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## STAFF REPORT: REGULAR CALENDAR

**Application Number:** 4-22-0459

**Applicant:** California Department of Transportation (Caltrans)

**Project Location:** Northbound and southbound U.S. Highway 101 at the crossing of Refugio Road and Cañada del Refugio Creek near Refugio State Beach (at Postmile [PM] 36.6, between PM 36.0–R37.0), Santa Barbara County.

**Project Description:** Replace the existing two-span Refugio Road Undercrossing Bridges with new clear span bridges, standard bridge railings and shoulder, the degraded lighting system in the project area, as well as the railings on northbound on-ramp bridge over Cañada del Refugio Creek; maintain a Class III bicycle lane in both directions; reconstruct portions of Refugio Road, including restoration of a portion of public parking that was lost due to installation of unpermitted "No Parking" signs; and improvement of existing pedestrian trail along Refugio Road that leads to the Refugio State Beach entrance; improve steelhead trout migration in Cañada del Refugio Creek by removing existing rock slope protection; and relocate existing underground water line and aboveground fiber optic cable.

**Staff Recommendation:** Approval with Conditions.

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## **SUMMARY OF STAFF RECOMMENDATION**

The California Department of Transportation (Caltrans) proposes to replace the Refugio Road Undercrossing Bridges (Refugio Creek Bridges) along U.S. Highway 101 (known as U.S. 101) near Refugio State Beach in Santa Barbara County. The primary purpose of the project is to ensure the safety and reliability of the U.S. 101 corridor by replacing the existing bridges, which are cracking and corroding due to alkali-silica reactivity in the existing cement. Construction is proposed to start on approximately April 1, 2024, with an estimated 590 workdays, and estimated completion date of approximately November 1, 2025. Under adverse circumstances, the project could take up to 800 workdays. The standard of review for a consolidated CDP application submitted pursuant to Section 30601.3(a) is the chapter three policies of the Coastal Act (commencing with Section 30200), with the Santa Barbara County LCP, including the Gaviota Coast Plan, used as guidance.

The project would remove the two existing two-span bridges comprised of five 12-foot-wide lanes and construct two new clear span bridges. The design of the new bridges will eliminate the need for columns, which are presently adjacent to the creek. The proposed new bridges will include widened shoulders that meet modern safety standards and maintain the existing Class III bike lane along U.S. 101. Another objective of the project is to improve steelhead trout migration within the project limits at Cañada del Refugio Creek (Refugio Creek) while maintaining the bank stability needed to protect the bridges from scour. Fish passage would be improved by removing the concrete-grouted rock slope protection (“RSP”) along the bed of Refugio Creek.

Additional project elements include upgrading the nonstandard bridge railings on the new clear span bridges, upgrading the nonstandard bridge railings on the northbound on-ramp bridge, rehabilitating a public access pathway beneath the bridge to make it compliant with the standards of the Americans with Disabilities Act, installing wayfinding signage along the public access pathway, and resolution of Coastal Act violations in the project area through removal of unpermitted “No Parking” signs on Refugio Rd. to restore 56 of the approximately 91 free coastal access parking spots that were lost when the “No Parking” signs were installed without benefit of the necessary coastal development permit. Other improvements to the interchange include: replacing the degraded lighting system within the project limits and applying contrasting surface treatment beyond the gore pavement to the southbound U.S. 101 off-ramp.

The proposed project will result in a total of 0.785 acres of impacts to coastal stream, wetlands, and riparian habitat within and adjacent to Cañada del Refugio Creek. However, most of these impacts are a result of the RSP removal from the streambed, which will remove a partial barrier to fish passage and improve the overall ecological function of the creek. Caltrans proposes replanting 349 native trees and 728 plants creating over 1 acre of riparian habitat for multiple species. Additionally, the project will result in 1.72 acres of impacts to coastal scrub habitat within the project site. Most of the

impacts would not be caused by the project's permanent footprint but rather would occur primarily from bridge demolition, equipment access and staging, vegetation clearing, grading, falsework, and traffic management. Approximately 0.031 acres would experience permanent impacts. Caltrans proposes to mitigate for all impacts to coastal scrub on-site through restoration, establishment and enhancement of local coastal scrub communities totaling over 6 acres (3:1 ratio). Mitigation efforts will include container plantings and hydroseeding as well as targeted weed control and removal. Caltrans will perform mitigation for habitat and wetland impacts pursuant to its proposed Mitigation and Monitoring Plan. To ensure that the mitigation meets the proposed performance standards, the project is conditioned to require Caltrans to comply with the approved Habitat Mitigation and Monitoring Plan and to provide annual monitoring reports to the Executive Director for five years following implementation.

Lastly, Caltrans has agreed to a condition to contribute \$75,000 to the County of Santa Barbara toward the planning, design, and construction of the Paradiso del Mare (Paradiso) trail to mitigate for the temporal loss of free parking on Refugio Road that resulted from unpermitted installation of "No Parking" signs. The Paradiso trail will be a segment of the California Coastal Trail located approximately 9 miles south of the project site. Commission staff worked with Caltrans, the Coastal Conservancy, and the County of Santa Barbara to identify this shovel-ready public access project.

In conclusion, the proposed bridge replacement is necessary and appropriate to provide safe public access to and along the coast; it will avoid and otherwise limit adverse impacts to riparian and in-stream habitat, marine resources, and water quality; it will ensure long-term resilience of the bridge; and it will protect and enhance public access, visual resources, archaeological resources, and other coastal resources to the maximum extent feasible, as described in more detail in this staff report. Thus, staff recommends that the **Commission conditionally approve CDP 4-22-0459**. The motion and resolution for this recommendation can be found on page 5.

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## I. MOTION AND RESOLUTION

### Motion:

I move that the Commission **approve** Coastal Development Permit Number 4-22-0459 pursuant to the staff recommendation.

### Staff Recommendation of Approval:

Staff recommends a **YES** vote. 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.

### Resolution to Approve the Permit:

The Commission hereby approves Coastal Development Permit Number 4-22-0459 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

## II. STANDARD CONDITIONS

This permit 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 an 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.

### III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Revised Final Project Plans.** PRIOR TO ISSUANCE, the Permittee shall submit two full-size sets of the Final Project Plans to the Executive Director for review and written approval, including a parking signage plan. Caltrans shall install signage in the County right-of-way affirmatively showing the locations of the public parking on Refugio Road. Any proposed changes to the approved Final Project Plans by the Permittee, including to the approved parking signage, parking locations, and/or quantity of parking spaces, such as through the installation of signage, shall be reported to the Executive Director. Minor adjustments to the approved Final Project Plans may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary by the Executive Director; and (2) do not adversely impact coastal resources.

2. **Habitat Mitigation and Monitoring Plan.** NOT LESS THAN 30 DAYS PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT, including major vegetation removal, the Permittee shall submit, for review and written approval of the Executive Director, a final revised Habitat Mitigation & Monitoring Plan (HMMP) that shall substantially conform to the draft HMMP submitted on March 17, 2023, except as modified herein:

(a) **Planting Plans for Riparian Corridor Widening.** The final plan shall include detailed planting plans for the areas of riparian corridor widening, as depicted in Appendix D of the draft HMMP. Planting plans shall list all potential species that will be planted in the riparian corridor, and depict the expected layout of trees, shrubs, and understory vegetation that will be planted.

(b) **Reporting on Fish Passage Improvements.** The final plan shall include provisions for reporting the outcomes of fish passage monitoring and performance, including consultations with National Marine Fisheries Service (NMFS), as part of annual monitoring reports submitted to the Executive Director.

The Permittee shall undertake development in accordance with the approved HMMP. Any proposed changes to the approved plan shall be reported to the Executive Director. No changes to the approved plans shall occur without a Commission-approved amendment to this CDP unless the Executive Director determines that no amendment is legally required.

3. **Public Access Mitigation Project.**

(a) WITHIN 1 YEAR OF APPROVAL OF THIS CDP, and with prior document review and approval by the Executive Director, the Permittee shall submit written documentation that demonstrates representatives of Caltrans and Santa Barbara County ("County") have entered into an Interagency Cooperative Agreement ("Cooperative Agreement") consistent with the requirements of this CDP and its Special Conditions, including subsections (b) and (c) below.

(b) Within two years of approval of this CDP, the Permittee shall submit to the Executive Director evidence that Caltrans has provided funding to the County in the amount of \$75,000 to be used toward the design, planning, and/or construction of the Paradiso Trail consistent with the Cooperative Agreement described herein. The Executive Director may extend this deadline for good cause.

(c) The Cooperative Agreement between Caltrans and the County shall include the following minimum provisions:

i) The Cooperative Agreement shall indicate that the Paradiso Trail is part of a segment of the Gaviota Coast Trail that will be designed, permitted, constructed, and maintained by the County of Santa Barbara or another non-profit agency approved by the Executive Director.

ii) The Cooperative Agreement shall include provisions to address any failure by Caltrans or the County to implement the Cooperative Agreement in a manner consistent with this permit, including but not limited to any subcontracting of the project (or portions of it) to an alternate entity able to implement the Agreement, or if approved by an amendment to this CDP, to design, plan and/or construct alternative public access improvements if the design, planning, and/or construction of the trail for which the \$75,000 in mitigation funds are utilized cannot feasibly be completed within 10 years of issuance of this CDP.

iii) Unless resolved by the Executive Director of the Commission, any dispute concerning compliance with, or interpretation of, any provision of the Cooperative Agreement affecting the implementation of the Cooperative Agreement consistent with the requirements of this CDP shall be resolved by the Coastal Commission.

iv) The Cooperative Agreement shall provide for annual written reports by the County of Santa Barbara to the Executive Director of the Coastal Commission on the progress made toward the completion of the Paradiso Trail.

**4. Final Stormwater Pollution Prevention Plan.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit two copies of the Final Stormwater

Pollution Prevention Plan (SWPPP) to the Executive Director for review and written approval. The SWPPP shall include all housekeeping, source control, and treatment control best management practices (BMPs) that will be used during construction and shall be updated as needed to reflect progression and phasing of the project. The Permittee shall undertake development in accordance with the approved SWPPP. Minor adjustments to the approved SWPPP may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary by the Executive Director; and (2) do not adversely impact coastal resources.

**5. Construction Requirements.** The Permittee shall undertake construction in accordance with the following construction requirements:

(a) **Construction Areas.** Areas within which construction activities and staging are approved to take place by this CDP shall be minimized in size and shall be sited and designed to avoid impacts on coastal waters and aquatic life, and to the extent feasible public access to Refugio State Beach (including safe multimodal access through and/or around the project site). Construction (including but not limited to storage of materials and/or equipment) is prohibited outside of the defined construction, staging, and storage areas.

(b) **Construction Methods and Timing.** Methods shall be used to keep the construction areas separated from public recreational use areas, including using unobtrusive fencing or equivalent measures to delineate construction areas. During construction, in-stream work shall only take place between June 1st and October 31st in any given year, when the surface water within drainages is likely to be dry or at seasonal minimum. Deviations from this work window may only be made with written permission from the Executive Director.

(c) **Construction Best Management Practices (BMPs).** No construction material, debris, or waste shall be placed or stored where it may enter sensitive habitat, receiving waters, or be subject to wind, rain, or other erosion or dispersion. Any debris resulting from construction activities shall be removed immediately. Any debris inadvertently discharged into coastal waters shall be recovered immediately and disposed of consistent with the requirements of this CDP.

(i) Any fueling and maintenance of construction equipment shall occur within upland areas outside of environmentally sensitive habitat areas or designated staging areas. Mechanized heavy equipment and other vehicles used during the construction process shall not be refueled or washed within 100 feet of coastal waters. If refueling or washing must occur within 100 feet of coastal waters, the area must be surrounded by barriers to prevent discharge.



(ii) Fuels, lubricants, and solvents shall not be allowed to enter coastal waters, sensitive habitat, or wetlands. Hazardous materials management equipment including oil containment booms and absorbent pads shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials clean-up/remediation service shall be locally available on call. Any accidental spill shall be rapidly contained and cleaned up.

(iii) BMPs shall be implemented to control erosion from the disturbed area and prevent sediment and potential pollutants from entering coastal waters and/or sensitive habitat.

(d) **Restoration.** All construction debris shall be removed. All beach areas, other public recreational access and use areas, and all beach access points impacted by construction activities shall be restored to their pre-construction condition or better within three days of completion of construction. If native soils are removed as part of the construction debris, the removed material shall be screened to separate native soil from the construction debris. The native soils shall be returned to the site after all construction debris has been screened out from it.

(e) **Construction Site Documents.** The Construction Plan shall require that copies of the signed CDP and the approved Construction Plan be maintained in a conspicuous location at the construction job site at all times and that 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, as well as the public review requirements applicable to them, prior to commencement of construction.

(f) **Construction Coordinator.** The Construction Plan shall require that a construction coordinator be designated as the point of contact during construction should questions arise regarding the construction in case of both regular inquiries and emergencies. The construction coordinator's contact information, i.e., address, phone numbers, email, etc., including, at a minimum, an email address and a telephone number that will be made available 24 hours a day for the duration of construction, 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. This information shall indicate that the construction coordinator should be contacted in case of questions regarding the construction for both regular inquiries and emergencies. The construction coordinator shall record the name and contact information, i.e., 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. Any complaints and all actions taken in response shall be summarized and provided to the Executive Director on at least a weekly basis.

(g) **Construction Specifications.** The construction specifications and materials shall include appropriate control provisions that require remediation for any work done inconsistent with the terms and conditions of this CDP.

(h) **Notification.** The Permittee shall notify staff of the Coastal Commission's South 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 approved Construction Plan shall be enforceable components of this CDP. The Permittee shall undertake development in accordance with this condition and the approved Construction Plan. Minor adjustments to the above requirements, as well as to the Executive Director-approved Construction Plan, which do not require a CDP amendment 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.

**6. Biological Monitoring, Avoidance, and Minimization Measures.** To avoid and minimize impacts to sensitive species and their habitats, the Permittee shall implement all biological monitoring, avoidance, and minimization measures detailed in Exhibit 14 and as supplemented with the following:

**a. Sensitive species monitoring.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall retain the services of a qualified biologist or environmental resources specialist (hereinafter, "environmental specialist") with appropriate qualifications acceptable to the Executive Director, to monitor the site during construction activities and conduct surveys of sensitive species and to monitor all project operations. The Permittee shall submit the contact information and qualifications of all monitors with a description of their duties and their on-site schedule to the Executive Director for review and approval. Should a biological monitor identify any sensitive species that could be adversely affected by construction activities, construction work shall be halted and the Permittee shall contact the appropriate resource agency (USFWS, CDFW, or NMFS) to determine an appropriate course of action. For the purpose of this special condition, "sensitive species" shall be taken to mean any special-status wildlife species. Special-status species are species listed as: Endangered, Threatened, or Rare under the federal or state Endangered Species Acts; Candidate Species, California Fully Protected Species, and, pursuant to CEQA Guidelines Section 15380(d), all other species tracked by the California Natural Diversity Database (CNDDDB), which are considered by the California Department of Fish and Wildlife to be those species of greatest conservation concern (e.g. S1-S3 and G1-G3 Listed Species), and locally important species including: raptors, steelhead trout, red legged frogs, tidewater gobies, western pond turtles.

- b. Nesting Bird Monitoring and Avoidance.** The applicant shall comply with nesting bird monitoring and avoidance measures including, but not limited to, the following provisions:
- i.** If project activities must occur during bird nesting season (February 1 through September 15), a qualified biologist with experience conducting bird surveys shall survey for active nests of any federally or state listed threatened or endangered species, species of special concern, fully protected species, species with global rarity rankings of G1-G3 and/or state rarity rankings of S1-S3, or any species of raptor or wading birds, within 7 days prior to commencement of project activities, and once a week thereafter during construction, to detect any such activity within 500 feet of the project area.
  - ii.** If an active nest(s) of any of the above species is located within 300 feet of construction activities (500 feet for raptors), the qualified biologist shall halt construction activities to enable the applicant to employ best management practices (BMPs) to ensure that construction activities do not disturb or disrupt nesting activities.
  - iii.** If construction activities must occur within the required buffer area, the Permittee may propose an alternative plan for avoidance of nesting birds for the Executive Director's concurrence.
  - iv.** Results of nesting bird surveys, ambient noise studies, and any follow-up construction avoidance measures shall be documented in monthly reports by the qualified biologist and submitted to the Coastal Commission Executive Director throughout the bird breeding season.

**7. Coastal Hazards Risk.** By acceptance of this CDP, the Permittee acknowledges and agrees, on behalf of itself and all successors and assigns, to all of the following: (a) that the site may be subject to coastal hazards, including but not limited to episodic and long-term shoreline retreat and coastal erosion, high seas, ocean waves, tsunami, tidal scour, coastal flooding, fluvial flooding, landslides, bluff and geologic instability, bluff retreat, liquefaction, and the interaction of same, many of which may worsen with future sea level rise; (b) to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (c) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (d) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

**8. Protection of Archeological and Tribal Cultural Resources.** The Permittee shall undertake development in compliance with the following mitigation measures to protect archaeological resources:

(a) AT LEAST TWO WEEKS PRIOR TO COMMENCEMENT OF ANY GROUND-DISTURBING CONSTRUCTION ACTIVITIES, the Permittee shall (i) notify the Native American Heritage Commission (NAHC) designated Tribal Representatives (as listed in table 4.5 NAHC Representative Contacts on page 252 of the Environmental Impact Report) of the Barbareno / Ventureno Band of Mission Indians, Coastal Band of the Chumash Nation, and Santa Ynez Band of Mission Indians; (ii) invite Tribal Representatives to be present and to monitor ground-disturbing activities; and (iii) arrange for a qualified Archaeological Monitor and a Tribal Monitor to be present to observe ground-disturbing activities in those construction segments mapped and approved through Tribal consultation as requiring cultural monitoring. 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 archaeological resources and human remains.

(b) If an area of archaeological resources is inadvertently discovered during ground-disturbing activities, including, but not limited to, concentrations of prehistoric artifacts (e.g., chipped chert, arrow points, groundstone mortars and pestles), culturally altered ash-stained midden soils associated with pre-contact Native American habitation sites (e.g., midden with or without shell), concentrations of fire-altered rock and/or burned or charred organic materials, etc., all construction shall cease and shall not recommence except as provided in subsection (c) hereof, and the Permittee shall retain a qualified archaeologist to analyze the significance of the find, in consultation with the above-referenced Tribal Representatives to be incorporated into the Supplementary Archaeological Plan described below. The archaeologist shall immediately notify all of the Tribal Representatives. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area that includes a reasonable buffer zone recommended by the Monitor(s). Construction may continue outside of the exclusion zone.

(c) A Permittee seeking to recommence construction within the exclusion zone following discovery of the archaeological resources shall submit a Supplementary Archaeological Plan (SAP), prepared in consultation with the Tribal Representatives, that proposes mitigation measures to avoid impacts to the resource for the review and written approval of the Executive Director. If the Executive Director approves the SAP and determines that the SAP's recommended changes to the proposed development or mitigation measures are de minimis in nature and scope, construction may recommence after this determination is made by the Executive Director in writing. If the Executive Director approves the SAP but determines that the changes therein are not de minimis, construction may not recommence until after an amendment to this permit is approved by the Commission.

**9. Other Agency Approvals.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review a copy of a valid permit, letter of permission, or evidence that no permit is necessary from all other entities with review authority over the proposed project, including at a minimum the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife. The Permittee shall inform the Executive Director of any changes to the project required by any other such authorizations. Any such changes shall not be incorporated into the project until the Permittee obtains an amendment to this CDP, unless the Executive Director determines that no amendment is legally required.

## IV. FINDINGS AND DECLARATIONS

### A. PROJECT LOCATION AND DESCRIPTION

#### Project Location and History

The proposed project site is a bridge located along U.S. Highway 101 (U.S. 101) adjacent to Refugio State Beach on the Gaviota Coast in unincorporated Santa Barbara County. On this segment of the coast, U.S. 101 travels in an east/west direction and connects the Gaviota Coast to the rest of Santa Barbara County. It also provides direct access to Refugio State Beach via Refugio Road. Refugio State Beach is a 20-acre state park that includes picnic areas, campgrounds, hiking trails, and a sandy beach that is popular for fishing, surfing, kayaking, and scuba diving.

This stretch of U.S. 101 is designated as the Gaviota Coast State Scenic Highway and is located atop a marine terrace between the Santa Ynez Mountains and the ocean traversing the longest remaining rural coastlines in southern California. As such, the Gaviota Coast is an important respite for all Californians and visitors to the California coast to enjoy the open landscape of a mostly undeveloped coastline. Due to the lack of development, the Gaviota Coast is a hot spot for marine, intertidal, and terrestrial biodiversity. The landscape consists of chaparral-covered sandstone mountains, wooded canyons, grassland mesas, coastal bluffs, narrow sandy beaches, and the Pacific Ocean. This sparsely developed stretch of the coast contains grazing lands, orchards, limited residential and other development, U.S. 101 and the railroad, and significant public parkland and open space areas. Overall, the Gaviota Coast is highly scenic, and there are many public viewing areas that offer diverse and dramatic views of the Pacific Ocean and Channel Islands, the coastal terrace, and the ridgelines of the Santa Ynez Mountain range. The topographic features, native habitats, and the rural character of this region make the area's coastal resources very special for residents and visitors alike. See [Exhibit 1](#) for a project location map and [Exhibit 2](#) for an aerial photo of the project site.

The existing Refugio Road Undercrossing Bridges (Refugio Creek Bridges) over Cañada del Refugio Creek (Refugio Creek) were constructed in 1974. Each bridge features a center column next to Refugio Creek, resulting in two spans. The bridges are each approximately 80 feet above mean sea level and about 336 feet long and 51 feet wide to accommodate three 12-foot wide lanes with a 10-foot wide right shoulder and a 5-foot wide left shoulder. The northbound bridge is currently operating with three lanes, while the southbound bridge is operating with two lanes and a wide left shoulder. Class III bicycle lanes exist on both the northbound and southbound portions of U.S. 101. There is also a public access pathway beneath the bridge. The path is a designated coastal access trail in the Gaviota Coast Plan, and the trail provides access from a public parking area on the road shoulder of Refugio Road that provides public access to Refugio State Beach. As discussed in more detail below, restoration of safe public parking along Refugio Road and improvement of the trail are elements of the proposed project.

The subject bridges pass over Refugio Creek, which is approximately 35 feet wide at the bridge location. The Refugio Creek watershed begins in the Santa Ynez Mountains where tributary streams merge at the upper end of Cañada del Refugio and form Refugio Creek. From there, the creek flows approximately three miles down Refugio Creek before reaching the project site. After an unaltered natural section, the creek transitions into a grouted rock slope protection (RSP)-lined channel. The RSP was constructed in 1974 as a flood control measure to protect the new Refugio Creek Bridges and Refugio Road, the grouted RSP channel lining is approximately 35 feet wide and approximately 10 feet deep. The grouted RSP channel passes under a private bridge, under the U.S. 101 northbound onramp bridge, under both of the subject bridges, then terminates at a concrete double-box culvert on State Parks' property. The culvert passes under the Refugio State Park campground road and the railroad then terminates at the entrance to Refugio lagoon.

Refugio Creek and its tributary streams provide habitat and migration corridors for fish and wildlife species migrating between the Pacific Ocean and the upper watershed in the Santa Ynez Mountains. As described in more detail below, the watershed supports multiple special-status species including tidewater goby (*Eucyclogobius newberryi*) and steelhead trout (*Oncorhynchus mykiss*). The Refugio Creek Bridges are located approximately 1,000 feet inland (i.e., north) of where Refugio Creek flows into Refugio Lagoon before reaching the Pacific Ocean at Refugio State Beach. The mouth of Refugio Lagoon is often closed partially or entirely from the ocean by a seasonal sandbar. When the sandbar is breached by increased stream flows due to precipitation, fish migrate from the ocean into the slough. The coastal environment surrounding the bridge is a rural open landscape adjacent to Refugio State Beach. Nearby vegetation includes California sagebrush scrub surrounding the bridge slopes and riparian woodland underneath the bridge in Refugio Creek. The surrounding area is sparsely developed with varied land uses, including agricultural and open space.

### **Jurisdiction**

The proposed project includes components that are located within the County of Santa Barbara Local Coastal Program (LCP) jurisdiction, as well as components within the retained jurisdiction of the Coastal Commission. The County of Santa Barbara would typically have jurisdiction over the portions of the project within its respective LCP jurisdiction. However, Section 30601.3 of the Coastal Act authorizes the Commission to process a consolidated CDP application (when certain criteria are satisfied) for the entirety of a proposed project that would otherwise require separate CDPs from both a local government with a certified LCP and the Commission. Pursuant to Section 30601.3(a)(2), the Permittee, appropriate local government, and the Commission may agree to consolidate a permit action for a project that spans local and state jurisdictions.

In this case, the County of Santa Barbara submitted a letter to Commission staff dated September 22, 2020, requesting that the Commission assume jurisdiction over all activities associated with the proposed project. However, approvals from other agencies

may still be required; therefore **Special Condition 9** requires the Permittee to obtain all other Local, State or Federal permits that may be necessary for any aspect of the proposed project. The standard of review for a consolidated CDP application submitted pursuant to Section 30601.3(a) is the chapter three policies of the Coastal Act (commencing with Section 30200), with the Santa Barbara County LCP, including the Gaviota Coast Plan, used as guidance.

## Project Description

### *Bridge*

The proposed development includes replacement of the existing U.S. 101 bridges over Refugio Creek (see [Exhibit 3](#) for excerpted project plans). Inspection of the bridges has documented concrete cracking and deterioration that are threatening the bridge's structural integrity.<sup>1</sup> The most recent routine inspection noted separation and weakening of the bridge deck and a salt coating on the bridge soffit. In addition, the existing bridge roadway has sub-standard shoulder widths that are unusable by vehicles in case of an emergency.

Caltrans proposes to remove the two existing two-span Refugio Creek Bridges on U.S. 101 and construct new two bridges with single-span pre-stressed box girder structures that will not need support columns. Due to the lack of columns, the clear span bridges would be thicker (i.e., deeper) than the existing bridges (for a depth of 13.5 feet) and would be supported by larger abutments and retaining walls that are about 18 feet longer than the existing abutments. The bridges would be about 300 feet long, which is 36 feet shorter than the existing bridges and 7 feet wider than the existing structures, to meet current design standards for freeways. In addition, the bridges would accommodate three 12-foot-wide travel lanes in the northbound direction and 10-foot-wide inside and outside shoulders; however, only two lanes would operate in the southbound direction, as is currently the case. The northbound and southbound Class III bicycle lanes would remain.

The two new bridges' railings would be upgraded to ST-75 bridge railings, which are similar to the Commission-approved<sup>2</sup> ST-70 bridge railing. However, as opposed to the two rails in the ST-70 bridge rail design, ST-75 bridge rail posts have three rails, are slightly greater in size, and have a fourth rail on top, which is intended to protect cyclists from falling over the rail, all while maintaining visual permeability for coastal views. Additionally, the railings on the northbound on-ramp bridge would be upgraded to ST-75 type railings. Lastly, metal beam guard rails through the project site would be replaced like for like.

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<sup>1</sup> The observed cracking and deterioration are due to alkali-silica reactivity. This occurs when silica in the aggregate and alkali in the cement react in the presence of water. The result is a chemical reaction that causes concrete to crack and lose its strength. This is a widespread problem that affects Portland cement in pavement and structures.

<sup>2</sup> See [Caltrans and Coastal Commission Bridge Rail Barriers Guide](#)



### *Habitat Restoration*

Another element of the project is riparian and stream restoration in and along Refugio Creek. The project involves three elements: 1) Removal of the partial barrier to fish passage caused by the existing grouted RSP channel lining in Refugio Creek; 2) Re-establishment of more optimal aquatic habitat through strategic tree planting in the stream channel; and 3) Enhancing and widening the riparian corridor along the banks of the creek (see [Exhibit 4](#) for riparian restoration map). The RSP along the creek bottom within the Caltrans right-of-way and drainage easement would be removed to restore fish passage for all life stages of steelhead within the project limits. The RSP along the creek banks would remain to prevent scour, which could threaten Refugio Rd. and/or the proposed U.S. 101 bridges. Approximately 5,610 cubic yards (cy) of RSP would be removed and 3,880 cy of engineered streambed mix (ESM) of cobble and weirs would be placed in the creek bed. The new creek bottom would be naturalized to create more favorable habitat conditions for fish and other species, including use of stone and gravel to create weirs that would provide resting pools (see [Exhibit 5](#) for ESM plan). Replanting in the creek bed and riparian corridor will include 349 native riparian trees and 728 plants to provide canopy for shade, which is an important element of riparian habitat for fish, frogs, birds, and other species. Riparian re-vegetation will be implemented via plant cuttings and container plants. Overall, the project would restore and enhance over one acre of stream and riparian habitat. An approximate 2-acre permanent planting easement would be acquired for mitigation planting in Refugio Creek. The permanent easement would align with the limits of the existing 140-foot wide Caltrans drainage easement. Work within the creek would be performed during periods of low flow (June to October).

In addition to stream and riparian restoration, the project will restore and enhance over 6 acres of coastal scrub habitat to compensate for coastal scrub impacts that will result from the bridge construction staging (see [Exhibit 6](#) for project impact map). The details of coastal scrub mitigation are described in the ESHA section of the findings below (see [Exhibit 7](#) for coastal scrub restoration map). All restoration activities will be performed on-site pursuant to a Habitat Mitigation and Monitoring Plan (HMMP), which Caltrans has developed in coordination with Coastal Commission staff, and which is required to be submitted by **Special Condition 2**. Under the HMMP, Caltrans will monitor and maintain the on-site mitigation areas for five years after planting to ensure that site conditions meet the established success criteria. Caltrans will submit annual monitoring reports.

### *Public Access*

The project proposes to restore a portion of road shoulder parking along Refugio Road. As described in more detail below, free parking has historically been available to the public along the road shoulder in this location. At the request of State Parks, in 2010, Caltrans installed “No Parking” signs along Refugio Road, without benefit of the necessary coastal development permit. Installation of the “No Parking” signs resulted in

the loss of approximately 91 total parking spaces. In working with Commission staff to resolve this matter, Caltrans undertook a parking study to determine whether and where parking could be safely provided. The parking study revealed that 56 of the 91 spaces that were previously available could be restored safely without line-of-sight issues (see [Exhibit 8](#) for parking plan). Thus, as part of this project, Caltrans is proposing to restore 56 of the approximately 91 original parking spaces.

An existing pedestrian path running parallel to Refugio Road below the bridges was constructed along with U.S. 101 in 1974 and is identified as an existing coastal access trail in Santa Barbara County's Gaviota Coast Plan. This pathway will be damaged by falling debris during bridge demolition and portions of the pathway will be reconstructed to meet the standards of the Americans with Disabilities Act, including the addition of outside railings for safety in certain segments, as needed. A wayfinding trailhead sign would be added at the northern entrance to the path that was developed in coordination with Commission staff (see [Exhibit 9](#) for trailhead sign). Additionally, a public access staircase is proposed to be built, which will allow the public to access the pedestrian path safely from Refugio Road without the need to cross the northbound onramp to U.S. See [Exhibit 10](#) for pedestrian pathway staircase and see [Exhibit 11](#) for a general view of the pedestrian path, staircase location, and public parking location.

A water line owned and operated by State Parks runs longitudinally through the project area and will be relocated within the project area as a result of reconstruction of the pedestrian path and potential damage during bridge demolition. In addition, an aboveground fiber optic line crossing Refugio Creek that is owned and operated by Frontier Communications will be relocated onto new poles at a height of 10 feet above grade, a similar height to an existing AT&T fiber optic line that also crosses Refugio Creek.

The lighting system throughout the project limits is proposed be replaced due to degradation of the existing conduits. Lighting work will consist of replacement of the service enclosure, luminaires, conduits, conductors, and pull boxes. The new luminaires would be fitted with energy-efficient light-emitting diode (LED) bulbs that are the same or lower in light output (lumens) as the existing bulbs. Cut-off shields would be installed on all luminaires to focus light on the roadway, reduce glare, and limit light from shining where it is not needed. Adding the shields is an upgrade to the existing lighting as they would reduce light pollution to the night sky, within the state park, and for surrounding homes, and limit light from spilling over into riparian habitat areas.

Construction is proposed to start on approximately April 1, 2024, with an estimated 590 workdays, and estimated completion date of approximately November 1, 2025. Under adverse circumstances, the project could take up to 800 workdays.

## **Construction Methods**

### *Site Preparation*

Caltrans will install fencing throughout the project area to limit construction activities and protect habitats of concern. Caltrans will also delineate the construction staging and storage area, which will be located north of U.S. 101 and east of Refugio Creek within existing Caltrans right-of-way.

Prior to bridge construction activities, the contractor will clear and grub (i.e., remove all below-ground plant material) to provide access to the stream channel on either side of the bridge. Temporary vegetation removal to accommodate access and construction will be minimized to the greatest extent feasible.

#### *Dewatering/Diversion*

Stream dewatering and diversion may be required for work in the active stream channel including removing existing columns. Diversion and dewatering will be timed to occur between June 1 and October 31 to avoid impacts to sensitive aquatic species. During the dry season, a temporary dewatering check dam and diversion pipe may be installed to dewater the work area in Refugio Creek. Temporary removal of vegetation below the northbound bridge would be required to prepare the creek for demolition. The creek channel below the bridge would then be protected with clean washed gravel fill wrapped in plastic sheeting. The existing northbound bridge would be demolished, with the fill dirt below to cushion the impact and to protect the diversion pipe and concrete channel lining.

The exact configuration (i.e., dimension, size, materials, etc.) of the temporary check dam and diversion pipe will be determined by the contractor and included in the Revised Final Plans, required to be submitted by **Special Condition 1**. The Permittee anticipates the temporary check dam to be approximately 2.5 feet tall, constructed with gravel bags, and wrapped in polyethylene sheeting to make it waterproof. The check dam is anticipated to be approximately 1 foot thick at the top, 3 feet thick at the bottom, and as wide as the creek channel. The diversion pipes are anticipated to be 18 inches in diameter. If there is water present in the creek, the water would flow out of the construction zone after the check dam is installed due to the slope of the creek, but pools may remain. These pools would be dip netted and cleared of aquatic species or fish, with native fish immediately relocated to nearby suitable habitat outside of the area diverted and non-native fish permanently removed from the stream. Any remaining water would be dewatered out of pools using a low horsepower pump. To capture water-borne sediment, water would be pumped to a Baker tank system used for filtration, then returned to the creek downstream of the construction zone. The pumps, if used, would have protective screens at intake ends to prevent aquatic species and fish from entering.

The temporary stream diversion materials will be removed by end of the in-stream work season (October 31) and reinstalled the following year after the start of the in-stream work season (June 1), for each of the two construction years. When demolition of the southbound bridge is complete, the debris, clean fill, and the plastic sheeting will be removed. The stream diversion pipe would be moved to one side of the creek channel

and work would commence on fish passage improvements to the creek bed. In the unlikely event that any groundwater upwelling occurs while the creek bed modifications are being installed, perforated manifolds will be installed in the ground and water would be pumped into the Baker tank for settling. However, ground water upwelling is unlikely since it did not occur when the bridge was built in 1974. Upon completion of in-stream work, the contractor will remove all equipment and infrastructure associated with dewatering in a manner that will minimize adverse impacts to water quality and to ensure that stream contours are returned to as close to pre-construction conditions as possible.

#### *Bridge Replacement Stage 1*

Once the necessary area is dewatered, the first stage of bridge replacement will involve removing the northbound (NB) side of the existing bridge and constructing the northbound half of the new bridge. Traffic will be reduced to two lanes, one lane in each direction, and will be shifted to the existing southbound lanes through traffic controls. The traffic crossover will be designed to allow the on-ramps and off-ramps of the Refugio Road interchange to remain open as much as possible during construction. However, temporary ramp closures may be necessary for setting and removing traffic control devices.

The existing NB bridge would then be saw cut and demolished. The whole demolition process and removal of the NB bridge is estimated to take approximately seven working days. Broken bridge debris would then be removed. Once the old NB bridge is demolished, construction of the new NB bridge can proceed. First bridge piles would be installed for the abutments and column footing. The existing abutments and column footing would then be excavated approximately 15 to 20 feet below grade with temporary sheet piling around the excavations. Each bridge will contain 20 piles, with 10 piles being used for each larger-sized abutment. Utilizing cranes positioned near the existing pile installation areas, the piles will be picked up and swung overhead to the proposed installation locations. Pile installation would initially occur through vibration, then drilling, rotation, oscillation, and hammer driving to achieve the depth and pile load resistance requirements. Each pile requires an estimated average of 1,200 blow strikes. Once installed, a crane would place reinforcing steel cages into the piles and the piles would be back filled with cement.

To construct the remainder of the bridge, falsework of scaffolding and forms would be erected and the bridge soffit (i.e., underside of the bridge) would then be constructed. This involves forming of the bridge deck beam, placing of reinforcing steel, and concrete pouring of the beam. The bridge deck will then be constructed, which involves forming the deck portion of the bridge, placing of reinforcing steel, and concrete pouring of the deck. The concrete pouring would be conducted from the areas immediately adjacent to the abutments and would utilize a concrete pump truck. Once the deck is poured, the bridge concrete must obtain adequate compression strength. During bridge curing, the contractor may commence roadway-related work (i.e., drainage work, grading, striping, etc.). Once the bridge deck concrete obtains adequate compression strength, it would

be post-tensioned, and any falsework would be removed. The bridge deck and roadway would then be subjected surface treatment. Finally, the road striping, guard rail installation, and other ancillary activities would be completed.

#### *Bridge Replacement Stage 2*

Once the new NB bridge is complete, traffic on the U.S. 101 southbound (SB) lanes would be diverted by median crossover to the inside lane of the NB bridge. In the second year of the project, Refugio Creek may be dewatered again. Dewatering, demolition of the existing SB bridge, pile driving, and construction of the new SB bridge will follow the same process as described in the first stage. After demolition of the SB bridge is complete, work will commence on fish passage improvements to the creek bed while the new SB bridge is being built. Fish passage improvements will be completed before the end of the second dry season. Fish passage work upstream of the NB offramp bridge is likely to be conducted completely within the ordinary high-water mark of Refugio Creek, but a temporary access road to get equipment to the upper portion of the creek may be necessary, as existing utility lines (fiber optic and water lines) that cross the creek may prevent the free movement of equipment up and down the bed of the creek.

## **B. COASTAL HAZARDS**

Section 30253 of the Coastal Act states, in applicable part:

*New development shall do all of the following:*

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

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

Additionally, the Gaviota Coast Plan provides policy guidance on the siting and designing of development to minimize the impacts of coastal hazards, in applicable part:

***Policy TEI-9: Sea Level Rise Transportation Impacts. Consult with Caltrans and Union Pacific Railroad, or its successor agency, to protect access to the coast and to minimize impacts of sea level rise on the rail corridor, U.S. Highway 101 and County roads. Identify areas that may be susceptible to bluff erosion or are at risk of periodic inundation from storm surge and sea level rise via a vulnerability analysis. A combination of structural and non-structural measures should be considered with a preference towards non-structural solutions, including relocating the rail corridor, U.S. Highway 101, or County roads unless the structural solutions are less environmentally damaging.***

***Dev Std LU-2: Sea Level Rise and Coastal Hazards.** Sea level rise and coastal hazard analyses shall be required for near-shore development. Using best available science, the coastal hazard analysis shall consider the impacts of sea level rise on the proposed development including vulnerability assessment, and identification of adaptive measures to reduce expected risk and increase resiliency to sea level rise. Near-shore development includes sites on and along the beaches, bluffs, tidally influenced water bodies and areas potentially subject to inundation given topography and proximity to the ocean.*

In addition to Section 30253(a), when the project site could be exposed to sea level rise, Coastal Act 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.” Coastal Act Section 30421 more broadly requires state and regional agencies, including the Coastal Commission and Caltrans, to “identify, assess, and, to the extent feasible and consistent with their statutory authorities, avoid, minimize, and mitigate the impacts of sea level rise.” Furthermore, Gaviota Coast Plan Policy TEI-9 requires that transportation infrastructure, including U.S. 101, be sited and designed to protect access to the coast and to minimize impacts of sea level rise. Lastly, GCP policy LU-2 requires that the best available science be used to develop a coastal hazards analysis to evaluate the potential impacts of sea level rise on proposed development.

### **Seismic Hazards Analysis**

The project is located along the Gaviota Coastline within the northernmost portion of the Transverse Ranges Geomorphic Province of California. The Transverse Ranges are characterized by east-west trending mountain ranges that extend from Point Conception in the northwest to the San Gabriel Mountains in the southeast and are highly folded and faulted. The local mountain range near the project is the Santa Ynez Mountains. U.S. 101 crosses the coastal bluffs emanating from the southern base of these mountains. The bedrock geology near the project site consists of folded fine-grained marine deposits of the Miocene-aged Monterey Formation and Rincon Shale that are overlain by relatively flat-lying Pleistocene-age river terrace deposits and Holocene-age alluvial valley and floodplain deposits. Both types of deposits are composed of silts, sands, and gravels that eroded from the Santa Ynez Mountains and were deposited by south-flowing rivers and streams. Landslide deposits from previous debris flow or landslides originating from the hillsides flanking Refugio Creek are also present within the project limits, but the slopes near the project are not currently showing any signs of instability.

Although the project site is not within an Alquist-Priolo Earthquake Fault Zone as established by the California Geological Survey, the site may be subject to strong ground motions from nearby earthquake sources during the design life of the proposed bridge. Three reverse faults have the potential to influence the project site: Santa Ynez, Channel Islands Western Deep Ramp, and Pitas Point-Lower West. The maximum

credible earthquake magnitudes for these faults range from 6.5 to 7.2. Each one has the potential to cause severe shaking and moderate to heavy structural damage. However, the potential for surface fault rupture does not exist since the project is not within 1,000 feet of any faults that are Holocene or younger in age (11,700 years or fewer).

Conditions were assessed through field observations and review of the as-built plans and log of test borings. The borings were drilled in 1967 at the original ground elevations and indicate that sediments in the project subsurface are composed of interbedded layers of silt, clay, sand, and gravel that overlie siltstones, shales, and sandstones.

To minimize seismic risks, Caltrans designed the proposed bridge in accordance with Caltrans' Seismic Design Criteria. This approach is intended to ensure minimal probability of collapse during an extreme event, and to ensure that any damage is minimal, evidently visible, and repairable.

### **Creek Flooding Hazards Analysis**

As mentioned above, Refugio Creek flows beneath the bridges and empties into the Pacific Ocean south of the project site. Within the project limits, the creek is lined with concrete-grouted rock slope protection which was installed for flood protection when the original Refugio Creek Bridges were built in 1974. In Santa Barbara County, flood risks occur from both coastal and river flooding. River flooding results from heavy rain events, causing rivers to exceed their capacity and overflow their banks. Coastal Santa Barbara County is subject to flash floods due to the "orographic effect" where approaching Pacific storms are forced upwards against the steep mountain ranges leading to an increased rain release over a short period of time. To study the impacts of creek flooding on the project site, Caltrans completed a Location Hydraulic Study, in April 2019, a Fish Passage Analysis in May 2018, and a Final Hydraulic Report in November 2019.

In these studies, several options were considered for treatment of the creek banks in association with the fish passage improvements. Underlying the existing rock slope protection, the creek banks are composed of highly erosive soils that need stabilization to protect the Refugio Creek Bridges and other nearby bridges and infrastructure from failure due to erosion and scour. A model simulating a 100-year storm on the creek indicated that storm flows would produce shear stresses ranging from 10 to 12 pounds per square foot on the creek banks. Creek bank stabilization using brush-layering techniques, or another bioengineering method are only projected to withstand maximum shear stress levels of 8 pounds per square foot. Thus, bioengineering solutions may fail during a 100-year storm on Refugio Creek. A 100-year storm is used by Caltrans as a standard base model, but larger storms in this watershed are possible and likely. Replacing the grouted rock slope protection banks with a non-grouted rock slope protection system that can withstand a 100-year flood event would require the installation of larger, more deeply anchored boulders. The slope of the existing creek bed would also need to be shallower (a slope with a 2:1 horizontal to vertical ratio),

which would widen the footprint of the creek. The existing concrete-grouted rock slope protection slope is constructed at a 1.5:1 horizontal to vertical ratio, which is possible because the concrete grout stabilizes the steeper slope. Widening the creek to accommodate shallower 2:1 slopes would require more extensive excavations and would increase the area of permanent impacts to biological resources and to known archaeological resources present within the project limits. Widening of the creek would also require replacement of the northbound U.S. 101 on-ramp bridge and the private bridge farther north to prevent scour during high-energy flood events on Refugio Creek. Without replacement, flood flows would rapidly contract to squeeze through the smaller bridge openings, and then would immediately expand upon exiting the bridge opening. The rapid contraction and expansion of flood flows would create a number of geomorphological issues, including generating turbulent flows that lead to scour. Finally, the horizontal space beneath the Refugio Creek Bridges is limited and widening the creek in this area would encroach on Refugio Road and the pedestrian pathway.

Therefore, to minimize the risks to creek flooding during a 100-year storm without widening the creek, Caltrans proposes leaving the concrete-grouted rock slope protection on the creek banks and removing the rock slope protection from the creek bed. According to the Final Hydraulic Study, this design was identified as the preferred design option because it would withstand the high flow velocities expected during storms while minimizing environmental impacts.

### **Sea Level Rise Hazards Analysis**

This project is in the portion of the Coastal Zone that is subject to the requirements of the Gaviota Coast Plan of the County of Santa Barbara Local Coastal Program, and thus has been analyzed for potential vulnerabilities to the effects of global sea level rise. Near the project, U.S. 101 crosses elevated coastal bluffs that are dissected by several creeks draining water from the Santa Ynez Mountains into the Pacific Ocean. The project site spans the Refugio Creek drainage, which flows into Refugio Lagoon within Refugio State Beach. The state beach sits along a small, protected bay of the Pacific Ocean. At the project location, U.S. 101 is about 1,000 feet from the ocean and at an elevation of about 80 feet above mean sea level. The footings of the central columns for the existing Refugio Road Bridges are about 25 feet above mean sea level.

As is true globally and along California's coast, sea levels in the project area have been rising over time. Increased sea level rise can lead to greater temporary flooding of coastal highways due to increased tidal elevations and elevated coastal water levels during extreme tidal events such as king tides, strong winds, and storm surge, as well as eventual permanent inundation of low-lying areas. Climate change may also lead to increased extreme storm events (in terms of intensity and/or rate of occurrence) and therefore increased incidence of flooding through extreme precipitation and storm water runoff events.

The State of California has undertaken significant research regarding changing sea level and possible consequences to coastal resources and important assets. In April



2017, a working group of the Ocean Protection Council’s (OPC) Science Advisory Team released *Rising Seas in California: An Update on Sea-Level Rise Science*. This report synthesizes recent evolving research on sea level rise science, notably including a discussion of probabilistic sea level rise projections as well as the potential for rapid ice loss leading to extreme sea level rise. This science synthesis was integrated into the OPC *State of California Sea-Level Rise Guidance 2018 Update*. This guidance document provides high-level, statewide recommendations for state agencies and other stakeholders to follow when analyzing sea level rise. Notably, it provides a set of projections that OPC recommends using when assessing potential sea level rise vulnerabilities for various projects. Taken together, the *Rising Seas* science report and associated guidance document account for the current best available science on sea level rise for the State of California, and these projections accordingly have been incorporated into the Coastal Commission’s *Sea Level Rise Policy Guidance 2018 Science Update*. In addition, in May 2020, the Commission adopted *Making California’s Coast Resilient to Sea Level Rise: Principles for Aligned State Action*, which calls for addressing a minimum of 3.5 feet of sea level rise in the next 30 years.

The 2018 OPC Guidance provides sea level rise projections for twelve California tide gauges and recommends using the projections from the tide gauge closest to the project site. In this case, the Santa Barbara tide gauge is the closest gauge. The following table depicts the projected sea level rise in Santa Barbara under low, medium-high, and extreme risk aversion scenarios.

Year	Projected Sea Level Rise (in feet)		
	Low Risk Aversion	Medium-High Risk Aversion	Extreme Risk Aversion
2040	0.7	1.1	1.6
2050	1.0	1.8	2.5
2060	1.3	2.5	3.6
2070	1.7	3.3	4.9
2080	2.1	4.3	6.3
2090	2.6	5.3	7.9
2100	3.1	6.6	9.8

Given the range of many uncertainties incorporated into the models, these projections are not precise, but are intended to reflect a range of potential outcomes. The low risk aversion scenario has an estimated 17% probability of being exceeded, and the medium-high risk aversion scenario has an estimated 0.5% probability, or a 1-in-200 probability, of being exceeded. The extreme risk aversion scenario accounts for developing research on the mechanisms driving the potential for extreme ice loss, and it does not have an associated probability at this time. While this scenario is an area of ongoing research, the physical processes that would lead to the extreme scenario of sea level rise are currently thought to be unlikely to occur before the latter part of the century. Because of the uncertain timing of the extreme rates of sea level rise, the 2018 OPC Guidance recommends analyzing the extreme risk aversion scenario (or H++ scenario) for “projects with a design life beyond 2050 that have little to no adaptive

capacity, would be irreversibly destroyed or significantly costly to relocate or repair, or would have considerable public health, public safety, or environmental impacts.”

As our understanding of sea level rise continues to evolve, it is possible that sea level rise projections will continue to change as well. While uncertainty will remain with regard to exactly how much sea levels will rise and when, the direction of sea level change is clear, and it is critical to continue to assess sea level rise vulnerabilities when planning for future development. Importantly, maintaining a precautionary approach that considers high and extreme sea level rise rates and includes planning for future adaptation will help ensure that decisions are made that will result in a resilient coastal California. This is especially the case for critical infrastructure, which the State of California defines broadly, with examples including roads, bridges, ports, airports, and railways; water, wastewater, drainage, and sewers; schools, jails, hospitals, and health care facilities; government facilities and commercial buildings; power plants; terrestrial, satellite, and wireless transmission systems; telecommunications; and data information systems.<sup>3</sup> Because of the interconnected nature of critical infrastructure, the high cost and long lifespan of such facilities, and the oftentimes lengthy planning and permitting process needed for building or modifying such facilities, it is imperative that state and local agencies plan proactively for sea level rise adaptation for their critical infrastructure investments. In such cases, the OPC Guidance and Coastal Commission Guidance recommend that applicants for critical infrastructure projects understand the risks associated with higher sea level rise projections and develop adaptation pathways for those higher scenarios. In 2021, the Commission further recognized the necessity to continue building upon proactive planning efforts by adopting *Critical Infrastructure at Risk: Sea Level Rise Planning Guidance for California’s Coastal Zone*. This document focuses on water and transportation infrastructure and provides extensive planning and policy guidance to help inform sea level rise adaptation decisions. The need for such advance planning is also reflected in Section 30270 and 30421 of the Coastal Act and Policies TEI-9 and LU-2 of the Gaviota Coast Plan.

In this case, the EIR analyzed the most recent inundation maps and data from the Coastal Storm Modeling System (CoSMoS), which found based on best available science, that the proposed bridge has minimal risk to be affected by sea level rise impacts during its 75-year design life. In this location, U.S. 101 crosses coastal bluffs that are approximately 80 feet above mean sea level and about 1,000 feet from the shoreline. Furthermore, the project elements below the bridges including the bridge foundations, fish passage improvements, and public access pathway reconstruction, are at a high enough elevation (about 15 to 25 feet above mean sea level), that they are not expected to be inundated under even the extreme H++ climate scenarios (9.8 feet above mean sea level).

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<sup>3</sup> California Governor’s Office of Planning and Research, 2018.

Though Caltrans has designed the proposed bridge to reduce vulnerability to coastal hazards, it is not possible to remove all associated risk associated with the uncertainties of natural hazards. **Special Condition 7** requires Caltrans to assume the risks of flooding and geologic hazards to Refugio Creek Bridge. As stated above, Caltrans acknowledges that the proposed bridge location is subject to potential seismic risks, including potential tsunamis. 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.

For these reasons, the Commission finds that the proposed project, as conditioned, will minimize risk to life and property from hazards, assure stability and structural integrity, and will neither create nor contribute significantly to erosion, geologic instability, or destruction of the surrounding area, consistent with Section 30253 of the Coastal Act. The Commission further finds that Caltrans has appropriately identified and assessed the impacts of sea level rise, and that the proposed project avoids, minimizes, and mitigates the impacts of sea level rise to the greatest extent feasible, consistent with Coastal Action Section 30270 and Policies TEI-9 and LU-2 of the Gaviota Coast Plan.

### C. Archaeological Resources and Tribal Consultation

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.

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.*

Additionally, the Gaviota Coast Plan provides policy guidance on the protection of Tribal cultural and archaeological resources:

**CS-1: Cultural Resources Preservation and Protection.** Preserve and protect significant cultural, archaeological and historical resources to the maximum extent feasible.

**CS-2: Properties of Concern.** Significant cultural resources *including historic structures, Rural Historic Landscapes, archaeological sites, Traditional Cultural Properties, and Tribal Cultural Resources shall be protected and preserved to the maximum extent feasible.*

**Development Standard CS-1: Phase 1 Archaeological Surveys.** *A Phase 1 archaeological survey shall be performed when identified as necessary by a County archaeologist or contract archaeologist. The survey shall include all areas of the project that would result in ground disturbance. The content, format, and length of the Phase 1 survey report shall be consistent with the nature and size of the project and findings of the survey.*

**Development Standard CS-2: Phase 2 and 3 Archaeological Studies.** *If archaeological remains are identified and cannot be avoided through project redesign, the proponent shall fund a Phase 2 study to determine the significance of the resource prior to issuance of any permit for development. All feasible mitigation recommendations resulting from the Phase 1 or Phase 2 work, including completion of additional archaeological analysis (Phase 3) and/or project redesign shall be incorporated into any permit issued for development.*

**Development Standard CS-3: Identification of Traditional Cultural, Historical, and Spiritual Sites.** *Native Americans shall be consulted when development proposals are submitted that impact significant archaeological or cultural sites. Cultural sites may include Traditional Cultural Properties and Tribal Cultural Resources, as identified through consultation with Native Americans.*

**Development Standard CS-4: Native American Contact List.** *When existing documentation or a Phase 1 survey indicates that significant prehistoric cultural resources may be affected by a proposed project, the County shall obtain a Native American Contact List from the Native American Heritage Commission and consult with Native Americans in accordance with Assembly Bill 52 during each stage of cultural resources review.*

The Commission acknowledges Tribal sovereignty and understands that California's Tribes and their members have long served as stewards of the state's important coastal resources, and possess unique and valuable knowledge and practices for conserving and managing these resources in a sustainable manner, and in a manner consistent with the spirit and intent of the Coastal Act.

The Commission's Tribal Consultation Policy (adopted on August 8, 2018)<sup>4</sup> 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

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<sup>4</sup> <https://documents.coastal.ca.gov/assets/env-justice/tribal-consultation/Adopted-Tribal-Consultation-Policy.pdf>

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, GCP Policies CS-1, CS-2 and Development Standards CS-1 and CS-2 require that development be sited and designed to prevent impacts to archeological and tribal cultural resources. Moreover, GCP Development Standards CS-3 requires the identification of Traditional Cultural, Historical, and Spiritual Sites and requires that Native Americans be consulted when development proposals are submitted that impact significant archaeological or cultural sites. Furthermore, GCP Policy CS-4 requires applicants to coordinate with the Native American Heritage Commission (NAHC) to identify sensitive tribal archeological resources and to monitor construction activities in order to avoid or mitigate for any impacts to these resources.

The project site is one of deep cultural significance to the local Chumash including the Coastal Band of the Chumash Nation, the Santa Ynez Band of Chumash Indians, and the Barbareño/Ventureño Band of Mission Indians. One archaeological site lies within the Area of Potential Effects: CA-SBA-87 (Enright et al. 2017). Site CA-SBA-87 is the Chumash village site of Qasil, which was identified during the ethnohistoric period, possibly as early as 1542 during the Cabrillo expedition, when European travelers passed through the area making notes and writing descriptions of what they saw.

Previous studies of the site date it to the Middle to Late Period, from about 2,000 to 400 years before present. The site contains evidence of the Chumash people from the pre-contact period and possibly into the historic period including the Mission Period and beyond. The pre-contact period refers to the time before the arrival of Europeans or people of European descent. During the pre-contact period the Chumash inhabited villages and towns in coastal and inland areas extending from the Santa Monica Mountains in the south to Paso Robles in the north, as well as the northern Channel Islands. Individual villages in the Santa Barbara and Goleta area contained up to 1,000 residents, while villages elsewhere in the region were less populated.

The Chumash were adept hunters-gatherers and fishers, with coastal populations relying heavily on marine resources such as shellfish, fish, and marine mammals. Chumash culture included well-developed technology and crafts, as well as an elaborate exchange system featuring a shell-bead currency that linked the island, mainland coast, and interior regions. Ocean-going plank canoes called tomols were a notable technology that allowed for cross-channel transportation.

In October 1542, the arrival of the Spanish explorer Juan Rodriguez Cabrillo ended the pre-contact period on the central coast of California. The arrival of the Cabrillo expedition and eventual establishment of Spanish settlements beginning with the Catholic Mission System brought great changes to the area by replacing indigenous economic and political structures with new/foreign systems that sought to alienate and disassociate native people of their ancestral lands for the benefit of foreign centralized

power. In addition, foreign interlopers introduced diseases to the Chumash, against which they had no resistance, greatly affecting their populations. Despite these factors, places like Qasil represent an area where the Chumash maintained control and found new ways to participate in a dynamic, international economic system during this transition period.

As mentioned above, the project lies within the traditional territory of the Chumash. According to the EIR, Caltrans contacted the NAHC and sent a Sacred Lands File, Native American Contacts List Request form, and a map depicting the proposed project locations. Additionally, Caltrans prepared a Historic Property Survey Report in April 2018, a Supplemental Property Survey Report in January 2019, and the Finding of Adverse Effect in May 2019. As part of the preparation for the Historic Property Survey Report, Caltrans' consultants conducted a record search at the Central Coast Information Center followed by a Phase 1 archaeological survey. The survey was conducted with the assistance of a Native American monitor and the results were documented in an Archaeological Survey Report (Enright et al. 2017).

Findings of the Archaeological Survey Report demonstrate that extensive development has affected site CA SBA-87. Development that has modified the landscape includes the construction of the Union Pacific Railroad and U.S. 101, as well as agricultural practices including grazing and plowing, and development of the State Park. Much of this work occurred prior to 1970, without the implementation of avoidance, minimization, and mitigation strategies to protect archaeological resources. The most notable effects to site CA-SBA-87 occurred during construction of the existing Refugio Road Bridges in 1974. As part of the bridge construction project, Caltrans implemented an archaeological mitigation program that involved the completion of an extensive preconstruction salvage at site CA-SBA-87. The program was led by G. James West, a California Department of Parks and Recreation Archaeologist, with excavations taking place over the summer of 1969. West and his team of students and volunteers partially excavated the site, focusing primarily on the portions that were at risk due to bridge construction. The team salvaged an extensive collection of artifacts using techniques that at the time were novel, including the use of a backhoe to remove overburden.

For this project, consultation activities were generally comprised of field reviews, meetings, correspondence, and review of draft and final reports. Specific communications between Caltrans and the tribes are confidential, and therefore the full record of those communications is not included here. Consultation concluded on November 8, 2019. Through consultation with the tribes, in conjunction with the records search, surveys, and testing, Caltrans concluded that the project area contains no cultural resources eligible for inclusion in the National Register of Historic Places, but that the project may affect tribal cultural resources. Therefore, Caltrans is proposing to implement protocols for evaluation and protection of any archaeological resources discovered during certain construction phases. Specifically, if cultural materials are discovered, all earth-moving activities within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of

the find. These protocols are also required by **Special Condition 8**, which further requires that Caltrans submit for Executive Director review and approval a report documenting the results of the analysis and any proposed changes to the project description, including any avoidance, minimization, and mitigation measures. The Executive Director will subsequently respond in writing with a determination of whether the proposed changes are allowable under the CDP or other applicable Coastal Act policies.

If human remains are discovered, California Health and Safety Code Section 7050.5 requires that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the county coroner shall be contacted. If the remains are thought by the coroner to be Native American, the coroner will notify the Native American Heritage Commission, which, pursuant to Public Resources Code Section 5097.98, will then notify the most likely descendent. At that time, the person who discovered the remains will contact Caltrans District 5, which will work with the most likely descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code 5097.98 are to be followed, as applicable.

Consistent with the Commission's tribal consultation policy adopted in 2018, Commission staff reviewed the tribal consultation undertaken by Caltrans. On August 5, 2022, Commission staff wrote to the tribal representatives identified by the NAHC to inform them of the project's 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.

In conclusion, based on the findings of Caltrans' records search, surveys, and testing; the tribal consultation performed by Caltrans and Commission staff; as well as the cultural resource avoidance measures and monitoring, evaluation, and protection protocols that will be implemented by Caltrans as part of the project, the Commission finds that the development, as conditioned, is consistent with Coastal Act Section 30244 and Gaviota Coast Plan policies CS-1, CS-2 and development standards CS-1, CS-2, CS-3, and CS-4.

## **D. Public Access and Recreation**

Coastal Act Section 30604(c) requires that every CDP issued for any development between the nearest public road and the sea "shall include a specific finding that the development is in conformity with the public access and public recreation policies of [Coastal Act] Chapter 3." Coastal Act Sections 30210 through 30213, 30221 and 30223 specifically protect public access and recreation. In particular:

**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.

**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.

**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...

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

**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.

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

Additionally, the Gaviota Coast Plan provides policy guidance regarding the protection of coastal access, trails, and recreation:

***Policy REC-4: Protect and Preserve Trail Alignments.*** All opportunities for public trails within the general alignments and locations identified on the Parks, Recreation and Trails (PRT) map shall be protected, preserved, provided for, and sited and designed using the considerations in Policy REC-5 and Policy REC- 6 during review and approval of development and/or permits requiring discretionary approval.

***Policy REC-5 (in relevant part): Siting and Design Considerations.*** Trail siting, design and/or maintenance should be low impact and foster sustainability. Planning for the location and intensity of use of public trails, access, and recreational opportunities within the Gaviota Coast Plan Area shall be conducted in accordance with the considerations listed under Policy REC-5.

***Policy REC-6 (in relevant part): Coastal Trail Siting and Design Considerations.*** Siting, design and maintenance of the coastal trail and associated public access facilities should emphasize low impact designs and foster sustainability. In addition to the standards set forth in Policy Rec-3, the measures listed under Policy REC-



*6 shall be followed with respect to the specific siting and design of the trails within the Coastal Zone.*

***Policy REC-12: Interagency Coordination.*** *The County shall work cooperatively with organizations including but not limited to the California Coastal Conservancy, California Department of Parks and Recreation, Caltrans, Union Pacific Railroad or its successor, non-profits, and the US Forest Service to establish an effective network of inland and coastal trails where jurisdictions overlap.*

***Policy REC-13: Roadside Parking.*** *Existing free roadside parking on county roads and U.S. Highway 101 are key to public use and enjoyment of the Gaviota Coast and shall be protected.*

***Policy REC-13a: Public Parking. (COASTAL)*** *Provide adequate parking to serve recreation uses. Existing parking areas serving recreational uses shall not be displaced unless a comparable replacement area is provided. New parking areas and associated facilities shall be distributed throughout the Plan area to minimize the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

***Policy REC-14: Transportation Improvements and Public Access.*** *All improvements to the U.S. Highway 101, County roads, and the Union Pacific Railroad or its successor agency shall be designed to protect and expand public access to and along the coast.*

Taken together, these overlapping policies protect public access and recreation opportunities for the public, particularly free and low-cost access.

Within the project vicinity, U.S. 101 travels in an east/west direction and connects the Gaviota Coast to the rest of Santa Barbara County. With the exception of Calle Real, U.S. 101 is the only roadway to travel along the Gaviota Coast and provides public access to the coast for much of Santa Barbara County. It also provides direct access to Refugio State Beach via Refugio Road, which is largely within Caltrans right-of-way, but managed by the County of Santa Barbara. Refugio State Beach is a 20-acre state park that includes picnic areas, campgrounds, hiking trails, and a sandy beach that is popular for fishing, surfing, kayaking, and scuba diving.

Class III bicycle lanes exist on both the northbound and southbound portions of U.S. 101. There is also a public access pathway beneath the bridge. The path is a designated coastal access trail in the Gaviota Coast Plan and provides access between an informal road shoulder parking area on Refugio Rd. and Refugio State Beach. As mentioned in more detail below, restoration of a portion of the parking area along Refugio Rd. and improvement of the trail are elements of the project.

Caltrans has identified several threats to the public access connectivity provided by the

existing bridge over Refugio Creek. Inspection of the bridge has documented a long history of concrete cracking and deterioration that have damaged the bridge's structural integrity and, if left unaddressed, may present a public safety hazard in the future. The most recent routine inspection noted separation and weakening of the bridge deck and a salt coating on the bridge soffit.

The existing bridge roadway also has sub-standard shoulder widths. While the majority of U.S. 101 has 8-foot-wide outside shoulders and 10-foot-wide inside shoulders, Refugio Creek Bridge currently has 4.7-foot-wide outside shoulders and 8-foot-wide inside shoulders along the northbound and southbound traffic lanes. At their current widths, the bridge shoulders do not provide sufficient space for vehicles to pull out of the travel lanes in case of an emergency. Moreover, the narrowing of the shoulders as vehicles approach the bridge at highway speed can increase the possibility of collision, especially with any bicyclists.

The proposed replacement bridge will alleviate these public safety risks by having a widened bridge deck that will accommodate a 10-foot-wide inside shoulder, three 12-foot-wide traffic lanes on northbound bridge and two 12-foot-wide traffic lanes on the southbound bridge, and a 10-foot-wide outside shoulder. The wider shoulders will conform to the highway's shoulders immediately north and south of the bridge and will provide a safer traveling space for vehicles as well as any cyclists using the outside shoulders. The replacement bridge railings along the outside shoulders and along the outside of the bicycle and pedestrian path will meet current safety standards while providing a more "see-through" appearance for greater visual access to the creek and surrounding environment.

Moreover, Gaviota Coast Plan Policies REC-13, REC-13a, and REC-14 require that existing free coastal access parking be preserved and protected. As described in further detail herein, free, informal coastal access parking was available on the road shoulder of Refugio Road. However, Caltrans previously installed "No Parking" signs on Refugio Road without benefit of the necessary coastal development permit, which eliminated approximately 91 free coastal access parking spaces. Through this project, Caltrans is proposing to restore all safe parking spaces that had been previously removed through the installation of unpermitted "No Parking" signs. To ensure that all safe parking spaces would be restored for the public to use, Caltrans undertook a parking study which determined that 56 of the 91 parking spaces could be safely restored without line-of-sight issues (see [Exhibit 8](#)). Thus, the project as proposed, will restore approximately 56 of those 91 parking spaces along Refugio Road through removal of the "No Parking" signs. **Special Condition 1** requires a final revised signage plan that includes new signage affirmatively showing the locations of the 56 free public parking locations on Refugio Road. **Special Condition 1** also requires a permit amendment for any changes to the parking plan approved by this permit or any new signage or other development that would change the availability of free parking on Refugio Road.

Gaviota Coast Plan Policy REC-4 requires the protection and preservation of trail alignments identified on the Parks, Recreation and Trails map and Policy REC-12 requires the establishment of trail networks through interagency coordination. An existing asphalt pedestrian path running parallel to Refugio Road below the bridges was constructed along with the U.S. 101 freeway in 1974 and is identified as an existing coastal access trail in Santa Barbara County's Gaviota Coast Plan. This pathway is anticipated to be damaged by falling debris during bridge demolition. Furthermore, Gaviota Coast Plan Policies REC-4 and REC-5 require design and maintenance of the coastal trail and associated public access facilities to implement low impact designs and foster sustainability. In order to fully resolve the violation at issue, as described in more detail below, the Permittee is proposing improvements to the trail that exceed simply repairing the trail after construction. For instance, the portions of the pathway within Caltrans right-of-way will be reconstructed to meet the standards of the Americans with Disabilities Act, including the addition of outside railings for safety, as needed. A wayfinding trailhead sign would be added at the northern entrance to the path that was developed in coordination with Commission staff (see [Exhibit 9](#) for trailhead sign). Additionally, a public access staircase is proposed to be built to allow the public to access the pedestrian path safely from Refugio Rd (see [Exhibit 10](#)) without the need to cross the northbound onramp. See [Exhibit 11](#) for a general view of the pedestrian path, staircase location, and public parking location.

As described in more detail below, Caltrans has agreed to contribute \$75,000 toward the planning, design, and construction of the Paradiso del Mare (Paradiso) trail to mitigate the temporal loss of free parking on Refugio Rd. The Paradiso trail will be a segment of the California Coastal Trail (CCT) located approximately 9 miles downcoast of the project site. Commission staff worked with Caltrans, the Coastal Conservancy, and the County of Santa Barbara to identify this shovel-ready public access project (see [Exhibit 12](#)). In 2014, the County approved case no. 09CDP-00000-00045 and 10CDP-00000-00094, which included several offers to dedicate (OTD) easements for both vertical and lateral public access and recreation facilities including a segment of the CCT along the length of the ocean lot including a loop trail and lookout points. Currently, the property is not open to public access, and as the site develops, these public access amenities will provide unique access to this segment of the coast including the Naples State Marine Conservation Area (SMCA). Naples SMCA is a Marine Protected Area and provides protection for a highly productive, unique offshore rocky reef with exceptional substrate diversity, intertidal areas, surfgrass, kelp forest, and a harbor seal haul out. The Paradiso trail network will provide free coastal access to this iconic area used by beachgoers, divers, surfers and kayakers alike. To that end, the project required the property owner to contribute \$500,000 of seed money for the benefit of the Santa Barbara County Trails Council (Trails Council) for the purpose of funding implementation (design, permitting, construction and/or maintenance) of the Paradiso public access easements. At this stage, the Trails Council have completed 50% of preliminary design, and Caltrans funding of \$75,000 toward this effort will bring a valuable contribution toward this effort. Therefore, **Special Condition 3** requires

Caltrans to enter into a Cooperative Agreement with the County of Santa Barbara to transfer and manage these funds.

Collectively, the proposed changes represent permanent public access improvements by increasing the safety of all highway travelers and all users of the free parking on Refugio Road and improvement of the pedestrian path. Widening of the existing shoulders enhances multimodal coastal access by encouraging bicycle travel on the Gaviota coast. The visual permeability of the new bridge railings will also maintain and improve travelers' visual access to the creek area while crossing the bridge.

The bridges would be replaced one at a time, starting with the southbound bridge, so that one bridge would always remain open to traffic. A Transportation Management Plan (TMP) has been developed for this project to minimize work-related traffic delays while reducing the overall duration of work activities. The strategies to be implemented with this project include a public awareness campaign, changeable message signs, planned lane closure website, and Construction Zone Enhanced Enforcement Program (COZEEP) with the presence of the California Highway Patrol. Two lanes of traffic in both the northbound and southbound directions would be located on one bridge while the other bridge is being constructed. Refugio Road under the bridges would remain open to traffic except during demolition and during certain construction activities for approximately 6 weeks. During these closure periods, southbound U.S. 101 traffic would be able to access Refugio State Beach using the existing off-ramp. Northbound U.S. 101 traffic would be detoured north to Mariposa Reina Overcrossing where they would switch directions and travel southbound and use the southbound off-ramp. All traffic leaving the park would use the southbound on-ramp with northbound traffic using the El Capitán State Park Undercrossing to switch directions. Traffic using Refugio Road on the north (inland) side of the bridges would also be subject to the detours when the roadway is closed.

During Stage 1 reconstruction of the southbound bridge, southbound bicycle traffic would continue along the temporary southbound shoulder. Northbound bicycle traffic would bypass the construction zone by exiting at the Refugio Road on-ramp and re-entering the highway at the northbound on-ramp. This traffic pattern would be maintained for approximately twelve months. During Stage 2 reconstruction of the northbound bridge southbound and bicycle traffic would be detoured like Stage 1. This traffic pattern would also be maintained for approximately twelve months.

**Special Condition 5(a)** requires Caltrans to minimize the areas within which construction activities and staging are to take place, and to site and design construction areas to avoid impacts to public access to the water and shoreline to the extent feasible. Moreover, during construction Caltrans will implement its Traffic Management Standard Specifications and Standard Special Provisions, which are a suite of standard measures designed to maintain traffic access within the project area while keeping the traveling public separated from construction activities. Examples of these strategies will include reduction of speed limit to reduce potential for traffic incidents, installation of

construction warning signs to inform the public, and advance publication of construction activities and roadway closures in local new media and on Caltrans' dedicated website for lane closures.<sup>5</sup>

Beyond temporary traffic impacts, project construction will have minimal impacts on public access. There will be no long-term closures of the Refugio Road interchange and no impacts on public access or public parking at Refugio State Beach. In conclusion, the Commission finds that the proposed project will provide necessary public safety improvements for a highway route that provides access to the coast, and will provide for enhanced cycling via the widened Class III bike lane in both directions and coastal access via the improved pedestrian path and restoration of free parking. Although the project will have temporary traffic impacts, Caltrans has committed to implementing measures to minimize these impacts. Given that vehicular and cycling access along the highway will be maintained, and there will be no restrictions to public parking or access points during construction, the proposed project will not have significant adverse effects on public access to and along the coast, and should enhance such access when complete. Therefore, the Commission concludes that the project, as conditioned, is consistent with the above-cited public access policies of the Coastal Act and the Gaviota Coast Plan.

## E. Visual Resources

Section 30251 of the Coastal Act states:

*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 land forms, 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.*

Additionally, the Gaviota Coast Plan provides guidance regarding the protection of scenic coastal views and night skies:

**Action TEI-1:** *U.S. Highway 101 Design Guidelines. The overall design theme for the construction and appearance of improvements within the U.S. Highway 101 right-of-way should be developed by the County of Santa Barbara in cooperation with CalTrans, Coastal Commission, Santa Barbara County Association of Governments, State Department of Parks and Recreation, and local citizens. Design criteria shall apply to roadway signs, fences and railings, access area improvements,*

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<sup>5</sup> <https://lcswebreports.dot.ca.gov/>

*bridges, restrooms, trash receptacles, etc. The objective of such criteria shall be to ensure that all improvements are inconspicuous and are in harmony with the rustic natural setting of the Gaviota Coast.*

***Policy VIS-1: Visual Compatibility.*** *The height, scale, and design of structures shall be compatible with the character of the surrounding natural and agricultural environment.*

***Policy VIS-5: Lighting.*** *The night sky and surrounding land uses shall be protected from excessive and unnecessary light associated with development.*

This stretch of U.S. 101 is designated as the Gaviota Coast State Scenic Highway and is located atop a marine terrace between the Santa Ynez Mountains and the ocean traversing the longest remaining rural coastlines in southern California. As such, the Gaviota Coast is an important respite for all Californians to enjoy the open landscape of a mostly undeveloped coastline. This segment of California's coast is remarkably scenic, and there are many public viewing areas that offer diverse and dramatic views of the Pacific Ocean and Channel Islands, the coastal terrace, and the ridgelines of the Santa Ynez Mountain range. The dramatic topographic features, native habitats, and the rural character of this region make the area's coastal resources very special for residents and visitors alike.

Travelers' ability to enjoy the views from the existing bridge are relatively unimpeded with 360-degree views of the ocean and surrounding hills. The existing northbound and southbound bridges contain 5 traffic lanes, three in the northbound direction, and two in the southbound direction. The bridge railings are 28 inches tall and are composed of concrete with a metal railing on top, providing moderate visual permeability for southbound vehicle passengers. Beyond that, the bridge approaches contain metal beam guardrails that provide clear unobstructed views of the surrounding environment.

Gaviota Coast Plan Policy TEI-1 requires that improvements to U.S. 101 maintain the rural scenic characteristics of the highway and be limited to necessary highway upgrades including expanding shoulders to accommodate bicycle traffic and creation of coastal access points. To comply with this policy, the proposed bridge has been designed intentionally to appear visually similar to the existing bridge. The bridge will maintain three lanes of highway traffic in the northbound direction, and two in the southbound direction and will be constructed at similar grade as the existing bridge to remain visually consistent with the surrounding roadway. However, to meet modern safety standards, the replacement bridge will differ visually in several respects. The bridge's deck will be noticeably wider to accommodate the expanded 10-foot-wide inside and outside shoulders. The new bridge shoulders will conform to the width of the roadway shoulders immediately north and south of the bridge. The bridge abutments will be noticeably larger, allowing the new bridge to be clear span, therefore improving the visual quality of the pedestrian path underneath the bridge. The two new bridges would be upgraded with ST-75 bridge rails, which is a similar see-through design to the

Commission-recommended<sup>6</sup> ST-70 bridge rail design. However, as opposed to two rails in the ST-70 bridge rail design, ST-75 bridge rail posts have three rails, are slightly greater in size, and have a fourth rail atop which is intended to protect cyclists from falling over the rail, all while maintaining visual permeability to protect coastal views. Additionally, the railings on the northbound on-ramp bridge would be upgraded. On all three bridges, the railing on the outside of each bridge would conform to bicycle railing heights.

The overall effect of these changes will be a somewhat larger, more engineered-looking bridge. This character change will be minor, however, and will be subordinate to the improved views of the surrounding natural landscape. Similar shoulder widths and bridge sizes are seen elsewhere along U.S.101 and will be consistent with the highway viewing experiences throughout the Gaviota Coast (see [Exhibit 13](#) for a visual simulation of the bridges).

In addition, Gaviota Coast Policy VIS-5 requires the night sky and surrounding land uses to be protected from excessive and unnecessary light. In conformance with this requirement, Caltrans has designed the new lighting system to minimize light pollution. The lighting system throughout the project limits would be replaced due to degradation of the existing conduits. Lighting work would consist of replacement of the service enclosure, luminaires, conduits, conductors, and pull boxes. The new luminaires would be fitted with energy-efficient light-emitting diode (LED) bulbs that are the same or lower in light output (lumens) as the existing bulbs. Cut-off shields would be installed on all luminaires to focus light on the roadway, reduce glare, and limit light from shining where it is not intended, wanted, or needed. The shields would reduce light pollution to the night sky, within the state park, and for surrounding homes, and limit light from spilling over into riparian habitat areas.

Following construction, construction access areas, staging areas, and other temporary uses will be re-contoured to match the surrounding natural topography. Vegetation trimmed or removed during project construction will be restored with appropriate native plants following construction. This vegetative restoration, coupled with the removal of bridge piles, will give the riparian corridor a more natural appearance when viewed from Refugio Creek and the surrounding area.

In conclusion, the proposed project's overall visual impact will be minor and visually unobtrusive, and will be mitigated by the visual enhancements provided by the improved bridge railings, reduction in bridge piles, and vegetation restoration. As a result, the Commission finds that the project, as submitted, is consistent with Section 30251 of the Coastal Act and Policies TEI-1, VIS-1, and VIS-5 of the Gaviota Coast Plan.

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<sup>6</sup> see [Caltrans and Coastal Commission Bridge Rail Barriers Guide](#)

## F. ESHA, BIOLOGICAL RESOURCES, COASTAL STREAMS, AND WATER QUALITY

Section 30107.5 of the Coastal Act:

*"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 30230 of the Coastal Act:

*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 maritime environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy population of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act:

*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 effect of waste water discharges and entrainments, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

Section 30236 of the Coastal Act :

*Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.*

Section 30240 of the Coastal Act:

*(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 recreation areas.*

In addition, the Gaviota Coast Plan includes these habitat-protection policies:

**NS-7: Riparian Vegetation.** *(COASTAL) New development, including fuel modification, shall be sited and designed to protect riparian Environmentally Sensitive Habitat, consistent with Policy NS-2 and all other applicable policies and provisions of this Plan and the local coast policy.*

**NS-9: Natural Stream Channels.** *Channelizations or other substantial alterations of streams shall be prohibited except for: 1) necessary water supply projects where no feasible alternative exists; 2) flood control projects for existing development where necessary for public safety and there is no other feasible alternative, or 3) development with the primary purpose of improving fish and wildlife habitat. Any channelization or stream alteration permitted for one of these three purposes shall minimize impacts to coastal resources, including ESH and the depletion of groundwater, and shall include maximum feasible mitigation measures to mitigate unavoidable impacts. Bioengineering alternatives shall be preferred for flood protection over “hard” solutions such as concrete or riprap channels.*

**TEI-14: Surface and Groundwater Pollution.** *Pollution of surface and groundwater will be avoided. Where contribution of potential pollutants of any kind is not prohibited and cannot be avoided, such contribution will be minimized to the maximum extent practical.*

**Policy NS-2: Environmentally Sensitive Habitat (ESH) Protection.** *(COASTAL) Environmentally Sensitive Habitat (ESH) areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. A resource dependent use is a use that is dependent on the ESH resource to function (e.g., nature study, habitat restoration, public trails, and low-impact campgrounds). Resource-dependent uses shall be sited and designed to avoid significant disruption of habitat values to ESH through measures including but not limited to: utilizing established disturbed areas where feasible, limiting grading by following natural contours, and minimizing removal of native vegetation to the maximum extent feasible. Non-resource dependent development, including fuel modification and agricultural uses, shall be sited and designed to avoid ESH and ESH buffer areas. If avoidance is infeasible and would preclude reasonable use of a parcel or is a public works project necessary to repair and maintain an existing public road or existing public utility, then the alternative that would result in the fewest or least significant impacts shall be selected and impacts shall be mitigated. Development in areas adjacent to ESH 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.*

**Policy NS-4: ESH Criteria and Habitat Types.** (COASTAL) *Environmentally sensitive habitat (ESH) means any area in which plant or animal life or their habitats are either (A) rare or (B) especially valuable because of their special nature or role in an ecosystem. The presence and extent of ESH shall be identified on a case-by-case basis based upon site-specific evidence provided by a biological report prepared by a qualified biologist...*

**Policy NS-11: Restoration.** (COASTAL) *In cases where adverse impacts to biological resources as a result of new development cannot be avoided and impacts have been minimized, restoration shall be required. A minimum replacement ratio of 3:1 shall be required to compensate for adverse impacts to native habitat areas or biological resources, except that mitigation for impacts to wetlands shall be a minimum 4:1 ratio. Where onsite restoration is infeasible, the most proximal and in-kind offsite restoration shall be required. Preservation in perpetuity for conservation and/or open space purposes of areas subject to restoration shall be required as a condition of the CDP and notice of such restriction shall be provided to property owners through a recorded deed restriction or Notice to Property Owner.*

### **Biological Resources and Environmentally Sensitive Habitat Areas**

The subject bridges pass over Refugio Creek, which is approximately 35 feet wide at the bridge location. The Refugio Creek watershed begins in the Santa Ynez Mountains where tributary streams merge at the upper end of Cañada del Refugio and form Refugio Creek. From there, the creek flows approximately three miles down Refugio Creek before reaching the project site. After an unaltered natural section, the creek transitions into a grouted rock slope protection lined channel. The RSP was constructed in 1974 as a flood control measure to protect the new Refugio Creek Bridges and Refugio Road, the grouted RSP channel lining is approximately 35 feet wide and approximately 10 feet deep. The grouted RSP channel passes under a private bridge, under the U.S. 101 northbound onramp bridge, under both of the subject bridges, then terminates at a concrete double-box culvert on State Parks' property. The culvert passes under the Refugio State Park campground road and the railroad then terminates at the entrance to Refugio lagoon. As described in more detail below, construction activities associated with the demolition and reconstruction of the Refugio Creek Bridges will result in .031 acres of permanent impacts to ESHA. An additional 1.724 acres of impacts to coastal scrub would occur primarily from bridge demolition, equipment access and staging, vegetation clearing, grading, falsework, and traffic management.

A variety of animal species use the habitat and waterways of Refugio Creek seasonally or annually, including several special-status species. The project site includes potentially suitable habitat for three state or federally listed animal species: Southern

California steelhead (*Oncorhynchus mykiss irideus*), tidewater goby (*Eucyclogobius newberryi*), and California red-legged frog (*Rana draytonii*), including designated critical habitat for steelhead and red-legged frog. Caltrans performed field surveys in 2016, 2017, and 2018 and did not observe any of these listed species.

Marginal to very low-quality nesting habitat exists within the project site for two federally listed bird species: least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*). However, Caltrans performed field surveys in 2016 and 2018 and observed neither of these species and there are no confirmed records of southwestern willow flycatcher or least Bell's vireo in Refugio Creek.

Twenty other special-status animal species (i.e., California Species of Special Concern, species on the California Special Animals List, and native migratory birds) have been identified as having potentially suitable habitat in the project site: coast range newt (*Taricha torosa*), northern California legless lizard (*Anniella pulchra*), western pond turtle (*Emys marmorata*), coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepisvirgulata*), two-striped garter snake (*Thamnophis hamondii*), Cooper's hawk (*Accipiter cooperii*), southern California rufous-crowned sparrow (*Aimophila ruficeps*), golden eagle (*Aquila chrysaetos*), great blue heron (*Ardea herodias*), burrowing owl (*Athene cunicularia*), ferruginous hawk (wintering) (*Buteo regalis*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), yellow-breasted chat (*Icteria virens*), purple martin (*Progne subis*), American yellow warbler (*Setophaga petechia*), pallid bat (*Antrozous pallidus*), San Diego desert woodrat (*Neotoma lepida intermedia*), and American badger (*Taxidea taxus*).

Out of the above-described species, two woodrat middens were discovered during surveys conducted by Caltrans biologists on May 3, 2017, however, middens may belong to the San Diego desert woodrat or the big-eared woodrat, which is not a special status species. One was discovered between the U.S. 101 northbound lanes and the northbound off-ramp at Refugio Road, which was active, because a wood rat (unknown species) was briefly observed near the midden. The other midden was observed between the U.S. 101 southbound lanes and the southbound off ramp at Refugio Road.

### **Project Impacts to Biological Resources and Habitat**

The widening of the bridge abutments would result in a permanent loss of 0.03 acres of coastal scrub habitat on the slopes surrounding the bridges. The project would also entail the removal of 1.724 acres of coastal scrub habitat that qualifies as ESHA. These impacts are caused by the need to stage construction and equipment access around the project site. To perform any work to replace the bridge abutments, construction crews will need access to these locations and the temporary falsework can only be placed next to the bridge, otherwise it would not provide access. Prior to bridge construction activities, the contractor will clear and grub (i.e., remove all below-ground plant material) to provide access to the stream channel on either side of the bridge. Temporary vegetation removal to accommodate access and construction will be minimized to the greatest extent feasible. Caltrans will install fencing throughout the

project area to limit construction activities and protect habitats of concern. Caltrans will also delineate the construction staging and storage area, which will be located north of U.S. 101 and east of Refugio Creek within existing Caltrans right-of-way.

Additionally, Caltrans completed consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) under Section 7 of the Federal Endangered Species Act (FESA) for potential impacts to steelhead, tidewater goby, and California red-legged frog. Through this consultation, NMFS determined that dewatering activities could result in a temporary disruption of habitat for steelhead, but the extent and effects of this are estimated to be minor, and restricted to two seasons of the driest months (June to October). Additionally, although there is potential for steelhead to occur, NMFS determined that there has been no recent documentation of steelhead in Refugio Creek and based on the current marginal habitat at the project site, the likelihood for steelhead to be present in the project area at this time is low. NMFS also determined that the proposed project will not adversely affect essential fish habitat pursuant to Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act.<sup>7</sup>

USFWS determined that the proposed project may have the potential to adversely impact tidewater goby. Tidewater goby presence could not be ruled out and there may be a potential for take of the species during dewatering activities, capture, and relocation. Although tidewater goby could be subjected to take, the potential is either zero, or very low due to poor habitat conditions in the project site. Finally, the USFWS also determined that the project may adversely impact California red-legged frog and its critical habitat. The presence of California red-legged frog cannot be ruled out and there would be a low but possible potential for take of the species during dewatering activities and construction.

Impacts may also occur to San Diego desert woodrats. However, San Diego desert woodrats prefer to construct middens in rocky terrain, so it is more likely that these middens belong to big-eared woodrats. However, the presence of San Diego desert woodrats cannot be ruled out because they have been recorded nearby in the California Natural Diversity Database. None of the other species were observed during field surveys. However, the proposed project may impact these species, and thus Caltrans will implement impact avoidance and minimization measures as described below.

The project also has the potential to impact nesting bird species. Although their presence cannot be ruled out, the project is not likely to adversely impact these species because avoidance and minimization measures will be employed to protect all nesting bird species, as described below.

### *Hydroacoustic Impacts*

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<sup>7</sup> 16 U.S.C. 1855(b).

The proposed project involves driving piles for the new bridge abutments. The existing abutments would need to be excavated approximately 15 to 20 feet below grade with temporary sheet piling around the excavations. The piles are anticipated to be 16-inch steel pipe piles filled with reinforced concrete. Each bridge would require 20 piles. In this clear-span design, 10 piles would be used for each larger-sized abutment. Utilizing cranes positioned near the existing pile installation areas, piles would be picked up and swung overhead to the proposed installation locations. Piles would be initially installed through vibration, then drilling, rotation, oscillation, and hammer driving to achieve the depth and pile load resistance requirements. Each pile would require an estimated average of 1,200 blow strikes. Once installed, a crane would place reinforcing steel cages into the piles and the piles would be back filled with cement. Caltrans has received project approval from NMFS and USFWS to implement this approach.

Elevated sound levels from pile driving could result in additional impacts to steelhead trout and common attenuation techniques used in water would not be possible, considering that all pile driving would occur on land (dry pile driving). Sound generated by percussive pile driving has the potential to affect fish in several ways. Potential effects range from alteration of behavior to physical injury or mortality. These effects depend on the intensity and characteristics of the sound, the distance and location of the fish in the water column relative to the sound source, the size and mass of the fish, and the fish's anatomical characteristics. Pile driving has the potential to harm or even kill steelhead trout potentially residing outside of the dewatered area or moving through the diversion pipe within the biological study area. However, as described in more detail below, Caltrans will implement avoidance and mitigation measures to limit the impacts to steelhead from pile driving. During construction, in-stream work, including pile driving, will be limited to the low-flow period from June 1 and October 31 in any given year, when the surface water is likely to be at seasonal minimum and to avoid adult steelhead trout spawning migration and peak smolt migration. Contractor deviations from this work window will only be made with permission from Caltrans in consultation with the relevant regulatory and resource agencies.

### **ESHA in the Project Area**

Under the Coastal Act, sensitive habitat areas meeting the definition found in Section 30107.5 are designated as "Environmentally Sensitive Habitat Areas" (ESHA). The equivalent terminology for sensitive habitat areas within the GCP is "Environmentally Sensitive Habitat" (ESH), defined as "any area in which plant or animal life or their habitats are either (A) rare or (B) especially valuable because of their special nature or role in an ecosystem. For the proposed project, Caltrans prepared an Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact (EIR), which analyzed the project's potential impacts on various coastal resources, including ESHA. The EIR included a habitat survey of the project impact area, which indicated that the project site contains plant communities that can be classified as riparian ESHA and coastal scrub ESHA. The Coastal Act and the GCP require ESHA to be protected against significant disruption of habitat values.

### *Riparian ESHA*

Statewide, and especially in southern California, riparian habitat is a rare habitat that has suffered considerable loss due to urbanization. Riparian habitat within the project area qualifies as ESHA, because the area is especially valuable due to its role in the ecosystem of providing essential habitat around Refugio Creek for a diverse assemblage of both sensitive and listed species. As described above, a variety of animal species use the habitat and waterways of Refugio Creek seasonally or annually, including several special-status species. The project site includes potentially suitable habitat for three state or federally listed animal species: Southern California steelhead (*Oncorhynchus mykiss irideus*), tidewater goby (*Eucyclogobius newberryi*), and California red-legged frog (*Rana draytonii*), including designated critical habitat for steelhead and red-legged frog. For these reasons, Refugio Creek is mapped as ESHA in the Gaviota Coast Plan.

### *Coastal Scrub ESHA*

Although the coastal scrub alliances present on the site are not particularly rare, they likely provide valuable foraging, shelter, cover, and dispersal habitat for the California red-legged frog (CRLF), a threatened species under the federal ESA, and support two rare plant species. The project impacts almost entirely occur within CRLF Critical Habitat Unit STB-6, Arroyo Quemado to Refugio Creek. In addition to supporting primary constituent elements (PCE) for aquatic non-breeding habitat, dispersal habitat, and aquatic breeding habitat in Refugio Creek, directly adjacent to the impacted coastal scrub habitat, the critical habitat subunit was determined to support PCEs for upland habitat. Upland habitats adjacent to creeks/streams that support CRLF are important for providing foraging, shelter, cover, and dispersal movement areas.<sup>8</sup> Additionally, two plant species considered rare by the CDFW CNDDDB and the California Native Plant Society (CNPS), Santa Catalina island buckwheat (*Eriogonum giganteum* var. *giganteum*) listed as CNDDDB G3T3/S3; CNPS 4.3 and Cliff aster (*Malacothrix saxatilis* var. *saxatilis*) listed as CNPS 4.3, were observed in the biological study area during botanical surveys (Catalina island buckwheat was observed within the coastal scrub communities that will be impacted by project activities). The Commission has found that coastal scrub habitat that in turn supports rare species therefore rises to the level of ESHA itself.

## **Allowable Uses**

### *Allowable Use in Coastal Streams*

Coastal Act Section 30236 allows the substantial alteration of streams for developments where the primary function of the alteration is the improvement of fish and wildlife habitat, and requires the incorporation of the best mitigation measures feasible.

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<sup>8</sup> USFWS, 50 CFR Part 17: Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for California Red-Legged Frog; Final Rule. <https://www.govinfo.gov/content/pkg/FR-2010-03-17/pdf/2010-4656.pdf>

Additionally, the Gaviota Coast Plan Policy (GCP) NS-9 mirrors Section 30236 and requires stream alterations to be limited to development with the primary purpose of improving fish and wildlife habitat.

As described above, the primary goal of the Refugio Creek restoration component of the project is to improve fish and wildlife habitat by removing impediments to fish passage and restoring a more natural streambed. Refugio Creek's existing conditions meet fish passage criteria for adult salmonids at high fish passage flows but are less favorable at low flows and do not meet requirements for juveniles, as presented by NMFS.

Therefore, the lined channel underneath the bridges is considered a partial fish passage barrier as a result of these conditions and is proposed to be removed as part of this project. This includes removal of the concrete-grouted RSP within the channel of the stream, re-naturalizing the channel through placement of engineered streambed material and creation of natural features such as weirs and rock pools, and improving and expanding riparian habitat by planting willows, cottonwoods, and other riparian species, as well as planting species associated with the ecotone between aquatic and terrestrial environments (see [Exhibit 5](#)). Furthermore, the design of the fish passage improvement project was planned over the course of many years in consultation with wildlife agencies, including NMFS and CDFW, and the proposed project design provides significant ecological lift while minimizing impacts to existing resources in the creek and riparian corridor. Most importantly, the project will restore habitat for three state or federally listed animal species: Southern California steelhead (*Oncorhynchus mykiss irideus*), tidewater goby (*Eucyclogobius newberryi*), and California red-legged frog (*Rana draytonii*), including designated critical habitat for steelhead and red-legged frog.

The project will have temporary impacts to approximately 0.785 acres of coastal stream and riparian habitat in and around Refugio Creek (including the removal of 81 willow trees that are either poorly rooted or have limited growth potential because they are rooted between cracks in the hardscaping). Caltrans will also implement avoidance and minimization measures during construction of the restoration project to ensure maximal protection of existing species and habitat values. The project will result in the removal of a partial barrier to fish passage; creation of 0.412 acres of natural stream channel habitat which will allow for a greater variety and density of native plants to assemble; removal of non-native species from the stream channel; and restoration of 0.624 acres of coastal riparian habitat (via planting of 728 riparian plants and 349 trees, including willows and cottonwoods) to establish a more complete and diversified riparian corridor. The proposed riparian habitat restoration is depicted in [Exhibit 4](#) and described in detail in the HMMP. The riparian habitat will be fully restored, incorporating the best mitigation measures feasible, and the overall ecological function of the creek will be significantly improved, consistent with Section 30236 and Sections 30230 and 30231 of the Coastal Act.

#### *Allowable Use in ESHA*

Policies in the GCP including NS-2 dictate that "non-resource dependent development...shall be sited and designed to avoid ESH and ESH buffer areas. If

avoidance is infeasible and would preclude reasonable use of a parcel or is a public works project necessary to repair and maintain an existing public road or existing public utility, then the alternative that would result in the fewest or least significant impacts shall be selected and impacts shall be mitigated.” As described above, U.S. 101 is an existing public road, and cracking and deterioration within the concrete of the Refugio Creek Bridges necessitates replacement of the bridges to protect public safety. Similarly, Coastal Act Policy 30240 says that “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.” However, the proposed vegetation clearance in ESHA is not an allowable resource-dependent use and is therefore inconsistent with section 30240(a). Section 30240(b) of the Coastal Act also requires that projects be sited and designed to avoid impacts to adjacent ESHA areas and be compatible with the continuance of those habitat and recreation areas. As described in more detail below, the restoration proposed, including the removal of non-native species, will improve the overall habitat quality of the coastal scrub surrounding Refugio Creek.

The proposed project, as mitigated and conditioned, is therefore only approvable pursuant to the conflict resolution provisions of the Coastal Act, as discussed in the Conflict Resolution section.

## **Mitigation**

### Coastal Scrub Mitigation

Construction activities associated with the demolition and reconstruction of the Refugio Creek Bridges will result in .031 acres of permanent impacts to ESHA. GCP policy NS-11, as well as standard Coastal Commission mitigation practice, requires permanent impacts to coastal scrub communities to be mitigated at a 3:1 ratio. An additional 1.724 acres of impacts to coastal scrub would occur primarily from bridge demolition, equipment access and staging, vegetation clearing, grading, falsework, and traffic management, and although those areas would eventually be restored, Caltrans and Commission staff do not expect these impact areas to recover in the 12-month timeframe typically used to define temporary impacts (see [Exhibit 6](#)). Therefore, all coastal scrub impacts will be mitigated at a permanent impact ratio (3:1 when mitigation is provided through substantial restoration or establishment; or an elevated ratio when mitigation is provided through enhancement) (see [Exhibit 7](#)).

### *Coastal Scrub Enhancement*

Caltrans is proposing enhancement of 2.889 acres of coastal scrub on-site to compensate for impacts to ESHA. Per the HMMP, enhancement is defined as “a gain in functions and values and improvement within an already established coastal scrub community.” Due to lack of fires and drought present within this local community, Caltrans proposes to help mimic a more natural succession within the already present coastal scrub habitat in the project area by hand broadcasting seed and conducting invasive removal. The intent of hand broadcasting of seed is to assist with recruitment



to enhance and diversify the existing community. Due to the presence of fountain grass within and adjacent to existing coastal scrub communities, focused and targeted weed removal will be undertaken to both benefit the established communities and limit the movement infiltration of invasive weedy species.

#### *Coastal Scrub Establishment*

Additionally, Caltrans is proposing the establishment of 1.714 acres of coastal scrub on-site to compensate for impacts to ESHA. Per the HMMP, establishment is defined as “creation of this coastal resource where it did not already exist.” Between the existing fragmented coastal scrub communities are non-native annual grasslands.

Establishment is proposed to create a contiguous coastal scrub community and limit fragmentation. On-site coastal scrub establishment will consist of irrigated container planting and seed planting. Both types of planting will utilize coastal scrub species currently represented in the project area. Seed planting will consist of hydroseed applications containing a coastal scrub seed mix that is locally common on the Gaviota Coast. Additionally, ongoing removal of invasive weeds will occur to ensure successful creation of this habitat.

#### *Coastal Scrub Restoration*

Lastly, Caltrans proposes restoration of 1.322 acres of coastal scrub on-site to compensate for impacts to ESHA. Per the HMMP, restoration is defined as “planting coastal scrub vegetation and managing non-native species in areas impacted by construction activities.” To mitigate for both permanent and temporary impacts to existing Coastal Scrub ESHA due to replacement of the Refugio bridges, restoration will consist of container planting (irrigated) and seed planting. As is the case with all forms of mitigation on-site, the plant palette will consist of coastal scrub species currently represented in the project area. Seed planting will consist of hydroseed applications containing a seed mix comprised of locally occurring species that are common on the Gaviota Coast. Fiber rolls will be installed to ensure stability of soils and that no erosion occurs. Additionally, ongoing removal of invasive weeds will be implemented to ensure impacted communities are successfully restored.

In several recent Commission-approved transportation projects including the Gleason’s Beach Highway 1 realignment (CDP 2-20-0282), Toro Creek Bridge replacement (CDP 3-19-1199) and Santa Cruz rail trail (CD 0001-21), Commission staff have recommended a doubling of mitigation ratios when enhancement, rather than substantial restoration, is used to meet mitigation requirements. Following this approach, the project would need to provide 4.45 acres of coastal scrub enhancement in addition to the 3.036 acres of coastal scrub substantial restoration and establishment proposed. Because the project is proposing 2.989 acres of enhancement, there is technically a deficit of 1.461 acres of habitat enhancement. However, when the coastal scrub restoration and enhancement work is considered in conjunction with the significant ecological lift provided by the adjacent fish passage improvement and riparian restoration elements of the project (1.036 acres of substantial restoration), the project’s cumulative benefits to native wildlife and ecosystems clearly outweigh the

impacts. Thus, Commission ecology staff have concluded that the coastal scrub restoration and enhancement proposed, along with the fish passage improvement, adequately mitigates for the project's impacts.

As described above, Caltrans has designed the project to avoid and minimize impacts to sensitive habitats and species. **Special Condition 6** requires implementation of avoidance and minimization measures to reduce impacts to the two rare plant species described above. **Special Condition 2** requires Caltrans to carry out the approved HMMP, as revised on March 17, 2023, which will ensure the establishment and restoration of impacted habitats as described in the HMMP, and the enhancement of additional habitat within the project site via invasives removal and other measures.

#### Mitigation for Impacts to Wildlife Species

Section 30236 also requires the incorporation of the best feasible mitigation measures to avoid or minimize the significant adverse environmental effects of the proposed stream alteration project. Additionally, Section 30231 requires the protection of biological productivity in coastal streams. Caltrans is proposing a number of avoidance and minimization measures, detailed in [Exhibit 14](#), and additional monitoring, avoidance, and minimization measures are required by **Special Condition 6** of this CDP. The project as conditioned will incorporate such measures to minimize significant adverse environmental effects, including, but not limited to, temporary effects on water quality, salmonids, sensitive reptiles and amphibians as discussed below. Construction access and staging areas have been designed to utilize existing disturbed areas. Caltrans proposes, and **Special Condition 5(b)** requires, that work in the stream channel will occur only between June 1 to October 31, a period when stream flow may be seasonally low and when sensitive fish species are less likely to be impacted. Consistent with Section 30236, the only work activities that will be performed and allowed by **Special Condition 5(b)** within the stream channel are temporary stream diversion (if necessary), removal of the concrete grouted RSP, and creek re-establishment. Construction of the new bridge abutments must be performed in an area isolated from stream flow. Measures to avoid and minimize impacts to special status species are described in greater detail below.

#### *Tidewater Goby*

Tidewater goby has not been observed in Refugio Creek and impacts are unlikely, however, bridge replacement work over Refugio Creek will require dewatering a portion of Refugio Creek, which would temporarily alter aquatic habitat quality and potentially result in a temporary loss of service for tidewater goby. This could result in direct impacts to the species in the form of injury or mortality as tidewater goby are captured, handled, and relocated. Removal of vegetation to allow for installation of temporary dewatering dams and temporary construction equipment access into the stream channel would somewhat affect shading and microhabitat temperature regulation characteristics, but these effects would be temporary as removed vegetation would be replaced in-kind. Modifications to improve fish passage are likely to make the creek more suitable for tidewater goby after construction. Although any potential impacts to

aquatic species will be minor and short-term, Caltrans has consulted with USFWS staff and will implement species-specific measures to further avoid and minimize impacts to listed fish species and habitat, including:

- Prior to construction, Caltrans shall acquire incidental take authorization for tidewater goby from USFWS through a FESA Section 7 Biological Opinion and Incidental Take Statement.
- Prior to initiation of stream dewatering, Caltrans shall conduct an informal worker environmental training program including a description of tidewater goby, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating FESA and permit conditions.
- During dewatering, if any pumps are used they shall be fitted with an anti-entrapment device(s) to prevent tidewater gobies from being drawn into the pump or impinged on intake screening. Just prior to dewatering and just after dewatering, the USFWS-approved biologist(s) shall remove by hand or net all tidewater gobies found within the dewatering area and relocate them to Refugio Lagoon.
- A USFWS-approved biologist shall remain onsite and observe for tidewater gobies and turbidity levels within the work areas during placement and removal of the creek diversion and dewatering activities and shall capture and relocate tidewater gobies to Refugio Lagoon as necessary. Caltrans shall provide USFWS a written summary of work performed (including biological survey and monitoring results), BMPs implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. Furthermore, the documentation describing listed species surveys and re-location efforts (if appropriate) shall include name(s) of the USFWS-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the Permittee during the project, and a detailed discussion of capture and relocation efforts.

#### *Southern California Steelhead*

The proposed project will result in temporary impacts to open-water habitat for Southern California Steelhead, resulting primarily from dewatering the project work area during column removal and construction. Steelhead passage along Refugio Creek through the project area will still be unconstrained on the wetted side of the temporary check dam and water diversion pipe. Equipment access to the stream channel, construction of the new bridge, and demolition of the existing bridge will be performed in the dewatered portion of the stream; debris from bridge demolition will be separated from the stream by a temporary platform. The temporary impacts may result in the loss of service of steelhead and critical habitat for an estimated five months (June to October) per year

during the staged two-year instream construction and demolition periods. Although any potential impacts to aquatic species will be minor and short-term, Caltrans has consulted with NMFS staff and will implement species-specific measures to further avoid and minimize impacts to listed fish species and habitat, including:

- Prior to construction, Caltrans shall acquire incidental take authorization for steelhead from NMFS through a FESA Section 7 Biological Opinion and Incidental Take Statement.
- Prior to initiation of stream dewatering, a qualified biologist shall conduct an informal worker environmental training program including a description of steelhead, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating FESA and permit conditions.
- During construction, pile-driving and instream work shall be limited to the low-flow period from June 1 and October 31 in any given year, when the surface water is likely to be at seasonal minimum and to avoid adult steelhead spawning migration and peak smolt migration. Deviations from this work window shall only be made with permission from Caltrans and the relevant regulatory/resource agencies.
- A qualified biologist shall be retained with experience in steelhead biology and ecology, aquatic habitats, biological monitoring (including dewatering), and capturing, handling, and relocating fish species. The biological monitor(s) shall continuously monitor placement and removal of any creek diversion and dewatering system to capture steelhead and other native fish species and relocate them to suitable habitat as appropriate. The monitor(s) shall capture steelhead just prior to dewatering and any remaining stranded immediately after dewatering. Steelhead shall be relocated to suitable habitat upstream of the work area, using methods approved by the appropriate regulatory agencies. This may include, but not necessarily will be limited to: seine-netting, dip-netting, and providing aerated water in buckets for transport and ensuring adequate water temperatures during transport. The biologist shall note the number of steelhead observed in the affected area, the number of steelhead captured and relocated, and the date and time of the collection and relocation.
- During instream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 3/32-inch (2.38 mm) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumped water will be directed through a silt filtration bag and/or into a settling basin allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area.

- When the biological monitor is onsite, they shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead or steelhead habitat. The biological monitor shall be granted the authority to halt work activity as necessary and to recommend measures to avoid/minimize adverse effects to steelhead and steelhead habitat.
- Caltrans shall provide NMFS a written summary of work performed (including biological survey and monitoring results), BMPs implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. Furthermore, the documentation describing listed species surveys and re-location efforts (if appropriate) shall include name(s) of the Caltrans-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions / recommendations given to the Permittee during the project, and a detailed discussion of capture and relocation efforts (if appropriate).
- Sound attenuating devices shall be utilized during pile driving, if any feasible method is available for dry pile driving.
- Vibration and oscillation of piles shall be utilized to the greatest extent feasible to install piles and reduce the need for hammer driving.

#### *California Red Legged Frog*

As described above, the project site includes potentially suitable habitat for California red-legged frog (including stream, riparian, and coastal scrub habitat areas). This includes designated critical habitat for red-legged frogs. Caltrans completed consultation with the USFWS under Section 7 of the Federal Endangered Species Act for potential impacts to California red-legged frogs. Equipment access to the stream channel, construction of the new bridge, and demolition of the existing bridge will be performed in the dewatered portion of the stream; debris from bridge demolition will be separated from the stream by a temporary platform. The temporary impacts may result in the loss of service of California red-legged critical habitat for an estimated five months (June to October) per year during the staged two-year in-stream construction and demolition periods. Although any potential impacts to aquatic species will be minor and short-term, Caltrans has consulted with USFWS staff and will implement species-specific measures to further avoid and minimize impacts to listed species and habitat, including:

- Only USFWS-approved biologists will participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
- Ground disturbance will not begin until written approval is received from the U.S. Fish and Wildlife Service that the biologist is qualified to conduct the work.

- A USFWS-approved biologist will survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist will be allowed enough time to move them from the site before work begins. The USFWS-approved biologist will relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site will be in the same drainage to the greatest extent practicable. Caltrans will coordinate with USFWS on the relocation site prior to the capture of any California red-legged frogs.
- Before any activities begin on a project, a USFWS-approved biologist will conduct a training session for all construction personnel. At a minimum, the training will include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, with a qualified person on hand to answer any questions.
- A USFWS-approved biologist will be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of habitat has been completed. After this time, Caltrans will designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist will ensure this monitor receives the worker awareness training outlined in measure TES-19 in the EIR and in the identification of California red-legged frogs. If the monitor or the USFWS-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not expected by Caltrans and the USFWS during review of the proposed action, they will notify the resident engineer immediately. The resident engineer will resolve the situation requiring that all actions that are causing these effects are stopped. When work is stopped, USFWS will be notified as soon as possible.
- Habitat contours will be returned to a natural configuration at the end of the project activities. This measure will be implemented in all areas disturbed by activities associated with the project, unless USFWS and Caltrans determine that it is not feasible, or modification of original contours would benefit the California red-legged frog.
- The number of access routes, size of staging areas, and the total area of activity will be limited to the minimum necessary to complete the project. Environmentally sensitive areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and minimize the impact to California red-legged frog habitat; this goal includes locating access

routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

- Caltrans will attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the USFWS during project planning will be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.
- To control sedimentation during and after project completion, Caltrans will implement best management practices outlined in any authorizations or permits issued under the authorities of the Clean Water Act received for the project. If best management practices are ineffective, Caltrans will attempt to remedy the situation immediately, in coordination with USFWS.
- Unless approved by USFWS, water will not be impounded in a manner that may attract California red-legged frogs. A USFWS-approved biologist will permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist will be responsible for ensuring his or her activities comply with the California Fish and Game Code. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.
- To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force will always be followed.
- Caltrans shall not use herbicides as the primary method to control invasive plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site; it will implement the following additional protective measures for the California red legged frog:
  - 
  - Caltrans shall not use herbicides during the breeding season for the California red-legged frog;
  - Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red

- legged frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur;
- Giant reed and other invasive plants shall be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®;
  - Licensed and experienced Caltrans staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;
  - All precautions shall be taken to ensure that no herbicide is applied to native vegetation;
  - Herbicides shall not be applied on or near open water surfaces (no closer than 60 feet from open water);
  - Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour;
  - No herbicides shall be applied within 24 hours of forecasted rain;
  - Application of all herbicides shall be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all applications is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the U.S Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program County bulletins;
  - All herbicides, fuels, lubricants, and equipment shall be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat, unless otherwise preapproved by the necessary agencies. Prior to the onset of work, Caltrans shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

### **Other Necessary Habitat Protection Measures**

#### *Protection of Sensitive Birds*

As described above, the project site contains marginal to very low-quality nesting habitat for two listed bird species and several special status species (listed above). Although Caltrans observed none of these bird species in the project site during field surveys, the proposed project has the potential to impact the species. Construction noise and vegetation clearing have the potential to impact this species as well as other non-listed, special-status birds and native and migratory birds. To avoid and minimize impacts to bird species, Caltrans will implement the following measures as part of the proposed project:



- Preconstruction bird surveys will be conducted. Surveys will be conducted between mid-February and the end of April and between 6:00am and 10:00am.
- If an active nest is observed within 100 feet of the area of potential impact, all project activities will immediately cease, and the Permittee will contact the appropriate agency, either the CDFW and/or the USFWS within 48 hours. If required, Caltrans will seek an incidental take permit from CDFW under California Fish and Game Code Section 2018(b) or USFWS under Endangered Species Act Section 10(a)(1)(B) and implement additional measures as necessary.
- Vegetation removal will occur between October 1 and January 31, outside of the typical nesting bird season, to avoid potential impacts on nesting birds.
- If vegetation removal or other construction activities are proposed to occur within 100 feet of potential nesting habitat during the nesting season (February 1 to September 30), a nesting bird survey will be conducted by a qualified biologist no more than three days prior to construction.
- During construction within the typical nesting season, and while the existing bridge deck is in place, proactive exclusion measures (e.g., exclusion netting) that are approved by the CDFW will be implemented to prevent cliff swallows or other native migratory birds from nesting on the bridge. The removal of any inactive nests will be monitored by a qualified biologist.
- If an active nest of another native migratory bird is found, Caltrans will determine an appropriate buffer and monitoring strategy, based on the habits and needs of the species. The buffer area will be avoided until a qualified biologist has determined that the juveniles have fledged.

#### *Other Special Status Species*

The proposed project also has the potential to impact other non-listed, special-status species, including pallid bats, San Diego woodrat, western pond turtle, yellow legged frog, coast range newt, northern California legless lizard, coast horned lizard, and coast patch-nosed snake. Of these species, two woodrat nests were observed in the project site during field surveys. A comprehensive list of all mitigation and monitoring measures (AS-1 through AS-19 and TE-1 through TE-33) can be found in the EIR, and Caltrans will implement impact avoidance and minimization measures, including but not limited to:

- No more than 14 days prior to construction activities, a preconstruction survey will be conducted within the project area by a qualified biologist to determine the presence or absence of sensitive species.

- Prior to mobilization of construction equipment, Caltrans will conduct a worker environmental training program, including a description of these species, their legal and protected status, its proximity to the project site, and the avoidance/minimization measures to be implemented during the project.
- Prior to the start of construction activities, a qualified biologist will survey the area of potential impact; if present, the amphibious species listed above will be captured and relocated away from the area of potential impact to suitable habitat most similar to the area from where they were removed.
- Observations of sensitive species will be documented on California Natural Diversity Database forms and submitted to the CDFW upon project completion.

In order to ensure the protection of sensitive species, the Commission finds it necessary to require Caltrans to implement the above noted avoidance and mitigation measures and additional sensitive species monitoring and nesting bird avoidance measures, as detailed in **Special Condition 6**. In addition, **Special Condition 5(a)** also requires Caltrans to minimize the areas within which construction activities and staging are to take place, and to site and design construction areas to avoid impacts on coastal waters and marine life. Moreover, despite the potential for temporary impacts to the above-mentioned species, the remediation of the partial fish passage barrier and subsequent restoration of riparian habitat will improve the overall habitat quality in Refugio Creek and the surrounding riparian corridor for the potentially affected species. With the incorporation of these avoidance and minimization measures, and with consideration of the ecological benefits anticipated as a result of the restoration project, the Commission finds that special-status species and sensitive habitat will be protected against a significant disruption of habitat values.

### **Water Quality**

Coastal Act Section 30230 requires that marine resources shall be maintained, enhanced, and where feasible, restored. Section 30231 requires that the biological productivity of coastal streams be restored to the maximum extent feasible.

The proposed project is not expected to cause permanent adverse water quality impacts. The proposed project will not alter the water discharge rates and patterns of Refugio Creek because the replacement bridge will have roughly the same span as the existing bridge. During bridge demolition, the existing concrete pile extensions will require physical removal, resulting in substrate disturbance within the channel of Refugio Creek. Disturbance of the creek channel will also occur during installation of the new cast-in-steel-shell pile extensions for the new bridge abutments. However, during construction, temporary and permanent erosion and sediment controls will be used to minimize impacts to water quality. Stormwater management for the site will be protected by implementing a Storm Water Pollution Prevention Plan (SWPPP), and **Special Condition 4** requires the SWPPP to be submitted prior to commencement of construction. The contractor is required to have a certified Qualified SWPPP

Preparer/Qualified Stormwater Developer prepare and oversee implementation of all temporary construction site best management practices (BMPs) during the project.

Caltrans will implement standard construction methods, waste management procedures, and stormwater BMPs as required by Caltrans' National Pollutant Discharge Elimination System (NPDES) Permit and as required by **Special Condition 5(c)** to reduce or eliminate temporary water quality impacts during construction. Existing vegetation will be maintained to the maximum extent feasible. In-stream work will be limited to the low-flow season from June 1 to October 31. Silt fencing, fiber rolls, gravel bags, and barriers will be installed as needed to stabilize disturbed soils and to separate the project site from the creek channel and riparian habitat. During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area a minimum of 100 feet from aquatic areas. If the area is less than 100 feet from aquatic areas, the area must be surrounded by barriers. Caltrans will implement wind erosion control at all times. Therefore, the Commission finds that the project, as conditioned, is consistent with the requirement to protect water quality under Section 30231 of the Coastal Act and Policy NS-14 of the Gaviota Coast Plan.

### **Conclusion**

While the proposed project will disrupt the habitat temporarily, post-project, the restored habitat will be of a much higher value to the fish and wildlife species present, and will be compatible with the continuance of the ESHA. Overall, the project enhances the quality of the existing habitat by including riparian restoration. As described above, the goal of the proposed restoration is to improve the overall function of the creek system, including riparian habitat, upon completion of the project, and Caltrans will also implement avoidance and minimization measures during construction of the restoration project to ensure maximal protection of existing species and habitat values. Thus, the project as conditioned complies with Coastal Act Sections 30230, 30231, and 30236, and GCP Policies NS-7, NS-9, and TEI-14.

However, the vegetation clearance in ESHA-designated areas is an activity that is not a use dependent on the ESHA resources and is therefore inconsistent with Section 30240. Although these impacts are inconsistent with Section 30240, the proposed project as mitigated and conditioned is approvable pursuant to the conflict resolution provisions of the Coastal Act, as discussed in the Conflict Resolution section below.

### **G. CONFLICT RESOLUTION**

Coastal Act section 30007.5 states:

*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.*

Coastal Act section 30200(b) states:

*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.*

As noted above, the removal of portions of sensitive natural communities (coastal scrub habitat) that meet the definition of ESHA is a necessary part of the construction activities for this project, but is not an allowable resource dependent use under section 30240(a). However, as explained below, denying or modifying the proposed project to eliminate this inconsistency would lead to nonconformity with other Coastal Act requirements, namely section 30210 (maximizing public access and recreation), section 30230 (restoring marine resources), and section 30251 (protecting scenic and visual qualities).

The standard of review for the Commission's decision whether to approve a consolidated coastal development permit is whether the project as proposed is consistent with the Chapter 3 policies of the Coastal Act, with the local government LCP policies and provisions used as guidance. In general, a proposal must be consistent with all applicable policies in order to be approved. Thus, if a proposal is inconsistent with one or more policies, it must normally be denied (or conditioned to make it consistent with all relevant policies).

However, the Legislature also has recognized that conflicts occur among those policies (Coastal Act section 30007.5). It therefore declared that when the Commission identifies a conflict among the policies in Chapter 3, such conflicts are to be resolved "in a manner which on balance is the most protective of significant coastal resources [Coastal Act sections 30007.5 and 30200(b)]." That approach is generally referred to as the "balancing approach to conflict resolution." Balancing allows the Commission to approve proposals that conflict with one or more Chapter 3 policies, based on a conflict among the Chapter 3 policies as applied to the proposal before the Commission.

The Commission has approved recent Caltrans projects that had unavoidable, non-resource dependent impacts to ESHA through application of the conflict resolution balancing test in a few recent actions, including, among others, the 2020 Gleason Beach Realignment Project (CDP 2-20-0282); 2019 Eureka-Arcata 101 Project (CDP 1-18-1078); 2014 North Coast Corridor Public Works Plan; 2014 Piedras Blancas Realignment Project (CDP 3-13-012); and the 2009 Greenwood Creek Bridge Project (CDP 1-09-027).

*Identification of a Conflict*

For the Commission to use the balancing approach to conflict resolution, it must establish that a project presents a substantial conflict between two statutory directives contained in Chapter 3 of the Coastal Act. The fact that a proposed project is consistent with one policy of Chapter 3 and inconsistent with another policy does not necessarily result in a conflict. Virtually every project will be consistent with some Chapter 3 policy.

In order to identify a conflict, the Commission must find that although approval of a project would be inconsistent with a Chapter 3 policy, the denial of the project 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 zone effects at all. Instead, it will simply maintain the status quo. The reason that denial of a project can result in coastal zone effects that are inconsistent with a Chapter 3 policy is that some of the Chapter 3 policies, rather than prohibiting a certain type of development, affirmatively mandate the protection and enhancement of coastal resources, such as 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, enhanced, and where feasible, restored.”), 30231 (“biological productivity... [of coastal streams] shall be maintained and, where feasible, restored...”), 30251 (“The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance”). If there is ongoing degradation of one of these resources, and a proposed project would cause the cessation of that degradation, then denial would result in coastal zone effects (in the form of the continuation of the degradation) inconsistent with the applicable policy. Thus, the only way that denial of a project can have impacts inconsistent with a Chapter 3 policy, and therefore the only way that a true conflict can exist, is if: (1) the project will stop some ongoing resource degradation, and (2) there is a Chapter 3 policy requiring the Commission to protect and/or enhance the resource being degraded.

With respect to the second of those two requirements, there are relatively few policies within Chapter 3 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 policies that are phrased as affirmative mandates to protect resources more often function as prohibitions. 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, listed above as 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. Denial of a project cannot result in a coastal zone effect that is inconsistent with a prohibition on a certain type of development. As a result, there are few policies that can serve as a basis for a conflict.

Similarly, denial of a project is not inconsistent with Chapter 3, and thus does not present a conflict, simply because the project would be less inconsistent with a Chapter 3 policy than some alternative project would be, even if approval of the proposed project would be the only way by which the Commission could prevent the more inconsistent alternative from occurring. For denial of a project to be inconsistent with a Chapter 3 policy, the project 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 project must be fully consistent with the Chapter 3 policy requiring resource enhancement, not simply less inconsistent with that policy than the hypothetical alternative project would be. In addition, if a project is inconsistent with at least one Chapter 3 policy, and the project does not result in the cessation of ongoing degradation of a resource the Commission is charged with enhancing, the project 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. Otherwise, project proponents could regularly “create conflicts” and then demand balancing of harms and benefits simply by offering unrelated “carrots” in association with otherwise unapprovable projects.

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 project without violating any Chapter 3 policy.

Thus, an alternatives analysis is a condition precedent to invocation of the balancing approach. If there are alternatives available that are consistent with all of the relevant Chapter 3 policies, then the proposed project does not create a true conflict among Chapter 3 policies.

In sum, the following findings support the Commission’ finding that the proposed project can be approved notwithstanding its inconsistency with section 30240 of the Coastal Act pursuant to the Coastal Act’s conflict resolution policies:

**1) The project, as proposed, is inconsistent with at least one Chapter 3 policy.**

For the Commission to apply section 30007.5, a proposed project must be inconsistent with an applicable Chapter 3 policy. Here, the inconsistency is with section 30240(a) of the Coastal Act.

**2) The project, if denied or modified to eliminate the inconsistency, would affect coastal resources in a manner inconsistent with at least one other Chapter 3 policy that affirmatively requires protection or enhancement of those resources.**

A true conflict between Chapter 3 policies results from a proposed project which is inconsistent with one or more policies, and for which denial or modification of the project would be inconsistent with at least one other Chapter 3 policy. Further, the policy inconsistency that would be caused by denial or modification must be with a policy that affirmatively mandates protection or enhancement of certain coastal resources. Denial of the proposed rehabilitation of the Refugio Creek Bridge on U.S. 101 would be inconsistent with sections 30210, 30230, and 30251 of the Coastal Act.

Section 30210 affirmatively mandates that “maximum access ... and recreational opportunities shall be provided for all the people consistent with public safety needs...” While the Coastal Act reflects a strong emphasis on maximizing public access, it is important to note that the Act does not mandate the provision of all forms of access in all circumstances. Section 30214 explains that the Act’s public access policies shall be implemented in a manner that takes into account the need to still regulate the “manner” of public access depending on the facts and circumstances in each case, including such factors as the capacity of a site to sustain use and at what level of intensity. And section 30210 itself requires maximum access to still be consistent with the need to protect natural resource areas from overuse.

Nevertheless, denial of this project would threaten a necessary public access route along the Gaviota coast, particularly for safe pedestrian and bicycle access. U.S. 101 provides the critical link for the public to access significant stretches of the coast in Santa Barbara County and as the main traffic conduit north and south it serves as an essential link for access further up and down the coast. The existing Refugio Creek Bridge has concrete cracking and deterioration that are threatening the bridge’s structural integrity, substandard roadway shoulders that are unsafe for both cyclists and vehicular users, and needs safety improvements in order to last another 75 years. Currently, the bridge provides little safe cycling access across the bridge given the lack of adequate shoulder space. Additional project elements that will improve public access include: 1) restoration of 56 parking spaces on Refugio Road, 2) improvement of a pedestrian path to ADA standards leading from the free parking area on Refugio Road to Refugio State Beach, 3) construction of a staircase to access the pedestrian path from Refugio Road, and 4) upgrading bridge rails to the ST-75 design which have a fourth rail atop which is intended to protect cyclists from falling over the rail. To deny the project would lead to ongoing unsafe highway conditions, and indeed, given the deteriorating infrastructure, lead to worsened conditions in the near future with

increasingly unsafe highway conditions. The concrete cracking and deterioration and unsafe conditions could, if unaddressed, lead to closures of U.S. 101 at the bridge, which would have significant impacts to public access throughout the coast of Santa Barbara County. Denial of the project will also continue unsafe cycling access on the bridge. Multi-modal access for all users is a critical element of maximum public access along the coast and project denial will prolong the unsafe or non-existent access for these users.

Although the proposed project vegetation removal element is inconsistent with the requirement of section 30240 that limit uses in ESHA to only uses dependent on the resource, denial would preclude achieving section 30210's mandate to ensure maximum public access.

Coastal Act Section 30230 affirmatively requires that marine resources shall be maintained, enhanced, and where feasible, restored. Denial of this project would prevent the restoration of Refugio Creek and removal of a partial barrier to fish passage, and would preclude achieving section 30230's mandate to maintain, enhance, and restore marine resources.

Section 30251 affirmatively mandates that "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 land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas." Denial of the project would prevent the removal of the bridge columns from Refugio Creek which would restore and enhance visual quality in a visually degraded area. The views from the pedestrian path adjacent to Refugio are currently obstructed by the two bridge columns. Additionally, as discussed in more detail below, Project Alternative 1 would require four columns to be constructed which would further degrade the scenic and visual qualities of Refugio Creek. Lastly, although the new bridge abutments will be noticeably larger, this design will allow the new bridge to be clear span, therefore improving the visual quality of the pedestrian path underneath the bridge. Although the proposed project vegetation removal element is inconsistent with the requirement of section 30240 that limit uses in ESHA to only uses dependent on the resource, denial of this project would preclude section 30251's mandate to restore and enhance scenic and visual quality.

Therefore, based on the circumstances of this project, the Commission finds that a conflict between mandatory Coastal Act policies exists.

**3) The project, if approved, would be fully consistent with the policy that affirmatively mandates resource protection or enhancement.**

For denial of a project to be inconsistent with a Chapter 3 policy, the proposed project would have to protect or enhance the resource values for which the applicable Coastal



Act policy includes an affirmative mandate. That is, if denial of a project would conflict with an affirmatively mandated Coastal Act policy, approval of the project would have to conform to that policy. If the Commission were to interpret this conflict resolution provision otherwise, then any proposal, no matter how inconsistent with Chapter 3 that offered a slight incremental improvement over existing conditions could result in a conflict that would allow the use of section 30007.5. The Commission concludes that the conflict resolution provisions were not intended to apply to such minor incremental improvements.

The proposed project would ensure the ongoing safety and reliability of U.S. 101 for vehicular and multi-modal users and would ensure maximum public access by upgrading the safety and reliability of U.S. 101 along the Gaviota coast, including new safer bridge rails, safer highway shoulders, and stronger bridge abutments. The concrete cracking and deterioration and unsafe conditions could, if unaddressed, lead to closures of U.S. 101 at the bridge, which would have significant impacts to public access throughout the coast of Santa Barbara County. The substandard roadway shoulders, means that the U.S. 101 connection here is unsafe for cyclists and motorists alike. The proposed project would make multiple improvements that would ensure public safety for all users of U.S. 101 and therefore alleviate the public access impediments for cyclists and vehicular users, as well as ensure the bridge is able to avoid closures for its designated lifetime. As noted above, additional project elements that will improve public access include: 1) restoration of 56 parking spaces on Refugio Road, 2) improvement of a pedestrian path to ADA standards leading from the free parking area on Refugio Road to Refugio State Beach, 3) construction of a staircase to access the pedestrian path from Refugio Road, and 4) upgrading bridge rails to the ST-75 design which have a fourth rail atop which is intended to protect cyclists from falling over the rail. Therefore, the proposed project better ensures maximum public access, in the manner required by section 30210. In addition, it is the very essence of the project, not an ancillary amenity offered as a tradeoff, that provides the Chapter 3 benefits. The project would improve the safety and infrastructure reliability of a major highway that ensures safe public access to the coast in the region. In this case the benefits of the project result from its primary purpose – an upgraded highway corridor that will remain open for public access with the removal of unsafe conditions and increased safety overall. The project is therefore fully consistent with the Coastal Act public access and recreation policies.

Coastal Act Section 30230 affirmatively requires that marine resources shall be maintained, enhanced, and where feasible restored. As part of the project, Caltrans is proposing fish passage improvements to Refugio Creek, which will involve removal of the concrete-grouted RSP within the channel of the stream, re-naturalizing the channel through placement of engineered streambed material and creation of natural features such as weirs and rock pools, and improving and expanding riparian habitat by planting willows, cottonwoods, and other riparian species, as well as species associated with the ecotone between aquatic and terrestrial environments. The project will remove a partial barrier to fish passage for the endangered southern California steelhead trout.

Therefore, the proposed project better ensures enhancement and restoration of marine resources, in the manner required by section 30230. The project is therefore fully consistent with the Coastal Act marine resource policy.

Section 30251 affirmatively mandates the protection of scenic resources and, where feasible, the restoration and enhancement of visual quality in visually degraded areas. The views from the pedestrian path adjacent to Refugio are currently obstructed by the two bridge columns. Additionally, as discussed in more detail below, Alternative 1 would require four columns to be constructed which would further degrade the scenic and visual qualities of Refugio Creek. Lastly, although the new bridge abutments will be noticeably larger, this design will allow the new bridge to be clear span, therefore improving the visual quality of the pedestrian path underneath the bridge. Therefore, the proposed project better ensures restoration and enhancement of scenic and visual quality, in the manner required by section 30251. The project is therefore fully consistent with the Coastal Act scenic and visual quality policy.

**4) The project, if approved, would result in tangible resource enhancement over existing conditions.**

This aspect of the conflict between policies may be looked at from two perspectives – either approval of the project would result in improved conditions for a coastal resource subject to an affirmative mandate, or denial or modification of the project would result in continued degradation of that resource.

Approval of the proposed Refugio Creek Bridge replacement project would result in rehabilitation of an existing, aging, substandard bridge. Caltrans asserts that if the bridge is not rehabilitated, the bridge will not provide safe public access because the concrete is cracking and deterioration is threatening the bridge's structural integrity. Substandard highway shoulders would maintain unsafe conditions that threaten cyclists and drivers, who experience a greater risk of collisions. Deteriorating conditions could lead to bridge and highway closures because of safety concerns. This would significantly affect public coastal access and recreational opportunities on the Gaviota coast and beyond because U.S. 101 is a primary transportation route for the region. Approval of the project would ensure the continued safe operation of U.S. 101, and tangible improvement over the deteriorating unsafe highway conditions. Approval of the project would also ensure the restoration of 56 public parking spaces, creation of safe pedestrian public access from the free parking on Refugio Road to Refugio State Beach, and improved cycling access.

Denial of the proposed bridge rehabilitation project would result in the continued operation of the existing bridge with the continued use of deteriorating 1974 bridges that do not provide adequate highway safety; the continued use of a highway bridge with narrow shoulders, further creating highway safety risks through inadequate space to manage vehicle breakdowns and prolonged unsafe conditions for cyclists; and the continued higher risks associated with the response of this older bridge to seismic

events. But for the proposed project to rehabilitate the aging bridge with these necessary safety improvements, the existing inadequate bridge would be expected to remain in service for the foreseeable future with risks to all users as well as to the bridge itself. Therefore, approval of the project would result in improved conditions for public access and denial would result in continued degradation of that resource.

Additionally, the project will remove a partial barrier to fish passage for the endangered southern California steelhead trout. Approval of the project would result in improved conditions for marine resources and denial would result in continued degradation of that resource.

Furthermore, the project will restore and enhance the biological productivity of Refugio Creek. Denial of this project would result in the restoration of Refugio Creek's riparian habitat not taking place. The project will result in the removal of a partial barrier to fish passage; creation of 0.412 acres of natural stream channel habitat which will allow for a greater variety and density of native plants to assemble; removal of non-native species from the stream channel; and restoration of 0.624 acres of coastal riparian habitat (via planting of 728 riparian plants and 349 trees, including willows and cottonwoods) to establish a more complete and diversified riparian corridor for a variety of fish and wildlife species. The primary goal of the Refugio Creek restoration component of the project is to improve fish and wildlife habitat by removing impediments to fish passage and restoring a more natural streambed. Therefore, approval of the project would result in improved conditions for the biological productivity of a coastal stream and denial would result in continued degradation of that resource.

**5) The benefits of the project must result from the main purpose of the project, rather than from an ancillary component appended to the project to “create a conflict.”**

A project's benefits to coastal resources must be integral to the project purpose. If a project is inconsistent with a Chapter 3 policy, and the main elements of the project do not result in the cessation of ongoing degradation of a resource the Commission is charged with enhancing, the project proponent cannot “create a conflict” by adding to the project an independent component to remedy the resource degradation. The benefits of a project must be inherent in the purpose of the project. If this provision were otherwise, project proponents could regularly “create conflicts” and then request that the Commission use section 30007.5 to approve otherwise unapprovable projects. The balancing provisions of the Coastal Act could not have been intended to foster such an artificial and easily manipulated process and were not designed to barter amenities in exchange for project approval.

The main purpose of the project is to replace an aging bridge that is part of a key coastal access route. The project will incorporate a modern bridge design and will enhance and restore Refugio Creek below the bridge. The project's benefits to public access, marine resources, and visual resources are integral to the project purpose.

**6) There are no feasible alternatives that would achieve the objectives of the project without violating any Chapter 3 policies.**

Finally, a project does not present a conflict among Chapter 3 policies if at least one feasible alternative would meet the project's objectives without violating any Chapter 3 policy. Thus, an alternatives analysis is a condition precedent to invocation of the balancing approach. If there are alternatives available that are consistent with all of the relevant Chapter 3 policies, then the proposed project does not create a true conflict among those policies.

In this case, the violation of the Chapter 3 policies is the clearing of vegetation in areas designated as ESHA. There are no feasible alternatives that would avoid these impacts and achieve the project safety goals for the design life of the bridge. As discussed directly above, the ESHA impacts of the project are in two categories: 1) impacts that result from clearing and grading work to construct larger bridge abutments to support the new clear span bridge design; and 2) impacts caused by the clearing work in temporary staging areas to provide construction access to work on the bridge.

The first impacts are widening of the abutments that would result in a permanent loss of 0.03 acres of coastal scrub habitat on the slopes surrounding the bridges. There are no alternatives to avoid the impacts from strengthening the bridge abutments. Removing the existing two bridge piers is a necessary component of this project that will in turn require strengthening of the bridge abutments to support the clear spanning bridges. The abutments cannot be strengthened without impacting the ESHA vegetation areas directly next to them and there are no feasible alternatives to rehabilitating the bridge without increasing the size and strength of the abutments, which are necessary to carry the increased weight of the bridge and survive seismic and tsunami events. Additionally, removal of the two bridge piers from Refugio Creek will improve riparian habitat and overall wildlife connectivity. As described in more detail below, modifying the abutment design to avoid ESHA would also mean reconstructing the two bridge columns, and thus essentially reconstructing an old bridge design with impacts to riparian ESHA, as opposed to constructing a clear span bridge with no impacts to riparian ESHA.

The second set of ESHA impacts are the removal of 1.71 acres of coastal scrub habitat that qualify as ESHA. These impacts are caused by the need to stage construction and equipment access around the project site. To perform any rehabilitation work on the bridge abutments, construction crews will need access to these locations and the temporary falsework can only be placed next to the bridge, otherwise it would not provide access. As described above, Caltrans has adopted avoidance and minimization measures to limit impacts from construction access and minimize vegetation clearance. There are no other alternatives that would enable construction for the project and avoid these impacts, which will be mitigated at a 3:1 ratio.

*Alternatives Analysis*

Two build alternatives and one No-Build Alternative were evaluated for this project with a varying degree of potential impacts to ESHA. The build alternatives included two-span bridges (Alternative 1) and clear-span bridges (Alternative 3). Under the No-Build Alternative (Alternative 4), no action would be taken. For context, Alternative 2 would be a three-span bridge but it was eliminated as an option because it had the greatest environmental impacts. Alternative 3 was chosen (clear-span bridges) in part because it has a smaller excavation footprint in Refugio Creek, no permanent impacts to Refugio Creek, therefore minimizing ESHA impacts to the greatest extent feasible. The alternatives are discussed in greater detail, below.

*Alternative 1: Two-Span Replacement Bridge*

The replacement bridges for Alternative 1 would be two-span, cast in-place, prestressed concrete box girder structures that would be like the current bridges. The bridges would have been about 353 feet long, which is 17 feet longer than the existing bridges. With this alternative, the single existing bent column for each bridge would be removed and replaced with two narrower columns in the same location between the pedestrian path and Refugio Creek. The footings of the new bridges were expected to be larger than the existing footings to support the wider replacement bridges. Under Alternative 1, portions of the foundation system for the center columns would need to be removed and reconstructed. A pile-cap is a rectangular foundation structure that sits on top of piles that extend deep into the ground, supporting the bridges. The bottoms of the existing pile-caps are up to 20 feet below the ground surface and are about 18 feet wide by 37 feet long, parallel to the creek. The existing pile-caps require removal because they would conflict with the new piles and pile-caps. The pile-caps for the new two-span bridges under Alternative 1 were expected to be about 30 feet by 57 feet, or about 12 feet wider and 20 feet longer than the existing pile-caps to support the wider replacement bridges. The excavation footprint required for removal and reconstruction of the pile-caps would be larger than the existing footprint of the pile caps. Excavation would extend up to 20 feet below the existing ground surface. The excavation footprint would also extend towards the creek, requiring removal of the existing concrete-grouted rock slope protection and portions of the eastern creek banks, resulting in permanent impacts to Refugio Creek. Because the pile caps extend about four feet deeper than the base of the creek bed, the temporary installation of shoring walls and a dewatering system would need to be constructed to avoid collapse of the sidewalls and to keep the excavation pit from filling with water.

*Alternative 3: Clear-Span Replacement Bridges*

The proposed replacement bridges for Alternative 3 would be clear-span, cast-in-place prestressed concrete box girder structures along the same alignment and profile grade of the existing bridges. The bridges would be about 300 feet long which is 36 feet shorter than the existing bridges. The clear-span bridges would not require intermediate support columns; however, they would require larger abutments to support the longer and heavier bridge span. The abutments would have a footprint about 15 feet larger in a longitudinal direction and 7 feet wider than the existing footprints. For both build alternatives the new abutments would be about 7 feet wider than the existing abutments

to accommodate the wider replacement bridges and would require driving new concrete piles that extend through the existing fill structures into competent bedrock. However, the abutments for Alternative 3 are longer and require more piles to provide additional support in the absence of center columns, resulting in .03 acres of permanent impacts to coastal scrub ESHA. Each abutment for the Alternative 3 clear-span bridges is about 18 feet longer than the abutments required for the Alternative 1 two-span bridges. Both Alternatives 1 and 3 would have resulted in approximately the same 1.724 impacts to coastal scrub for construction to stage construction and equipment access around the project site. However, although the abutments will be larger to support the clear-span bridges, the overall impact to ESHA is still less than the total impacts to ESHA under Alternative 1. As mentioned above, Alternative 3 was chosen (clear-span bridges) in part because it has a smaller excavation footprint in Refugio Creek, no permanent impacts to Refugio Creek, and minimized ESHA impacts to the greatest extent feasible.

*Alternative 4: No-Build Alternative*

Under the No-Build Alternative, the Refugio Road Bridges would not be replaced, and would continue to deteriorate due to the presence of cracking and deterioration in the bridge structure concrete.

The only alternative that would avoid all impacts to ESHA is the “no project” alternative, which would mean that no repairs or improvements would be made to the existing bridge and roadway. As discussed directly above, the no project alternative would mean that the U.S. 101 crossing of Refugio Creek would remain on an older bridge with cracking and deteriorating concrete from 1974, that important safety improvements to help avoid traffic accidents on the bridge would not take place, and that the bridge would continue to not provide safe access for cyclists, as well as vehicular users, on this important transportation corridor. The purpose of this project is to make the needed safety upgrades to the bridge and to provide adequate safe access for pedestrians and cyclists. Denial of this project for a no project alternative would be inconsistent with section 30210.

Furthermore, under a “no project” alternative, fish passage improvements, and riparian restoration beneath the bridge would not be made. Therefore, denial of this project for a “no project” alternative is inconsistent with section 30230. Overall, the selected alternative was designed to incorporate the smallest environmental impact footprint possible while still achieving the project purpose. Therefore, the Commission finds that use of an alternative design is not a feasible less environmentally damaging alternative to the proposed project, as conditioned.

Lastly, under a “no project” alternative improvements to the scenic and visual qualities to Refugio Creek by removal of the existing columns would not be made. Therefore, denial of this project for a “no project” alternative is inconsistent with section 30251. Overall, the selected alternative was designed to enhance the scenic and visual qualities of Refugio Creek, by removal of the existing columns and construction of a clear-span bridge.

*Existence of a Conflict between Chapter 3 Policies:*

Based on the above, the Commission finds that the proposed project presents a true conflict between section 30240 and sections 30210, 30230, and 30251, that must be resolved through application of section 30007.5. After establishing a conflict among Coastal Act policies, section 30007.5 requires the Commission to resolve the conflict in a manner that is on balance most protective of coastal resources.

In this case, the impacts on coastal resources from not constructing the project would be more significant than the project's impacts to ESHA. The impacts to ESHA are primarily highway-adjacent coastal scrub on fill slopes constructed for the highway and adjacent areas. The proposed highway safety rehabilitation ensures essential connectivity north and south through the Santa Barbara County region and therefore ensures coastal public access is maintained in the region consistent with public safety. The proposed highway safety rehabilitation would also realize a number of public access improvements. Additionally, the project proposes to remove of a partial barrier to fish passage for southern California steelhead trout and overall restoration of Refugio Creek. Lastly, the project will improve the overall scenic and visual qualities of Refugio Creek. The proposed highway safety rehabilitation is therefore essential under the requirements of sections 30210, 30230, and 30251 and approval of the project is on balance most protective of coastal resources.

## **Mitigation**

To conclude that the project is on balance the most protective of coastal resources, the Commission has historically found that it is also necessary to find that adverse impacts on coastal resources be mitigated to the maximum extent feasible. The finding in subsection 6 above has concluded that there are no feasible alternatives that would reduce significant adverse impacts to ESHA. Additionally, Caltrans has adopted a number of avoidance and minimization measures to reduce the amount of vegetation to be removed and to best protect ESHA and special species habitat from impacts of the project. These measures to reduce adverse impacts are described above. These measures are incorporated into this CDP and expanded upon in **Special Condition 6** and include, but are not limited to, the fencing of ESHA areas for protection; limited durations for work in ESHA; best management practices to avoid spills and other construction related impacts; and multiple measures to protect species that rely on the ESHA habitat such as biological monitoring, temporal work limitations, and work buffers. As discussed above, the project also proposed an on-site mitigation plan for the ESHA impacts that will replant matching vegetation in the project area at a 3:1 ratio including coastal scrub to provide additional habitat to replace impacted ESHA. **Special Condition 2** guides implementation of this final revised Habitat Mitigation and Monitoring Plan. Together these measures ensure that the proposed project mitigates adverse impacts on ESHA to the maximum extent feasible.

*Conclusion: Consistency with the Coastal Act*

Thus, the Commission finds that approving the project with its safety, riparian, and public access improvements is more protective of coastal resources than the impacts of the removal of coastal scrub ESHA.

In sum, the Commission finds that: (1) the project proposes to create a safer highway corridor which is essential for public access to the coast; (2) the project proposes a number of public access improvements that maximize public access in the manner required by the Coastal Act; (3) the project minimizes impacts to ESHA, which is primarily roadside and is not pristine; and (4) the impacts will be mitigated with replanting. Therefore, the Commission finds that approving the project, as conditioned, is, on balance, most protective of coastal resources.

## **H. Coastal Act Violations**

Violations of the Coastal Act have occurred on the subject site, including but not necessarily limited to, the unpermitted installation of “No Parking” signs on Refugio Road in 2010, without benefit of the necessary coastal development permit. Any nonexempt development activity conducted in the coastal zone without a valid coastal development permit constitutes a violation of the Coastal Act.

As a result of the installation of “No Parking” signs, approximately 91 free parking spaces along the road shoulder were lost. In working with Commission staff to resolve this matter through removal of “No Parking” signs and restoration of previously-available road-shoulder parking, Caltrans undertook a parking study to ensure that all previously available parking spaces that are safe for public use will be restored. The parking study determined that 56 of the 91 spaces could be restored safely without line-of-sight issues (see [Exhibit 8](#)).

In addition to restoring all safe parking spaces that were lost through the installation of unpermitted “No Parking” signs, the Permittee has agreed to implement public access improvements in order to fully resolve the Coastal Act violations described herein. First, the Permittee is proposing to improve an existing asphalt pedestrian path that runs parallel to Refugio Road below the bridges and which is identified as an existing coastal access trail in Santa Barbara County’s Gaviota Coast Plan. The portions of the pathway within Caltrans right-of-way will be reconstructed to meet the standards of the Americans with Disabilities Act, including the addition of outside railings for safety, as needed. A wayfinding trailhead sign would be added at the northern entrance to the path that was developed in coordination with Commission staff (see [Exhibit 9](#)). Furthermore, a public access staircase is proposed to be built that would allow the public to access the pedestrian path safely from Refugio Road without the need to cross the northbound onramp (see [Exhibit 10](#)).



Moreover, Caltrans has agreed to a condition to contribute \$75,000 toward the planning, design, and construction of the Paradiso del Mare (Paradiso) trail to mitigate for the temporal loss of free parking on Refugio Road that resulted from unpermitted installation of “No Parking” signs. The Paradiso trail will be a segment of the California Coastal Trail (CCT) located approximately 9 miles south of the project site. Commission staff worked with Caltrans, the Coastal Conservancy, and the County of Santa Barbara to identify this shovel ready public access project (see [Exhibit 12](#)). In 2014, the County approved case no. 09CDP-00000-00045 and 10CDP-00000-00094 (local CDPs) which included several offers to dedicate (OTD) easements for both vertical and lateral public access and recreation facilities including a segment of the CCT along the length of the ocean lot including a loop trail and lookout points. Currently, the property is not open to public access, but as the site develops, these public access amenities will provide unique access to this segment of the segment coast including the Naples State Marine Conservation Area (SMCA). Naples SMCA is a Marine Protected Area and provides protection for a highly productive, unique offshore rocky reef with exceptional substrate diversity, intertidal areas, surfgrass, kelp forest, and a harbor seal haul out. The Paradiso trail network will provide free coastal access to this iconic area used by beachgoers, divers, surfers and kayakers alike. To that end, the local CDPs also included a contribution of \$500,000 of seed money for the benefit of the Santa Barbara County Trails Council (Trails Council) for the purpose of funding implementation (design, permitting, construction and/or maintenance) of the Paradiso public access easements. At this stage, the Trails Council have completed 50% of preliminary design, and Caltrans funding of \$75,000 toward this effort will bring a valuable contribution in providing this trail connection to the public. Therefore, **Special Condition 3** requires Caltrans to contribute these funds and enter into a Cooperative Agreement with the County of Santa Barbara to manage these funds.

Lastly, **Special Condition 1** requires a final revised signage plan affirmatively showing the locations of the 56 free public parking locations on Refugio Road. In order to ensure the long-term protection of free coastal access parking at this location, **Special Condition 1** also requires a permit amendment for any changes to the parking plan approved by this permit and requires that any future development, including, but not limited to installation of signage, painting of red curbs, or any other activity that would result in the loss of any public parking at this location, must be reviewed in the context of an amendment to the permit.

Approval of this CDP pursuant to the staff recommendation, issuance of the permit, and the Permittee’s performance of the work authorized by this permit pursuant to the terms and conditions herein would result in a resolution of the violations described herein. Although development has taken place prior to submission of this permit application, consideration of the permit application by the Commission has been based solely on consistency of the proposed development with the policies of Chapter 3 of the Coastal Act. Commission review and action on this permit does not constitute a waiver of any legal action with regard to the alleged violations (or any other violations), nor does it constitute an implied statement of the Commission’s position regarding the legality of

development, other than the development addressed herein, undertaken on the subject site without a coastal permit.

## **I. OTHER AGENCY APPROVALS**

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

The Army Corps has regulatory authority over the proposed project under Section 404 of the Clean Water Act, which regulates the discharge of dredge or fill material in waters of the United States. **Special Condition 9** requires Caltrans to submit the Section 404 permit to the Executive Director prior to commencement of construction.

### **U.S. Fish and Wildlife Service (USFWS)**

Under the Endangered Species Act, a Section 7 Consultation is required for incidental take of any federally listed fish and wildlife species. USFWS issued a Biological Opinion for the tidewater goby on June 13, 2019.

### **National Marine Fisheries Service (NMFS)**

Under the Endangered Species Act, a Section 7 Consultation is required for incidental take of any federally listed anadromous fish species. NMFS issued a Biological Opinion for steelhead trout on February 28, 2019.

### **California Department of Fish and Wildlife (CDFW)**

Section 1602 of the State of California Fish and Wildlife Code requires any person, state or local agency, or public utility proposing a project that may affect a river, stream, or lake to notify the CDFW before beginning the project. If activities will result in the diversion or obstruction of the natural flow of a stream; substantially alter its bed, channel, or bank; impact riparian vegetation; or, adversely affect existing fish and wildlife resources, a Streambed Alteration Agreement is required from CDFW. **Special Condition 9** requires Caltrans to submit the final CDFW Streambed Alteration Agreement to the Executive Director prior to commencement of construction.

### **Regional Water Quality Control Board (RWQCB) – Central Coast Region**

Section 401 of the Clean Water Act requires Caltrans to obtain a water quality certification from the RWQCB for projects involving dredging and/or filling activities. **Special Condition 9** requires Caltrans to submit proof of RWQCB certification to the Executive Director prior to commencement of construction.

## **J. California Environmental Quality Act (CEQA)**

Section 13096 of Title 14 of the California Code of Regulations requires that a specific finding be made in conjunction with CDP applications showing the application to be consistent with any applicable requirements of CEQA. Public Resources Code, Section 21080.5(d)(2)(A) prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

Caltrans, acting as the lead agency under CEQA, adopted an Environmental Impact Report with a Finding of No Substantial Impact for the project in February 2021. The Coastal Commission's review and analysis of land use proposals has been certified by the Secretary of the Natural Resources Agency as being the functional equivalent of environmental review under CEQA (Section 15251(c)). The Commission has reviewed the relevant coastal resource issues of the proposed project 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.

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 conditioned, will have on the environment within the meaning of CEQA. Thus, if so conditioned, 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).

**APPENDIX A – Substantive File Documents<sup>9</sup>**

- Caltrans, *Refugio Road Undercrossing Bridges Replacement Project Final Environmental Impact Report/Environmental Assessment with Finding of No Substantial Impact*, February 2021.
- Caltrans, *Coastal Development Permit Habitat Mitigation and Monitoring Plan*, March 17, 2023.

**APPENDIX B – Staff Contact with Governments, Agencies, and Groups**

- California Department of Transportation
- Barbareño/Ventureño Band of Mission Indians
- Coastal Band of the Chumash Nation
- Santa Ynez Band Tribal Elders Council

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<sup>9</sup> These documents are available for review in the Commission's South-Central Coast District office in Ventura.