions may be made for public facilities which can not be reasonably located elsewhere...

⁹ Section 30007.5 states, in applicable part: “The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources.”

¹⁰ See, for example, *Citizens for a Better Eureka v. California Coastal Com.* (2011) 196 Cal.App.4th 1577, 1586-87 (“[i]n light of the legislative directive to construe the Act liberally...it is appropriate to construe the exceptions narrowly”, quoting *Capon v. Monopoly Game LLC* (2011) 193 Cal.App.4th 344, 355).

Big Sur Coast IP Section 20.145.100.C.1. Blufftop setbacks shall be adequate to avoid the need for seawalls during the proposed development's economic lifespan....

Thus, both the Coastal Act, which is the legal standard of review here, and the County's LCP, which provides non-binding guidance, are quite directive when it comes to coastal hazards. Namely, new development is required to minimize risks, and to do so in a way that doesn't require shoreline altering armoring. And, such armoring is only allowed under exacting conditions, and only if it fully and commensurately mitigates its impacts.

Consistency Analysis

Background

As discussed earlier, Highway 1 provides a very important transportation, commerce, and public safety link to communities along the Big Sur coast. And the highway is also a very popular recreational asset and significant public access route. It is also in many locations, like the subject site, located in an area of significant coastal hazards. Highway 1 along the Big Sur coast is located at the base of the Santa Lucia Mountain Range as it rises sharply from the Pacific Ocean. The mountains are comprised of metamorphosed shale, essentially fine grained rocks consisting mainly of silt and clay (i.e., shale or mudstone). This material, known as non-differentiated Franciscan sedimentary material, is relatively soft and very vulnerable to fracturing. Mixed within the sedimentary material are medium-sized rocks and boulders comprised mainly of igneous (i.e., hard) rock. In comparison to the sedimentary material, this rock is very resistant to weathering and erosion. In general, however, the mountain slope is susceptible to erosion, frequent landslides, and slope failure including because it is subjected to harsh marine conditions.

In the project area, the roadway surface of Highway 1 is now approximately 100 to 120 feet vertically above the toe of the slope. The shoreline at this location has a northwest orientation, and large winter swells pound the base of the steep mountain slopes. In addition, potent winter storms hit the coast range regularly, where such storms seemingly rise straight up from the shore and often deposit high amounts of rainfall in relatively short durations. Compounding the erosive forces of the ocean and rain, coastline fracturing and tectonic uplift create a dynamic and highly variable – and unstable – environment upon which the highway has been constructed. Highway 1 continues to survive to this day, but only because of fairly constant interventions in light of slope failures and other issues, and it is often subject to short-term and longer-term closures.¹¹ Because of the importance of Highway 1 for Big Sur residents, but also for regional and statewide commerce, coastal access and recreation, and tourism, the state continues to invest millions of dollars annually to repair and maintain Highway 1. However, with climate change, increased extreme precipitation events, sea level rise, and other climate factors, events that impact Highway 1 appear to be increasing over time. At the same time, given its importance, Highway 1 cannot simply be abandoned. Moreover, many alternative strategies such as retreat and tunnelling options, are

¹¹ For example, the highway is currently closed at one location due to a recent landslide.

difficult given the amount of such adaptation needed along the Big Sur coast and the difficult geography.

Section 30235

As indicated above, Coastal Act Section 30235 is an override over other Coastal Act provisions that allows armoring if required to serve a coastal-dependent use or to protect an existing structure in danger from erosion subject to the requirement that adverse impacts to local shoreline sand supply are mitigated or eliminated. The Coastal Act provides for these limitations because shoreline armoring 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.

The applicable questions here under Coastal Act Section 30235 are whether: (1) there is an existing structure and/or a coastal-dependent use; (2) that existing structure is in danger from erosion and/or that coastal-dependent use needs to be served; (3) shoreline-altering construction is required to protect that existing endangered structure and/or to serve that coastal-dependent use; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The first three criteria relate to whether the proposed armoring is necessary, while the fourth criterion applies to mitigating some of the impacts from the proposed armoring if it is allowed.

Existing Structure/Coastal Dependent Use

The issue of what constitutes an “existing structure” for Section 30235 purposes has been debated for many years, where some, including some local governments in their LCP implementation, have argued at times that it means whether a structure is simply ‘extant’ at the time of armoring application. Another interpretation is that the Legislature intended the word to mean exactly what it meant at the time when the Legislature chose to use the word. In other words, in enacting the statute in 1976, the Legislature included the word “existing” in the natural sense, to mean existing at that time.

This controversy over these competing interpretations did not fully arise until roughly the early 2000s. This is likely due, in large part, to the fact that, prior to then, the only structures for which the distinction would be relevant (those built along the shoreline after 1976) were relatively new, and the parties who had secured permits to construct them had had to demonstrate that they would be safe without requiring armoring. Thus, even if that showing would eventually prove to have been mistaken, coastal erosion had not yet progressed far enough for that error to have become significantly evident and problematic. Since the early 2000s, as the issue has become increasingly contentious, and with few exceptions, the Commission has not found that a structure built after 1977 qualifies as an “existing structure” for purposes of Section 30235. Rather, it has been increasingly consistent in finding that “existing structures” as the phrase is used in Section 30235 refers to structures that were legally in existence as of January 1, 1977, the effective date of the Coastal Act.

The interpretation that ‘existing’ means ‘extant’ fails for other reasons as well. For example, Section 30253, the only other Coastal Act section that explicitly refers to armoring, prohibits new development that would “in any way require the construction of

protective devices that would substantially alter natural landforms along bluffs and cliffs.” Thus, development approved since the Act’s effective date is not allowed such armoring that leads to substantial natural shoreline landform alteration (which, in the case of shoreline armoring, is essentially all armoring cases) pursuant to Section 30253.¹² If Section 30235’s ‘existing’ meant ‘extant’ at the time of an application, then it would require approval of armoring that Section 30253 prohibits, and the two cannot readily be harmonized.

More appropriately, the application of Section 30253 since 1977 creates two types of development under the Coastal Act: pre-Coastal Act development that may not have been built to meet Section 30253 requirements to avoid armoring, and post-Coastal Act development that has (including because it is required by Section 30253). The Section 30235 requirement to allow for armoring regardless of its coastal resource impacts or its inconsistencies with other Coastal Act resource protective provisions is intended to only apply to pre-Coastal Act development, and not anything else, essentially ‘grandfathering’ pre-Coastal Act structures and allowing them armoring as an exception to the otherwise applicable Coastal Act requirements.¹³ In addition, such pre-Coastal Act structures lose their ‘existing’ status under Section 30235 if they are modified in

¹² It is noted that some have argued that the use of the term “require the construction of” in Section 30253 means that Sections 30253’s provisions in that sense only apply prospectively to the future construction of armoring, and do not extend to armoring that may exist at the time that proposed development is being pursued, and thus that such proposed development can rely on such armoring notwithstanding it may lead to the types of prohibited impacts. However, such an interpretation completely ignores the qualifying language that proceeds such text, which states that the development cannot “in any way” require armoring construction. Proposed development attempting to rely on existing armoring is still dependent on that armoring having been constructed, which falls under the rubric of “in any way” requiring the construction of armoring to protect it. That such construction may have been constructed before the proposed development is being considered is immaterial to Section 30253’s application for that reason (and such conclusion is bolstered by the Section 30009 requirement to liberally construe the Act to protect coastal resources). In addition, if new development relies on armoring that is already present, it will also have to rely on the continued upkeep, expansion, or eventual rebuilding of that armoring. If the armoring needs to be expanded or rebuilt, then the new development would be relying on the construction of new armoring, in violation of Section 30253.

¹³ As described in the Commission’s 2015 Sea Level Rise Policy Guidance, the Commission interprets the term “existing structures” in Section 30235 as meaning structures that were in existence on January 1, 1977, the effective date of the Coastal Act, and that have not been redeveloped since in a way that would require them to be reevaluated against the Coastal Act/LCPs as if new. In other words, Section 30235’s directive to permit shoreline armoring for structures in certain circumstances applies to development that lawfully existed as of January 1, 1977, and that has not subsequently been redeveloped (i.e., where changes to it since 1977 have been extensive enough that it is considered a replacement structure required to conform to applicable Coastal Act and LCP provisions). This interpretation is the most reasonable way to construe and harmonize Sections 30235 and 30253, which together evince a broad legislative intent to allow armoring for development that existed when the Coastal Act was passed, when such development is in danger from erosion, but to avoid such armoring for development constructed consistent with the Act, which does not allow shoreline altering armoring development to support same. This interpretation, which narrowly allows protection for development that predates the Coastal Act, is also supported by the Commission’s duty to protect public trust resources and interpret the Coastal Act in a liberal manner to accomplish its purposes.

such a way that they are no longer the same structure, but rather a replacement structure (often referred to by the Commission as a 'redeveloped' structure).¹⁴

In short, the Coastal Act reflects a broad legislative intent to allow armoring under certain very limited circumstances generally only for structures that existed when the Coastal Act was adopted and when such structures are in danger from erosion (Section 30235), but to prohibit armoring for new development constructed after adoption of the Act (Section 30253). This interpretation to allow protection only for certain structures that predate the Coastal Act is also supported by the Commission's duty to protect public trust resources, and the Coastal Act requirement that the Act "shall be liberally construed to accomplish its purposes and objectives" (Section 30009, previously described), where, as described, the Act on this point protects these natural shoreline and beach resources and only allows for armoring as an exception – or, put another way, as an override – under extremely narrow circumstances and criteria.

Furthermore, Section 30270 requires the Commission to "take into account the effects of sea level rise in coastal resources planning and management policies and activities in order to identify, assess, and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise;" and recognizing the inevitability of ever increasing impacts from armoring in an era of sea level rise underlines the importance of limiting the circumstances under which armoring can be approved. Thus, the only types of structures that qualify as 'existing structures' allowed armoring under Section 30235 are those that existed before January 1, 1977, and have not been redeveloped since.¹⁵

Thus, the first Section 30235 test is whether a structure for which a shoreline protective device is proposed is considered "existing," meaning existing prior to the effective date of the Coastal Act on January 1, 1977, and/or whether a structure is a coastal dependent use. As indicated above, the proposed shoreline armoring is intended to

¹⁴ Coastal Act Section 30610(d) and Title 14 of California Code of Regulations (CCR) Section 13252(b) help define when structures meet or don't meet the redevelopment threshold. CCR Section 13252(b) specifically states that replacement of 50% or more of a structure, including single-family residences, is not repair and maintenance under Coastal Act Section 30610(d) but instead constitutes a replacement structure that must be evaluated for Coastal Act compliance purposes. In applying Section 13252(b)'s 50% criteria, the Commission has, in the past, found that a structure will be considered a replacement structure (also referred to as redevelopment) if at least one of the following takes place: 1) 50% or more of the major structural components (i.e., including exterior walls, floor, roof structure, or foundation, where alterations are not additive between individual structural components) are altered; 2) there is a 50% or more increase in gross floor area; 3) alteration of less than 50% of a major structural component results in cumulative alterations exceeding 50% or more of that major structural component (taking into account previous replacement work undertaken since January 1, 1977); and 4) a less than a 50% increase in floor area where the alteration would result in a cumulative addition of 50% or more of the floor area, taking into account previous additions to the structure since January 1, 1977 (see, for example, LCP amendments LCP-2-MAR-13-0224-1 Part A and LCP-3-MRB-21-0047-1, and CDP 3-16-0345 (Honjo armoring)).

¹⁵ And the Court of Appeals decision in the recently published *Casa Mira* case (*Casa Mira Homeowners Association v. California Coastal Commission* (2024) 107 Cal.App.5th 370, review filed (Jan. 16, 2025)) further evidences same, as the Court determined that structures built later than January 1, 1977 are not entitled to shoreline protection under the Coastal Act, and by extension LCPs (see also the published *McAllister* decision).

protect Highway 1. Although Highway 1 was originally constructed in the 1930's, the portion of the highway protected by the shoreline armoring was entirely destroyed by the landslide and has been completely replaced and redeveloped seaward of its former location. As such, the highway at this location does not constitute an existing structure as understood in Section 30235 terms.

As to the coastal-dependent use criterion, the Coastal Act defines such development to be a use that “requires a site on, or adjacent to, the sea to be able to function at all” (Section 30101). Highways do not require a site on or adjacent to the sea to be able to function at all, including as evidenced by the fact that such infrastructure exists in a variety of other places throughout the state. That said, Highway 1 at this location provides what many would consider a coastal-dependent sort of function, including as evidenced by its world-wide fame that is based on the coastal and ocean views that it provides. So, while it does not require a site adjacent to the sea to be able to function at all as a transportation corridor, it does in relation to the public viewshed values that it provides. In addition, the highway also provides space for bicyclists but does not include a coastal trail for pedestrians. This is noted because the Commission has at times considered coastal trails to be coastal-dependent for purposes of armoring but has also found that such elements can also be relocated out of harm's way and provide similar functions without armoring. Here, while an interesting argument, it is not compelling enough to consider the highway itself coastal-dependent, particularly without any sort of coastal trail or other such public recreational access facility that could more clearly fall into the coastal dependent bin.

This project therefore fails the first “existing structure or coastal dependent use” test for shoreline armoring to be approved under Section 30235. As a result, the armoring proposed does not qualify to use the Section 30235 “override”, and because it has significant adverse coastal resource impacts that are inconsistent with a myriad of other Coastal Act provisions, the Coastal Act directs denial of the proposed project.

Danger from Erosion

Although the project could be denied based on the failure to meet the first part of Section 30235, as discussed below, in this case the project can still be approved through the Coastal Act's conflict resolution procedures, where protecting the highway via the armoring proposed, along with some required project changes to limit impacts and mitigate for those that are unavoidable, would be, on balance, more protective of significant coastal resources than would denying the CDP (see the “Conflict Resolution” section later in this report). In that case, consideration of the other factors is still of merit.

Therefore, the second Section 30235 test is whether the existing structure (i.e., were there to be one) is in danger from erosion. In this case, as reported by Caltrans in its 2017 geotechnical assessment, the Mud Creek Landslide Complex failed catastrophically and covered approximately 1,700 linear feet of Highway 1 with 35 to 45 feet of rock and debris. The 2017 geotechnical assessment documented the existing site condition, the project need and purpose, the immediacy of the threat, and the reasons that the shoreline armoring structure, including the revetment, flat bench area, and engineered embankment, was the most appropriate alternative for the

circumstances at the subject site.¹⁶ Following the initial work performed after the landslide, the geotechnical documentation provided by Caltrans in 2019 provided additional identification of the coastal hazards at this location that justified increasing the height of the revetement.¹⁷ Finally, the geotechnical documentation provided by Caltrans in 2024 also documented coastal hazard issues and concerns as justification for placement of additional rock on the revetment to restore the structure to previously authorized dimensions.¹⁸ The Commission's Coastal Engineer, Jeremy Smith, and Engineering Geologist, Phil Johnson, evaluated Caltrans' geotechnical reports and related project materials and agree with the conclusion that the highway is in danger from erosion. Accordingly, Highway 1 at this location is in danger from erosion. Therefore, if Highway 1 were to be an existing structure and/or a coastal-dependent use, then the proposed project would meet the second Section 30235 test.

Alternatives to Shoreline Armoring

The third Section 30235 test that the project must meet is that the proposed armoring must be "required" to protect existing endangered structures or to serve the coastal-dependent use. In other words, Section 30235 is structured that the third test is met if shoreline armoring is the only feasible¹⁹ alternative capable of protecting the existing endangered structures or serving the coastal-dependent uses. Other alternatives typically considered include: the "no project" alternative; relocation of endangered structures; drainage and vegetation measures; living shoreline or sand replenishment programs; and combinations of each.

In the present case, the no project alternative is not feasible because it would result in the closure of Highway 1, which is an unacceptable outcome for necessary transportation services supporting residential access, public health and safety, commerce, and public access and recreation along the Big Sur Coast. The no-project alternative would mean that the highway would remain covered by dozens of feet of landslide debris and Highway 1 would have to remain closed permanently at this location, which would mean that access from the northern San Luis Obispo County coast to the Monterey Peninsula would not be possible along Highway 1 and would necessitate a detour of well over 200 miles. Even if the highway was reopened, without the stabilization and protection provided by the armoring, the repair would quickly degrade from erosion and landslides, and the highway lost in short order. Thus, the no-project alternative is rejected because it would not protect Highway 1.

Relocation of this relatively short stretch of Highway 1 is also not feasible due to the

¹⁶ Geotechnical Observations and Recommendations, Mud Creek Landslide Complex, California State Highway 1, 05-Mon-001-PM 8.9/9.1, Monterey County, California, Yeh and Associates, Inc., July 20, 2017.

¹⁷ Emergency Highway Repair Interagency Emergency Notification Form, Mud Creek Slide, Caltrans, February 2, 2019.

¹⁸ Emergency Highway Repair Interagency Emergency Notification Form, Mud Creek Slide, Caltrans, January 1, 2024.

¹⁹ 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.

steep terrain inland of the highway and property ownership constraints. Relocation would also involve potential losses for public access and coastal views of Highway 1, which are so treasured today. Similarly, given that there is only a small, narrow rocky beach located at the base of the bluff along the project site, sand replenishment and above-beach natural stabilization measures would also not effectively be able to address the threat of direct wave attack to the toe, nor would it be able to support the weakly consolidated slope and are likewise insufficient responses here.

The 2017 geotechnical assessment included an alternatives analysis, and several potential alternatives are discussed briefly below. For example, one option at this location would be to realign the highway by constructing a tunnel. However, this alternative was rejected due to environmental, engineering, construction, and property acquisition challenges. The Commission concurs with this analysis at least at this time.

Caltrans also evaluated stabilization of the landslide without shoreline armoring to keep the highway within its previous alignment. However, this alternative was rejected due to technical constraints and the extended highway closure duration that would result, as described below:

Due to the very deep movement and enormous volume of the Mud Creek Landslide Complex, stabilization measures such as structural solutions that rely on providing resisting force to restrain landslides are not feasible for a landslide of this size. Stabilization by removal of the Mud Creek Landslide Complex, reestablishing the original alignment, and constructing a stable cut slope above the roadway has been considered. To accomplish this, top down construction on a 1½:1 slope is required and approximately 5.5 million cubic yards of material would need to be excavated. The top of cut will extend 300 feet upslope of the head scarp, impacting an additional 50 acres of land. With such a large area impacted, there is a high likelihood of encountering unanticipated subsurface conditions that could alter the project design. The estimated construction duration for this stabilization alternative is 2 to 4 years, and complete closure of the highway would be required.

It thus appears that the landslide stabilization approach would be a massive undertaking, incredibly time consuming and expensive, and it would result in its own environmental degradation problems, including affecting 50 or more acres inland. This option is therefore not feasible.

As to alternatives that would relocate the revetment further inland, and/or move such armoring inland but replace it with a vertical seawall, this too would be a massive undertaking, and incredibly time consuming and expensive. While doing so would likely allow for a beach to form in the short term, it would not be expected to allow for a beach to form in the longer-term given the nature of sediment dynamics and shoreline orientation related to storms along this section of the coast (see also below). It does not appear that an option for allowing armoring, but attempting to have less impactful armoring, is feasible here either.

Ultimately, the decisions made over the past eight years of emergency responses have significantly narrowed the potential options here, for better or for worse. The fact is that

shoreline armoring structure here is massive, and one of the largest (if not the largest) in the state, occupying about 11 acres along about an approximately quarter mile of shoreline. While it is analytically correct that the Commission is meant to analyze options as if the emergency temporary development were not present, and does so here, it is simply not practical in a case like this to narrowly apply an analysis like that in a vacuum. All told, it would be extremely difficult, time consuming, and enormously expensive to try to replace the armoring structure, and/or to try and apply some sort of alternative project here that did not include it, and there do not appear to be such feasible alternatives that would significantly lessen coastal resource impacts, and that practical reality leads to true feasibility concerns in a case like this.

In short, Caltrans has found that the proposed project, including the shoreline armoring (consisting of the revetment, flat bench area, and engineered embankment), and realignment of the highway seaward across the body of the slide, is the least environmentally damaging feasible alternative, and the one expected to effectively address the current risk to the highway at this location. Given the context, the Commission finds that there are no other feasible alternatives to protecting Highway 1. Although it may be possible that future planning will identify adaptations that can address Highway 1 stability issues with less coastal resource impacts, and in more comprehensive and proactive (as opposed to a project by project response basis) manners, especially as the situation is likely to change with the active landslide and ongoing erosion can be developed, it is not developed now. Thus, if Highway 1 were to be an existing structure and/or a coastal-dependent use, then the proposed project would meet the third Section 30235 test.

Sand Supply Impacts

The fourth test of Section 30235 that the project must meet is that the armoring must be designed to eliminate or mitigate adverse impacts to local shoreline sand supply.

Shoreline Processes

Some of the effects of engineered armoring structures on the beach and shoreline (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 beach/shoreline. Others are more qualitative (e.g., impacts to the character of the beach/shoreline and visual quality). Some of the effects that a shoreline armoring structure may have on natural shoreline processes can be quantified, however, including: (1) the loss of the 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. The first two calculations relate to directly affected underlying and adjacent beach and shoreline use areas, and the third calculation is related to sand supply impacts that can affect that area but also larger sand supply systems, but all three calculations relate to public recreational access to the beach, shoreline, and

offshore recreational areas. The analysis that follows is based on the proposed project.²⁰

1) Encroachment Area

With respect to loss of beach and other shoreline recreational area, shoreline protective devices, such as the armoring 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 it spreads 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.

The site was subject to one of the largest landslides in California history and Caltrans' approach to stabilize the highway was unprecedented. To apply the Commission's typical analysis of coastal resource impacts, the Commission must make an initial assumption that the beach area and toe of bluff location would relatively quickly (over a few years) have been naturally restored via wave action to approximately their same pre-landslide configuration if the landslide debris on the beach and in the water had been allowed erode. This assumption is based on observations of extreme erosion rates for the months immediately following the slide and geomorphologic principles. Specifically, a substantial area of the debris fan would have eroded relatively quickly, especially given the high wave energy environment and relative (to other parts of California) lack of a significant sandy beach system to buffer the toe from marine erosion. Waves want to smooth things out along the shore, that's why most beaches have a generally uniform planform. When there is a large perturbation of loosely consolidated material, there is a very high potential for erosion. The erosion rates for the weeks following the slide were observed by Caltrans to be on the order of feet per day (100's of feet per year). It could be anticipated that the debris fan could have eroded to something very near the pre-slide shoreline within a year or so, though this would have likely led to further landsliding and thus the creation of new debris fans so ultimately there is a lot of uncertainty as to what would have happened.

Given this level of uncertainty, and the various potential permutations about what might have happened had the slide been 'left alone', such an assumption is warranted in this case, and it can help to help simplify the analysis. Using that assumption, the armoring structure (i.e., the revetment, bench area, and engineered embankment), which actually has a footprint of 11 acres, is seen through a lens where it only covers approximately

²⁰ Because of the unique attributes of and context surrounding this project, it is difficult to apply the Commission's 'standard' analytical approach to it in terms of these impacts. This is perhaps the most evident in terms of the way in which this project covers some 11 acres, due to the nature of the slide and the immediate responses, whereas 'normal' armoring structures are generally tucked adjacent to coastal bluffs. Thus, while the following is rooted in the Commission's normal analytic framework, it is intended to be a rough order-of-magnitude estimate of the impacts of armoring in a way that can be relatively easily quantified.

2.5 acres, which is the overlap of the 11 acre area with the immediate shoreline area that was present pre-landslide (see [Exhibit 2](#)), and does not count the 8.5 acres that is located on top of what were open ocean waters pre-landslide. Thus, for the purposes of this analysis, the encroachment area is considered to be 2.5 acres.²¹

2) Fixing the Shoreline Position (the “Coastal Squeeze”)

On an eroding shoreline, a beach will typically continue to recreate itself between the waterline and the bluff as long as there is sufficient sand supply and space to form a beach between the bluff and the ocean. When beaches erode, they can migrate landward as the backshore (e.g., typically a bluff) erodes from increased wave attack, which makes space for the beach to persist even while the shoreline retreats landward. This process stops, however, when the backshore is fronted by a hardened, protective structure such as a revetment or a seawall. Experts generally agree that where the shoreline is eroding and armoring is installed, the armoring will eventually define the boundary between the sea and the upland.²² While the shoreline up and downcoast of the armoring continues to retreat and reform new beach areas, shoreline in front of the armoring eventually stops at the armoring’s seaward toe. This effect is also known as passive erosion, or “coastal squeeze”, and this phenomenon has been described in countless Commission actions related to coastal hazards and armoring. The sandy beach area will narrow, squeezed between the moving shoreline and the fixed backshore. The coastal squeeze phenomenon caused by armoring is (and will continue to be in the future) exacerbated by climate change and sea level rise.²³ As climate

²¹ And the Commission notes that the encroachment area would be significantly larger but for the assumption applied here, and recognizes that, but also deems the lower encroachment area reasonable in light of the factors that apply to this case.

²² See, for example: Kraus, Nicholas (1988) “Effects of Seawalls on the Beach: An Extended Literature Review”, *Journal of Coastal Research*, Special Issue No. 4: 1-28; Kraus, Nicholas (1996) “Effects of Seawalls on the Beach: Part I An Updated Literature Review”, *Journal of Coastal Research*, Vol.12: 691-701, pages 1-28; and Tait and Griggs (1990) “Beach Response to the Presence of a Seawall”, *Shore and Beach*, 58, 11-28.

²³ Sea level rise (SLR) will have dramatic impacts on California’s coast in the coming decades and is already impacting the coast today. In the past century, the average global temperature has increased by about 0.8°C (1.4°F), and global sea levels have increased by 7 to 8 inches (17 to 21 cm). In addition, SLR has been accelerating in recent decades, with the global rate of SLR tripling since 1971 (IPCC, 2021). There is strong scientific consensus that SLR will continue over the coming years regardless of future human actions, but the exact rate and amount will depend on the amount of future greenhouse gas emissions as well as the exact contribution from sources such as the Antarctic and Greenland ice sheets, which are areas of continuing research. Currently, the best available science on SLR projections in California is provided in the State of California Sea Level Rise Guidance (OPC 2024) and is reflected in the 2024 Update to the Coastal Commission Sea Level Rise Policy Guidance (CCC 2024). According to these Guidance documents, the estimated range of sea level rise for the project area (based on the Monterey tide gauge) for 2070 is approximately 1.3 to 2.1 feet; and 2.3 to 3.7 feet for 2090 under the Intermediate to Intermediate-High Scenarios. Additionally, scientific studies have analyzed the potential for rapid ice-sheet loss in conjunction with high future greenhouse gas emissions and suggest that there could be sea level rise of as much as 6.4 feet by 2100 under the High Scenario. The observed trend for global sea level has been a long-term, persistent rise. Mean water level affects shoreline erosion several ways, and an increase in the average sea level will exacerbate all these conditions. On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. This, too, leads to loss of the beach as a direct result of the armor as the beach is squeezed between the landward migrating ocean and the fixed backshore (e.g., even without any armoring, a 1-foot

change causes the seas to rise ever faster, beach and recreational shoreline areas will be lost at an increasingly rapid pace. If the inland area cannot also retreat, eventually there will be no available dry beach or shoreline area, and the shoreline will be fixed at the base of the armoring structure. In the case of an eroding shoreline, this represents the loss of a beach and shoreline recreational area as a direct result of the armoring. Specifically, beach areas are diminished as the beach is compressed between the ocean migrating landward and the fixed backshore.

Consistent with past practice, including the Commission's experience that shoreline armoring often needs to be reinforced, augmented, replaced, or substantially changed within a reasonable period of years from its original installation, and to provide for re-review on a regular basis to allow for consideration of possible changes in policy, law, and physical conditions associated with armoring, the Commission typically evaluates such impacts over 20-year periods from the time a CDP is approved, where here the impacts are measured from when the armoring was first installed in 2017, and extending to 2045 (i.e., actually a first mitigation period covering the 8 years that the armoring has been in place, plus the 20 years from the time of the CDP decision, for a total of 28 years in this case).

The Commission has often used a methodology for calculating the passive erosion impacts of a seawall, or the long-term loss of beach/shoreline area due to fixing the back beach. Specifically, that methodology calculates the lost area that is equivalent to the footprint of the beach/shoreline area that would have been created by natural erosion processes absent the armoring and is equal to the long-term average annual erosion rate multiplied by the width of property that has been fixed by a shoreline protective device. In this case, Caltrans did not provide an estimated long-term average annual erosion rate and estimating passive erosion impacts is difficult. However, recent literature has identified rates ranging from four to seven inches per year for this general area.²⁴ The Commission's engineer, Jeremy Smith, has determined that a reasonable rate of expected erosion in an unarmored condition and applying the assumption discussed above (i.e., in relation to the bluff as it existed pre-landslide) would be seven inches per year (or 0.58 feet/year). The proposed armoring spans approximately 2,000 feet. Therefore, the impacts due to the proposed project from fixing the back beach would be the loss of approximately 32,480 square feet of beach/shoreline loss through the initial mitigation period that extends through 2045 (i.e., beach/shoreline area that would have been created naturally if the back beach had not been fixed by the armoring

rise in sea level generally translates into a 40-foot inland migration of the land/ocean interface for a roughly 40:1 beach slope, typical of average sandy beach profiles). This change could also expose previously protected backshore development to increased tidal/wave action and flooding, and those areas that are already exposed to such conditions will be exposed more frequently and with greater severity. In addition, recent research has suggested that winter wave heights and winter storm intensity in the North Pacific have, on average, increased over the last 50 years in parallel with climate change, sending larger and more powerful waves to the California shoreline. Some studies suggest that wave heights could continue to increase in the future, generally extending the reach of wave run up and further exacerbating the erosion that is already expected to increase due to rising sea levels, though this is an area of developing research.

²⁴ Hapke and Greene identified a range of 4 to 7 inches per year in the U.S. Geological Fact Sheet 2004-3099 as applicable to the Grey Slip slide area which is very near Mud Creek.

through that time period).

Thus, the proposed project will result in a loss of approximately 141,380 square feet of beach/shoreline area (2.5 acres, or 108,900 square feet, from the armoring footprint and 32,480 square feet associated with coastal squeeze impacts) through 2045.²⁵

3) Shoreline Recreational Space Mitigation

There is no doubt that such impacts represent a significant public recreational access impact, including a loss of the social-economic value of beach and shoreline recreational access, for which the Coastal Act requires mitigation. The most obvious in-kind mitigation for these impacts would be to create a new roughly 141,380 square-foot area of beach/shoreline to replace that which was and will be lost since the time that the armoring was first installed through the initial mitigation period for it (i.e. to 2045) with an identical area of beach/shoreline recreational area near the lost beach/shoreline recreational area. While in concept this would be the most direct mitigation approach, finding an area where natural processes can be allowed to occur and create a similar such shoreline area, and ensuring it does so appropriately over time, is very difficult in actual practice. At the same time, the calculations of the affected area do provide an appropriate relative scale for evaluating alternative mitigations. For example, in the past, the Commission has looked at several ways to value such beach and shoreline areas to determine appropriate in-lieu mitigation fees, including evaluating the recreational value of the beach/shoreline recreational area in terms of the larger economy, as well as the real estate value of property acquisition necessary to accommodate an area that could be so created through natural erosion.

In terms of the recreational beach/shoreline value, the Commission has recognized that in addition to the more qualitative social benefits of beaches and shoreline areas (recreational, aesthetic, habitat values, etc.), beaches and shoreline recreational areas provide significant direct and indirect revenues to local economies, the state, and the nation. Most people recognize that the ocean and the coastline of California contribute greatly to the California economy through activities such as tourism, fishing, recreation, and other commercial activities.²⁶ There is also value in just spending a day at the beach and having wildlife and clean water at that beach and being able to walk along a stretch of beach and shoreline, or simply to see one along a coastal vista. There are also societal benefits of beaches and shoreline areas, including the ways in which they contribute to local community, state social fabric, and cultural identity. However, it can be difficult to put a price tag on these types of benefits, including 'existence' values, where people are asked how much it is worth to them for a beach to exist, even if they do not visit the beach or seldom visit the beach. Depending on the person, even one

²⁵ To be clear, while there would likely have been a rocky shoreline recreation area with some beach absent armoring, and there was pre-landslide, one would not expect a large wide beach at this location. Nonetheless, these calculations provide a sense of the impacts associated with the proposed project on this point.

²⁶ See, for example, the Commission's 2024 Sea Level Rise Adopted Policy Guidance (<https://www.coastal.ca.gov/climate/slrguidance.html>) where it states that "According to the NOAA Office for Coastal Management, just over 26 million people lived in California's coastal counties as of 2015. In 2020, California's marine economy supported over 26,000 businesses employing over 470,000 people, which accounted for \$23.1 billion in wages and \$41.9 billion in gross domestic product (NOAA, 2023)."

beach can be priceless.

Thus, these types of shoreline recreational impacts are often difficult to quantify, including in this case. In other cases, including where detailed visitation data is lacking, as it is here, the Commission has found that using a real estate valuation method as a basis for identifying mitigation values allows for objective quantification of the value of the lost beach and shoreline area, and that this valuation is appropriate both in terms of the scope of impacts and the rational basis for applying such methodology.²⁷ This method requires an evaluation of the cost of property that could be purchased and allowed to erode and turn into equivalent beach/shoreline area naturally to offset the area that would be lost due to the construction and continued placement of the proposed armoring over time.

Toward this end, the Commission evaluated market values of representative blufftop properties in the Big Sur area to identify what it might cost to purchase such property and allow it to erode to create beach/shoreline recreational space. Specifically, this review was conducted by looking at the sales of blufftop and ocean fronting property in relatively close proximity to the project site (specifically blufftop and ocean fronting properties located approximately between Julia Pfeiffer Burns State Park and Ragged Point) between the years 2019 and 2024. This value is then divided by the property square footage to derive a price per square-foot for each sale. The square-foot calculated value provides an estimated per square-foot value of what it would cost to purchase/acquire an equivalent blufftop property area that could be allowed to naturally erode and provide a shoreline area roughly equivalent to what will be lost due to the proposed project through 2045.

Eight blufftop ocean fronting properties sold in the vicinity between 2020 and 2024, where sales data shows a range of values from \$0.34 per square-foot at the low end, up to \$63.43 per square-foot at the high end, with an average of \$12.65 per square-foot.²⁸ This value represents a reasonable estimate of the average market value per square-foot of blufftop properties in close proximity to the project site based on actual sales data in recent years, and is a valid estimate of the cost of purchasing such property.

²⁷ See, for example, CDPs 2-10-039 (Land's End Seawall), 2-11-009 (City of Pacifica Shoreline Protection), A-3-PSB-12-042 (Capistrano Seawall), A-3-PSB-12-043 (Vista del Mar Seawall), 3-16-0345 (Honjo Seawall), 3-18-0720 (Candau Armoring), 3-19-0446 (Rockview Seawall and Accessway), 3-19-1287 (Fanshell Beach 17-Mile Drive Armoring), 3-20-0166 (Wavefarer Partners LLC Armoring), 3-22-0440 (Casanova Armoring), 3-22-1027 (Hofmann Seawall) and 2-21-0912 (SFPUC Ocean Beach Armoring).

²⁸ 53648 Highway 1 sold for \$3,999,000 in 2024 and included 444,312 square feet of property or \$9.00 per square-foot; 54800 Highway 1 sold for \$5,005,180 in 2024 and included 222,156 square feet of property or \$22.53 per square-foot; 27 Gorda Mountain Road sold for \$300,000 in 2021 and included 871,200 square feet of property or \$0.34 per square-foot; 73275 Highway 1 sold for \$2,900,000 in 2020 and included 8,344,789 square feet of property or \$0.35 per square-foot; 74759 Highway 1 sold for \$735,000 in 2021 and included 435,600 square feet of property or \$1.69 per square-foot; 75050 Highway 1 sold for \$630,000 in 2020 and included 239,580 square feet of property or \$2.63 per square-foot; 20001 Cabrillo Highway sold for \$3,600,000 in 2022 and included 2,918,520 square feet of property or \$1.23 per square-foot; and 18710 Cabrillo Highway sold for \$3,150,000 in 2021 and included 49,658 square feet of property or \$63.43 per square-foot. The average of these six properties per square-foot value is \$12.65 per square-foot and the median is \$2.16 per square foot.

Applying this land acquisition value to the 141,380 square-foot impact through 2045 would result in a mitigation fee of approximately \$1.8 million for this impact through the end of the initial mitigation period (i.e., 141,380 square feet x \$12.65 per square foot = \$1,788,457). The Commission finds that this mitigation fee amount is most closely tied to specific land values in the vicinity of the project and is thus both reasonably related and roughly proportional to the loss to date and the anticipated loss in the next twenty years of beach and shoreline recreational use areas due to the project through 2045.

Retention of Potential Beach Material

The final Section 30235 impact calculation pertains to the loss of sand and sand-generating materials due to the project, and the way that affects the larger sand supply system. Beach sand material comes to the shoreline from inland areas, carried by rivers and streams; from offshore deposits, carried by waves and tidal currents; and from coastal dunes and bluffs feeding sandy beaches and shoreline recreational areas. Bluff retreat is one of several ways that sand and sand generating materials are added to the shoreline. Bluff retreat and erosion are natural processes resulting from many different factors such as erosion by wave action causing cave formation, enlargement and eventual collapse; saturation of the bluff soil from groundwater causing the bluff to slough off; and natural bluff deterioration. For coastal dunes, the contribution to the system is typically more direct, with sand becoming part of the shoreline system during and as a result of climatic events, including wind, rain, and storms. When the bluff/shoreline area is armored with a shoreline protective device, the natural exchange of material from the armored area to the beach/shoreline area and offshore sand supply system will be interrupted and, if the armored bluff/shoreline area would have otherwise eroded, there will be a measurable loss of material to the beach/shoreline/offshore sand supply system area as a result.

In this case, sand and sand generating materials would be added to the beach/shoreline at these locations, as well as to the larger littoral cell sand supply system fronting the bluff/shoreline, if natural erosion were allowed to continue (i.e., if the armoring was not present). The volume of total material that would have gone into the sand supply system over the initial mitigation period through 2045 would be the volume of material between (a) the likely future bluff/shoreline configuration with armoring; and (b) the likely future bluff/shoreline configuration without the armoring. A necessary component of the Commission's established methodology for calculating this amount is the percentage of sand in the bluff materials at the site. The Commission's Coastal Engineer, Jeremy Smith, estimates that the amount of beach-quality sand retained by the proposed armoring would be approximately 72,604 cubic yards through the initial 20-year mitigation period (including the period between 2017 and 2045).²⁹ In this unique case, the Mr. Smith observes that the sand retention at the Mud Creek site did not have as significant an impact on nearby beaches or local sand supply as would have been the case in an area with a more defined littoral cell. While it likely would have been the case that sand would have led to a temporary building up of the beaches immediately downcoast, such accretion would have likely been temporary and limited in geographic scope (due to the nearby headlands, high wave energy, and potential for quick offshore

²⁹ The sand retention calculation is based on the percentage of sand in the pre-slide bluff and the expected erosion rate of the pre-slide bluff.

loss to the deeper ocean). However, unlike most armoring cases with which the Commission is involved, site specific information related to the littoral cell along this stretch of coast is not available. Thus, for this unique case, to account for the less defined littoral cell and the lack of quantifiable data related to the littoral cell, the Commission projects that only about half of the retained sand volume (or 36,302 cubic yards) would have benefited nearby beaches and/or local sand supply.³⁰

To mitigate for this loss of sand, the Commission has in the past required payment of an in-lieu fee to contribute to ongoing sand replenishment or other appropriate mitigation programs, where such fee is based on the cost of buying and delivering an equivalent volume of beach quality sand to the affected area. For purposes of this analysis, the cost of purchasing and delivering 36,302 cubic yards of beach quality sand is assumed to be roughly \$61 per cubic yard.³¹ Thus, an in-lieu fee to address this sand retention impact would be approximately \$2.2 million (i.e., \$60.54 per cubic yard x 36,302 cubic yards = \$2,197,723) through 2045.

Approvable Mitigation

Accordingly, the value associated with the proposed project's sand supply and related beach/shoreline loss impacts through 2045 is approximately \$4 million (i.e., \$1,788,457 + \$2,197,723 = \$3,986,180), which could be accommodated by collecting a mitigation fee in that amount. While requiring such a mitigation fee could commensurately mitigate for these impacts, the Commission has also instead relied upon the provision of in-lieu public recreational access improvements to offset sand supply loss impacts, particularly when a public agency is an applicant for a shoreline armoring project. Such mitigation strategies can allow for bona fide improvements to public recreational access infrastructure and utility so that mitigation benefits can be realized in the near term, and in the area of the impacts. Here, such a mitigation strategy is in four parts.

First, the project is partly self-mitigating because re-opening the highway and re-establishing access to and along the Big Sur Coast is a shoreline public access benefit. In fact, it is Caltrans' position that armoring of the shoreline as proposed preserves the integrity of the highway right-of-way and the physical transportation facility, which in and of itself can be considered mitigation for the impacts caused by the armoring. While there is little doubt regarding the public value of Highway 1, as described earlier, putting something back to what it was before does not actually fully mitigate for the aforementioned shoreline impacts. While reestablishing such public values are critical,

³⁰ As with the encroachment area, And the Commission notes that this assumption leads to significantly smaller quantified impacts, and recognizes that, but also deems the lower sand impact calculation reasonable in light of the factors that apply to this case.

³¹ In recent years, the Commission has applied a replacement sand cost of \$50 per cubic yard (see CDPs 3-16-0446 (Rockview Seawall and Accessway), 3-16-0345 (Honjo Armoring), A-3-PSB-12-042 (Capistrano Seawall) and A-3-PSB-12-043 (Vista del Mar Seawall)). Here, the Commission applies \$60.54 per cubic yard, which represents that \$50 per cubic yard as adjusted for inflation to 2025 since those original calculations, consistent with recent cases evaluated by the Commission (see, for example, CDPs 3-18-0720 (Candau), 3-20-0166 (Wavefarer Partners LLC), 3-22-0440 (Casanova), 3-23-0014 (Grossman), and 3-24-1027 (Hofmann Seawall)).

and can be part of an overall mitigation package, that does not by itself mitigate for the above-described impacts through the initial mitigation period to 2045.

Thus, and second, Caltrans has agreed to develop a framework to address public recreational access mitigation for Caltrans projects along the Big Sur coast (see Special Condition 3). The framework would be designed to support outcomes that lead to appropriate public access enhancements being incorporated into Caltrans' projects, and/or using in-lieu fees to otherwise offset public recreational access impacts and identifying potential public recreational access enhancement projects designed to improve multimodal access opportunities, and/or to enhance public recreational access otherwise. The framework would provide a vehicle to ensure public recreational access mitigation and enhancement opportunities are realized for all applicable Caltrans' projects along the Big Sur coast that require a CDP (whether an ECDP, CDP, CDP waiver, or CDP amendment) from the Commission and/or Monterey County. That said, while such a framework will be an important tool for helping to realize public recreational access benefits, including to mitigate for impacts such as the ones that are present in this proposed project, it is only a tool, and it does not by itself fully lead to mitigation for impacts of this project.

Thus, third, the project area itself affords some opportunities for public access mitigation by providing some off-highway parking where feasible (here, at locations on the seaward side of the road in the project area) (see Special Condition 1). Special Condition 1 also prohibits Caltrans from installing any signs limiting parking or public access in the created shoulder and pullout areas of the project. However, while appropriate and important project components, the parking partially replicates the parking that was present before the slide. Unfortunately, due to ongoing dangerous landslide conditions, a compensatory mitigation package focused on the site (e.g., adding off-highway trail components along the highway, adding public recreational improvements that take advantage of the approximately 3-acre bench area just above the ocean, etc.) is not appropriate.

Thus, fourth, the Commission is forced to look offsite to round out the mitigation package. And fortunately, there are options. Specifically, there is another nearby area (about a mile to the south) that includes a bench area below the highway and above the beach similar to the bench area at the project site but smaller, where that bench area and the access to it were required to be open to the public by virtue of the Commission's CDP for Highway 1 armoring work at the Shale Point/Alder Cove site in 2012 (see [Exhibit 5](#), and see CDP 3-10-034). The accessway is currently open to the public and provides an informal, undeveloped parking area on the seaward side of the road. A Caltrans maintenance access road extends down to a small bench area centered around a large rocky outcropping, with informal trails to the beach on either side of the rocky feature. While valuable, the area lacks signage and lacks recreational access improvements other than two benches near the parking area at the highway elevation. In many ways, the area looks like a construction site still, rather than a public access point. Thus, to partially mitigate for project impacts in this proposed project, the overlook, lower bench area, and beach access trails at Shale Point/Alder Cove would be enhanced for public recreational access use, including through adding public recreational access amenities and signage (e.g., defined parking/pathways/overlook

areas, benches, picnic tables, bicycle racks, interpretive signage, waste and recycling receptacles, doggie mitt stations, etc.). All such enhancements would need to be sited and designed to seamlessly integrate into the natural setting and to maximize public view protection, including through use of siting/design approaches and materials that are appropriate to the beach shoreline context, and including to ensure that the approved development effectively blends into and enhances the natural environment, all to the maximum extent feasible. All such enhancements would also need to be maintained in their approved state for public use (including through ongoing repair, maintenance, or relocation (if necessary to respond to shoreline erosion)) for at least as long as any portion of the development approved under this CDP remains present. All such enhancements would need to be completed and available for public use prior to Memorial Day weekend in 2026 (i.e., by May 22, 2026). See Special Condition 1.

Overall, in this case the Commission finds it reasonable to mitigate for the above-identified armoring impacts by the four-part mitigation package described above. While the first three components are appropriate and can help to offset impacts, they are not sufficient to account for the full \$4 million in impacts by themselves. Critically, the fourth part of the package thus requires Caltrans to improve and maintain public recreational access areas, improvements, and amenities as described. This aspect of the mitigation package strategy and approach is similar to compensatory projects and mitigation packages required by the Commission in the past.³² In addition, this approach will allow public access improvements to be realized in the very near term, providing fairly immediate and tangible public benefits as opposed to an overall single in-lieu fee approach that may not be used or applied for some time, reducing its effectiveness, while also crafting a long-term approach to support public access along Big Sur in future projects, at a time when these emergency responses appear to be increasing due to climate change. In addition, the above-described recreational use and access improvement projects will likely be worth much more to users than the cost to develop these improvement projects, as they have an intrinsic value to the shoreline-visiting public, particularly given the significant popularity of the CCT and related public access features on this stretch of coast that is difficult to quantify. In short, the above-described access mitigation package constitutes an appropriate and adequate compensatory mitigation package to offset the impacts identified above, and to address the fourth test of Section 30235.

Long-Term Stability, Maintenance, and Risk

Coastal Act Section 30253 requires the project to assure long-term stability and structural integrity, minimize future risk, and avoid additional, more substantial protective measures in the future. This is particularly critical given the dynamic shoreline environment in this area. Also critical to the task of ensuring long-term stability, as required by Section 30253, is a formal long-term monitoring and maintenance program. If the completed project were damaged in the future (e.g., as a result of additional

³² See, for example, CDPs 2-17-0702 (Sharp Park Armoring), 3-02-107 (Podesto), 2-16-0684 (Aimco), A-3-SCO06-006 (Willmott), 3-09-029 (Rusconi), 3-09-042 (O'Neill), 3-10-044 (Crest Apartments), 2-11-009 (Pacifica drainage armoring), A-3-PSB-12-0042 and -0043 (Pismo Beach Oceanview Boulevard Seawalls), A-3-SCO-07- 015/3-07-019 (Pleasure Point Seawall and Parkway), 3-14-0488 (Iceplant LLC), and 2-21-0912 (SFPUC Ocean Beach armoring).

landsliding, wave action, storms, an earthquake, etc.), it could lead to a degraded public access condition as well as loss of the integral public access improvements. In addition, such damages could adversely affect nearby beaches and recreational use areas by resulting in debris on the beaches and/or creating a hazard to the public using the beaches and offshore areas. Therefore, to find the proposed project consistent with Coastal Act Section 30253, the project must be maintained in its approved and required state. Further, to ensure that Caltrans and the Commission know when repairs or maintenance are required, Caltrans must regularly monitor the condition of the completed project, particularly after major storm events. Such monitoring will ensure that Caltrans and the Commission are aware of any damage to or weathering of the completed project and can determine whether repairs or other actions are necessary to maintain the completed project in their approved state. To assist in such an effort, monitoring plans should provide vertical and horizontal reference distances from the completed project to surveyed benchmarks for use in future monitoring efforts.

Thus, to ensure that the project is properly maintained to ensure its long-term structural stability, Special Condition 6 requires regular submission of monitoring and maintenance reports. Such reports are required to provide for evaluation of the condition and performance of the completed project and its overall stability, and to provide for necessary maintenance, repair, changes, or modifications to the completed project. In addition, Special Condition 14 authorizes Caltrans to maintain project components in their approved state through this CDP, subject to the terms and conditions identified by the special conditions.

In terms of recognizing and assuming the hazard risks for shoreline development, the Commission's experience in evaluating proposed development in areas subject to hazards has been that development has continued to occur despite periodic episodes of heavy storm damage and other such occurrences, as well as more steady erosion and other coastal hazards, all as may be exacerbated by sea level rise. Separate from its impact on coastal resources directly, development in such dynamic environments is also susceptible to damage due to such long-term and episodic processes. Though Caltrans has designed the proposed project to reduce vulnerability to coastal hazards, it is not possible to remove all associated risk associated with the uncertainties of natural hazards. Special Condition 10 requires Caltrans to assume the risks of geologic hazards for the project and to acknowledge that the proposed project is subject to potential risks. The condition stipulates that the Commission is not liable for damage as a result of approving the permit for development and requires Caltrans to indemnify the Commission in the event that third parties bring an action against the Commission as a result of the failure of the development to withstand the hazards.

Finally, the Commission has long analyzed consistency with Section 30253 in terms of analyzing a project's risks and structural integrity over time, taking sea level rise into account. However, Section 30270 now explicitly requires the Commission to consider sea level rise when analyzing risks under Section 30253 and also requires the Commission to assess and, to the extent feasible, avoid and mitigate the adverse effects of sea level rise. The findings above identify and assess the project's hazards-related impacts in a manner that accounts for sea level rise. As described above, the Commission has also imposed conditions to avoid, where feasible, and mitigate the

adverse, hazard-related impacts of sea level rise, as they relate to these projects. For example, Special Condition 6 requires submission of monitoring and maintenance reports to ensure that the project remains stable over time, and Special Condition 14 authorizes maintenance of the project to ensure it does not erode or cause destruction of the site or surrounding area over time as sea levels rise and potentially cause the project to deteriorate. Anticipated maintenance activities may include, but are not limited to, repair of the rock revetment after large oceanographic swell events, excavation of the catchments above the highway and along the highway from debris flow during storms, grading above the highway to address unstable areas, repaving the highway after damage from debris flow or settlement, and maintenance and enhancement of the rockfall drapery system. The above findings also describe how it is not feasible to completely avoid all project-related impacts because there is no less damaging alternative to the armoring in this instance. With these findings and conditions, the project can be found consistent with Section 30270.

Duration of Authorization

The Commission typically imposes conditions that restrict the use of armoring to the time frame when the existing structure being protected has not been redeveloped (and requiring armoring removal upon redevelopment) and could impose such a requirement here too. However, this is not a typical situation, and the structure in question is not considered existing for Section 30235 armoring purposes, essentially negating the value of that approach. Here, in recognition of the value and importance of Highway 1, and the need for off-site mitigation, this CDP authorizes the approved development for as long as Highway 1 remains present and useable, for as long as all approved and required public recreational access areas and features remain in good condition and available for public use, and for as long as Caltrans is in compliance with all terms and conditions of the CDP, whichever leads to a shorter time frame. At such time, and unless Caltrans restores Highway 1 and/or brings such areas and features into proper condition and available for public use and/or resolves any CDP compliance issues, whichever is applicable, all to the Executive Director's satisfaction, then the CDP shall expire, and all approved development shall become unpermitted at that time. See Special Condition 8.

As to duration of the mitigation package, as described above, the impacts of the proposed project were calculated through 2045, and the mitigation package was based on those impacts. Thus, if Caltrans intends to continue to keep the armoring in place past 2045, then impacts and mitigation for the next mitigation period will need to be quantified and addressed. In such a case, Caltrans will need to submit a complete CDP amendment application prior to the end of the initial mitigation period that analyzes the continued need for armoring, the feasibility of less coastal resource impactful alternatives, and any necessary and/or desired project modifications. If the information in the CDP amendment application demonstrates that the coastal resource mitigations applied/required under this approval will not sufficiently mitigate for the adverse coastal resource impacts associated with the retention of the armoring beyond the initial mitigation period, additional mitigation may be required. The most likely case given the ongoing landslide here and increasing erosion issues is that Caltrans will have to return by 2045 (or even beforehand) with some project modifications. In those cases, if Caltrans applies for a separate CDP or an amendment to this CDP to modify the

armoring, or to perform repair work affecting 50 percent or more of the armoring, Caltrans would be required to provide additional commensurate mitigation for the impacts of the enlarged or redeveloped armoring on public views, public recreational access, shoreline processes, marine resources, and all other affected coastal resources that have not already been mitigated through this CDP.

Coastal Hazards Conclusion

There are no “existing structures” in danger from erosion as that term is understood under the Coastal Act, because Caltrans completely replaced the portion of the highway being protected in the above described emergency work, and thus the road was not present in this state prior to the passage of the Coastal Act in 1976 and its 1977 effective date. Nor is the project a coastal dependent use. Therefore, the structure does not qualify for the shoreline armoring “override” available when Coastal Act Section 30235 tests are met, and because such armoring is inconsistent with Section 30253 (and other coastal resource protection policies; see remainder of this report), the project cannot be found consistent with the Coastal Act, which directs denial. However, denial would lead to loss of public recreational access, which would also be inconsistent with Coastal Act provisions that affirmatively require protection of public access, protection of a lower cost recreational facility, protection of a coastal area suited for water-oriented recreational activities, and protection of oceanfront land suitable for recreational use. In other words, denial of the project would also be inconsistent with the Coastal Act. Therefore, it is appropriate to approve a project through the Coastal Act’s conflict resolution procedures (see Conflict Resolution findings), provided that impacts can be minimized and unavoidable impacts mitigated for.

2. Public Views

Applicable Coastal Act Provisions

The Coastal Act provides that the scenic and visual qualities of coastal areas are resources of public importance that must be protected, and that new development is required to protect public views and designed to be visually compatible with the surrounding area. In highly scenic areas, such as the viewshed in which the site is located, proposed development is also required to be subordinate to the character of its setting. Section 30251 states:

Section 30251. *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Similarly, the Monterey County LCP states that the issue of visual resource protection is one of the most significant and important components to protecting the Big Sur coast, and notes that a major premise of the LCP is to ensure preservation and enhancement

of the coast's scenic beauty and natural appearance. LCP policies that address the protection of public views and visual resources include:

LUP Key Policy 3.2.1. Recognizing the Big Sur coast's outstanding beauty and its great benefit to the people of the State and Nation, it is the County's objective to preserve these scenic resources in perpetuity and to promote the restoration of the natural beauty of visually degraded areas wherever possible. To this end, it is the County's policy to prohibit all future public or private development visible from Highway 1 and major public viewing areas (the critical viewshed), and to condition all new development in areas not visible from Highway 1 or major public viewing areas on the siting and design criteria set forth in Sections 3.2.3, 3.2.4, and 3.2.5 of this plan. This applies to all structures, the construction of public and private roads, utilities, lighting, grading and removal or extraction of natural materials.

Big Sur Coast LUP Policy 3.2.2.1. Critical viewshed: everything within sight of Highway 1 and major public viewing areas including turnouts, beaches and the following specific locations Soberanes Point, Garrapata Beach, Abalone Cove Vista Point, Bixby Creek Turnout, Hurricane Point Overlook, upper Sycamore Canyon Road (Highway 1 to Pais Road), Pfeiffer Beach/Cooper Beach, and specific views from Old Coast Road as defined by Policy 3.8.4.4.

Big Sur Coast LUP Policy 3.2.3.A.4. New roads, grading or excavations will not be allowed to damage or intrude upon the critical viewshed. Such road construction or other work shall not commence until the entire project has completed the permit and appeal process. Grading or excavation shall include all alterations of natural landforms by earthmoving equipment. These restrictions shall not be interpreted as prohibiting restoration of severely eroded water course channels or gulying, provided a plan is submitted and approved prior to commencing work.

Big Sur Coast LUP Policy 3.2.3.A.5. Where it is determined that a proposed development cannot be resited, redesigned, or in any other way made to conform to the basic critical viewshed policy, then the site shall be considered environmentally inappropriate for development.

Big Sur Coast LUP Key Policy 6.1.3. The rights of access to the shoreline, public lands, and along the coast, and opportunities for recreational hiking access, shall be protected, encouraged and enhanced. Yet because preservation of the natural environment is the highest priority, all future access must be consistent with this objective. Care must be taken that while providing public access, the beauty of the coast, its tranquility and the health of its environment are not marred by public overuse or carelessness. The protection of visual access should be emphasized throughout Big Sur as an appropriate response to the needs of recreationists. Visual access shall be maintained by directing all future development out of the viewshed. The protection of private property rights must always be of concern.

Big Sur Coast LUP Policy 6.1.4.4. Visual access should be protected for long

term public use. The development of scenic viewpoints in conjunction with accessways or where physical access is not appropriate is encouraged.

Big Sur Coast IP Section 20.145.030.1.b. ...Exterior light sources shall be prohibited if such light source would be directly visible from Highway 1...

Big Sur Coast IP Section 20.145.030.3.a. Public Highway Facilities... Signs, guardrails, and restrooms shall be of a design complementary to the rural setting and character of Big Sur, with preference for natural materials, or natural-appearing materials, where feasible. Protective barriers constructed by Caltrans should utilize boulders or walls of rock construction. Public agency permanent highway signs should be framed with unpainted redwood...

Thus, both the Coastal Act, which is the legal standard of review here, and the County's LCP, which provides non-binding guidance, are quite directive when it comes to public views. Under both, public views are required to be protected as a resource of public importance, and new development is required to avoid impacting the public view as much as possible and is required to be subordinate to the natural setting. And the LCP places even greater emphasis on the protection of public views in Big Sur, including defining a critical viewshed, which includes anything that is within sight of Highway 1 as is the case here. In that critical viewshed area, grading, excavation, or other natural landform alterations are generally prohibited. While the LCP is not legally binding on the Commission's decision here, its provisions are notable for two reasons at least. The first is that the Monterey County LCP has perhaps the strongest public view protection policies in the state as applicable to the Big Sur coast area, which befits the stature and importance of these viewsheds and their importance to the state overall. And second, is that historically the Commission has done everything it can in cases where it authorizes a CDPs under the Coastal Act to also meet LCP tests, if possible, where that is particularly the case when the LCP policies in question provide directly applicable requirements to a project, like here. All of that to say that the public view issues need to be understood in this context, which requires that everything possible be done to maintain and improve the public view to be able to be found Coastal Act consistent.

Consistency Analysis

As noted before, the Big Sur Coast represents one of the State's most acclaimed scenic resources, and Highway 1 in Big Sur is designated as an All-American Road (generally reserved for highways considered destinations in themselves), a National Scenic Byway, a State scenic highway, a part of the Pacific Coast Bike Route, and it is an intrinsic and important element of what is commonly described as the one of the most scenic areas in the world. In addition, it also provides the means by residents and visitors access their homes and the coast, including with respect to the latter facilitating coastal access for millions of visitors per year. The portion of the highway in the project area exemplifies all of these attributes, and the project area is a highly scenic area within the meaning of Section 30251, requiring that all development here be subordinate to the natural view setting.

The natural landslide resulted in significant changes to the topography of the Mud Creek site and to public views along this stretch of highway. The landslide transformed the

area inland of the highway from a vegetated bluff slope to a much steeper unvegetated landslide scarp. Seaward of the highway, the immediate aftermath of the landslide was an enormous debris pile. And most impactful from a visual standpoint was that the landslide resulted in closure of the road and loss of public access and enjoyment of the public views along this portion of the highway during the time that the highway was closed. Caltrans' response to the landslide also, by necessity in many parts, significantly altered public views along the stretch of Highway 1. For much of the past years since the landslide, the project area looks like an active construction site, mostly because it is. To temper these viewshed impacts, Caltrans proposes to revegetate the slopes on both sides of the highway, to install a regular metal beam guardrail along the seaward side of the highway, to install a variant of a concrete k-rail barrier on the inland side of the highway (described below),³³ and to place additional rock baskets to hide the k-rails in the slope above the highway that are associated with the landslide catchment system.

In general, almost all public view issues here will be related to travelling automobile drivers, with some also on bicycle, and for some of the driving/bicycling public that park and stop at the two parking overlook areas within the project stretch. The viewshed issues can be roughly placed into three bins: the area seaward of the highway, the area inland of the highway, and the highway area itself. With respect to the area seaward of the highway, some of the development undertaken to restore and stabilize the highway and located seaward of it is not visible from the traveled surface of the highway due to the highway's elevation and configuration. In general, traveling motorists are not able to see much of the development down the slope except in brief passing. However, significant proposed project components on the seaward side of the highway are visible from the highway to some extent, and the unnatural looking elements adversely impact public views, including the construction of an access road and gate, the drainage 'down' drains located on the fill slope, and portions of the bench and rock revetment area. The revetment and artificial flat bench area in particular at the base of the bluff is visible while driving/bicycling southbound on the highway for about the southern half of the project area. The view of these unnatural elements along the otherwise natural coastline can be jarring, and it adversely impacts the view of the shoreline and the ocean.

There are also six large-diameter (i.e., 24 to 63 inches in diameter) black drainpipes that descend down the surface of the engineered embankment. Several of the drainpipes are visible while driving on the highway, although others can only be seen when peering over the edge of the embankment. Two of the drainpipes have visible galvanized support posts, cables, and hardware. Caltrans is proposing to stain the visible drainpipe support posts, cables, and hardware to better blend in with the natural bluff colors. However, Caltrans does not propose to undertake any visual treatment of the drainpipes themselves. Caltrans contends that planting large shrubs to screen the drainpipes has the potential to increase erosion on the embankment and/or would not survive on the steep and sliding slopes, that painting the drainpipes is infeasible because they need to be a flexible HDPE material that does not hold paint, and that past efforts on other sites to cover surface drainpipes with and embed them into soil in these types of locations have been unsuccessful. While the Commission appreciates Caltrans perspectives, it

³³ Which Caltrans refers to as a "JJ hooks" concrete barrier, which is essentially the same as the k-rail barriers that also hook together, but with a more uniform and 'cleaner' surface.

does not necessarily agree that successful camouflaging is not possible.

Additional project components on the seaward side that are visible from the highway are the gravel pull out area for the maintenance accessway down the bluff and the metal gate at the top of the accessway. The gate will be stained a rustic brown color consistent with Caltrans' proposal for aesthetic treatment of other galvanized components within the project site.

On the highway itself, Caltrans proposes to install approximately 0.3 miles of new 32-inch-high metal guardrail and to install a new 20-foot long 36-inch high concrete barrier transition/barrier slab adjacent to the historical masonry wall at the northern portion of the project site, all on the seaward side of the highway. Prior to the landslide, there was no railing along either side of the highway in this location. However, Caltrans contends that the guardrails are now necessary for safety reasons and asserts that the concrete transition barrier is also required by new safety standards. The guardrail is proposed to be stained a rustic brown color (see [Exhibit 4](#)), and guardrails are a typical feature along the highway when safety requires it. Given the relatively steep embankment that essentially starts at the edge of the pavement, it appears that safety does require it, but such guardrails should also be sensitive to the public view environment. As to the transition wall, it is substantial, it is taller than the guard rail, and much taller than the masonry wall, and would appear out of place at this location (see page 5 of [Exhibit 3](#)). It appears that the masonry transition wall can be reduced in size and scale.

On the inland side of the highway, Caltrans is proposing to install and permanently retain approximately 0.3 miles of interlocking concrete barriers. The concrete barriers are referred to as "JJ Hooks," but visually are similar in appearance to the standard concrete k-rails used by Caltrans during active construction projects. The concrete barriers are needed to provide additional catchment and protection for traveling vehicles from falling debris. Additionally, Caltrans states that because this area is still essentially moving, more flexible JJ Hooks/K-Rails are needed rather than an actual solid wall and these barriers can be moved so the catchment area can be cleaned using equipment such as excavators to provide more debris capacity. As proposed, the concrete barriers will be painted or stained to better blend in with the natural surroundings (see [Exhibit 4](#)). However, placement of the concrete barriers for an indefinite period of times (years or decades), as opposed to a typical solid aesthetically treated concrete wall, has the potential to create an adverse visual impact in the highly scenic project location (i.e., the barriers will make the site appear akin to an active construction site). One alternative considered by Caltrans, at the request of the Commission, was to further aesthetically treat the concrete barriers to appear more like a solid concrete wall to better blend in with the surrounding environment. Caltrans confirmed that it is physically possible to color the walls to blend into the surrounding environment, but do not think they can overlap the walls to make them appear a single continuous surface, given the need to allow flexibility in movement.

Additional project components inland of the highway that can be viewed while traveling the highway include a large rockfall wire mesh drapery system on the north end of the project site to protect the roadway from future possible rockfall, large gabion basket walls, k-rails, Hilfiker walls, gates, and access roads. All these elements contribute to

the feeling that the site is an active construction site, and Caltrans also needs to make sure to do everything it can to visually improve these areas in such a way that these appear as regular jeep, trail driveways, and/or otherwise camouflage, or hide other necessary project elements.

The project also includes the installation of new highway signage, including two new large four foot by four foot signs, with one stating "ROCK SLIDE AREA" and the other with the standard rock slide symbol. As proposed, signage in along the project area will be limited to a total of four new road signposts and six signs, totaling 50 square feet.

All told, the project includes significant development, and although Caltrans has proposed certain measure that will help to alleviate public view impacts, the entire project will not ensure that the unnatural development in the viewshed is subordinate to the character of the setting as is required. Moreover, the LCP, which again is guidance, it would essentially prohibit most of the project elements and require that the site be designated "environmentally inappropriate for development." Taken together and noting that the previous coastal hazards analysis would direct denial of the CDP, these public view impacts would also direct denial for public view reasons. In an approval based on conflict resolution (see findings that follow on this point), the public view impacts need to be avoided as much as possible, and unavoidable impacts mitigated. Here, that means that all such elements are required to be subordinate to the character of the setting at the least, which does not appear to be the case as proposed. Moreover, as discussed above, the Coastal Act requires that everything possible be done to maintain and improve the public view. In that context, and to appropriately address these public view inconsistencies, the Commission requires the following public view mitigation package, which is required under Special Condition 1:

- **Visual Treatments Required.** Overall, all publicly visible development needs to be sited, designed, colored, screened, and camouflaged to maximize coastal view protection and minimize visual intrusion, including through use of materials appropriate to the shoreline context that blend with the natural environment and existing improvements in the area. Metallic elements in the public view need to be rust-colored (e.g., through the use of corten steel or treatments that emulate rust) and need to be treated as necessary to avoid any metallic sheen/glare. These provisions will help to allow the guardrails in particular to appear more as a natural extension of the roadway, and something that can help them appear as if they been part of the landscape for some time, as opposed to something shiny and new that appear starker and more unnatural.
- **Barriers.** All existing k-rail and other barriers along the highway in the project area need to be removed (except for the k-rails proposed to be camouflaged atop the gabion rock walls). The new concrete k-rail barriers (referred to by Caltrans as JJ-hooks) on the inland side of the highway must be surfaced with a thin layer of decorative concrete or otherwise colored to blend into the surrounding hillside and to appear as much as possible as if there were one-solid masonry wall in public views (i.e., at least the seaward edge and top of such barriers), as feasible. These measures are very important to ensure that the project area does not continue to appear as a major construction site, but rather as a sensitively designed stretch of

the highway. Given that Caltrans indicates that individual barriers may need to be removed temporarily for construction access, and then put back, provisions for recreating such decorative concrete after any episodes that require such barriers to be temporarily removed to provide for construction purposes need to also be identified.

- **Guard Rails.** All guard rails need to use traditional wooden uprights and supports (and not metal), need to be sited in soil (e.g., not sited in asphalt/concrete), and cannot include additional barriers of any type on their seaward side. The Commission is keenly aware of the difference between wood and metal guard rails supports, and wood supports are preferred in areas such as the Big Sur coast where wood more quickly blends into a natural scenic environment and metal appears much more industrial. The same can be said for the actual placement of guard rails, where guardrails placed in concrete or asphalt or similar also appear much more industrial looking, whereas guardrails placed in soil tend to have vegetation surrounding them over time, and more effectively blend into scenic environments. As to barriers on the seaward side of the guardrails, such as maintenance cable railings, the Commission is also aware of this phenomenon and has been disappointed over time at their inclusion in Caltrans' projects, typically after signing off on guardrails without such barriers. They are typically installed for worker safety purposes, and in cases such as this, Caltrans is going to need to address worker safety issues within the context of any guardrails themselves.
- **Guard Rail/Masonry Wall Transition.** The 20-foot long concrete barrier transition adjacent to the historical masonry wall of the northern portion of the project site needs to be limited in scale and scope to the maximum extent feasible. The historic masonry walls in Big Sur are iconic and have contributed mightily over the years to the highway's aesthetics, and everything possible needs to be done so that they are preserved and are not overwhelmed by other elements when they are within, or adjacent to, significant construction areas like this. Caltrans states that the transition wall here is intended to better blend into the historic masonry wall, but even so, the wall should be limited in scale.
- **Signs.** All existing signs and related elements along the highway in the project area need to be removed. All new signs need to be sited and designed: (1) to minimize their number and visibility in public views; (2) to seamlessly integrate into the natural landform (including using natural materials, earth tone colors and graphics, etc.); (3) to be of a unified design theme; and (4) to be subordinate to the natural setting, all to the maximum extent feasible. In particular, the proposed 4-foot by 4-foot signs are overwhelmingly large in comparison to most of the signs in Big Sur, and will adversely impact the view, and need to be reimagined in light of public view requirements.
- **Drainage.** It appears that feasible opportunities exist to mitigate the adverse visual effects of the drainpipes. By camouflaging these drainpipes (via burying, landscaping, painting, etc.), the viewshed can be improved, and can help offset visual impacts associated with the project. This is similar to the mitigation that was applied to Caltrans in the Limekiln revetment case in Big Sur (CDP 3-09-020,

approved December 11, 2009), and for the Shale Point/Alder Cove revetment case in Big Sur (CDP 3-10-034, approved July 13, 2012), and thus it is not an unfamiliar requirement for Caltrans. Thus, all drainage and related elements, including all down drains seaward of the highway, and any related energy dissipation measures need to be sited and designed to reduce the potential for drainage-caused erosion, and need to be camouflaged (e.g., buried and vegetated, painted to match surrounding areas, etc.) so as to be hidden or inconspicuous as seen from public viewing areas, all to the maximum extent feasible. Plans need to be in particular focus on camouflaging/hiding the existing down drains as much as possible.

- **Other Structures/Materials.** There are also a whole series of other non-natural structures and materials along the highway in the project area (e.g., posts, fencing, concrete walls, etc.), each of which incrementally adds to the viewshed degradation associated with the proposed project. To address this impact, all such structures and materials must be removed to the maximum extent feasible.
- **Revegetation.** A significant component of Caltrans' proposed visual mitigation is the revegetation proposed for the slopes on either side of the highway, where such revegetation would extend more than 100 feet up the slope from the highway, and more than 100 feet down the slope from the highway. That entire area, other than the active landslide area and the construction access roads, would be revegetated with an erosion control mix. While in concept such a revegetation has the potential to help the area look much more natural and less like a construction site, there is also the potential that it does not take, that it is invaded by invasive species (like pampas grass, which has taken hold in many areas of Big Sur along the highway), or it's not successful for other reasons. Because of the importance of this component of the proposed project to reducing visual impacts, the revegetation must include enforceable parameters designed to ensure its success, both initially and over time. Thus, it is important that all non-native and invasive plant species in the project area are removed and not be allowed to persist, and that all revegetation areas are landscaped with native and noninvasive plant species consistent with vegetated slopes in the vicinity, all to help ensure that such areas appropriately blend into the natural landform and vegetation aesthetic of this portion of Big Sur, and to improve public views, all to the maximum extent feasible. All such plants need to be kept in good growing condition and need to be replaced as necessary to maintain the approved vegetation over the life of the project. Regular monitoring and provisions for remedial action (such as regular replanting and invasives removal as necessary) need to be identified to ensure revegetation success is maintained over time.
- **Revetment/Rock Coverage.** The revetment, which is visible from the southbound travel lanes at the northern portion of the site, is a decidedly unnatural element of the project, and it significantly affects the natural viewshed. While there is not a whole lot that can be done to eliminate this public view inconsistency and help make the revetment more subordinate to its natural setting, the sheer size of the top of the revetment provides an opportunity of sorts. For example, the Commission is aware of past cases where applicants were able to cover the tops of revetments and vegetate them in a way that helps to make them disappear in the viewshed, which can be a tricky operation in a shoreline environment that's quite dynamic, but which

it has proven successful overtime in various locations though not all.³⁴ Here, it appears that the top of the revetment is actually quite wide, and it could possibly be feasible to create such a vegetative cap, including potentially with landslide materials from the site. Thus, Caltrans will need to use landslide materials and/or other soil to create a soil ‘cap” atop the revetment/rocks seaward of the highway, and to vegetate that cap pursuant to the revegetation requirements above, all to the maximum extent feasible. Caltrans will also need to explore soil capping and planting of the bench area, while leaving some areas for maintenance and potential future public access. In all cases, the objective will be to camouflage/hide the revetment/rocks seaward of the highway in highway views to the maximum extent feasible, including where regular monitoring and provisions for remedial action must be identified to ensure camouflaging/hiding success is maintained over time.

- **Lighting.** Dark skies are important component of the Big Sur visual experience, and lighting can significantly alter that experience. Thus, night lighting is not allowed in the project area.

Public View Conclusion

As described above, the Highway 1 viewshed at this site is incredibly important, and enjoys an incredibly high level of protection from the Coastal Act and the LCP. It is in that context that the Commission is required to review this project. As it stands now, given the number of years that Caltrans has been managing an emergency and active landslide, the project area looks like a construction site. As originally proposed in the project, the viewshed will improve from the current situation characterized by the ongoing emergency construction, but it is also clear that it will continue to look in many ways like a construction site and contain visual evidence of significant grading and landform alteration. Although to some extent this reflects the nature of the landslide, and the need to keep Highway 1 open through this area, the Coastal Act still requires all of the development be “subordinate to the character of its setting.” In light of the above coastal hazards discussion which directs denial of the CDP by itself, these Coastal Act public view inconsistencies would also direct denial of the CDP. The visual inconsistencies are, however, different than the inconsistencies for coastal hazards inasmuch as minimization measures can be applied to address them if the CDP were otherwise approvable (see conflict resolution section that follows). Here, those minimization measures are meant to look at all aspects of the project, even the little ones because they do have cumulative impacts over time and space, to ensure that the project area is made to look as natural as possible, and to promote the rural, scenic, natural aesthetic that Big Sur is famous for holding. This public viewshed deserves no less, and every significant infrastructure project, like this one, needs to be understood through that lens, including as overall these projects cumulatively and significantly affect what the Big Sur coast is at a fundamental level, and it is important that they are held to the highest visual standards. As approvable through conflict resolution, the project, as conditioned, can be found consistent with Section 30251 of the Coastal Act.

³⁴ See, for example, the extensive revetments that are nearly completely hidden along Carmel Beach and Scenic Road in Carmel, or the revetments that are covered with landslide materials at Waddell Creek in northern Santa Cruz County.

3. Public Recreational Access

Applicable Coastal Act and LCP Provisions

The Coastal Act calls for the provision of maximum public recreational access opportunities, consistent with the requirement for protection of natural resource areas from overuse, and protects and prioritizes oceanfront land suitable for recreational, visitor-serving, and water-oriented recreational uses to be developed with such uses, especially lower cost recreation and visitor facilities. Coastal Act Sections 30210 through 30224 specifically protect public access and recreation. In particular:

Section 30210. *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. *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Section 30212. *(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected...*

Section 30212.5. *Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

Section 30213. *Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred...*

Section 30220. *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. *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 30222. *The use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over private residential, general industrial, or*

general commercial development, but not over agriculture or coastal-dependent industry.

Section 30223. *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Section 30240(b). *Development in areas adjacent to...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...recreation areas.*

And, although not the standard of review, the LCP echoes these requirements, stating:

LUP Key Policy 6.1.3. *The rights of access to the shoreline, public lands, and along the coast, and opportunities for recreational hiking access, shall be protected, encouraged and enhanced. Yet because preservation of the natural environment is the highest priority, all future access must be consistent with this objective. Care must be taken that while providing public access, the beauty of the coast, its tranquility and the health of its environment are not marred by public overuse or carelessness. The protection of visual access should be emphasized throughout Big Sur as an appropriate response to the needs of recreationists. Visual access shall be maintained by directing all future development out of the viewshed. The protection of private property rights must always be of concern.*

Big Sur Coast LUP Policy 6.1.4.1. *Overall, the best locations for public access to the shoreline, public lands and along the coast are already in use or have been used in the past. Major access areas, whether in public or private ownership, shall be permanently protected for long term public use. These should be improved and managed properly by designated public or private agencies; furthermore, the County will require the preparation and implementation of access management plans for all accessways on the property or within the Park unit before new locations are opened on any particular ownership. Such access management plans shall address intensity of use, parking, protection of fragile coastal resources, maintenance, etc.*

Big Sur Coast LUP Policy 6.1.4.4. *Visual access should be protected for long term public use. The development of scenic viewpoints in conjunction with accessways or where physical access is not appropriate is encouraged.*

Big Sur Coast LUP Policy 6.1.4.5. *Bluff top and lateral access is appropriate in many areas along the coast. These opportunities shall be protected for long term public use, subject to adequate management programs, the development of which is an implementation activity.*

Big Sur Coast LUP Policy 6.1.4.6. *Trails should be located in areas able to sustain public use without damage to natural resources or other conflicts. Therefore, new and existing trails should be sited or rerouted to avoid safety hazards, sensitive habitats, and incompatible land uses.*

Big Sur Coast LUP Policy 6.1.5.G.1. *New development shall not encroach on well-established accessways nor preclude future provision of access*

Big Sur Coast IP Section 20.145.130. *Transportation Development Standards*
Intent of Section: The intent of this Section is to provide development standards which maintain and enhance the aesthetic beauty of Highway 1, as well as protect the highways's [sic] primary function as a recreational route, and which regulate construction of and improvements to County and private roads. Highway 1 shall remain a two-lane road and shall include walking and bicycle trails wherever feasible...

Big Sur Coast IP Section 20.145.150.D.1. *Development shall be required to provide public access where: a. public access has been determined to be existing and appears to be one over which the public has prescriptive rights, pursuant to Section 20.145.150.B.1.a.2; b. public access has been determined to be needed - over the parcel, pursuant to Section 2Q.145.150.B.1.b...*

These overlapping Coastal Act provisions protect public recreational access to and along the beach/shoreline and to offshore waters for public recreational access purposes, particularly free and low-cost access. Specifically, Section 30210 requires the Commission to provide the general public maximum access and recreational opportunities, while respecting the rights of private property owners. Section 30211 prohibits development from interfering with the public's right of access to the sea, including as it relates to the use of dry sand and rocky coastal areas. In approving new development, Section 30212(a) requires new development to provide access from the nearest public roadway to the shoreline and along the coast, save certain limited exceptions, such as existing adequate nearby access, and Section 30212.5 looks to distribute public facilities, like parking areas, to avoid overcrowding and other such issues. Section 30213 protects lower cost forms of access, such as the free access available at the shoreline at the project site. Section 30220 protects coastal areas suited for ocean-oriented activities, such as offshore areas here, for such purposes. Sections 30221 and 30223 protect oceanfront and upland areas for public recreational uses, and Section 30222 prioritizes visitor-serving amenities providing for public recreational use. Section 30240(b) protects parks and recreation areas, like the shoreline at the site, from degradation, and requires any allowed development to be compatible with the continuation of those areas.

Finally, Coastal Act Section 30210's direction to maximize public access and recreation opportunities represents a different threshold than to simply provide or protect such access and is fundamentally different from other similar provisions in this respect. In other words, it is not enough to simply provide public recreational access to and along the coast, and not enough to simply protect such access, but rather that such access must also be maximized. This terminology distinguishes the Coastal Act in certain respects and provides fundamental direction to maximize public recreational access opportunities with respect to projects along the California coast that raise such issues, like this one. In addition, with sea levels rising and coastal erosion, the mean high tide line will generally move landward over time depending on the beach/shoreline profile, seasonal tidal activity, and continued sea level rise. Given that that line often defines the

demarcation point between public and private property (with the public's property lying on the seaward side, and generally held in public trust by the California State Lands Commission),³⁵ it is also important to consider the effect of shoreline projects like this one on what is best understood as an ambulatory public trust area, including where structures can halt the inland migration of the mean high tide line, and thus potentially halt the inland migration of public trust areas, at least physically.³⁶ Thus, it is also important that the Commission assess the effect of the proposed project on public trust resources.

Consistency Analysis

Background

Highway 1 is the primary public access facility at this location, and at this location offers dramatic views of the mountains and ocean, and the interface between the two. Highway 1 provides the only north-south public access link between Carmel and Cayucos in the coastal zone. The next available through road is 40 miles inland. Indeed, Highway 1 along Big Sur is considered one of the top tourist attractions in the nation, with millions of visitors per year. For many, simply driving Highway 1 is the coastal recreation experience. Highway 1 at the site is approximately 100 to 120 feet above sea level, and it provides a dramatic vista that is iconically southern Big Sur. Highway 1 also provides essential travel up and down the Big Sur coast not only for residents, but also for visitors to reach numerous coastal recreational areas, state and local parks, and coastal trails. Highway 1 in Monterey County along the Big Sur Coast is a designated State Scenic Highway, the first California highway to be so distinguished. In 1996, it became one of the nation's first "All American Roads", the highest designation offered by the Federal Highway Administration under the National Scenic Byways Program.

Within the project limits, however, public access facilitates are more limited, as they are in southern Big Sur more generally, often because of the dramatic landform. There are limited beaches and shoreline access points near the project location, with the largest such beach about a mile south Shale Point/Alder Cove. Some inland coastal trails are to the south and just over a mile to the south of the subject site, the Commission approved construction of a large revetment on the beach and bluff to protect the highway at Shale Point/Alder Cove (see CDP authorization CDP 3-10-034). At that location, there is a small parking pull-out and access to the shoreline and top of the revetment via a Caltrans maintenance road. The next nearest public beach access is approximately 4 miles north at Willow Creek. Scenic pull-puts are available through the area around the project, and prior to the slide a pull-out along the seaward shoulder of Highway 1

³⁵ The State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable waterways upon its admission to the United States in 1850. The State holds and manages these lands for the benefit of all people of the State for statewide purposes consistent with the common law Public Trust Doctrine ("public trust"). In coastal areas, the landward location and extent of the State's sovereign fee ownership of these public trust lands are generally defined by reference to the ordinary high-water mark (Civil Code Section 670), as measured by the mean high tide line (*Borax Consol. v. City of Los Angeles* (1935) 296 U.S. 10), and these boundaries generally remain ambulatory as natural processes dictate.

³⁶ The artificial fixing of a shoreline does not permanently fix the legal property boundary (see *United States v. Milner*, 583 F.3d 1174 (9th Cir. 2009)).

provided an opportunity to view the offshore features present at this location including kelp beds and the marine inhabitants.

Prior to the slide there was a small rocky shoreline at the project area that was fairly narrow and steep, comprised of medium sized rock and boulders. The shoreline was located at the base of the steep mountain, and there were no developed trails leading down the slope. Informal access to the shoreline may have been gained by clambering down the slope, but it was very steep and dangerous. It was also theoretically possible during low tide to walk along the shoreline north from Shale Point/Alder Cove (where one can pull over and reach the shoreline, approximately one mile to the south) to the project area (see [Exhibit 1](#)). However, and in general, the project area had limited sandy beach area and was mostly a fairly rough and rocky shoreline. It may also have been possible to reach the shoreline here by boat. To conclude, it seems likely that this beach/shoreline area was used by the public much like almost any other beach/shoreline area in the rugged largely inaccessible areas of Big Sur, but it was likely limited, including because of the difficulties associated with access to the shoreline.

Impacts

Whatever shoreline use there might have been was wiped out by the landslide. However, rather than allowing natural processes to redevelop into a natural shoreline area of some type, Caltrans constructed a large revetment and armoring structure to protect Highway 1. As discussed above, the footprint of the proposed armoring occupies roughly 11 acres.

As noted in the above coastal hazard section in the discussion of sand supply impacts, in addition to the direct loss of useable recreational beach area, shoreline armoring produces a number of effects on the dynamic shoreline system and the public's beach use interests. First, the proposed armoring would be part of a structural assemblage that denies sand and rock bearing material to the beach, because the retained debris slide material behind the revetment will not be available to nourish the shoreline. Second, and particularly in combination with the denial of sand and rock materials, the proposed revetment work will continue to fix the back beach location. Given projected sea level rise estimates, the effect will continue to be a narrowing of potentially useable shoreline space. Together these impacts conspire to reduce the actual area in which the public could pass along the shoreline here. This is a negative impact on coastal public access, all of which is as described in the coastal hazard section above (included herein by reference).

On the other hand, in the larger context it is clear that the project will protect the highway, which is essential to maintaining the continuity of the primary public access corridor along the Big Sur Coast. Preserving the integrity of the highway itself provides an overall public access benefit for recreation. As discussed above, Highway 1 is a very popular recreational asset and a significant public access route, and ultimately a destination unto itself. Further, the reconstructed highway includes four-foot-wide shoulders on either side, which increases public access and safety for cyclists.

Maximizing Access

However, Section 30210 requires that public access opportunities be maximized in any project. Most Caltrans projects that come before the Commission include significant public access benefits, such as separated trails and walkways. This ensures consistency with Coastal Act public access policies and also is consistent with many of Caltrans' own related policies.³⁷ Caltrans collaborated with Commission staff to evaluate the feasibility of such improvements here. Because of the nature of the emergency work, the active nature of the landslide, and the limited physical space of the highway prism in the project area, Caltrans was not able to add separated bike lanes or a separated section of the California Coastal Trail (or CCT) through the project corridor.

Caltrans also collaborated with Commission staff to evaluate the feasibility of providing shoreline access via the new maintenance road that provides construction access and will serve for Caltrans maintenance purposes in the future. At the bottom of that road is a fairly wide bench of graded landslide material between the rock revetment and the engineered back wall below the highway. This bench area could provide some form of coastal access, whether in terms of enhanced viewing or recreational amenities (e.g., benches, picnic tables, etc.), or even potentially shoreline water access on either end of the revetment (or for the more adventurous, by scrambling over the revetment itself). However, Caltrans indicates that the current landslide is unstable, which makes it too dangerous for people to gather and stay for longer periods along the toe of an active landslide.

In particular, Caltrans evaluated whether the maintenance access road seaward of the highway and the bench area at the base of the bluff could be opened up to public access. The primary consideration is the safety of these areas for public use. Based on information provided by Caltrans, public access at the Mud Creek site, aside from minimum time necessary for the public to drive, bike, or walk through the project area, is too dangerous. Caltrans has documented that tens to hundreds of thousands of cubic yards of rocks and debris continue to fall from the active landslide area inland of the highway. Most of the rocks and debris are contained by the catchment areas inland of the highway and the concrete barrier adjacent to the inland side of the highway, but there is evidence of rocks bypassing these safety features and reaching the shelf at the base of the bluff below the highway. Additionally, during storms and large wave events, the revetment and bench area are regularly subjected to damage and erosion. Although aerial images appear to show that the bench area is a compacted flat surface, in actuality, the bench area is often extremely muddy, and Caltrans is regularly required to fill voids in the backfill material that occur as existing material 'pipes' out through the relatively porous revetment during storm and wave events. Finally, the bench area is used currently and planned for ongoing use as an active maintenance site for Caltrans to store large rock and debris materials removed from the inland side of the highway to replenish the revetment and bench area to maintain the original design of the shoreline armoring structure and continue to support the highway. As envisioned by Caltrans, the current maintenance activities at the site are anticipated to continue indefinitely. The Commission's Coastal Engineer and Geologist (Jeremy Smith and Phil Johnson) concur

³⁷ For example, legislation requires Caltrans to coordinate in the development of the California Coastal Trail, and various Caltrans policies, such as Director's Policy 37 ('Complete Streets') direct Caltrans to incorporate multi-modal trail opportunities into a project.

with Caltrans' determination that additional public access at the Mud Creek site is not appropriate currently due to landslide danger.

Mitigation/Conditions

As described in the coastal hazard section, the proposed project is partially self-mitigating, but the project itself does not wholly mitigate for impacts, including the impacts associated with the revetment on shoreline recreational access, which here is quantified to be in the neighborhood of \$4 million worth of impacts. Rather than require Caltrans to pay a \$4 million mitigation fee, this approval is based on a four-part strategy, as discussed in the coastal hazard section, and incorporated here by reference. In general, that mitigation package can be described as (1) recognizing the self-mitigating nature of the project, (2) developing a public recreational access mitigation framework that can be applied to Caltrans projects in Big Sur in the future, (3) maximizing areas within the project area that can safely provide for access; and (4) applying off-site mitigation at Shale Point/Alder Cove that can actually result in tangible public recreational access improvements to offset impacts here, including in terms of the \$4 million impact assessment.

With respect to the public recreational access mitigation framework, Caltrans and Commission staff have agreed to use their partnership and this permit opportunity to formalize a unique commitment. Caltrans and Commission staff have long discussed the idea of a tool that can be used to direct specific public recreational access improvements in all Caltrans Highway 1 projects and using an in-lieu fee mechanism to offset impacts that cannot be addressed through such 'in-project' improvements, including for Highway 1 emergency projects along the Big Sur coast. As noted above, Highway 1 in Big Sur regularly experiences multiple emergency landslides and erosion events. It is also evident that these events are increasing as climate change ramps up extreme weather events and increases coastal erosion. In these projects, Caltrans is rapidly forced to make emergency repairs to keep Highway 1 open for public use and there is little time for planning and design of public access amenities, which are often difficult to accommodate when in 'emergency mode'. Instead, a comprehensive mitigation framework can be a potentially valuable tool to ensure enhancement of public recreational access along Highway 1 in the Big Sur coast.

Therefore, Caltrans has agreed, and Special Condition 3 of this CDP requires Caltrans in coordination with the Commission to develop a Big Sur Public Recreational Access Mitigation Framework that includes an in-lieu fees component. The program requires Caltrans to first develop public recreational access within the project scope of each project, but to the extent that is infeasible, to contribute to an in-lieu fee program. The framework is intended to apply to all Caltrans projects along the Big Sur coast that require a CDP (whether an ECDP, CDP, CDP waiver, or CDP amendment) from the Commission and/or Monterey County. The framework would require that all in-lieu fees are spent on projects to improve the public recreational access in Big Sur, including to expand and improve multimodal trail use. Methods to calculate the amount of fees may include, but are not limited to the following parameters: 1) that any projects that include shoreline armoring provide a fee consistent with Coastal Commission shoreline armoring impact/fee calculations; 2) that all projects provide public recreational access fees based on the estimated cost of completing a multimodal trail segment through the

project corridor (e.g., through identifying a base cost per mile for multimodal trail segments that can be inflation adjusted over time); or 3) another method that provides a clear basis and methodology for identifying appropriate mitigation amounts. The condition also requires the program to develop procedures to transfer funds to public agencies or non-profits engaged in coastal public access work in Big Sur.³⁸

Conclusion

As described in detail in the coastal hazard section of this report, and as reiterated in this section of the report, there are demonstrable public recreational access impacts that require mitigation if the project is going to be approved through conflict resolution. Fortunately, through the four-part mitigation package, these impacts can be addressed appropriately, and reflect important opportunities to not only realize on the ground improvements at Shale Point/Alder Cove, but also to develop important tools that will be useful for future Caltrans projects in Big Sur, and that should help to even earlier address public recreational access needs in projects, and through 'baked in' in lieu fee mitigation. Therefore, as approvable through conflict resolution and as conditioned, the project can be found consistent with the Coastal Act public access and recreation provisions cited above.

4. Marine Resources

Applicable Coastal Act and LCP Provisions

The project is located at and on top of/in the Monterey Bay National Marine Sanctuary (MBNMS), the second largest of 18 such federal sanctuaries, where both its open water and shoreline area habitat resources are protected by the Coastal Act in various ways. For example, Coastal Act Sections 30230 and 30231 speak to protection of marine resources, like MBNMS, and state:

Section 30230. *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. *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*

³⁸ For instance, the Commission currently has an existing In-lieu fee program with the state Coastal Conservancy through an executed 2018 Memorandum of Understanding that allows mitigation fees to be sent to the Coastal Conservancy and then directed to certain types of projects. This could be a potential vehicle for at least some of these mitigation fees.

vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The Coastal Act also explicitly protects open coastal waters, again like MBNMS, including by limiting the types of development that are allowed to fill such resource areas. Specifically, Coastal Act Section 30233 describes seven allowed types of fill in such areas, which are only allowed where there are no feasible less environmentally damaging alternatives, and where feasible mitigation measures have been provided to minimize adverse environmental effects. Section 30233(a) states in relevant part:

Section 30233. *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: (1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities. (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps. (3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities. (4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines. (5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas. (6) Restoration purposes. (7) Nature study, aquaculture, or similar resource dependent activities. ...*

The Coastal Act also protects environmentally sensitive habitat areas, or ESHAs as follows.

Section 30107.5. *“Environmentally sensitive area” means any area in which plant or animal life, or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Section 30240. *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (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.*

Similarly, the Monterey County LCP also protects marine resources. The LCP states:

Big Sur Coast LUP Policy 3.3.3.B.1. Development on parcels adjacent to intertidal habitat areas should be sited and designed to prevent percolation of septic runoff and deposition of sediment.

Big Sur Coast LUP Section 3.3.3.B.2. Alteration of the shoreline including diking, dredging, and filling, shall not be permitted except for work essential for the maintenance of Highway 1.

Big Sur Coast IP Section 20.145.040.C.2a. Development on parcels adjacent to intertidal habitat areas shall be modified as necessary including for siting, location, design, and size where necessary to prevent percolation of septic runoff and deposition of sediment into the habitat. (Ref. Policy 3.3.3.B.1)

Big Sur Coast IP Section 20.145.040.C.2b. Alteration of the shoreline, including diking, dredging, and filling, shall be prohibited. An exception shall be made for work essential for the maintenance of Highway 1. The maintenance work shall be subject to modifications and conditions of approval designed to minimize project impacts...

In summary, the Coastal Act (and supporting LCP policies) recognize the importance of marine resource areas and open coastal waters, all of which apply to MBNMS and related resources at the site. Sections 30230, 30231, and 30233 together require that these resources, including their biological productivity, quality, and functional capacity, be maintained and enhanced. Regarding ESHA, Section 30240 is particularly demanding, where allowable development must be resource dependent and capable of avoiding significant disruption of habitat values.³⁹

Consistency Analysis

As indicated, the offshore waters and intertidal zone along the highway at this location are within the Monterey Bay National Marine Sanctuary (MBNMS). MBNMS protects a variety of marine habitat features, including beaches, the rocky intertidal, offshore kelp forests, marine mammal haul-outs and seabird nesting and foraging areas. Beaches represent potential habitat for a variety of species, including marine mammals, seabirds, and invertebrates such as burrowing mollusks and the globose dune beetle. Certain wide, sandy or cobble beaches along the Big Sur Coast are favored by northern elephant seals and California sea lions as haul-out areas. Harbor seals favor water-accessible rock shelves and wash rocks as resting areas. Snowy plovers nest on several Central Coast beaches. However, prior to the landslide, Mud Creek site was a rocky beach in a high-energy environment. The rock and cobble made it difficult even for those animals adapted to high-energy environments to escape damage and scour

³⁹ When open coastal waters also constitute ESHA, then diking, fill, and dredging of such areas are evaluated against Section 30233 and not Section 30240 if there is a conflict between the two sections in that regard. Specifically, and as stated in *Bolsa Chica Land Trust v. Superior Court* ((1999) 71 Cal.App4th 493, 515.): "...the ESHA protections provided by Section 30240 are more general provisions and the wetland protections provided by Section 30233 are more specific and controlling when a wetland area is also an ESHA.... Section 30240, a more general policy, also applies, but the more specific language in the former sections is controlling where conflicts exist with general provisions of Section 30240." Given this context in this case, the proposed project raises question about both fill, to which Section 30233 applies, and potentially marine resource ESHA impacts regarding black abalone, to which Section 30240 applies.

caused by rolling rock. Another marine resource is represented by the resident seabirds and shorebirds in the area. Black oystercatchers can be seen working the rocky intertidal areas. In addition, pelagic cormorant and Brandt's cormorant have been observed in the area and western grebes are commonly observed rafting offshore. The rocky shoreline area here itself is quite narrow and periodically substantially inundated by storm waves. It is unlikely that snowy plovers or other beach-nesting birds would reside at the Mud Creek site, although it is possible that transient birds would utilize the area for foraging and resting.

In the intertidal area, the species of greatest concern is the black abalone (*Haliotis cracherodii*). Black abalone is a long-lived, sensitive marine snail species that was once abundant in California but is currently designated as endangered under federal and state law. Historical overfishing and mass mortalities due to the withering syndrome disease have contributed to its decline.

As described previously, the landslide extended far out into the open water. The landslide debris resulted in the burial of the shoreline, intertidal area, and subtidal area. Any abalone within the slide footprint would have been buried and killed as a result of the sediment. Caltrans has provided evidence to show that the shoreline armoring structure, including the revetment, bench area, and engineered embankment were all constructed inland of the seaward edge of the beach area formed by the landslide. Specifically, rock was placed along the shore with the idea that the rock would settle as the landslide material seaward of the rock eroded.

It should be noted that immediately following the landslide, at the request of NMFS, Caltrans participated in a multiagency rescue and relocation effort for black abalone that were at risk of being smothered by additional erosion and as landslide debris migrated along the coast and converted rocky intertidal habitat to sandy beach.⁴⁰

Although it does not appear that marine resources were impacted during the construction of the shoreline armoring, it may be the case that black abalone have colonized the rock revetment in the time since it was initially constructed. To ensure that black abalone is protected to the maximum extent feasible, Special Condition 4 requires that Caltrans submit a survey within 90 days of issuance of this CDP to determine the presence of black abalone on the revetment. If black abalone are found, Caltrans is required to coordinate with the Executive Director and NMFS to develop avoidance and minimization measures. If black abalone are impacted by additional work to the revetment, including placement of additional rock as recently authorized by ECDP G-3-24-0014, Special Condition 4 further requires Caltrans to return to the Commission to obtain an amendment to this permit to appropriately mitigate for the impacts.

Additionally, given the project's location near coastal waters, it is necessary to ensure that construction activities would be carried out in a manner that would not adversely affect water quality or marine resources. Construction equipment used for the project has the potential to contaminate adjacent soil and waterways from spills and leaks from

⁴⁰ Mud Creek Landslide Biological Assessment, Hwy 1 Just South of Gorda 05-MON-1-pm 8.9 1H7800/0516000151, July 2021, Caltrans

equipment. In addition, discharge to the marine environment would result in adverse effects to offshore habitat from contamination and/or increased turbidity caused by erosion and siltation of coastal waters. To ensure that adverse effects to the marine environment are minimized, Special Condition 2 requires Caltrans to implement a suite of construction BMPs, and to appropriately dispose of excess construction debris and materials, excess fill, vegetation spoils, and waste material to ensure that such materials/debris/waste is contained, as feasible, to prevent any discharge of polluted runoff to coastal waters and is disposed of at an authorized disposal site(s) capable of receiving such materials.

Finally, Section 30233 only allows for seven types of development that can fill coastal waters. It is not clear whether the revetment the Caltrans placed was in open coastal waters at the time, and thus it is difficult to assess Section 30233 compliance. To the extent to revetment did/does cover open coastal waters, then it is not one of the allowed seven uses, and it is prohibited by Section 30233. Typically, when this happens in an armoring situation, the more specific provisions of Section 30235 apply, allowing for the override that was described earlier, and thus overriding Section 30233 incompatibilities. Here, the project does not meet the test to apply the Section 30235 override, and thus it is also inconsistent with Section 30233 if it is implicated. To the extent that is the case, that inconsistency is subsumed in the Section 30235 inconsistency question (see conflict resolution section that follows).

Marine Resources Conclusion

Because habitat values at the Mud Creek immediate shoreline were essentially eliminated by the landslide, and because the armoring structure was placed at the seaward edge of the landslide, Commission Ecologist, Dr. Rachel Pausch, has determined that the project did not result in adverse impacts to marine resources. Provided the black abalone question is assessed as described, provided ongoing repair and maintenance methods protect marine resources during such episodes (see Special Conditions 14 and 15), and provided the project, as conditioned, is approvable through conflict resolution, then the project can be found consistent with Coastal Act Sections 30230 and 30231.

5. Archaeological Resources and Tribal Consultation

Applicable Coastal Act Provisions

Section 30244 of the Coastal Act requires development projects to implement reasonable mitigation measures to protect identified archaeological or paleontological resources, and states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Consistency Analysis

The Commission's Tribal Consultation Policy (adopted on August 8, 2018)⁴¹ recognizes the importance of State efforts to protect Tribal Cultural Resources and improve communication and coordination with Tribes, and it sets out a tribal consultation process that is fully consistent with, and complementary to the nature of, the Commission's goals, policies (including Section 30244), and mission statement. Tribal cultural resources can be sites, features, cultural landscapes, sacred places, and objects with cultural value and can also qualify as archeological, paleontological, visual, biological, or other resources that the Commission is tasked with protecting pursuant to the Coastal Act. Coastal Act Section 30244 requires that development be sited and designed to prevent impacts to archeological and tribal cultural resources. Construction activities that disturb soils (e.g., grinding, tilling, disking, and digging/excavating) could damage historical or archaeological resources. These activities could also inadvertently damage human remains.

The Mud Creek site is situated within the ancestral and present-day homelands of the Salinan Tribe, which span all of present-day San Luis Obispo County and much of southern Monterey County, bound to the east by the Temblor Range, and extending from Pfeiffer Big Sur State Park in the north to the Santa Maria River along the coast in the south. At various points throughout history, the ancestral territories of other Native American groups, including the Esselen and Chumash, may have overlapped with Salinan territory.

Because this project was an emergency response project, Caltrans did not initiate tribal consultation for this project in accordance with CEQA and Assembly Bill (AB) 52, as a negative declaration, mitigated negative declaration, or environmental impact report was not prepared. Instead, Caltrans prepared a cultural resources screening memorandum and based on a review of cultural resource records, previous studies, field investigation, and observation of the severe disturbance from the landslide, determined that the project did not have the potential to affect cultural resources.

Consistent with the Commission's Tribal Consultation Policy, Commission staff reviewed the cultural resources screening memorandum. In addition, Commission staff contacted the Native American Heritage Council (NAHC) in December 2024, and a Sacred Lands File search was returned as negative. In December 2024 and January 2025, Commission staff wrote to the tribal representatives identified by the NAHC to inform them of the CDP application and the Commission's upcoming hearing on the project, to offer consultation, and to advise them of the opportunity to provide comments for the CDP hearing. Multiple tribes responded to request additional project information and to provide input on the project. Specifically, the Esselen Tribe of Monterey County requested ongoing updates on the project and that all project personnel receive resources sensitivity training; the Amah Mutsun Tribal Band provided guidance on steps that should be taken to determine whether there are cultural sensitive sites within the project vicinity; the Costanoan Ohlone Rumsen-Mutsen Tribe indicated that the project area includes recorded cultural sites and that tribal monitoring should be undertaken;

⁴¹ See <https://documents.coastal.ca.gov/assets/env-justice/tribal-consultation/Adopted-TribalConsultation-Policy.pdf>.

and the Salinan Tribe of Monterey and San Luis Obispo Counties requested additional information on the project.

Commission staff coordinated with the lead Caltrans Native American Coordinator for this project to respond to each of the tribes. Caltrans has committed to provide Cultural Resources Awareness Training for construction crews and agreed to tribal monitoring during ground disturbing project components.

Coastal Act Section 30244 requires that reasonable mitigation measures be employed where development could adversely impact archaeological or paleontological resources. In this case, the proposed new development is unlikely to have such impacts given the impacts of the previous landslide and large scale grading operations already undertaken via the emergency response. However, the proposed project described above would involve some new grading, at least to a minor degree. Therefore, Special Condition 12 applies the Commission's regularly used conditions related to protection of tribal resources, including tribal notification and monitoring, and procedures for inadvertent discovery of cultural or archeological resources.

In conclusion, based on the tribal consultation and outreach performed by Commission, in coordination with Caltrans, the Commission finds that the proposed Project, as conditioned, includes reasonable mitigation measures to protect archaeological or paleontological resources consistent with Coastal Act Section 30244.

6. Other

Indemnification

Coastal Act Section 30620(c)(1) authorizes the Commission to require applicants to reimburse the Commission for expenses incurred in processing CDP applications. Thus, the Commission is authorized to require reimbursement for expenses incurred in defending its actions on the pending CDP application in the event that the Commission's action is challenged by a party other than Caltrans. Therefore, consistent with Section 30620(c), the Commission imposes Special Condition 16 requiring reimbursement for any costs and attorney fees that the Commission incurs in connection with the defense of any action brought by a party other than Caltrans challenging the approval or issuance of this CDP, or challenging any other aspect of its implementation, including with respect to condition compliance efforts.

Other Agency Approvals

The project may require authorization from several other entities, including but not limited to the Monterey Bay National Marine Sanctuary, California State Lands Commission, National Marine Fisheries Service, U.S. Army Corps of Engineers, Regional Water Quality Control Board, and the California Department of Fish and Wildlife. To ensure that Caltrans is able to carry out the proposed project consistent with the terms and conditions of this CDP, and to ensure that the proposed project is authorized by all applicable agencies, Special Condition 13 requires Caltrans to submit written evidence of these other agencies authorizations of the project (as conditioned and approved by this CDP) or evidence that such authorizations are not required.

Minor Changes

Although a great deal of thought and planning has gone into the proposed project, including as it is affected by CDP terms and conditions, oftentimes minor unforeseen issues present themselves in complicated projects of this nature, particularly as construction gets underway, and it is important that the CDP is nimble enough to account for potential minor changes. Thus, minor adjustments to special condition requirements that do not require a CDP amendment or a new CDP (as determined by the Executive Director) may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources (Special Condition 15).

Future Development

The project site presents complicated coastal resource issues and is the site of past Commission approvals as well as this CDP, and the Commission finds that it is critical that any future development associated with the approved development be considered in that context. Thus, Special Condition 14 provides that any and all future proposed development related to this project, this project area, and/or this CDP shall be subject to the Coastal Commission's continuing CDP jurisdiction. At the same time, the Commission also recognizes that there may be limited/minor repair, maintenance and improvement development that can be covered under this CDP, provided the Executive Director determines it to: 1) fall within the overall scope and intent of this CDP; 2) be consistent with the Monterey County LCP; and 3) not have any significant adverse impacts to coastal resources. Any development that the Executive Director determines does not meet such criteria shall require its own CDP authorization. Again, see Special Condition 14.

7. Conflict Resolution

Applicable Coastal Act Provisions

In actions such as this where one Coastal Act provision requires denial, but denial would frustrate a mandate of another Coastal Act provision, the Commission is tasked with resolving such differences "in a manner which on balance is the most protective of significant coastal resources" (often referred to as conflict resolution), as detailed in the Coastal Act as follows:

Section 30007.5. *The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.*

Section 30200(b). *Where the commission or any local government in implementing the provisions of this division identifies a conflict between the policies of this chapter, Section 30007.5 shall be utilized to resolve the conflict and the resolution of such conflicts shall be supported by appropriate findings setting forth the basis for the resolution of identified policy conflicts.*

To be clear, however, the fact that a proposal is consistent with one Chapter 3 policy and inconsistent with another policy does not necessarily result in such a conflict. In fact, virtually every proposal will be consistent with some Chapter 3 policy, and almost no project would violate every such provision. Put another way, a proposal does not present a conflict between two statutory directives simply because it violates some policies and not others.

In order to invoke conflict resolution, the Commission must find that although approval of a proposal would be inconsistent with a Chapter 3 policy, denial of such proposal based on that inconsistency would result in coastal zone effects that are inconsistent with some other Chapter 3 policy. In most cases, denial of a proposal will not lead to any coastal resource effects at all because it will simply maintain the status quo. However, in some cases such denial can result in coastal resource effects that are inconsistent with a Chapter 3 policy in that some Chapter 3 policies, rather than prohibiting a certain type of development, affirmatively mandate the protection and enhancement of coastal resources.⁴² If there is ongoing degradation of one of these resources, and a proposal would cause the cessation of that degradation, then denial would result in coastal resource effects (in the form of the continuation of the degradation) inconsistent with the applicable policy. Thus, the only way that a true conflict can exist is if: (1) the proposal will stop some ongoing coastal resource degradation, and (2) there is a Chapter 3 provision requiring that the resource being degraded is protected and/or enhanced. Only then is the denial option rendered problematic because of its failure to fulfill the Commission's protective mandate, and only then can the Commission invoke the Coastal Act's conflict resolution provisions.

With respect to the second of those two requirements, though, there are relatively few Chapter 3 provisions that include such an affirmative mandate to enhance a coastal resource. Moreover, because the Commission's role is generally a reactive one, responding to proposed development rather than affirmatively seeking out ways to protect resources, even provisions that are phrased as affirmative mandates to protect resources more often function as prohibitions.⁴³ Denial of a project cannot result in a coastal resource effect that is inconsistent with a prohibition on a certain type of

⁴² See, for example, Sections 30210 ("maximum access...and recreational opportunities shall be provided"), 30220 ("Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses"), 30230 ("Marine resources shall be maintained [and] enhanced"), and 30253 (Development shall "Minimize risks to life and property in areas of high geologic, flood, and fire hazard" and "(a)ssure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site").

⁴³ For example, Section 30240's requirement that environmentally sensitive habitat areas "shall be protected against any significant disruption of habitat values" generally functions as a prohibition against allowing such disruptive development, and its statement that "only uses dependent on those resources shall be allowed within those areas" is a prohibition against allowing non-resource-dependent uses within these areas. Similarly, Section 30251's requirement to protect "scenic and visual qualities of coastal areas" generally functions as a prohibition against allowing development that would degrade those qualities. Section 30253 begins by stating that new development shall minimize risks to life and property in certain areas, but that usually requires the Commission to condition projects to ensure that they are not unsafe. Even Section 30220, an affirmative mandate, can be seen more as a prohibition against allowing non-water-oriented recreational uses (or water-oriented recreational uses that could be provided at inland water areas) in coastal areas suited for such activities.

development. As a result, there are relatively few Coastal Act policies that can serve as a basis for a conflict.

Similarly, denial of a proposal is not inconsistent with Chapter 3 and thus does not present a conflict simply because the proposal would be less inconsistent with a Chapter 3 policy than some alternative project would be, even if approval of the proposal would be the only way in which the Commission could prevent the more inconsistent alternative from occurring. For denial of a proposal to be inconsistent with a Chapter 3 policy, the proposal must produce tangible, necessary enhancements in resource values over existing conditions, not over the conditions that would be created by a hypothetical alternative. In addition, the proposal must be fully consistent with the Chapter 3 policy requiring resource enhancement, not simply less inconsistent with that than the hypothetical alternative proposal would be. If the Commission were to interpret the conflict resolution provisions otherwise, then any proposal, no matter how inconsistent with Chapter 3, that offered even the smallest, incremental improvement over a hypothetical alternative proposal would necessarily result in a conflict that would justify a balancing approach. The Commission concludes that the Coastal Act's conflict resolution provisions were not intended to apply based on an analysis of different potential levels of compliance with individual provisions or to balance a proposal against a hypothetical alternative.

In addition, if a proposal is inconsistent with at least one Chapter 3 policy, and the essence of that proposal does not result in the cessation of ongoing degradation of a resource the Commission is charged with enhancing, the proposal's proponent cannot "create a conflict" by adding on an essentially independent component that does remedy ongoing resource degradation or enhance some resource. The benefits of a project must be inherent in the essential nature of the project. If the rule were to be otherwise, such proponents could regularly "create conflicts" and then demand balancing of harms and benefits simply by offering unrelated "carrots" in association with otherwise unapprovable proposals. The balancing provisions of the Coastal Act could not have been intended to foster such an artificial and manipulatable process. The balancing provisions were not designed as an invitation to enter into a bartering game in which proponents offer amenities in exchange for approval of their proposals.

Finally, a project does not present a conflict among Chapter 3 policies if there is at least one feasible alternative that would accomplish the essential purpose of the proposal without violating any Chapter 3 policies. Thus, an alternatives analysis is a condition precedent to invocation of conflict resolution. If there are alternatives available that are consistent with all the relevant Chapter 3 policies, then the proposal does not create a true conflict among Chapter 3 policies.

In sum, in order to invoke conflict resolution, the Commission must conclude all of the following with respect to the proposal before it: (1) approval of the proposal would be inconsistent with at least one of the policies listed in Chapter 3; (2) denial of the proposal would result in coastal resource effects that are inconsistent with at least one other Chapter 3 provision by allowing continuing degradation of a resource the Commission is charged with protecting and/or enhancing; (3) the proposal results in tangible, necessary resource enhancement over the current state, rather than an

improvement over some hypothetical alternative proposal; (4) the proposal is fully consistent with the resource enhancement mandate that requires the sort of benefits that the proposal provides; (5) the benefits of the proposal are a function of the very essence of the proposal, rather than an ancillary component appended to the proposal's description in order to "create a conflict"; (6) the benefits of the project are not independently required by some other body of law; and (7) there are no feasible alternatives that would achieve the objectives of the proposal without violating any Chapter 3 provisions.⁴⁴

Conflict Resolution Analysis

The Commission finds that the proposal meets all seven of the above-stated tests and thus presents a true conflict between Chapter 3 policies. As noted previously in this report, the proposed project is inconsistent with Coastal Act Sections 30235 (and by extension other coastal resource policies implicated by the coastal resource degradation that would accrue due to the proposed armoring) and does not qualify for the override under 30253 (and by extension other coastal resource policies implicated by the coastal resource degradation that would accrue due to the proposed armoring), thus meeting the first test.

This proposal meets the second test because the Commission's denial of the proposal would result in complete loss of this portion of Highway 1, necessitating a multi-hour detour from San Luis Obispo to Monterey, preventing the public from accessing a significant stretch of the coast that is a primary visitor destination and eliminating the continued safe transportation access needed by the Monterey County community and the local tourism economy. Therefore, denial of the project is inconsistent with the affirmative protection policies of Section 30210 (requiring maximize public access and recreational opportunities).

Likewise, denial of the project would also be inconsistent with the affirmative protection policy of Section 30213, which requires protection of lower cost visitor and recreational facilities. Highway 1 provides essential access to multiple free or low-cost shoreline recreational opportunities in Big Sur, including beaches, coastal trails, and viewing areas. Without Highway 1 functioning safely, many of these areas would not be

⁴⁴ As an example, the Commission applied conflict resolution to a 1999 proposal involving the placement of fill in a farmed wetland area in order to construct a barn atop the fill and to install water pollution control facilities on a dairy farm in Humboldt County (CDP 1-98-103, O'Neil). In that case, one of the main objectives of the project was to create a more protective refuge for cows during the rainy season. However, another primary objective was to improve water quality by enabling the better management of cow waste. In short, the use of the site was degrading water quality, and the barn enabled consolidation and containment of manure, thus providing the first of the four necessary components of an effective waste management system. Although the project was inconsistent with Section 30233, which limits allowable fill of wetlands to seven enumerated purposes, the project also enabled the cessation of ongoing resource degradation. The project was fully consistent with Section 30231's mandate to maintain coastal water quality and offered to tangibly enhance water quality over existing conditions, not just some hypothetical alternative. Thus, denial would have resulted in impacts that would have been inconsistent with Section 30231's mandate for improved water quality. Moreover, it was the very essence of the project, not an ancillary amenity offered as a trade-off, that was both inconsistent with certain Chapter 3 provisions and yet also provided benefits. Finally, there were no alternatives identified that were both feasible and less environmentally damaging.

accessible. In addition to providing public access to this stretch of the coast, Highway 1 itself is a lower cost visitor and recreational facility in this case for those who wish to drive or bicycle for pleasure along this highly scenic coastal area. Denial of the project would result in the closure of this section of Highway 1, which would sever its continuity, which means that the public would no longer be able to access this shoreline and the coast in this part of Monterey County. In addition, if the public were to lose access to this shoreline and section of coast, a coastal area and oceanfront land suitable for recreational use would not be protected, inconsistent with Sections 30220 and 30221. Therefore, if the project were denied, Highway 1 in this part of the coast would be lost, inconsistent with the affirmative protection policies of Sections 30210, 30213, 30220 and 30221. Thus, the proposed project would protect this critical infrastructure, and as such, approval of the project would protect public access and recreation, consistent with these provisions of the Coastal Act.

The third step of conflict resolution requires that the proposal results in a tangible, necessary resource enhancement over the current state. As previously discussed, in this case, the project provides safe and long-term public access to the coast along this highly scenic portion of Highway 1 which is a resource enhancement over the road being closed due to the landslide. Caltrans will also be required to initiate a multi-part public recreational access mitigation program that will lead to on the ground improvements both now and in the future. Thus, the project as conditioned is consistent with the Coastal Act's public recreational access provisions and provides an actual tangible benefit in protecting those resources.

The fourth and fifth tests require that the proposal is fully consistent with the resource enhancement mandate that requires the sort of benefits that the proposal provides and that the benefits of the proposal are a function of the proposal itself and not an ancillary component appended to the proposal description in order to create a conflict. Here, the project, if approved, would result in tangible resource enhancement over existing conditions for several reasons. First, as discussed above, the core project results in restoration of Highway 1 following the landslide induced closure of the road, which is essential to maintaining the continuity of the primary public access corridor along the Big Sur Coast and therefore the project itself, fixing the highway, results in the direct resource enhancement for public access. In addition, as proposed, the highway will provide four-foot-wide shoulders thus improving access and safety to non-motorized traffic. As conditioned, the proposed development results in further tangible public access and recreation enhancements to the Big Sur area through the development of a public recreational access mitigation framework. In addition, the project will provide actual tangible improvements at Shale Point/Alder Cove, as previously described. Thus, the proposed project can be found consistent with other resource policies of the Coastal Act, as mitigated and conditioned, and will result in tangible resource enhancement over existing conditions. Finally, while Caltrans has an obligation to keep the highway open and provide safe access, it cannot repair this section of highway to provide access without a CDP from the Commission. Thus, the project passes the sixth test because the proposed project's benefits are not required by another agency under another body of law.

The final test of conflict resolution requires there to be no feasible alternative that would achieve the objectives of the project without violating any Chapter 3 policies. As discussed above, there are no feasible alternatives that would achieve the objectives of the project without violating any Chapter 3 policies. Caltrans and the Commission considered alternatives for the proposed project including 1) a “no project”, 2) realigning the highway by constructing a tunnel, and 3) stabilization of the landslide to keep the highway within its previous alignment, (see above Coastal Hazard alternatives findings incorporated herein by reference) and none of them were feasible. Thus, while alternatives exist, none of the identified alternatives would be both feasible and fully consistent with all relevant Chapter 3 policies.

Therefore, in order to resolve the identified conflict, the Commission must take an action which is, on balance, the most protective of significant coastal resources. Such a determination is a discretionary decision for the Commission, where the pros and cons for various outcomes can be considered and applied.

In this case, the Commission finds that the impacts on coastal resources from not implementing the project, as conditioned, would be more significant than the project's potential adverse effects from allowing development as conditioned. Denying the proposed project because of its inconsistencies with Sections 30235 and 30253 (and related resource protection policies) would adversely impact public recreational access. In contrast, approving the development as conditioned would lead to a myriad of benefits, as described above.

Finally, the test for conflict resolution approval under Section 30007.5 is not for the project to be more protective of coastal resources, rather it must be most protective of significant coastal resources. In order for that finding to be made, the adverse coastal resource impacts caused by the project have to be avoided, minimized, and mitigated to the maximum feasible extent. As such, and only in a conflict resolution context, this approval includes requirements for a series of public recreational access and public view mitigations as a means of offsetting the impacts associated with the approved project (see Special Conditions 1 and 3).

As so modified, and by applying the Coastal Act's conflict resolution provisions as described above, the proposed project as conditioned is most protective of significant coastal resources and can be found consistent with the Coastal Act when applying conflict resolution.

8. California Environmental Quality Act (CEQA)

CEQA Section 21080.5(d)(2)(a) prohibits a proposed development from being approved if there are feasible alternatives and/or feasible mitigation measures available that would substantially lessen any significant adverse effect that the development may have on the environment. Caltrans, acting as the CEQA lead agency, determined that the proposed project was exempt from CEQA (Section 15301(c) Class 1) in July of 2021.

The Commission's review, analysis, and decision-making process for CDPs and CDP amendments has been certified by the Secretary of the Natural Resources Agency as being the functional equivalent of the environmental review required by CEQA (CCR

Section 15251(C)). Accordingly, in fulfilling that review, this report has analyzed the relevant coastal resource issues with the proposal and has identified appropriate and necessary modifications to address adverse impacts to such coastal resources. All above findings are incorporated herein in their entirety by reference.

Accordingly, the Commission finds that only as modified and conditioned herein will the proposed project avoid significant adverse effects on the environment within the meaning of CEQA. As such, there are no additional feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse environmental effects that approval of the proposed project, as modified, would have on the environment within the meaning of CEQA. If so modified, the proposed project will not result in any significant environmental effects for which feasible mitigation measures have not been employed consistent with CEQA Section 21080.5(d)(2)(A).

5. APPENDICES

A. Substantive File Documents⁴⁵

- CDP Application 3-24-0747
- Files for ECDPs G-3-17-0027, G-3-17-0040, G-3-18-0005, G-3-19-0023, and G-3-24-0014
- File for CDP 3-10-034/Alder Cove and Shale Point Revetment

B. Staff Contact with Agencies and Groups

- Monterey County Planning Department
- Consultation letters sent to the following Tribes:
 - o Amah Mutsun Tribal Band
 - o Amah Mutsun Tribal Band of Mission San Juan Bautista
 - o Costanoan Ohlone Rumsen-Mutsen Tribe
 - o Costanoan Rumsen Carmel Tribe
 - o Esselen Tribe of Monterey County
 - o Indian Canyon Mutsun Band of Costanoan
 - o KaKoon Ta Ruk Band of Ohlone-Costanoan Indians of the Big Sur Rancheria
 - o Ohlone/Costanoan-Esselen Nation
 - o Rumsen Am:a Tur:ataj Ohlone
 - o Wuksachi Indian Tribe/Eshom Valley Band
 - o Xolon-Salinan Tribe
 - o Salinan Tribe of Monterey, San Luis Obispo Counties
 - o Salinan Tribe of Monterey, San Luis Obispo Counties
 - o Tule River Indian Tribe

⁴⁵ These documents are available for review in the Commission's Central Coast District office.