

CALIFORNIA COASTAL COMMISSION

SOUTH CENTRAL COAST DISTRICT
89 SOUTH CALIFORNIA STREET, SUITE 200
VENTURA, CA 93001-2801
PHONE: (805) 585-1800
WEB: WWW.COASTAL.CA.GOV



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STAFF REPORT: REGULAR CALENDAR

Application Number: 4-21-0182

Applicant: California Department of Transportation (Caltrans)

Project Location: State Route 217 at the crossing of San Jose Creek, from postmile 0.9 to postmile 1.4, Santa Barbara County.

Project Description: Deconstruct and replace the highway bridge with a new bridge with four traffic lanes, standard bridge railings and shoulders, a widened Class I bicycle and pedestrian path, and design features that allow for additional elevation to accommodate future coastal hazards; and habitat restoration and monitoring.

Staff Recommendation: Approval with Conditions.

SUMMARY OF STAFF RECOMMENDATION

The California Department of Transportation (Caltrans) proposes to replace the State Route 217 (Highway 217) bridge over San Jose Creek, located east of the University of California, Santa Barbara campus from highway postmiles 0.9 to 1.4, in Santa Barbara County. The existing bridge is structurally deficient, has sub-standard shoulders, and is vulnerable to future coastal hazards, all of which collectively pose a potential public safety risk. The proposed new bridge will maintain the existing bridge's four-lane configuration while improving public safety by providing widened shoulders that meet modern safety standards as well as a widened bicycle and pedestrian path. The new bridge will also include features that allow Caltrans to potentially raise the bridge deck in

the future to adapt to coastal hazards. Additionally, the new bridge will reduce the number of piles placed in San Jose Creek, though the total footprint of piles will increase slightly.

The proposed project will result in a total of 0.869 acres of impacts to coastal stream, wetlands, and riparian habitat within and adjacent to San Jose Creek. Approximately 0.03 acres of these impacts are considered permanent. Regarding alternatives, staff recommends the Commission find that there is no feasible less environmentally damaging alternative to the proposed project as conditioned because the other identified alternatives would result in more significant impacts to wetlands, habitat, public access, and visual resources. Caltrans will perform mitigation for habitat and wetland impacts pursuant its proposed Mitigation and Monitoring Plan. To ensure that the mitigation meets the proposed performance standards, the project is conditioned to require Caltrans to submit and implement a final plan and to provide annual monitoring reports to the Executive Director for five years following implementation. As discussed in detail in the report (1) the fill associated with the public safety improvements to the existing highway is for an incidental public service purpose, a permissible use under Coastal Act Section 30233(a)(4); (2) there are no less environmentally damaging feasible alternatives to the project as recommended; and (3) the development, as conditioned, includes all feasible mitigation measures to minimize the environmental impacts of the proposed filling and dredging activities.

In order to be found consistent with the coastal hazards policies of the Coastal Act, it is critical to assess vulnerabilities to flooding and erosion, which will be worsened by sea level rise over the entirety of a development's design life. In this case, based on best available science, the proposed bridge has minimal risk to be affected by flooding impacts during its 75-year design life, though it is possible with extreme-case sea level rise that flooding could pose a threat to the bridge toward the end of its life. Given this potential vulnerability, Caltrans proposes to construct the new bridge with features that would allow the deck to be jacked up by 3.5 feet in the future, thereby increasing the elevation of the bridge deck. Caltrans will continue to monitor the bridge site going forward and by 2065 will formally evaluate, based on site conditions and other considerations, whether to raise the bridge by 3.5 feet and reconstruct the highway approaches in both directions. The project is conditioned to ensure that this evaluation is timely and occurs in collaboration with the Commission and local partners. The project is also conditioned to require Caltrans to assume the risk of development.

In short, 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 coastal wetlands, 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 approve a Coastal Development Permit (CDP) with conditions**. The motions and resolutions to act on this recommendation follow below on page 4.

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I. MOTION AND RESOLUTION

Motion:

I move that the Commission **approve** Coastal Development Permit Number 4-21-0182 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 4-21-0182 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. Final Project Plans.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit two full-size sets of the Final Project Plans to the Executive Director for review and written approval. The Permittee shall undertake development in accordance with the approved Final Project Plans. Any proposed changes to the approved Final Project Plans 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. Final Mitigation and Monitoring Plan.**
 - a. PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the Applicant shall submit to the Executive Director for review and written approval a Mitigation and Monitoring Plan (MMP) that is in substantial conformance with the draft MMP submitted January 12, 2022.
 - b. WITHIN 90 DAYS OF COMPLETION OF CONSTRUCTION OF THE NEW BRIDGE, unless extended by the Executive Director for good cause, the Permittee shall undertake the proposed mitigation and monitoring in accordance with the approved MMP. Any proposed changes to the approved MMP shall be reported to the Executive Director. No changes to the approved MMP, including but not limited to any adjustment to the final project impact acreages or mitigation acreages, shall occur without a Commission-approved amendment to the permit unless the Executive Director determines that no such amendment is legally required for any proposed minor deviations.
 - c. Following the initial implementation of the proposed biological mitigation, and by December 31st of each year for five (5) years, the Permittee shall submit, for Executive Director review and written approval, an annual monitoring report prepared by a qualified biologist. Each monitoring report shall document progress toward meeting the performance standards contained in the approved MMP, and shall describe any corrective measures taken to ensure success and consistency with the MMP. The first report shall include the final project impact acreages and any resulting adjustments in mitigation acreages based on the mitigation ratios in the final approved MMP. If any component of the mitigation fails to meet the success criteria in the approved MMP, the Applicant shall submit for Executive Director review and approval a supplemental or revised plan to achieve the success criteria in the approved MMP.

- 3. Final Cooperative Agreement.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Applicant shall submit documentation of a Cooperative Agreement (Agreement), or similar binding agreement, between the Applicant and the University of California, Santa Barbara (UCSB) for the Applicant to transfer funds for the restoration of 0.25 acres of salt marsh at the West Storke Wetland parcel as described in the Mitigation and Monitoring Plan approved pursuant to Special Condition 2. The Agreement shall identify the roles and responsibilities of the Applicant and UCSB in implementing the restoration, including but not limited to design, construction, maintenance, and monitoring. The Agreement shall also identify the authorization(s) required to implement the restoration, including but not limited to a Notice of Impending Development (NOID) that the Commission finds consistent with the UCSB Long Range Development Plan (LRDP).
- 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 to take place 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 the water. 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)**

 - i.** 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.

- ii. 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.
- iii. 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.
- iv. 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.

6. Coastal Hazards Adaptation Assessment. By 2065, the Permittee shall submit, for review and approval by the Executive Director, an asset-level adaptation assessment for the Highway 217 bridge over San Jose Creek. This assessment shall be based on the best available science, existing site conditions, local transportation data, and contemporary highway standards. The assessment shall analyze a range of adaptation options to address identified vulnerabilities to coastal hazards. These options shall include, at a minimum, (1) raising the bridge and adjoining roadway, and (2) phasing out use of the highway. Based on this assessment, the Permittee shall collaborate with Coastal Commission staff, Santa Barbara County, and others as necessary, to develop plans for an adaptation project that will minimize hazards and protect coastal resources, and the Permittee shall submit a CDP application to the Commission for the project, as necessary.

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, tsunamis, tidal scour, coastal 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. Archaeological Resources.** If an area of cultural deposits is discovered during the course of the project, all construction and subsurface activity that have the potential to uncover or otherwise disturb cultural deposits in the area of the discovery shall cease immediately. Construction shall not recommence until all of the following have occurred:
 - a. A qualified archaeologist assesses the nature and the significance of the find.
 - b. The Permittee submits to the Executive Director for review and approval a report documenting (1) the results of the analysis; and (2) any proposed changes to the proposed project, including any adopted cultural resources avoidance, minimization, and mitigation measures.
 - c. The Executive Director will have 48 hours to review the information provided in the report and respond in writing with a determination whether the changes to the proposed development or mitigation measures are allowable under this CDP or other applicable Coastal Act policies and regulations, or if further review and action by the Coastal Commission is necessary.

- 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

The proposed project is a bridge located along State Route 217 (Highway 217) in southeastern unincorporated Santa Barbara County. Highway 217 is a 2.2-mile-long route that travels in a northeast/southwest direction and connects U.S. Highway 101 (U.S. 101) to the University of California, Santa Barbara (UCSB), the community of Isla Vista, and the Santa Barbara Municipal Airport. It also provides direct access to Goleta Beach Park via Sandspit Road. Goleta Beach Park is a 29-acre county park that includes a sandy beach, picnic areas, a restaurant, recreational concessionaires (e.g., rental kayaks), a 1,500-foot-long pier that is popular for fishing, and other amenities.

Highway 217 is one of multiple routes connecting U.S. 101 to this section of the Santa Barbara County coast. The other primary routes, Los Carneros Road and Storke Road, connect to U.S. 101 west of Highway 217 and approach the UCSB/Isla Vista area from the north. Highway 217 provides the most direct connection for those traveling to/from the east. The northern approximately 1.6 miles of Highway 217, from U.S. 101 to the south end of San Jose Creek Bridge, is a four-lane expressway with two lanes in each direction. At the south end of San Jose Creek Bridge (i.e., the interchange with Sandspit Road), the highway becomes one lane in each direction for the remaining approximately 0.6 miles to the end of the highway at the eastern boundary of the UCSB campus. For most of its length, Highway 217 has 12-foot-wide lanes, 10-foot-wide outside shoulders, and 10-foot-wide inside shoulders, a continuous single concrete median barrier, and a posted speed limit of 65 miles per hour.¹ See **Exhibit 1** for a project location map and **Exhibit 2** for an aerial photo of the project site.

The existing four-lane bridge over San Jose Creek was constructed in 1963. It is a seven-span reinforced concrete slab bridge that is 192.4 feet long and 94.3 feet wide with an 18-inch-thick deck. It is supported on six “bents,” or sets of piles. Each bent includes 11, 15-inch-diameter piles, for a total of 66 piles, 48 of which are located in the stream channel. The existing bridge has 4.7-foot-wide outside shoulders and 8-foot-wide inside shoulders. There is also an 8-foot-wide separated two-way bicycle and pedestrian path along the northbound side of the bridge, about 42 feet from the highway centerline. The path is part of the Atascadero Creek Trail (also known as the “Obern Trail”), which provides access between the communities east of Highway 217 and Goleta Beach Park and UCSB.

San Jose Creek Bridge passes over San Jose Creek, which is approximately 100 feet wide at the bridge location. San Jose Creek is one of multiple streams that feed into the Goleta Slough watershed. Goleta Slough and its tributary streams provide habitat and

¹ When traveling on the highway, the right-side shoulder is considered the “outside” shoulder, and the left-side shoulder is considered the “inside” shoulder.

migration corridors for fish and wildlife species moving between the Pacific Ocean and the upper watershed in the Santa Ynez Mountains. The watershed supports multiple special-status species including tidewater goby (*Eucyclogobius newberryi*) and steelhead trout (*Oncorhynchus mykiss*). San Jose Creek Bridge is located approximately 1,100 feet inland (i.e., north) of where Goleta Slough flows into the Pacific Ocean at Goleta Beach Park. The mouth of Goleta Slough 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 an urban fringe area containing a mixture of natural and built elements. Nearby vegetation includes pickleweed mats, non-native grasses, ice plant, coyote brush, and arroyo willow. The surrounding area is moderately developed with varied land uses, including residential, recreational, and public utilities.

Project Description

The proposed development includes replacement of the existing Highway 217 bridge and bicycle/pedestrian path over San Jose Creek (see **Exhibit 3** for excerpted project plans). Inspection of the bridge has documented a long history of concrete cracking and deterioration that have damaged the bridge's structural integrity.² The most recent routine inspection noted separation and weakening of the bridge deck and a salt coating on the soffit.³ In addition, the existing bridge roadway has sub-standard shoulder widths that are unusable by vehicles in case of an emergency. The bridge is also vulnerable to future projected coastal hazards, which will be exacerbated by sea level rise.

Caltrans proposes to construct a new pre-cast, wide flange girder bridge approximately 213.6 feet long and 105 feet wide with a 4.75-foot-thick deck. The upstream soffit elevation will be 13.5 feet, and the downstream soffit elevation will be 16.4 feet NAVD88.⁴ Replacement will occur in two stages and is described in greater detail below. The new east abutment will be in the same location as the existing east abutment, while the new west abutment will be located approximately 10 feet west of the existing west abutment. The new abutments will be outside the edges of the stream banks and above the Ordinary Highway Water Mark (OHWM). The thicker, longer bridge deck will allow Caltrans to reduce the number of bridge spans from seven to two. Accordingly, the number of bridge piers will be reduced from six to one, with the

² 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.

³ The soffit is the underside of the bridge.

⁴ North American Vertical Datum of 1988 (NAVD 88) consists of a leveling network on the North American Continent, ranging from Alaska, through Canada, and across the United States, affixed to a single origin point on the continent. In 1993, NAVD 88 was affirmed as the official vertical datum in the National Spatial Reference System (NSRS) for the Conterminous United States and Alaska. See 58 Fed.Reg 120 (June 24, 1993). All elevations expressed in this report are with reference to NAVD88.

proposed bridge including a single pier of 8, 66-inch-diameter piles. The proposed project also includes restoration, which is described below, to compensate for habitat impacts associated with the bridge replacement.

The proposed bridge will maintain the existing four-lane configuration and will meet modern safety standards for shoulder widths. The width of the inside shoulder will increase from 8 feet to 10 feet, and the width of the outside shoulder will increase from 4.7 feet to 10 feet. These widened shoulders will allow vehicles to pull completely out of the travel lane in case of an emergency. Like the existing bridge, the proposed bridge will include a separated, Class I bicycle and pedestrian path along the northbound outside shoulder. The proposed bridge will widen this path from 8 feet to 10 feet to enhance bicycle and pedestrian safety and access, and will include an open-style railing to maximize views of San Jose Creek. The proposed bridge will include construction of new roadway stormwater drainage facilities, such as new dikes and over-side drains, to accommodate future stormwater flows. Six new roadway lights will be added as part of the project, two northeast of the bridge and four southwest of the bridge in the Sandspit Road interchange. Caltrans will also remove the existing flashing beacon system on the southbound highway immediately before the bridge, for a net total of five new lights. None of the new lights are located on the bridge deck or above San Jose Creek.

The proposed bridge structure will include features to allow Caltrans to raise the structure in the future to accommodate coastal hazards, which may be exacerbated by sea level rise within the bridge's expected 75-year service life. Additional rebar with couplers and pins will be installed to allow for extension of the bridge piles, whereby the deck could be jacked to an increased height. A project to raise the bridge structure in this way and re-design the road approaches at either end would be programmed and planned by Caltrans based on monitoring of future sea level rise and associated impacts at the project site, and is not included as part of the proposed project.

Construction is projected to start in 2023 and will require about 550 workdays over a duration of approximately 30 calendar months. The staged construction will most likely require two calendar years to perform the various activities within the waterway during the in-stream work season (June 1 to October 31). **Special Condition 1** requires Caltrans, prior to commencement of construction, to submit the Final Project Plans to the Executive Director for review and written approval. Caltrans will undertake the proposed development in accordance with the approved Final Project Plans.

Construction Methods

Site Preparation

Caltrans will install fencing throughout the project site to limit construction activities and protect habitats of concern. Caltrans will also delineate the construction staging and storage area, which will be located south of Highway 217 and east of San Jose Creek in a location that has been previously disturbed and is regularly used by Santa Barbara County Flood Control District for access to waterways in the vicinity.

Prior to bridge construction activities, the contractor will clear and grub (i.e., remove all below-ground plant material) to provide access into the stream channel on either side of the bridge. Temporary vegetation removal to accommodate access and construction will be minimized to the extent feasible. Access to the streambed for constructing the bridge bent will be from the east bank, which has an existing gradual slope from the bridge abutment to the water and is closer to the work area for the bent. Demolition of the existing abutments and construction of the new abutments will be from the adjacent roadway, not the streambed.

Dewatering/Diversion

Stream dewatering and diversion will be required for all work in the active stream channel, including removing existing columns and constructing the bent cast-in-drilled-hole piles. Diversion and dewatering will be timed to occur between June 1 and October 31 to avoid impacts to sensitive aquatic species.

The bent for the new bridge will be located near the eastern edge of the active stream in order to avoid a full stream-width diversion. The contractor will build a partial diversion to move the stream flow around only the eastern side of the stream and the bent. To do this, a cofferdam will be constructed of metal sheet piling and held in place with posts or gravel behind the sheets. This will cause the wetted stream to be constricted about 10 feet to provide a working space to construct the new bent. The cofferdam will start about 50 feet upstream of the most upstream column and extend to about 50 feet downstream of the most downstream column. The contractor will install the posts or sheets by a vibratory or rotating/oscillating method, and not by pile driving.

If the stream diversion and dewatering does not completely dry the work area, steel casings will be used around each pile to prevent wet concrete from leaking into the stream. Any fish and other aquatic species stranded in dewatered areas will be relocated to suitable habitat by a qualified biologist. Removal of nuisance water within the work site will be accomplished by pumping the water with low horsepower pumps and hoses. The pumps, if used, will have protective screens at intake ends to prevent fish and other aquatic species from entering the pumps. Pumped water will be directed through a silt filtration bag and/or into a settling basin, allowing the suspended sediment to settle out. Dewatering discharge points will be placed downstream of the dewatered area at locations where the discharge will not result in erosion or scour.

The contractor may construct a temporary trestle or temporary work platform as part of the seasonal stream diversion. Trestle construction will involve installing piles comprised of steel pipe up to 12 inches in diameter. If a trestle is used, the piles will be installed by oscillating or vibrating, but final proofing will most likely be required using an impact pile driver with up to 200 strikes per day. As described in the "Hydroacoustic Impacts" section below, Caltrans has worked with the National Marine Fisheries Service and U.S. Fish and Wildlife Service to ensure that any potential pile driving will not impact fish species in the creek, including Southern California steelhead and tidewater goby. The contractor may also determine based on site conditions that a temporary trestle is not necessary for project construction.

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. 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, Stage 1 of bridge replacement will involve removing the northbound side of the existing bridge and constructing the northbound half of the new bridge (see **Exhibit 3**). Traffic will be reduced to two lanes, one lane in each direction, and will be shifted to the existing southbound lanes with appropriate traffic controls. The existing concrete median barrier within the project site will be removed to accommodate this crossover. The traffic crossover will be sited to allow the on-ramps and off-ramps of the Sandspit Road interchange to be open as much as possible during construction. However, temporary ramp closures may be necessary for setting and removing traffic control devices. A temporary bicycle and pedestrian path will also be provided across the southbound side of the existing bridge alongside the shifted traffic lanes.

The existing columns will be removed completely if possible, or removed to 3 feet below the finished grade if necessary and there is no conflict with the new columns. The existing columns will be removed either before or after installing the new columns, as determined by the contractor.

To construct the new bridge bent, a crane for lifting and installing the casings and a vibratory drill rig will be positioned on the bank next to the bent or in the isolated work area. During Stage 1, four of the eight cast-in-drilled-hole piles will be installed along the bent to support the first half of the new bridge. For the foundation, each pile will be installed to a depth of about 100 feet below ground. Even though the work area will be isolated and dewatered, steel casings are necessary to prevent water from interfering with formation of the concrete piles, and likewise to prevent wet concrete from leaking into the stream channel. The steel casings will be installed with a vibratory or rotating/oscillating method. An impact pile driver will not be used.

Drilling fluid/slurry will be pumped into the casing to evacuate the water. Once each casing is in proper position, the drill rig will remove the soil content of the casing and then construct the rock socket, which is the lowest portion of the pile beneath the casing. Drill spoils will be collected and either reincorporated into embankment fills or transported to an off-site disposal facility. Once the rock socket excavation is completed, a crane will place a reinforcing steel cage into the pile.

To create the cast-in-drilled-hole pile, the casing will then be backfilled with concrete. This lower portion of the pile will serve as the base to construct the column/upper pile portion. The concrete pour will be accomplished with a concrete pump truck positioned

on the roadway or adjacent embankment east of the bridge, then allowed to cure to obtain adequate compression strength. After the cast-in-drilled-hole piles and columns have been constructed, the concrete bent cap will be formed, likely using wood falsework. Pre-cast girders will be installed after the bent is constructed. Additional rebar with couplers and pins will be installed to allow for future extension of the columns. Deck forms will be placed between the girders followed by deck rebar and concrete placement. Once the deck concrete has reached the specified concrete strength, the deck forms will be removed.

The piles for the new abutments will be constructed in a similar manner as the piles for the bent. However, work on the abutments will be performed well outside of the stream channel. Casings will likely still be necessary to prevent groundwater from interfering with pile formation. For the roadway approaches, the abutments will be backfilled, and the 30-foot sections of the roadway approaches will be constructed out of reinforced concrete. The approach slabs and bridge rails will then be formed with reinforcing steel followed by the placement of concrete. Expansion joint seals that allow for bridge movement will be placed between the backwall and the approach slab. A permanent 10-foot-wide, two-way Class 1 bicycle and pedestrian path will be constructed along the eastern side of the northbound bridge lane.

Bridge Replacement Stage 2

Stage 2 of the bridge replacement will involve removing the second half (i.e., southbound side) of the existing bridge and constructing the southbound side of the new bridge. Stage 2 construction will be performed during the summer in-stream work season. When Stage 2 construction starts, two-way traffic will be shifted away from the existing southbound lanes to the newly constructed northbound side of the bridge. Bicycle and pedestrian traffic over the bridge will be shifted to the newly constructed Class I path. The southbound side of the original bridge will then be demolished, and the second half of the new bridge will be constructed using similar methodology as previously described for Stage 1. Due to the grade difference between the two bridge halves, temporary drainage will be needed during this stage to prevent water flow from the northbound lanes from going across to the southbound roadway. After bridge construction is complete, the slopes will be graded to as close as pre-construction elevations as feasible. Finally, road striping, replacement of existing metal beam guardrail and concrete median barrier, and other additional features will be constructed.

Restoration

The proposed project will result in a total of approximately 0.869 acres of impacts to sensitive coastal wetlands, primarily riparian and salt marsh habitat, within and adjacent to San Jose Creek (see **Exhibit 5**). Approximately four percent of these impacts (0.033 acres) will be permanent. Caltrans proposes on-site and off-site habitat restoration as part of the project to mitigate these impacts. Caltrans will perform as much compensatory mitigation on-site as possible by restoring areas temporarily disturbed by construction activities as well as areas previously disturbed or otherwise dominated by invasive species (see **Exhibit 6**). All restoration activities will be performed pursuant to

a draft Mitigation and Monitoring Plan (MMP), which Caltrans has developed in coordination with Coastal Commission staff. Caltrans will submit the final MMP for Executive Director review and approval prior to issuance of the CDP. Under the MMP, 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 documenting progress toward those criteria.

Some of the required wetland mitigation cannot be performed on-site due to lack of available property suitable for the restoration, so off-site mitigation is also proposed. Specifically, Caltrans will provide funding to the Cheadle Center for Biodiversity and Ecological Restoration (CCBER) at UCSB to restore approximately 0.25 acres of salt marsh habitat in the West Storke Wetland, which is located in upper Goleta Slough within the City of Goleta (see **Exhibits 7 and 8**). The proposed restoration site is about 1.5 miles away from the San Jose Creek Bridge replacement project and is owned and managed by UCSB. Caltrans identified this site in coordination with UCSB staff and Commission Staff Ecologist Dr. Jonna Engel, and it is suitable and appropriate for wetland restoration. The restoration will be credited toward Caltrans' mitigation requirements for the project. The parcel proposed for restoration is within the certified Long Range Development Plan (LRDP) area of UCSB. Thus, implementation of the proposed habitat restoration at that site would require authorization from UCSB and the Coastal Commission through a Notice of Impending Development (NOID) under the certified LRDP. The details of the funding transfer and restoration will be formalized in a Cooperative Agreement between Caltrans and UCSB prior to commencement of the bridge replacement. Both the on-site and off-site restoration will begin within 90 days of completion of construction of the new bridge, unless extended for good cause by the Executive Director, to avoid temporal losses of ecological service by ensuring that the mitigation occurs contemporaneously with the proposed project impacts.

Jurisdiction

The California Coastal Commission is one of three coastal management agencies designated for the purpose of administering the federal Coastal Zone Management Act in California. Under California's federally approved Coastal Management Program, the California Coastal Commission manages development in California Coastal Zone, as defined in the Coastal Act. The project site is entirely within the Coastal Commission's original permitting jurisdiction pursuant to Coastal Act Section 30519(b). The policies of Chapter 3 of the Coastal Act constitute the legal standard of review.

B. Wetlands, ESHA, and Water Quality

Existing Conditions

Hydrology

Goleta Slough was a large harbor prior to 1861, when a large flood caused siltation that filled much of the harbor and created a shallow lagoon. In the late 19th century, heavy cattle grazing along the surrounding foothills followed by wide ranging wildfires, heavy

rains, and flooding caused excessive erosion and deposition of sediment in the mouths of the creeks emptying into Goleta Bay. Over time, sedimentation transformed the lagoon into a coastal salt marsh which has been reduced in size by further siltation and land filling to accommodate development such as the Santa Barbara Airport. During development of the airport and other parcels in the area, the waterways and marshes of the slough were diked, drained, diverted, and channelized into four main waterways that exist today: Atascadero Creek, San Jose Creek, San Pedro Creek, and Tecolotito Creek.

The entire reach of San Jose Creek from Goleta to the Pacific Ocean, as well as the adjacent waterways, did not naturally exist as it is today. The southwestern portion of the project site is adjacent to the former site of Mescalitan Island, which was leveled in the 1940s to produce fill for the airport. The construction of Ward Memorial Drive in the 1960s resulted in more filling and diverting of waters in the area, after which San Jose Creek begins to appear in historical photographs as a distinct waterbody.

Today, the watershed of San Jose Creek and its tributaries encompasses approximately 8,000 acres on the south slope of the Santa Ynez Mountains. The creek traverses down through the foothills into residential sections of Goleta and through Old Town Goleta. About 4,000 feet of the stream is channelized and lined from Old Town Goleta to approximately 2,000 feet north of the Highway 217 bridge. The bridge is located just downstream of the confluence of San Jose and San Pedro Creeks, just upstream of the confluence of San Jose and Atascadero Creek, and approximately 3,200 feet upstream of the mouth of Goleta Slough at the Pacific Ocean. The lower portion of San Jose Creek, including the project site, is perennial and tidally influenced. Stream flow and wave processes cause the lagoon mouth to periodically open and close. Consequently, the project site experiences intermittent periods of tidal action separated by periods where the lagoon is closed to the tides. When the mouth of Goleta Slough is open to tidal flow and tides are high, the tidal influence can reach as far as one mile upstream of the bridge. Freshwater inflows from the streams in the watershed influence water quality both by reducing salinity and depositing sediments. Santa Barbara County Flood Control District routinely dredges San Jose Creek and its neighboring creeks, up to about one mile from the mouth, and also breaches the berm at the mouth to maintain water quality in the slough. An average of 3,630 cubic yards of sediment have been removed each year from San Jose Creek as part of flood control maintenance.

Caltrans conducted five wetland delineations of the project site based on the Ordinary High-Water Mark (OHWM) of San Jose Creek between August 2016 and July 2018. Riparian boundaries were measured from the channel bed to the top of the bank or to the outer edge of the riparian canopy, whichever was greater. Waters of the United States (U.S.) delineated within the project site include a total of 2.566 acres of wetlands and a total of 1.932 acres of perennial stream below the OHWM. Waters of the State within the project site include these identified Waters of the U.S. as well as 0.140 acres of ephemeral drainage, 0.542 acres of non-wetland riparian habitat, and 0.469 acres of unvegetated streambank (above the OHWM). The only other "single parameter" wetlands are the riparian areas flanking the creek channel, as show in **Exhibit 5**.

Vegetation

Caltrans conducted floristic botanical surveys of the project site during various seasons from 2016 to 2018. These surveys observed no special-status plant species in the project site, and found that the vicinity of the Highway 217 bridge supports multiple plant communities (see **Exhibit 5**). The salt marsh areas are classified as pickleweed mats. These areas are dominated almost exclusively by glasswort (*Sarcocornia pacifica*), more commonly known as pickleweed. The pickleweed mats in the project site have varying degrees of productivity and value as a salt marsh community due to adjacent disturbances. The largest area located to the south of the bicycle and pedestrian path has the greatest species diversity and relatively fewer invasive species.

Several types of riparian habitats (comprised of some species not typical of riparian habitats, such as quailbush and coyote brush) associated with San Jose Creek occur in the project site. Quailbush scrub is found on the west bank of San Jose Creek where quailbush (*Atriplex lentiformis*) overhangs barren slope and a narrow band of glasswort. This blends along the southwestern bank into a community of coyote brush (*Baccharis pilularis*) scrub, which is a widespread and common vegetation community throughout California. Fairly small patches of arroyo willow (*Salix lasiolepis*) thickets are found on the north side of San Jose Creek Bridge on both streambanks. They are commonly found along low-gradient streams on the central coast. These areas are dominated almost exclusively by arroyo willow along with other willows or riparian tree species. A small patch of arroyo willow thickets is also found in the southwest corner of the project site. Also present in the project site are small patches of ngaio tree (*Myoporum laetum*). Commonly called “myoporum,” this species has a California Invasive Plant Council rating of “moderate” and is common in disturbed coastal habitats in California. The largest patch of myoporum is at the southeast corner of Highway 217 and San Jose Creek.

Additional plant communities include non-native grasslands, which are dominated by ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), black mustard (*Brassica nigra*), and poison hemlock (*Conium maculatum*). Also present are mats of ice plant (*Carpobrotus edulis*), a highly invasive non-native succulent herb. The southeast corner of the project site area also has three Canary Island date palms (*Phoenix canariensis*) and a cluster of giant reed (*Arundo donax*), another highly invasive species.

The project site includes potentially suitable habitat for two plant species listed as threatened or endangered under the federal Endangered Species Act or California Endangered Species Act (CESA): saltmarsh bird's beaks (*Cordylanthus maritimus* ssp. *Maritimus*) and Gambel's watercress (*Rorippa gambellii*). Caltrans performed floristic surveys in 2016 and 2018 during the seasons when the species are flowering and identifiable, and did not observe either species in the project site. Based on these surveys, Caltrans determined that the proposed project will have no effect on these species.

Fish and Wildlife

A variety of animal species use the habitat and waterways of Goleta Slough and San Jose Creek seasonally or annually, including several special-status species. The project site includes potentially suitable habitat for three federally listed animal species: Southern California steelhead (*Oncorhynchus mykiss irideus*), tidewater goby (*Eucyclogobius newberryi*), and California red-legged frog (*Rana draytonii*). This includes designated critical habitat for steelhead and tidewater goby. 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 these species. Through this consultation, NMFS determined that the proposed project is not likely to jeopardize Southern California steelhead, or to destroy or adversely modify designated critical habitat for the species. USFWS determined that the proposed project is not likely to adversely affect designated critical habitat for tidewater goby, and indicated that California red-legged frog does not occur in Goleta Slough. 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.⁵

Marginal to very low-quality nesting habitat exists within the project site for six listed bird species: western snowy plover (*Charadrius alexandrinus nivosus*), southwestern willow flycatcher (*Empidonax traillii extimus*), Belding's savannah sparrow (*Passerculus sandwichensis*), light-footed clapper rail (*Rallus longirostris levipes*), California least tern (*Sterna antillarum browni*), and least Bell's vireo (*Vireo bellii pusillus*). Caltrans performed field surveys in 2016 and 2018 and observed none of these species. Of these species, there are no confirmed records of southwestern willow flycatcher, California least tern, or least Bell's vireo in Goleta Slough. Western snowy plover and Light-footed clapper rails have been previously documented in the Goleta Slough area, but neither species has been documented in the area since the 1970s. Belding's savannah sparrow, which is listed under CESA, is the only listed bird species that has been documented nesting in Goleta Slough within the past approximately 50 years. Caltrans determined that the proposed project has the potential to impact Belding's savannah sparrow, and thus Caltrans will implement impact avoidance and minimization measures as described below.

Eight other non-listed, 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: obscure bumble bee (*Bombus caliginosus*), Crotch bumble bee (*Bombus crotchii*), western pond turtle (*Emys marmorata*), Cooper's hawk (*Accipiter cooperii*), grasshopper sparrow (*Ammodramus savannarum*), horned lark (*Eremophila alpestris aelia*), yellow-breasted chat (*Icteria virens*), and yellow warbler (*Setophaga petechia*). None of these species were observed during field surveys. However, it remains possible that the proposed

⁵ 16 U.S.C. 1855(b).

project may impacts these species, and thus Caltrans will implement impact avoidance and minimization measures as described below.

Coastal Wetlands, Waters, and Marine Resources

The Coastal Act protects coastal wetlands, waters, and marine resources at this location and offshore. Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the 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 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse 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.

In addition, Section 30233 of the Coastal Act addresses the filling of coastal waters and states, in relevant part:

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

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

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

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

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

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

(6) Restoration purposes;

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

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

(c) In addition to the other provision of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...

Section 30233 sets standards for diking, filling, and dredging of wetlands and open coastal waters. Coastal Act Section 30108.2 defines “fill” as “earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area.” The Commission has long considered grading, excavating, and other ground-disturbing activities in coastal wetlands and estuaries to be a form of dredging.⁶

Filling, diking, or dredging in wetlands is permissible under Section 30233(a) if: (1) it is for one of the seven allowable uses listed under Section 30233(a)(1)-(7), (2) there is no feasible less environmentally damaging alternative, and (3) feasible mitigation measures have been provided to minimize adverse environmental effects. A project must pass all three tests to be authorized pursuant to Section 30233(a). In addition, Coastal Act Sections 30230, 30231, and 30233 together require that marine resources, the biological productivity and quality of coastal waters, and the functional capacity of wetlands and estuaries be maintained and enhanced.

Fill and Allowable Uses

To qualify as an incidental public service purpose, the fill of coastal waters being undertaken must demonstrate that: (a) it provides a “public service” insofar as it confers benefits to the public, either at large, or to those served by the public entity; and (b) is

⁶ E.g., CDPs 1-06-036 (McDaniel Slough Wetland Enhancement Project), 1-08-012 (Northcoast Regional Last Trust), 1-08-020 (Miller), 1-09-020 (Fickle Hill Creek Restoration), 1-09-030 (Lower Jacoby Creek Estuary Enhancement), and 1-10-032 (Humboldt County RCD).

“incidental,” within the meaning of that term as it is used in the Coastal Act (i.e., is ancillary and appurtenant to an existing public service purpose).

In the past, the Commission has determined that the fill for certain highway safety improvement projects that did not increase vehicular capacity could be considered an “incidental public service” pursuant to the requirements of Coastal Act Section 30233(a)(4). These actions have included road widening, road realignments, and bridge replacements.⁷ That such highway safety improvements can be considered to be for incidental public service purposes under Section 30233(a)(4) is supported by the Commission’s 1981 statewide interpretive guidelines (“Statewide Interpretive Guidelines for Wetlands and Other Wet Environmentally Sensitive Habitat Areas” (hereinafter, the “Guidelines”). The Guidelines analyze the allowable uses in wetlands under Section 30233, including the provision regarding “incidental public service purposes.” In a footnote to that definition (no. 3) the Guidelines state: “When no other alternative exists, and when consistent with the other provision of this section, limited expansion of roadbeds and bridges necessary to maintain existing traffic capacity may be permitted.” This interpretation was upheld by the Court of Appeal in *Bolsa Chica Land Trust et al. v. Superior Court (“Bolsa Chica”)* (1999) 71 Cal.App.4th 493, 516, which agreed with Commission’s interpretation in the Guidelines and the footnote definition.

The proposed filling and dredging associated with the bridge replacement has a public purpose because it is being undertaken by a public agency to safely serve the public’s transportation needs along the highway corridor. The existing bridge is near the end of its design life, having been built in 1963, and is structurally deficient by current design standards. In addition, the existing roadway at the bridge has substandard 4.7-foot-wide outside shoulders, which are unusable by vehicles in case of an emergency. The bridge is also vulnerable to future coastal hazards. Moreover, the proposed filling and dredging is incidental to the primary public purpose of providing safe transportation on the existing highway. For these reasons, the proposed filling and dredging in wetlands to make the highway infrastructure improvements is allowable under Coastal Act Section 30233(a)(4) because the fill is for an “incidental public service purpose.”

Alternatives Analysis

For projects involving diking, dredging, and filling of wetlands, the Commission must ensure that the proposed project has no feasible less environmentally damaging alternative consistent with Section 30233 of the Coastal Act. Coastal Act Section 30108 defines “feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.”

⁷ E.g., CDPs 3-19-1199 (Toro Creek Bridge Replacement), 1-18-1078 (Eureka-Arcata 101 Corridor Improvement Project), 6-15-1975 (San Diego West Mission Bay Drive Bridge Replacement), 1-07-038 (Alton Interchange), 1-07-013 (Mad River Bridge Replacement), 1-90-295 (Highway 1 Widening and Realignment).

Caltrans analyzed multiple alternatives to address the structural, safety, and resiliency deficiencies of the current bridge. A number of fundamental decisions were evaluated through analysis of these alternatives, including (1) whether to leave the existing bridge in place or to replace the bridge, (2) the optimal number of replacement bridge spans, and (3) the appropriate bridge deck elevation.

No-Build or Replacement

Upon identifying the purpose and need for the project, Caltrans' initial analysis evaluated whether to leave the existing bridge in place (the "no-build" alternative) or to replace the bridge. The no-build alternative would maintain the status quo and leave the existing bridge in place with no modifications. As discussed above, the existing bridge is toward the end of its design life, and inspections have documented concrete cracking and deterioration that have damaged the bridge's structural integrity. The existing bridge shoulders also fail to meet current design safety standards, and the bridge is vulnerable to future projected sea level rise and coastal hazards. The no-build alternative would not address these critical deficiencies and instead would allow the potential public safety risks to continue to increase over time. Therefore, Caltrans rejected this alternative.

Number of Bridge Spans

The existing bridge has seven spans and six piers, with each pier comprised of 11 piles for a total of 66 piles, 48 of which are in the stream channel. For the replacement bridge, Caltrans initially considered three-span, two-span, or single-span (also known as "free span") designs, all of which would decrease the number of piles in the creek. All three alternatives were "pre-cast" bridges whereby the girders would be pre-cast, but all other elements of the bridge (including the deck) would be cast in place.

Whenever feasible, Caltrans attempts to use the Accelerated Bridge Construction method, which Caltrans defines as "any type of bridge construction that utilizes the most efficient combination of innovative planning, design, materials, and construction methods to significantly reduce construction-related impacts by reducing the number of on-site construction days and/or minimizing traffic disruption." In this case, a free span design would be considered an Accelerated Bridge Construction design because it would avoid the need to install piles in the creek, thereby cutting construction cost and time and also avoiding impacts to the creek bottom. However, Caltrans determined that a free span design is not feasible for the project as it would require the bridge to be 12.75 feet thick (as opposed to the 4.75-foot thickness currently proposed). Installing such a bridge deck at the existing roadway grade would result in a significantly lower soffit elevation that would not provide sufficient hydraulic capacity for San Jose Creek and would be more vulnerable to coastal hazards than the current structure.

Alternatively, construction of a free span bridge at a higher elevation sufficient to provide hydraulic capacity and hazards resiliency would require raising the bridge approaches in either direction by a significant length, resulting in a far more complex and expensive project with numerous impacts to San Jose Creek and the surrounding slough environment. Such a bridge would also be visually inconsistent with the surrounding landscape. For these reasons, Caltrans rejected the free span alternative.

Upon rejecting the free span alternative, Caltrans compared a two-span alternative and a three-span alternative. Caltrans determined that the two alternatives were similar in terms of their overall impact footprint, but that the two-span alternative would require placing a smaller footprint of piles in the creek channel, minimizing impacts to the channel bottom. The smaller number of piles would also give the two-span alternative a simpler appearance than the three-span alternative when viewed in profile. For these reasons, Caltrans rejected the three-span alternative and selected the two-span alternative.

Replacement In-Kind, Raised Bridge, or Adaptable Bridge

The remaining consideration was the bridge elevation. The initial alternative considered was to replace the bridge with downstream and upstream soffit elevations of 16.4 ft and 13.5 ft, respectively, which are similar to but slightly higher than the existing bridge, and with no capacity for the bridge to be raised in the future. Caltrans describes this alternative as replacement “in-kind.” To assess this alternative, Caltrans analyzed projected future coastal hazards at the bridge site. As discussed in greater detail in the “Coastal Hazards” section of this report, Caltrans determined that a bridge with the elevation of the in-kind alternative could be impacted by extreme stormwater flows and tsunamis, especially toward the end of the century and with extreme sea level rise. Caltrans further determined that the cost of replacing the new bridge before the end of its service life or constructing emergency protection and/or maintenance measures would be significant. Based on this life-cycle cost analysis, Caltrans rejected the replacement in-kind alternative.

To address the site’s potential vulnerability to hazards toward the end of the century, Caltrans next evaluated whether to construct the new bridge 3.5 feet higher than the in-kind alternative, or to construct a new bridge at the same elevation as the in-kind alternative but with elements that would allow Caltrans to potentially raise the bridge by 3.5 feet in the future (i.e., an “adaptable bridge”). Developing a bridge 3.5 feet higher, whether now or in the future, would require redesigning the highway approaches in either direction to connect with the higher bridge, resulting in a significantly larger construction footprint. Raising the roadbed approach to the east would require constructing a 1,000-foot-long retaining wall along the bank of San Jose Creek. This wall would potentially need to be longer if flooding were also impacting Highway 217 northeast of the bridge. Raising the approach to the west would require redesigning the Sandspit Road interchange and the intersection with Moffett Place. This would likely require permanently filling in some surrounding lowland areas and potentially impacting approximately 1.5 acres of wetlands. Such a project would be costly and complex, and would have significant impacts on the ecology, water quality, and visual quality of San Jose Creek and the surrounding slough landscape, as well as public coastal access in these areas.

However, developing a higher bridge, either now or in the future, is not the only potential pathway for adapting to coastal hazards at the project site. Caltrans could pursue an alternative adaptation strategy that phases out use of Highway 217 in favor of existing

inland connector roads between the UCSB/Isla Vista area and U.S. 101. Constructing an adaptable bridge would afford Caltrans time to continue to monitor site conditions and coastal hazards projections, and to continue to collaborate with state and local adaptation planning partners, to determine if raising the bridge is both necessary and prudent given the significant resource costs and existing alternative routes. In the meantime, an adaptable bridge would avoid for several decades, and potentially permanently, the significant coastal resource losses that would result from constructing the higher bridge

For all of the reasons described above, Caltrans selected the proposed two-span, adaptable alternative for replacing San Jose Creek Bridge. For the same reasons, and taken in conjunction with the proposed mitigation discussed in the following "Mitigation" section of this report, the Commission finds that the proposed new bridge design minimizes disturbance to wetlands and enhances habitat, and is therefore the least damaging environmental alternative available under Section 30233(a).

Mitigation

Impacts

The project has been designed to reduce habitat impacts to the greatest extent possible. Construction access and staging areas have been designed to utilize existing disturbed areas. Caltrans proposes, and **Special Condition 5** requires, that work in the stream channel will occur only between June 1 to October 31, a period when stream flow is seasonally low and when sensitive fish species are less likely to be impacted. The only work activities that will be performed within the stream channel are temporary stream diversion and potential installation of a temporary protective work platform or trestle. Construction of the new bridge piles must be performed in an area isolated from stream flow. Measures to avoid and minimize impacts to fish species are described in greater detail below.

Caltrans will minimize impacts to native riparian trees and shrubs, such as arroyo willow, by specifying that the plants are cut to the ground level and not grubbed to the greatest extent feasible while allowing for necessary construction access. However, some of the native riparian habitat in the project site also contains invasive giant reed, and some willows may need to be removed to allow for full removal of the deep roots of the giant reed.

Caltrans will minimize impacts to native coastal salt marsh areas that will be temporarily impacted by specifying that the plants cannot be cleared or grubbed, and that "wetland mats" (also called "construction mats" or "swamp mats") must be used to protect fragile roots and wetland soils from getting crushed by equipment. Caltrans will coordinate with the contractor to utilize wetland mats in a manner that minimizes impacts to wetlands.

With these avoidance and minimization measures incorporated, the proposed project will have approximately 0.869 acres of temporary and permanent impacts to coastal stream, salt marsh, and riparian habitat in and around San Jose Creek. Of these estimated impacts, approximately 0.033 acres (i.e., 3.7% of the total impact acreage)

will be permanent impacts due to the proposed bridge being slightly wider than the existing bridge. The proposed project will increase the amount of fill (i.e., footprint of piles in the creek) by 109 square feet (approximately 0.002 acres). This impact will be offset by an overall reduction in visual obstructions in the middle of the channel because the existing 48 columns which are currently distributed throughout the channel will be removed and a single new pier of eight columns will be located near the east bank. Additionally, the proposed project will create at least 0.012 acres of stream channel habitat on the west bank, where the new abutment will be set back by approximately 10 feet. This new streambank habitat will also provide a slight increase in hydraulic capacity at high flows.

A total of approximately 0.836 acres of temporary habitat impacts will occur throughout the overall work area resulting from vegetation removal or disturbance (trimming or temporarily covering), temporary stream diversion and dewatering, and equipment access and staging. Approximately 0.131 acres of these temporary impacts are considered "long-term" because the impact is expected be restored to pre-construction conditions between one and three years after initial impact. The remaining 0.705 acres of temporary impacts are short-term and will be restored within one year of initial disturbance. The proposed habitat impacts are shown in the following table and are depicted in **Exhibit 5**.

Coastal Habitat Type	Potential Impacts ¹ (acres)		
	Permanent	Long-term Temporary	Short-term Temporary
Coastal Stream ²	0.004	0	0.705
Coastal Salt Marsh	0.029	0.034	0
Native Riparian Habitat ³	0	0.078	0
Non-Native Riparian Habitat ⁴	0	0.019	0
Total	0.033	0.131	0.705

1. "Permanent" denotes permanent loss of habitat. Long-term temporary impacts are any temporary disturbance that will be restored 1 to 3 years after impact. Short-term temporary impacts are any temporary disturbance that will be restored within 1 year of initial impact.

2. Below the high tide elevation.

3. Quailbush scrub and arroyo willow thickets (1-parameter coastal wetlands).

4. Myoporum groves

The proposed project will remove approximately 30 trees, including 9 arroyo willow trees. The remaining 21 trees to be removed are non-native, invasive canary island date palms and ngaio (myoporum) trees. Many of the invasive trees located in the temporary impact areas may not have to be removed to construct the proposed project but will be removed as part of invasive species control.

Restoration

On-site habitat restoration is proposed as the primary mitigation strategy for this project. Caltrans will perform as much of the mitigation on-site as possible by restoring areas temporarily disturbed by construction activities as well as areas previously disturbed or otherwise dominated by invasive species. However, some of the wetland mitigation cannot be performed on-site due to lack of available property suitable for the restoration, so off-site mitigation is proposed for some of the wetland mitigation.⁸ All restoration activities will be performed pursuant to a draft Mitigation and Monitoring Plan (MMP), which Caltrans has developed in coordination with Coastal Commission staff. Pursuant to **Special Condition 2**, Caltrans will submit the final MMP for Executive Director review and approval prior to issuance of the CDP.

Through coordination with Coastal Commission staff, Caltrans proposes the following mitigation ratios. Permanent impacts will be mitigated at a ratio of 4:1 for wetlands and 3:1 for native riparian habitats and stream bottom. Long-term temporary impacts will be mitigated at a ratio of 1.5:1 for wetlands and native riparian habitat and 1:1 for non-native riparian habitat. Short-term temporary impacts will be mitigated on-site at a ratio of 1:1. The following table summarizes the amount of mitigation required by resource and impact type as well as the approximate amount of mitigation required on-site and off-site. As required by **Special Condition 2**, actual impacts will be mapped and reported in the first annual post-construction monitoring report.

⁸ Caltrans will be using all available space within its right-of-way for restoration. Adjacent Southern California Gas Company properties are not available for compensatory mitigation, other than for restoring temporary impacts on these properties via temporary construction easements. Furthermore, Caltrans has not proposed mitigation in areas that may be impacted by an anticipated external project, the San Jose Creek Multipurpose Path, which is currently being planned by the City of Goleta.

Coastal Habitat and Impact Type	Impact (ac)	Mitigation Ratio	Required Mitigation (ac)		
			Total Required	Available On-Site	Off-Site
Coastal Stream					
Permanent	0.004	3:1	0.012	0.012	0
Short-term Temporary	0.705	1:1	0.705	0.705	0
Total Coastal Stream	0.709		0.717	0.717	0
Native Riparian					
Long-term Temporary	0.078	1.5:1	0.117	0.117	0
Non-Native Riparian					
Long-term Temporary	0.019	1:1	0.019	0.019	0
Total Riparian	0.097		0.136	0.136	0
Coastal Salt Marsh					
Permanent	0.029	4:1	0.116	0	0.116
Long-term Temporary	0.034	1.5:1	0.051	0.014	0.037
Total Coastal Salt Marsh	0.063		0.167	0.014	0.153

On-Site Restoration

As shown in the preceding table, as depicted in **Exhibit 6**, and as described in the MMP, all impacts to coastal stream and riparian habitat will be fully compensated on-site. All temporary in-stream features will be removed at the end of the aquatic work window each construction year. On-site riparian restoration will involve planting native arroyo willow poles and cuttings and quailbush container plants, as well as seeding with native grasses and forbs within temporarily disturbed riparian areas and along the streambank areas currently covered with ice plant. Only native species locally present in the region will be used, which will provide ecological uplift by replacing non-native and invasive species with native species. Trees will be replaced at a 2:1 replacement ratio. Invasive trees to be impacted or removed as part of invasive species control will be replaced at a 2:1 replacement ratio with native species including arroyo willow and California sycamore. These trees will be planted within areas temporarily impacted by

the project, near riparian and streambank habitats. The full revegetation palette and specific planting locations are provided in the MMP.

Due to lack of available property suitable for restoration on-site, Caltrans will perform 0.014 acres of the required salt marsh restoration on site, and the remaining 0.153 acres will be restored off-site as described below. On-site revegetation will involve seeding with native grasses and forbs within coastal salt marsh areas that are temporarily disturbed. Mulch of native forbs, container plants, or plugs may also be used. Only native species locally present in the region will be used. **Special Condition 2(b)** requires restoration to begin within 90 days of completion of construction of the new bridge, unless extended for good cause by the Executive Director, to avoid temporal losses of ecological service by ensuring that the mitigation occurs contemporaneously with the proposed project impacts.

Other components of the restoration, including invasives removal measures, monitoring requirements, and success criteria, are described in the MMP. To ensure that the proposed restoration achieves the proposed success criteria, **Special Condition 2(c)** requires Caltrans to submit a total of five annual monitoring reports to the Executive Director for review and approval. These reports will be submitted annually (by December 31st of each year) following implementation of the mitigation. The monitoring reports will document progress toward meeting performance standards and will identify any corrective measures taken. If any component of the mitigation fails to meet the success criteria in the approved MMP, Caltrans will submit for Executive Director review and approval a supplemental or revised plan to achieve the success criteria in the approved MMP.

Off-Site Restoration

Remaining impacts to coastal salt marsh will be mitigated off-site at a site owned and managed by UCSB. Caltrans will provide funding to the Cheadle Center for Biodiversity and Ecological Restoration (CCBER) at UCSB to restore approximately 0.25 acres of salt marsh habitat, 40% more off-site acreage than is necessary under the required mitigation ratios. The proposed restoration will take place at UCSB's West Storke Wetland parcel, located in upper Goleta Slough within the City of Goleta, Santa Barbara County. The proposed restoration site is about 1.5 miles away from the San Jose Creek Bridge replacement project (see **Exhibit 7**).

Site History and Conditions

Caltrans evaluated 12 potential off-site mitigation sites in lower Goleta Slough and compared site availability, habitat suitability, potential for ecological uplift, proximity to the proposed impact, cost, and area. Although it appeared that there were potential opportunities for mitigation in the immediate project site, most of the property surrounding the project is owned by Southern California Gas Company, which was unwilling to participate. Other sites were rejected due to poor habitat suitability, low potential for ecological uplift, construction access constraints, or insufficient area to meet mitigation needs. The proposed restoration property was selected for the off-site mitigation because: (1) the proposed restoration site is marked for restoration in

CCBER's plans but lacked the necessary funding; (2) CCBER is in the midst of establishing a 40-acre estuary restoration project in the adjacent Devereux Slough and has extensive experience in estuary, salt marsh, and coastal sage scrub restoration in the region; and (3) the proposed restoration site is adjacent to a larger complex of salt marsh wetlands, adding to its habitat value.

The West Storke Wetland parcel is a property owned and managed by UCSB in a remnant portion of the upper Goleta Slough. A 1929 aerial photograph depicts the site as an undeveloped area adjacent to a tidal channel of Goleta Slough and contiguous with a larger expanse of open space surrounding Goleta Slough. However, even in 1929, a drainage ditch was evident near the West Storke Wetland parcel that bisects the tidal channel and open space habitat. That drainage ditch still exists. The area was separated from tidal flow in the 1940s when a tide gate was installed to protect grazing lands. This tide gate, located approximately 0.5 miles east of the restoration site, also still exists and is maintained by the City of Santa Barbara as a commitment to the Santa Barbara County Airport. The source of hydrology in the West Storke Wetlands is primarily the high water table, although standing water was observed during Caltrans field surveys. The area is cut off from tidal flow due to the tide gate at the airport, but it is evident from salt crusts and the predominance of glasswort (a halophyte, or salt-loving plant) that the water table is still connected to Goleta Slough.

In 2006, CCBER restored over one acre of salt marsh habitat in a portion of the West Storke Wetland parcel west of the proposed restoration site. The project included removing approximately 0.5 acres of fill, minor grading, planting native plants, and controlling invasive species, as well as enhancing a public access trail and interpretive signs. The fill removal and native plantings were similar in scope to the proposed off-site mitigation. After the area was re-graded, native seeding and coconut netting were applied, salvaged bulrush was transplanted into the site, and seed and propagules of pickleweed (*Salicornia europaea*), fleshy jaumea (*Jaumea carnosa*), salt marsh aster (*Symphotrichum subulatum*), and alkali bulrush (*Bolboschoenus maritimus*) were spread over the site.

On the eastern side of this previous restoration site (i.e., just west of the proposed restoration site), the habitat transitions from three-parameter, or Clean Water Act (CWA), wetlands (labeled "CWA Wetland" in **Exhibit 8**) to a band of mixed one- and two-parameter wetlands (labeled "Native Coastal Wetland"). This band of vegetation sits slightly elevated above the three-parameter wetlands, and lower than the Invasive Grassland areas to the east. This vegetation is dominated by salt grass (*Distichlis spicata*) and glasswort (*Salicornia europaea*) with patches of non-native bristly ox tongue (*Helminthotheca echioides*) and wild geranium (*Geranium maculatum*), with some alkali heath (*Frankenia salina*) and salt grass intermixed. The exception is a small area in the northwest corner that was recently disturbed when a sewer manhole was decommissioned. That area (labeled "Disturbed Coastal Wetland") is dominated by bristly ox tongue and Harding grass (*Phalaris aquatica*). Saturated soils were observed in this area during a field survey.

East and slightly uphill of this transitional band is the 0.25-acre proposed wetland restoration area. The proposed restoration area is classified as Invasive Grassland because it is overwhelmingly dominated by Italian rye grass (*Festuca perennis*), a non-native and invasive grass rated as “Moderate” by the California Invasive Plant Council, that commonly occurs in grassland habitats in the Santa Barbara area. During field surveys of the site, relative cover of Italian ryegrass ranged from 85-100% in five out of six sample plots. Relative cover of Italian ryegrass was 25% in the sixth sample plot, co-dominated by spring vetch (*Vicia sativa*), coyote brush (*Baccharis pilularis*), and fennel (*Foeniculum vulgare*). Associated species with relative cover between 1 and 15% in all the plots included wild geranium (*Geranium dissectum*), wild oat species, brome species, salt grass (*Distichlis spicata*), Bermuda grass (*Cynodon dactylon*), bristly ox tongue, ragweed (*Ambrosia psilostachya*), coyote brush, and black mustard.

The proposed restoration area is bordered to the east by the fill slope for Los Carneros Road, which is dominated almost exclusively by black mustard and fennel (labeled “Invasive Upland” in **Exhibit 8**). The southern side of the restoration area has a mix of Coyote Brush Scrub and Invasive Upland, the latter of which occurs along the temporary access route that was used for the above-mentioned sewer manhole work. Coyote Brush Scrub is dominated by coyote brush and a mix of the grasses and invasive plants found in the Invasive Grassland and Invasive Upland habitats.

Proposed Off-Site Restoration

As described in the MMP, the proposed off-site restoration project that will be funded by Caltrans will remove historic fill and will plant native salt marsh plants adjacent to a larger area of salt marsh in what is currently Invasive Grassland.⁹ Access to the restoration site will be from the south along the temporary route previously used for the sewer manhole work. Fill will be removed in an undulating pattern to create some low areas that could hold water longer, promoting more varied conditions that will support greater diversity of plants. Grading and planting in the wetland restoration area will be completed in the fall. Precise elevations and soil removal needs will be finalized before restoration commences. If necessary, depending on disposal requirements and restoration needs, the area will be cleared and grubbed prior to excavation. The restoration area currently has highly compacted clay and has low native plant cover, therefore the soil will be ripped and loosened when the contractor completes the soil removal, and the restoration area will be subject to three cycles of irrigation and weed removal for up to 1.5 years before native plants are installed. This will help reduce the density of invasive species in the access corridor.

The restoration site will be replanted with locally sourced native seed and plants from the existing salt marsh community including glasswort, salt grass, marsh jaumea, California sea lavender (*Limonium californicum*), and alkali heath. Mulch of native plants

⁹ The 0.25-acre area marked on **Exhibit 8** as “Proposed Wetland Restoration Area” is the restoration Caltrans proposes to fund as its off-site mitigation for the proposed bridge replacement. UCSB may obtain funding to restore the remainder of the Invasive Grassland habitat.

may also be used. Plantings will be installed between January and March after completion of the weed removal cycles described above. The temporary access path will be restored with native coastal scrub plants after UCSB restores the full area available for restoration. Plant materials will be obtained from UCSB's nursery or other nearby native nurseries, sourced from southern Santa Barbara County. The revegetation areas will be actively maintained for a period of five years after wetland grading. Maintenance will involve irrigation, invasive species control and replacement seeding/planting, as needed. The full restoration plan with monitoring protocols and success criteria will be included in the final MMP. **Special Condition 2** requires Caltrans to submit the final MMP for Executive Director review and approval, prior to issuance of the CDP.

The West Storke Wetland parcel is owned and managed by UCSB, and it is located within the area of UCSB's Long-Range Development Plan (LRDP). The LRDP governs campus development and includes specific policies which address issues such as shoreline public access and recreation, terrestrial and marine habitat protection, visual resources, landform alteration, water quality, and transportation and development design. The LRDP is certified by the Coastal Commission. As such, specific projects proposed within the LRDP require that the University submit a "Notice of Impending Development" (NOID) directly to the Commission.

The West Storke Wetland parcel is zoned as Open Space in the LRDP. The portion of the property where the proposed restoration project is located is also designated as ESHA/Wetland. As such, the proposed off-site restoration area will be protected from future development under the policies of the LRDP. Only a portion of the site is currently wetland, as long-term goals to restore the wetland have previously lacked funding. Caltrans will help alleviate the funding gap to restore the West Storke Wetland parcel by financing UCSB's restoration of 0.25 acres, which will in turn count as mitigation toward the coast salt marsh impacts that will result from the bridge replacement. Caltrans and UCSB are developing a Cooperative Agreement that will formalize the specifics of this arrangement, including that the restoration will be implemented pursuant to Caltrans' approved Mitigation and Monitoring Plan. Given that the restoration will constitute development within the LRDP area, authorization from UCSB and the Commission, through a NOID, will be required prior to commencing restoration work.

Implementation of the off-site mitigation currently proposed by Caltrans and UCSB is necessary as part of Caltrans' satisfaction of its mitigation requirements for this project. As such, **Special Condition 3** requires Caltrans, prior to commencing construction on the bridge replacement, to submit a copy of the final Cooperative Agreement (Agreement) between Caltrans and UCSB for restoration on the West Storke Wetland parcel. The Agreement must identify the roles and responsibilities of Caltrans and UCSB in implementing the off-site restoration, including but not limited to design, construction, maintenance, and monitoring. The Agreement will also identify the authorization(s) required to implement the restoration, including the NOID. Per **Special Condition 2(b)**, the proposed off-site restoration must begin within 90 days of completion of construction unless extended for good cause by the Executive Director.

Together, these special conditions will ensure that the proposed off-site restoration occurs sufficiently close in time to the proposed bridge replacement project to avoid temporal ecological service losses and provide adequate mitigation.

Special-Status Species Protections

As described above, Caltrans determined that the proposed project has the potential to impact three listed species: Southern California steelhead, tidewater goby, and Belding's savannah sparrow. The project site also contains potentially suitable habitat for the following non-listed, special-status species, though none were observed during field surveys: obscure bumble bee, Crotch bumble bee, western pond turtle, Cooper's hawk, grasshopper sparrow, horned lark, yellow-breasted chat, and yellow warbler. Potential impacts to each species are described below, along with the avoidance and minimization measures that Caltrans will implement.

Southern California Steelhead and Tidewater Goby

The proposed project will result in temporary impacts on open-water habitat, resulting primarily from dewatering the project work area during pier removal and construction. Steelhead and tidewater goby passage along San Jose Creek through the project site will still be unconstrained on the wetted side of the temporary sheet pile cofferdam. 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 tidewater goby critical habitat for an estimated five months (June to October) per year during the staged two-year in-stream construction and demolition periods. Although anticipated impacts to aquatic species will be minor and short-term, Caltrans has consulted with USFWS and NMFS staff and will implement the following measures to further avoid and minimize impacts to listed fish species and habitat, including:

- In-stream work will be limited to the seasonal low-flow period, from June 1 to October 31 in any given year, to avoid adult steelhead spawning migration and peak smolt emigration. Deviations from this work window will only be made with written permission from the Coastal Commission's Executive Director (**Special Condition 5(b)**), in addition to the other regulatory agencies.
- Except for the installation of piles for the temporary protective work platform or trestle and installation of the stream diversion, construction work in the active channel will be performed only in a dry or dewatered work environment.
- Immediately upon completing in-stream work, temporary fills, cofferdams, and other in-channel structures will be removed in a manner that minimizes disturbance to downstream flows and water quality.
- Existing bridge columns will be completely removed, if possible. If not completely removed, they will be cut off at least three feet below the streambed and ground surface.

- During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes will be completely screened with no larger than 3/32-inch 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 outside the isolated area. The form and function of all pumps used during the dewatering activities will be checked weekly, at a minimum, by a qualified biological monitor to ensure a dry work environment and minimize adverse effects on aquatic species and habitats.
- Demolition and construction debris will be prevented from entering the active stream, and all concrete debris will be removed, as necessary.
- A NMFS-approved biologist will oversee fish relocation protocols, including:
 - Ensure that sufficient qualified personnel are available to safely and efficiently collect protected species, and that personnel are trained to identify and safely capture and handle protected species.
 - Prepare a fish handling and relocation plan within seven days after Contract Approval per Caltrans Standard Specifications.
 - Continuously monitor in-water activities (e.g., placement of cofferdams or dewatering of isolated areas) for the purpose of removing and relocating any protected species that were not detected or could not be removed and relocated prior to construction.
 - Initiate salvage activities within temporarily dewatered waterbodies within a time frame necessary to avoid injury to and mortality of protected species.
 - Complete salvage activities no earlier than 24 hours before dewatering or diversion begins, to minimize the probability that protected species will recolonize affected areas.
 - Ensure that protected species are kept out of the water for the least amount of time possible.
 - Ensure that the “bagged” portion of seines and nets remains in the water until fish are removed or transferred to a shallow container of clean water taken from the survey site and placed in a location that will not result in exposure to extreme temperatures.
 - Release captured fish as soon as possible to a suitable nearby location within the same watershed, at the discretion of a NMFS-approved biologist.

Belding's Savannah Sparrow and Other Birds

As described above, the project site contains marginal to very low-quality nesting habitat for six listed bird species. However, only one of these species, Belding's savannah sparrow, has been documented within Goleta Slough within the

last approximately 50 years. Two nesting observation records are from areas in and adjacent to the biological study area, the closest of which was in the pickleweed mat habitat south of the existing bicycle and pedestrian path. Although Caltrans observed no Belding's savannah sparrows 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 migratory birds. To avoid and minimize impacts to Belding's savannah sparrow and other bird species, Caltrans will implement the following measures as part of the proposed project:

- Preconstruction bird surveys will be conducted for Belding's savannah sparrow. Surveys will be conducted between mid-February and the end of April and between 6:00am and 10:00am.
- If an active Belding's savannah sparrow nest is observed within 100 feet of the area of potential impact, all project activities will immediately cease, and the California Department of Transportation (known as Caltrans) will contact the California Department of Fish and Wildlife within 48 hours. If required, Caltrans will seek an incidental take permit from California Department of Fish and Wildlife under California Fish and Game Code Section 2018 (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 California Department of Fish and Wildlife 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, non-avian special-status species, including obscure bumble bee, Crotch bumble bee, and western pond turtle. Though none of these species were observed in the project site during field surveys, Caltrans will implement the following impact avoidance and minimization measures:

- Potential long-term impacts on habitat for bees will be minimized through revegetation efforts for site disturbance related to temporary construction activities, which will include some of the food plant species.
- Prior to mobilization of construction equipment, Caltrans will conduct a worker environmental training program, including a description of the western pond turtle, its protected status, its proximity to the project site, and the avoidance and minimization measures to be implemented during the project.
- Prior to the start of construction activities, a qualified biologist will survey the project site for western pond turtles. If any are present, they 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 western pond turtles will be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

In addition to these avoidance and mitigation measures, **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 on coastal waters and aquatic life.

Hydroacoustic Impacts

The proposed project involves installing piles in order to construct the columns for the new bridge pier and the piles for the temporary work trestle. Caltrans proposes to install the steel cases for the new bridge pier using a vibratory or oscillating method, and that impact pile driving will not be needed for these piles. Caltrans will use vibratory or oscillating methods to install the temporary work trestle piles as well. However, installation of the temporary work trestle piles, which are comprised of 12-inch steel pipe, will also require using an impact pile driver for final proofing, up to 200 strikes per day. Caltrans has received project approval from NMFS and USFWS to implement this approach.

According to Caltrans' 2015 *Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish*, a single strike sound pressure of 206 decibels, or a cumulative sound exposure level of 187 decibels (for fish more than 2 grams) or 183 decibels (for fish less than 2 grams), would do physical harm to fish. Fish behavior would be affected by an accumulated sound exposure level of 150 decibels. The peak sound pressure during pile driving with a 12-inch steel pipe will be 177 decibels, which is below the level for the onset of physical injury to fish. Moreover, given that the proximity required for a fish to be harmed by cumulative sound exposure is approximately 6.6 feet, the chances are extremely low that fish will remain close enough to pile driving activities to incur physical injury. The most likely adverse effects from pile driving will be behavioral. Fish up to 328 feet away could be temporarily disturbed or startled and could move away from possible feeding or hiding areas. Habitat of similar quality is found upstream and downstream from the work area and will provide fish with

enough room to escape. The peak sound pressure during pile driving with wood posts will be the same or less than with steel pipe; however, wood may not be suitable for use due to site conditions.

To ensure that any potential impacts from final proofing of the trestle piles are minimized, underwater sound pressure will be monitored during all impact driving. Pile driving operations will cease for the day if the results of underwater sound pressure monitoring show that sound levels upstream and downstream of the pile driving area are higher than the peak single-strike threshold of 206 decibels or cumulative sound exposure level of 187 decibels. If the peak or cumulative sound exposure level is exceeded, the qualified biologist on site will have the authority to halt impact pile driving, and Caltrans will contact NMFS and USFWS to determine if additional measures are necessary.

Water Quality

The proposed project is not expected to cause permanent water quality impacts by altering the water discharge rates and patterns of San Jose Creek because the replacement bridge will have roughly the same span as the existing bridge. The primary potential for water quality impacts from the project is soil erosion and debris being introduced into the creek due to construction activities or from additional runoff from added impervious areas. During bridge demolition, the existing driven concrete pile extensions will require physical removal, resulting in substrate disturbance within the creek channel. Likewise, disturbance of the substrate will occur during installation of the piles for the new bridge. The total disturbed soil area is approximately 4.03 acres, and the amount of new impervious surface is 0.1 acres, which will have a negligible effect on groundwater infiltration.

During construction, effective combinations of temporary and permanent erosion and sediment controls will be used to minimize impacts to water quality. Stormwater management for the site will be coordinated through the contractor with Caltrans construction personnel to effectively manage erosion from the project site by implementing a Storm Water Pollution Prevention Plan (SWPPP). **Special Condition 4** requires Caltrans to submit the final SWPPP prior to commencement of construction. The contractor is required to have a 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 the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit and **Special Condition 5** 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 project activities from waters and riparian habitat. During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area. This area will

be 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 controls at all times. Appendix A contains a Water Quality Summary containing BMPs that Caltrans will implement as part of the project.

Section 30233(a) Conclusion

To recapitulate, the proposed dewatering method and bridge replacement present potential impacts to fish and wildlife species, including multiple special-status species, as well as coastal water quality and biological productivity. However, Caltrans will implement avoidance, minimization, and mitigation measures such that the project, as conditioned, will protect these species and will maintain the productivity of San Jose Creek. Temporary water quality impacts are also possible as a result of construction, but these potential impacts will be appropriately avoided or minimized via construction BMPs. Furthermore, Caltrans proposes to implement habitat restoration at the bridge site and to fund the restoration of 0.25 acres of salt marsh habitat at the West Storke Wetland parcel owned and managed by UCSB. Thus, the proposed project, as conditioned, will provide feasible mitigation measures to minimize adverse environmental effects, and the project satisfies all three requirements of 30233(a). Therefore, the proposed filling and dredging is permissible.

Biological Productivity and Functional Capacity

The fourth general limitation set by Section 30233 of the Coastal Act is that any proposed filling or dredging in coastal wetlands or estuaries must maintain or enhance the functional capacity of the wetland or estuary. In addition, proposed development must maintain, enhance, and where feasible restore, the biological productivity and the quality of wetlands and waters consistent with the requirements of Sections 30230 and 30231.

As described above, Caltrans has designed the proposed bridge to maintain the functional capacity of San Jose Creek. Caltrans also proposes restoration to enhance the creek and associated wetlands throughout the Goleta Slough area. The avoidance, minimization, and mitigation measures incorporated into the project and required by the special conditions discussed above will ensure that the project will not have significant adverse impacts on coastal waters or wetlands in and around the project vicinity, and that the project, as conditioned, will maintain, enhance, and where feasible restore the biological productivity and quality of wetlands and waters in the project site.

Therefore, the Commission finds that the project, as conditioned, will maintain and enhance the biological productivity, quality, and functional capacity of coastal waters and wetlands consistent with the requirements of Sections 30230, 30231, and 30233 of the Coastal Act.

Environmental Sensitive Habitat (ESHA)

Section 30240 of the Coastal Act protects environmentally sensitive habitats and sensitive species:

- (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.

Under Section 30240, development within ESHA must (1) protect against significant disruption of habitat values, and (2) must be resource-dependent. Section 30233 has been interpreted to allow for dredging and fill of wetlands, despite inconsistency with the ESHA policies of Section 30240, when the requirements of Section 30233 are met. As stated by the court in *Bolsa Chica*:

...the ESHA protections provided by section 30240 are more general provisions and the wetland protections provided by section 30233 are more specific and controlling when a wetland area is also an ESHA.... Section 30240, a more general policy, also applies, but the more specific language in the former sections is controlling where conflicts exist with general provisions of Section 30240. (*Id.* at 515.)

As such, the aspects of the proposed project which result in or are related to the dredging and filling of wetlands and open coastal waters that are also considered ESHA may be allowed, despite being inconsistent with Section 30240, if all requirements of Section 30233 are met.

As described above, the proposed project will have approximately 0.869 acres of temporary and permanent impacts to coastal stream, salt marsh, and riparian habitat in and around San Jose Creek. These impacts will result from the dredging and filling associated with the proposed bridge replacement. Because the stream, salt marsh, and riparian habitat are all integral parts of a maintaining San Jose Creek as a functionally productive stream ecosystem, these habitats rise to the level of ESHA. Additionally, given that the salt marsh habitat is confirmed to support one listed bird species, Belding's savannah sparrow, this vegetation community must further be considered ESHA.

As described above, Caltrans has designed the project to avoid and minimize impacts to these habitats and sensitive species. Caltrans also proposes to restore impacted habitats as described in the MMP, and to enhance additional habitat within the project site via invasives removal and other measures. Thus, the proposed project satisfies the

first prong of Section 30240 because it will protect the bridge site against a significant disruption of habitat values.

Turning to the second prong of Section 30240, the Commission has previously held that bridge replacements are not a resource-dependent use because a bridge replacement does not depend on the ESHA to function.¹⁰ This would normally preclude approval of such development. However, given that the impacts of the proposed bridge replacement are to wetland and coastal stream habitats that are also considered ESHA, under the *Bolsa Chica* rule these impacts are allowed if the proposed project satisfies the requirements of Section 30233. As described above, the project is consistent with Section 30233 as it is for an incidental public service purpose, there is no feasible less environmentally damaging alternative, and feasible mitigation measures have been provided. Therefore, the ESHA impacts associated with the proposed project are allowable and, as conditioned, the project is consistent with Coastal Act Section 30240.

C. 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...

In addition to Section 30253(a), when a 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.”

Seismic Hazards

The project site is located in the Goleta Basin, a narrow coastal lowland along the southwestern foot of the Santa Ynez Mountains, bounded by the mountains to the north and the Pacific Ocean to the south. The region falls within the Transverse Ranges Geomorphic Province. Geologic units in the region consist of normally unconsolidated

¹⁰ See CC-0003-19 (Union Pacific Railroad).

floodplain deposits of silt, clay, sand, and gravel, underlain by thin bedded hard, brittle upper siliceous shale of Monterey Formation.¹¹ Due to the nature of the parent bedrock material in the foothills of the Santa Ynez Mountains, alluvial soils present in various parts of Goleta area and most of the South Coast are commonly classified as expansive. While such soils can lead to damage during a seismic event, these risks are routinely and successfully addressed by engineered foundation systems and site grading practices that are incorporated into the building design and construction process.

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: More Ranch (0.11 miles away), Red Mountain (2.99 miles away), and Pitas Point-Lower West (10.21 miles away). The maximum credible earthquake magnitudes for these faults range from 6.8 to 7.4. 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).

Caltrans conducted a field investigation of the project site in August 2018. The investigation included drilling and sampling three mud rotary core borings, one at each proposed support location, and two Cone Penetration Tests, one at each abutment. The maximum exploration depth was 150 feet. Caltrans also reviewed as-built borings from the 1958 foundation investigation for the construction of the existing bridge. The 1958 investigation consisted of a total of five borings with two mud rotary borings and three penetration borings. The maximum exploration depth was 67 feet. This field investigation and review of the 1958 investigation indicated that interbedded layers of silt, clay, and sand underlie the project site. The soils encountered are indicative of alluvial deposits. The measured elevation of groundwater varied from two to three feet near the surface elevation of the water flowing in the creek. The project site contains foundation soils that are potentially expansive and liquefiable.

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.

Erosion, Flood, Inundation, and Sea Level Rise Hazards

The project site is located within the FEMA 100-year flood zone.¹² The flood risks are from both the Pacific Ocean to the south as well as the flow of San Jose Creek and

¹¹ Deposits that are loosely arranged or unstratified, or whose particles are not cemented together, are described as "normally unconsolidated."

¹² FEMA'S 100-year flood maps are available at: <https://msc.fema.gov/portal/home>.

Goleta Slough from the north. Changes to the water conditions either upstream (from modifications to inland runoff, precipitation, etc.) or offshore (from extreme tides, El Niño events, low pressure systems, storm surges, sea level rise, etc.) can increase flood elevations and scour, particularly during winter. Scour effects may be intensified given that the bridge is located over a creek, where the return flow from a watershed area is concentrated due to local topography. Siting and design of the proposed project must consider erosion, flooding, and inundation for current and future conditions.

As is true globally, sea levels along California's coast 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 synthesized 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 by 2050. In August 2021, the Commission adopted *Critical Infrastructure at Risk: Sea Level Rise Planning Guidance for California's Coastal Zone* ("Critical Infrastructure Guidance"), which provides specific guidance for adapting critical infrastructure located in areas vulnerable to sea level rise.

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 sewer infrastructure; 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.¹³ 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. The need for such advance planning is reflected in the Commission's Critical Infrastructure Guidance and also in Sections 30270 and 30421 of the Coastal Act.

In general, the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore, which will result in increased flooding, erosion, and storm impacts to coastal areas. For transportation infrastructure near the coast, such as bridges, an increase in water level will result in increased erosion and, in turn, an increase in scour, inundation of, and flood damage to infrastructure. More coastal infrastructure generally will be inundated or underwater than is inundated now, and infrastructure that is currently flooded part of the time will flood more frequently. Structures, such as bridges, that are adequate for current storm conditions may not be adequately protected in the future.

Changing conditions could also alter the anticipated impacts of development upon coastal resources. In particular, coastal resources such as beaches and wetlands that are located just inland of the sea could disappear if they are squeezed between rising sea levels and a fixed line of development on the shoreline, thus impacting habitats, public access, recreation, visual, and other coastal resources. Therefore, to be consistent with the Chapter 3 policies of the Coastal Act, proposed development must be sited, designed, and conditioned in such a way that considers the impact of the development upon coastal resources over its full design life, and must avoid, minimize, and mitigate those impacts as required by the Coastal Act.

In summary, evaluating whether proposed development minimizes risks of coastal hazards at present and in the future usually involves examining projected sea level rise, in conjunction with anticipated impacts from extreme hazards events including strong storms and tsunamis, over the design life or anticipated duration of the development. After this period, one can expect that the development would either be replaced, redeveloped at a different location, or removed. Although the exact amount of sea level rise that will actually occur over the design life or duration of the proposed development cannot be projected with certainty, the general trend of rising sea level is clear and it is critical to assess sea level rise vulnerabilities over the expected duration of the development being approved, especially when the proposals involve critical infrastructure investments aimed at serving the public.

¹³ California Governor's Office of Planning and Research, 2018.

Analysis

Vulnerability

San Jose Creek is a tidal creek upstream of the ocean inlet for the larger Goleta Slough system. The Highway 217 bridge over the creek is located approximately 3,200 feet (i.e., over one-half mile) upstream of the inlet. As such, the water level beneath the bridge is not exclusively dictated by sea level, but is instead the result of complex hydraulic interactions between the outflow of San Jose Creek, the inflow of the ocean tides, and water flows throughout the larger slough complex. In dry weather conditions, water levels at the bridge are more heavily influenced by the rise and fall of the tide. The current mean sea level at the nearby Santa Barbara Tide Gauge is 2.7 feet (ft) NAVD88 with a tidal range of about 3 ft above or below mean sea level.

In periods of precipitation, stormwater flows through San Jose Creek cause water levels at the bridge to rise. During intense rainfall events, heavy downstream flows from the 8,000-acre San Jose Creek watershed dominate the hydraulics at the site with little tidal influence. Caltrans estimates that the water surface elevation beneath the bridge during a heavy stormwater flow caused by a 1% annual probability rainfall event (“100-year stormwater flow”) is 15.1 ft regardless of whether the Santa Barbara Tide Gauge is at Highest Astronomical Tide or Mean Lower-Low Water. While Caltrans hydraulics reports did not discuss why water levels at the bridge during a 100-year stormwater flow are not strongly influenced by ocean water levels, additional clarification by Caltrans technical staff suggests that the high flow and relatively constrained channel geometry (compared to the ocean outlet) are the driving factor for water levels at the bridge.

Caltrans factored these qualities of the creek into the design of the proposed bridge. The new bridge will be a two-span, one-bent bridge deck approximately 213.6 feet long and 105 feet wide with a 4.75-foot-thick deck and a service life of 75 years (i.e., until 2100). The deck will have a downstream soffit elevation of 16.4 ft and an upstream soffit elevation of 13.5 ft. Caltrans analyzed extreme ocean water levels by examining the extreme tidal datums for the nearby Santa Barbara Tide Gauge. The elevation of the Highest Observed Tide at Santa Barbara was measured to be 7.5 ft in 2012 and included around 7 inches of storm surge on an extremely high tide, leaving around 8.9 feet of freeboard from the downstream soffit elevation. During a 100-year stormwater flow, when the surface water elevation at the bridge rises to 15.1 feet, the new bridge will accommodate creek flows with some wetting of the upstream soffit and approximately 1.3 ft of freeboard at the downstream soffit. Based on Caltrans’ modeling, adding future sea level rise to a 100-year stormwater flow will have little to no effect on water surface elevation because of the negating effect strong creek flows have on tidal influence at the bridge site. The modeling found that the water surface elevation at the bridge during a 100-year stormwater flow will be the same in 2100 under the low risk aversion (3.1 ft of sea level rise) and medium-high risk aversion (6.6 ft of sea level rise) projections as it is today. Under the extreme risk aversion (H++) projection of 9.8 ft of sea level rise, the projected water surface elevation during a 100-year stormwater flow rises only 0.3 feet to an elevation of 15.4 feet, wetting the upstream soffit and clearing the downstream soffit by one foot. Under these estimates, sea level rise alone

will not impact the bridge during its 75-year service life. Extreme sea level rise combined with a 100-year stormwater flow could impact the upstream soffit and cause logs and other debris flowing from upstream to hit the bridge. Such a flood would not overtop the bridge deck. Caltrans has designed the proposed replacement bridge in compliance with its standard criteria in anticipation of these hazards. Caltrans has performed geotechnical testing and has concluded that the proposed bridge is designed to withstand the predictable hazards associated with its location to the maximum extent feasible.

The project site is also mapped within the tsunami inundation zone on the State of California Tsunami Hazard Area Map for Santa Barbara County.¹⁴ Along with flooding, the large flow of water in a tsunami, as the water rushes in over and around a bridge structure and then recedes, can damage the bridge, particularly if the waves are high enough to strike the deck. Therefore, wherever possible, new bridges should be designed so the tsunami flows below the soffit. Based on the Natural Hazards Risks and Resiliency Research Center, the estimated elevation of the 975-year tsunami wave is 9.8 ft, or 3.7 feet below the upstream soffit. This estimated tsunami elevation will rise with sea level. As sea level rise approaches 3.7 feet, the likelihood of a tsunami impacting the upstream bridge soffit increases. This amount of sea level rise is projected to occur by approximately 2075 under the medium-high risk aversion scenario, and sometime after 2060 under the H++ scenario. In 2100, a tsunami combined with the medium-high sea level rise projection would reach an elevation of approximately 16.4 ft, which would just reach the downstream soffit and would exceed the upstream soffit elevation by almost 3 ft. Under the H++ scenario, the 975-year tsunami elevation in 2100 would be 19.6 ft, which would impact the bridge soffit more significantly but would not overtop the bridge deck.

In summary, the proposed bridge has been designed to avoid impacts due to sea level rise during its 75-year design life. The bridge, specifically the upstream soffit, has the potential to be impacted by a 100-year stormwater flow. This vulnerability remains relatively constant through 2100 regardless of sea level rise, and Caltrans has designed the proposed bridge to withstand such an event. Finally, the proposed bridge would be potentially impacted by a 975-year tsunami combined with a 1-in-200-chance amount of sea level rise beginning in approximately 2075. Under the extreme H++ sea level rise scenario, this potential for tsunami impacts would emerge sometime after 2060.

Adaptation

In 2019, Caltrans completed a Climate Change Vulnerability Assessment for the state highway assets (i.e., bridges, culverts, and roadway segments) within District 5, which

¹⁴ State of California, 2021, Tsunami Hazard Area Map, Santa Barbara County; produced by the California Geological Survey, the California Governor's Office of Emergency Services, and AECOM; 2021; available online at <https://www.conservation.ca.gov/cgs/tsunami/maps/santa-barbara>.

includes Santa Barbara County.¹⁵ In 2021, Caltrans published the District 5 Adaptation Priorities Report (APR), which assigned a priority level to each asset based on its vulnerability rating.¹⁶ The APR designated the Highway 217 bridge over San Jose Creek as Priority 1, the highest priority level. As described in the APR, Caltrans' next step will be to undertake asset-specific adaptation assessments, starting with the Priority 1 assets.

The proposed bridge would modestly improve the hydraulic capacity beneath the bridge. This will result from the new west abutment being located approximately 10 feet farther from the streambank than the existing west abutment. However, Caltrans recognizes the potential for extreme stormwater flows and tsunami to impact the proposed bridge soffit, especially toward the end of the century under the H++ sea level rise scenario. For these reasons, Caltrans is proposing to construct the new bridge with features that will allow the bridge to be raised by 3.5 feet in anticipation of future coastal hazards. Caltrans will monitor and assess site conditions and water surface elevation at the bridge site over time to determine whether programming a project to jack the bridge and raise the adjoining highway is necessary. Caltrans has committed to make a determination by 2065 on whether to raise the bridge. This is approximately 10 years before the bridge would become vulnerable to a 975-year tsunami combined with a 1-in-200-chance amount of sea level rise. It is also at least 15 years before extreme sea level rise would begin to exacerbate the potential impact of a 100-year stormwater flow on the upstream soffit.¹⁴

Special Condition 6 reinforces this commitment by requiring Caltrans to submit to the Commission by 2065 the asset-specific adaptation assessment for the bridge, which Caltrans has stated its intention to complete for all Priority 1 assets. Considering the best available science, existing site conditions, and contemporary transportation data and highway standards, this analysis will consider a range of adaptation options to address identified vulnerabilities of the bridge site to coastal hazards. These options will include raising the bridge, phasing out or modifying use of Highway 217, and potential other options as identified by Caltrans. **Special Condition 6** directs Caltrans, based on this assessment, to collaborate with Coastal Commission staff, Santa Barbara County, and others as necessary to develop plans for an adaptation project that will minimize hazards and protect coastal resources, and Caltrans will submit a CDP application to the Commission for the project, as necessary.

It is important to note that, upon completing the asset-specific adaptation assessment and monitoring the bridge site, Caltrans may determine, in collaboration with its partners, that raising the bridge is not a prudent course of action. Based on National

¹⁵ The District 5 Climate Change Vulnerability Assessment is available online at <https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/air-quality-and-climate-change/2019-climate-change-vulnerability-assessments>.

¹⁶ The District 5 APR is available online at <https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/air-quality-and-climate-change/2020-adaptation-priorities-reports>.

Ocean and Atmospheric Administration (NOAA) mapping, six feet of sea level rise, which will occur by 2080 under the H++ projections, would inundate Goleta Slough and the Santa Barbara Airport.¹⁷ Ten feet of sea level rise, which would occur by 2100 under H++, would further inundate Goleta Beach Park, parts of UCSB, and a segment of Highway 217 northeast of the bridge. At that point, Caltrans would need to raise approximately 1.5 miles of Highway 217 in order to maintain this connection between UCSB/Isla Vista and U.S. 101. Raising the bridge could be part of such an adaptation project. However, given that Highway 217 is not the only connector between UCSB/Isla Vista and U.S. 101, and is in fact the most vulnerable, San Jose Creek Bridge is not as critical as other coastal bridges which provide the only link within or between communities. Additionally, as described in the “Wetlands, ESHA, and Water Quality” section of this report, raising the bridge would also require re-designing the highway approaches in both directions, resulting in significant coastal resource impacts. Monitoring conditions at San Jose Creek Bridge and formally re-visiting the bridge by 2065 will allow Caltrans to consider, together with the Commission and local partners, whether raising San Jose Creek Bridge and Highway 217 is worthwhile, or whether future connectivity between the UCSB/Isla Vista area and U.S. 101 should be focused on the multiple inland connector roads that already exist.

Mindful of these complex considerations and uncertainties, the present project represents a strategic proposal that is grounded in state policy. Designing the bridge to minimize impacts from coastal hazards for the lifetime of the bridge to the extent feasible is consistent with the Commission’s and OPC’s guidance on sea level rise. Moreover, building adaptive capacity into the infrastructure, and committing to monitoring and re-evaluating it over time, will allow Caltrans to accommodate future hazards more nimbly than would otherwise be possible. Finally, creating the capacity to adapt at the appropriate juncture, rather than raising the bridge or entire highway now, will conserve coastal resources and state financial resources for the time being while allowing Caltrans to collaborate with the Commission and local partners to coordinate the future adaptation of the bridge with the broader adaptation vision for the areas served by the highway.

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 San Jose Creek Bridge. As stated above, Caltrans acknowledges that the proposed bridge location is subject to potential seismic risks, including potentially tsunamis. Further, the location of the bridge over a watercourse draining into the ocean renders it subject to the additional natural hazards posed by storms, floods, and erosion, all of which will increase over time with sea level rise. 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

¹⁷ National Oceanic and Atmospheric Administration (NOAA) Sea Level Rise Viewer, 2019, available online at <https://coast.noaa.gov/slr/>.

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 extent feasible, consistent with Coastal Action Section 30270.

D. 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 archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

In July 2015, Caltrans carried out a records search of all cultural resource records and reports for areas within 0.5 miles of the project site. The primary reference materials included U.S. Geological Survey 7.5-minute maps, site records, report files, and the directory of properties in the historical properties data files. The records search identified the existing San Jose Creek Bridge (Bridge No. 510217) as the sole built-environment resource in the area. The bridge is listed as a Category 5 bridge in the Caltrans Historic Bridge Inventory and is not eligible for listing in the National Register of Historic Places or the California Register of Historic Places. The records search also identified ten archaeological resource surveys that were previously conducted in the project site and surrounding vicinity. While these surveys identified multiple archaeological sites within the surrounding vicinity, none of the surveys identified sites within the project site.

Caltrans conducted an intensive archaeological resource pedestrian survey of the project site. The survey identified prehistoric shell deposits in mixed surface soils. As a result of the background research and survey findings, Caltrans determined that there was the potential for intact or mixed archaeological deposits within the project site. Based on this determination, Caltrans conducted an extended testing program within the project site, which included mechanical trenching, hydraulic coring, hand augering, and limited hand excavation. These tests uncovered no intact cultural deposits. One

mixed deposit was uncovered but was determined to be ineligible for the National Register of Historic Places.

On June 18, 2015, the Caltrans Native American Coordinator for the project contacted the California Native Heritage Commission (NAHC) to determine whether any recorded sites in the NAHC's Sacred Lands File occur in or near the project site. On June 25, 2015, the NAHC stated that search of its Sacred Lands File identified no Native American cultural resources in the project site. The NAHC also sent the names and addresses of Native American tribes, individuals, and organizations that may have knowledge of cultural resources in or near the project site.

On July 10, 2015, the Caltrans Native American Coordinator sent a letter to the contacts identified by the NAHC as knowledgeable of Native American cultural resources in or near the project site. The letter initiated consultation under Section 106 of the National Historic Preservation Act and Assembly Bill 52 (Public Resources Code Section 21080.3.1).

Following these letters, Caltrans conducted consultation with the various contacts identified by the NAHC, including representatives of the Barbareño/Ventureño Band of Mission Indians, the Santa Ynez Band Tribal Elders Council, and the Coastal Band of the Chumash Nation, and other individuals. 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 June 29, 2016. Through consultation with the tribes, in conjunction with the records search, surveys, and testing, Caltrans concluded that the project site contains no cultural resources eligible for inclusion in the National Register of Historic Places, and that the project is unlikely to affect any designated cultural resources or tribal cultural resources.

Although Caltrans has determined through consultation with the Tribes that the project is unlikely to affect any designated tribal cultural resources, Caltrans is proposing as part of the project 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. Special Condition 8** further requires that Caltrans then 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 must 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 November 17, 2021, Commission staff wrote to the tribal representatives and individuals 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.¹⁸

In conclusion, based on the findings of Caltrans' records search, surveys, and testing; the tribal consultation and outreach 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 is consistent with Coastal Act Section 30244.

E. 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)

¹⁸ One letter, to Mr. Gilbert Unzueta, was returned by the U.S. Postal Service marked "Vacant, Unable to Forward." Another letter with an updated address was mailed on December 12, 2021.

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.

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

Analysis

Highway 217 is one of multiple routes connecting U.S. 101 to the UCSB/Isla Vista area, and the only route that is an expressway. Highway 217 provides access to Goleta Beach Park via the Sandspit Road interchange, which is located immediately south of San Jose Creek Bridge. Goleta Beach Park is a county park that is popular for coastal access and includes a sandy beach, picnic areas, a restaurant, recreational concessionaires, Goleta Pier, and other public access amenities. Vehicles can also use Sandspit Road to access the Goleta Slough State Marine Conservation Area and Goleta Slough Ecological Reserve. Goleta Slough State Marine Conservation Area is a 102-acre marine conservation area within the larger, 440-acre Goleta Slough Ecological Reserve, and includes San Jose Creek.¹⁹ These areas are open to the public for limited recreational activities such as hiking, birdwatching, and kayaking, but do not allow fishing, boating, diving, or swimming. Sandspit Road also serves as one of multiple roads providing access to Santa Barbara Municipal Airport, a regional airport with flights to major cities throughout the western United States.

San Jose Creek Bridge contains two vehicular traffic lanes in each direction, for a total of four traffic lanes. There is also an 8-foot-wide, separated Class I bicycle and pedestrian path along the northbound highway that provides a link in the Atascadero Creek Trail, which connects Goleta Beach Park and the UCSB campus with the communities east of Highway 217.

Analysis by Caltrans has identified several potential risks to the public access

¹⁹ For more information about Goleta Slough State Marine Conservation Area, see <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=98200>. For more information about Goleta Slough Ecological Reserve, see <https://wildlife.ca.gov/Lands/Places-to-Visit/Goleta-Slough-ER>.

connectivity provided by the existing bridge over San Jose 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 Highway 217 has 10-foot-wide outside and inside shoulders, San Jose 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 bicyclist or pedestrian that may be traveling along the southbound outside shoulder rather than the separated path on the other side of the highway. In addition to these present risks, the bridge is also vulnerable to future projected coastal hazards, as discussed in the "Coastal Hazards" section above.

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, two 12-foot-wide traffic lanes, 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 and pedestrians using the southbound outside shoulder. Like the existing bridge, the new bridge will have a separated, Class I bicycle and pedestrian path along the northbound highway. The new path will be 10 feet wide, an increase of two feet, to enhance multimodal access and safety. 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 (see **Exhibit 4**). The bridge will also meet modern structural standards and will be constructed with the ability to be raised in the future to adapt to coastal hazards.

Collectively, these changes represent permanent public access improvements by increasing the safety of all highway travelers and all users of the Atascadero Creek Trail. Replacement and widening of the Class I bicycle and pedestrian path enhances multimodal coastal access by encouraging bicycle and pedestrian travel between the communities east of Highway 217 and Goleta Beach Park, Goleta Slough, and UCSB. The visual permeability of the new bridge railings will also maintain and improve travelers' visual access to the creek area while crossing the bridge. Additionally, the bridge's adaptive capacity to accommodate future coastal hazards will ensure that it will be accessible to travelers for its full design life.

The project will temporarily impact public access by delaying travel along the coast intermittently during the approximately 30-month construction period. Temporary lane closures required to deconstruct the existing bridge and construct the new bridge will result in temporary traffic congestion and delays for travelers in the project area.

However, these impacts will be minor as Caltrans will implement a traffic crossover along one half of the bridge, which will allow Highway 217 to remain open at all times throughout construction. Bicycle and pedestrian access will be maintained at all times as part of the median crossover. **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 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 news media and on Caltrans' dedicated website for lane closures.²⁰

Beyond temporary traffic impacts, project construction will have minimal impacts to public access. There will be no long-term closures of the Sandspit Road interchange and no impacts on public access or public parking at Goleta Beach Park or Goleta Slough. Placement of traffic control measures (e.g., K-rail) may require temporary closure of the Sandspit Road on-ramps and off-ramps. However, any such closures will occur at night, avoid high use times, and be limited in duration. Travelers will also have the ability to access Sandspit Road via Moffett Place at all times.

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 and pedestrian access via the Class I path along the northbound highway. Although the project will have temporary traffic impacts, Caltrans has committed to measures to minimize these impacts. Given that vehicular, bicycle, and pedestrian access along the bridge will be maintained, and there will be no restrictions to public parking or access points in the vicinity during construction, the proposed project will not have significant adverse effects on public access to and along the coast, and will enhance such access when complete. Therefore, the Commission concludes that the project is consistent with the above-cited public access policies of the Coastal Act.

F. 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

²⁰ <https://lcswebreports.dot.ca.gov/>

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.

Highway 217 is generally located on an urban fringe area that includes a mixture of natural and built elements. San Jose Creek Bridge is in the vicinity of urbanized areas in the City of Goleta, the community of Isla Vista, UCSB, and Santa Barbara Municipal Airport. From the project site, San Jose Creek is the most visually dominant scenic element because of its proximity to the bridge. The larger Goleta Slough area and the inland hills are also contributors to the scenic quality of the location but are less visually dominant because of intervening vegetation, topography, and distance. The view from the bridge also includes developed areas such as Goleta Beach Park and La Goleta Gas Storage Field. An existing natural gas pipe bridge crosses San Jose Creek immediately downstream from the bridge. Portions of the UCSB campus can be seen in the distance as well. In all, the overall scenic quality of the area can be described as moderately high. However, Highway 217 is not an Eligible or Designated State Scenic Highway.

Travelers' ability to enjoy the views from the existing bridge are relatively impeded by various barriers. The existing bridge contains two traffic lanes in each direction, separated by a 32-inch-tall concrete barrier. The barrier along the outside of the southbound highway (i.e., looking toward the north) is 28 inches tall and is primarily concrete with a metal railing on top, providing moderate visual permeability for southbound vehicle passengers. Along the outside of the northbound highway (i.e., looking south), between the highway and the bicycle and pedestrian path, there is a concrete barrier with chain-link fencing on top. Beyond that, on the outside edge of the path, there is another concrete barrier with a metal railing on top and chain-link fencing above the railing. Collectively, these two barriers significantly degrade views from the northbound highway toward the ocean. Views from the path are somewhat better than from the highway but are nonetheless obstructed by the outside barrier, railing, and chain-link fencing. When viewed from San Jose Creek or the surrounding area, the existing bridge maintains a simple, utilitarian design typical of bridges along Highway 217 and has no ornamentation.

The proposed bridge has been designed intentionally to appear visually similar to the existing bridge. The bridge will maintain two lanes of highway traffic in each direction, and will be constructed at approximately the same grade as the existing bridge to remain visually consistent with the surrounding roadway. 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 width of the bicycle and pedestrian path will also be expanded from 8 feet to 10 feet.

Caltrans has designed the railings for the new bridge to meet modern safety standards while improving views from the bridge out into the surrounding area. Like the existing bridge, the new bridge will have a median concrete barrier separating the northbound and southbound traffic lanes. This 42-inch barrier will be 10 inches taller than the existing barrier, but the new barrier is not anticipated to significantly impact views from the highway. On the outside of the northbound and southbound highway, the bridge will have a Type 85 concrete barrier with horizontal steel railings on top (see **Exhibit 4**). This railing will be 31 inches tall along the southbound outside shoulder, 3 inches taller than the existing railing. The railing will be 42 inches tall along the northbound shoulder, approximately 24 inches shorter than the existing northbound barrier/fence. On both sides, these railings will appear more visually open and provide better views of San Jose Creek and the surrounding area than the existing bridge railings afford. Along the outside of the bicycle and pedestrian path, Caltrans will construct a 48-inch-tall pedestrian railing. This railing will provide bicyclists and pedestrians with significantly improved views of San Jose Creek and Goleta Beach Park as it will be 4.5 inches shorter and significantly more see-through than the existing barrier/railing/fence. The pedestrian railing will also include a simple wave motif to provide a subtle visual charm and to help blend the railing with the surrounding landscape.

Six new roadway lights will be added as part of the project, two northeast of the bridge and four southwest of the bridge in the Sandspit Road interchange. Caltrans will also remove the existing flashing beacon system on the southbound highway immediately before the bridge, for a net total of five new lights. None of the new lights are located on the bridge deck or above San Jose Creek, thereby preventing light from shining in the creek channel. All light fixtures will be angled to light the roadway only and to avoid light spillover into the surrounding area. The proposed lights will not significantly impact views from the roadway and are designed to meet current roadway standards.

The overall effect of these changes will be a somewhat larger, more engineered-looking bridge. This character change will be minor, however, and would be subordinate to the improved views of the surrounding natural landscape from the bridge. Similar shoulder widths and bridge sizes are seen elsewhere along Highway 217, and will be consistent with the highway viewing experiences throughout coastal Santa Barbara County.

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 vegetation restoration, coupled with the decrease in bridge piles, will give the riparian corridor a more natural appearance when viewed from 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 is consistent with Section 30251 of the Coastal Act.

G. 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.

U.S. Coast Guard (USCG)

The General Bridge Act of 1946 requires the USCG to approve the location and plans of bridges prior to the start of construction (33 U.S.C. 525). The Commandant of the Coast Guard has given Advance Approval to the location and plans of bridges to be constructed across reaches of waterways that are considered navigable but which are not actually navigated other than by logs, log rafts, rowboats, canoes, and small motorboats. In such cases, the clearances provided for high water stages will be considered adequate to meet the reasonable needs of navigation (33 CFR 115.70). On December 14, 2021, the USCG issued a letter to Caltrans confirming that San Jose Creek conforms to Advance Approval criteria in 33 CFR 115.70 and that no further review will be required by the USCG.

California Department of Fish and Wildlife (CDFW)

Section 1602 of the California Fish and Game Code requires any person, state or local agency, or public utility proposing a project that may affect a river, stream, or lake to notify 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.

H. 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 Initial Study with Mitigated Negative Declaration for the project in September 2020. 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 with 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 which 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 Documents²¹

- CDP File 4-21-0182
- Caltrans, *San Jose Creek Bridge Replacement Water Quality Best Management Practices Summary*, January 28, 2021.
- Caltrans, *Coastal Development Permit Mitigation and Monitoring Plan*, January 12, 2022.

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

²¹ These documents are available for review in the Commission's South-Central Coast District office in Ventura.