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Filed: 05/15/2024
Action Deadline: 11/11/2024
Staff: M. Alvarado - LB
Staff Report: 05/24/2024
Hearing Date: 06/13/2024

STAFF REPORT
CDP APPLICATION

Application Number:	**2-24-0241**
Applicant:	California Department of Transportation (Caltrans)
Project Location:	Various locations along Highway 1 through Sonoma County, from Marin County Line near Valley Ford to the Mendocino County Line at the Gualala River (approx. between Post Miles (PMs) 0.0 to 58.58).
Project Description:	Installation of approximately 51 linear miles of ground-in centerline mumble strips to minimize head-on collisions, wet-night visibility striping, two biofiltration strips; drainage inlet adjustments as needed; replacement of highway signage; and shoulder widening at 29 locations to improve bicyclist access and safety along Highway 1 through Sonoma County.
Staff Recommendation:	Approval with Conditions

SUMMARY OF STAFF RECOMMENDATION

Caltrans, the Applicant, proposes the Sonoma County Highway 1 Centerline Rumble Strips Project (EA 4G780) Highway 1 through Sonoma County from its northern county border with Mendocino County to its southern county border with Marin County. Centerline rumble strips consist of indentations in the roadway pavement centerline that create a vibratory, or rumbling, effect when driving over them. Thus, they help prevent lane crossovers and collisions. In this case, Caltrans is proposing to install only sinusoidal “mumble” strips instead of the conventional ground-in rumble strips to reduce the noise generated when motorists drive over them. Caltrans also proposes to install wet-night visibility striping for public safety purposes. Together the project is intended to

reduce the frequency and severity of roadway head-on, cross-centerline collisions along Highway 1. Various state collision monitoring programs have identified Highway 1 in Sonoma County as having multiple head-on and sideswipe collisions and fatal collisions. The proposed mumble strips would be installed along approximately 51 miles of the two-lane, undivided Highway 1 through Sonoma County, avoiding all public street intersections, commercial driveways, two-way left-turn lanes, high volume turning areas, and bridge decks.

In addition, the Caltrans also proposes a total of approximately 1.33 miles of incontiguous shoulder widening for improved bicycle safety at 29 designated locations along Highway 1, resulting in six-foot-wide paved shoulders offering refuge areas for bicyclists when being passed by motorists. These locations have been chosen to avoid impacts to ESHA and are only in existing gravel pullout areas. Caltrans states that further expansions cannot be achieved in this project, which is limited to the mumble strips. Such six-foot-wide shoulders provide greater space for cycling access. At the same time, the change from essentially non-existing shoulder to six-foot shoulders could constitute a change in the visual and scenic nature of Highway 1 in the Coastal Zone. Therefore, staff's recommendation would require Caltrans to submit final plans, prior to construction, that demonstrate the proposed shoulder widening is generally limited to four feet except in areas designated as development for a Class II Bike Facility by Sonoma County and where the widening is already gravel, which is most of the corridor.

Besides the shoulder widening, the project proposes no other Complete Street improvements. Caltrans states that such features are not feasible at this time because of the limited nature of this project, and the installation of improvements like a crosswalk generally require safety and traffic studies, as well as community engagement. For this project, Caltrans has agreed to conduct those studies and implement any recommended measures.

In short, the proposed project is designed to avoid impacts to ESHA or wetlands, and staff recommends special conditions to protect public views, water quality, and cultural resources, and to require adherence to avoidance measures and construction BMPs to prevent adverse impacts to coastal resources. Thus, staff recommends that the Commission approve the CDP, as conditioned. The motion to implement this recommendation is found on **page 4** below.

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EXHIBITS

1. MOTION AND RESOLUTION

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

> ***Motion:*** *I move that the Commission* ***approve*** *Coastal Development Permit Number 2-24-0241 pursuant to the staff recommendation, and I recommend a yes vote.*
>
> ***Resolution to Approve CDP:*** *The Commission hereby approves Coastal Development Permit Number 2-24-0241 and adopts the findings set forth below on grounds that the development, as amended and subject to conditions, will be in conformity with the Chapter 3 policies of the Coastal Act. Approval of the Permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.*

2. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

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

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

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

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

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

3. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Approved Project.** This CDP authorizes, in substantial conformance with the project description (titled "Sonoma County State Route 1 Centerline Rumble Strips Project Description") attached as Exhibit 2, construction plans and project layouts submitted in the CDP application of March 21, 2024, and supplemented in May 2024, except as otherwise modified by the terms and conditions of this CDP: installation of ground-in centerline rumble strips; wet-night visibility striping; biofiltration strips; replacement of highway signage; and shoulder widening.

2. **Final Plans.** NOT LESS THAN 30 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit for the review and written approval of the Executive Director, final plans in a full-sized hard copy and electronic set. The Final Plans shall be in substantial conformance to the Final CDP Application, except as otherwise modified by this CDP's terms and conditions. The Final Plans, shall, at a minimum, include and provide for the following:

   a. **Construction Areas.** The Plans shall identify, including in a map or plan, the specific location of all construction areas, all final staging areas, and all construction access corridors in site plan view. All such areas within which construction activities or staging are to take place shall be minimized to the maximum extent feasible to have the least impact on coastal resources. Siting and designing construction areas shall be designed to minimize impacts to public parking and public views. Construction is prohibited outside of the defined construction, staging, and storage areas.

   b. **Construction Methods.** The Plans shall specify all construction methods to be used, including all methods to keep the construction areas separated from public recreational use areas, including the public pullout area (e.g., using unobtrusive fencing or equivalent measures to delineate construction areas), all of which shall be clearly identified on the construction site map and described in a narrative description.

   c. **Construction Timing.** The Plans shall provide an updated estimated construction timetable consistent with the terms of this CDP.

   d. **Construction Traffic Controls.** The Plans shall include identification of all measures to be taken to limit lane closures to the maximum extent feasible and be in substantial conformance with such limitations proposed in the application. All one-way traffic lane closures shall provide for full and continuous access for pedestrians and cyclists through the work corridor, except during identified limited complete closures. The Plans shall also provide for emergency services to cross through construction work areas, including during any one-way traffic lane or full road closures. Updated versions of construction duration traffic controls shall be provided after any substantial changes. Other than temporary fencing or K-rail barriers, no new fencing or permanent K-rail barriers shall be allowed under this CDP.

e. **Shoulder Widening.** The Plans shall provide final specification of all the areas of shoulder widening, which shall be designed to be consistent with the Sonoma State Route 1 Repair Guidelines, dated March 2019. All six-foot shoulder expansions shall be limited to existing gravel areas that are at a minimum six feet wide. All other shoulder expansions shall be limited to four feet.

f. **Shoulder Backing.** The Plans shall provide final specification/plans for all areas of shoulder backing that shall show all three-foot shoulder backing is limited to gravel areas that are at a minimum three feet wide above any proposed shoulder expansions. Otherwise, shoulder backing is limited to a maximum of one foot from the pavement edge.

g. **Modifications.** The Permittee shall undertake development consistent with the approved Final Plans. The Executive Director may approve minor adjustments to these plans if the adjustments are 1) de minimis in nature and scope, 2) reasonable and necessary, 3) do not adversely impact coastal resources, and 4) do not legally require an amendment to this CDP.

3. **Pedestrian and Cyclist Safety.**

a. WITHIN ONE YEAR OF ISSUANCE OF THIS CDP, the Permittee shall submit a pedestrian and cyclist safety study for the community of Valley Ford. The pedestrian and cyclist safety study shall include a set of recommended measures that are feasible (that is capable of construction given the current highway alignment, e.g., crosswalks, bike bulb-outs, sidewalk improvements, bike lanes); as well as a timeline for implementation that sees construction start as soon as reasonably feasible depending on programming needs and within a minimum of five years. The study shall also reflect engagement with the community of Valley Ford and Sonoma County generally through community meetings and/or community surveys. If the Executive Director determines that any recommended measures in the safety study require CDP authorization, the Permittee shall submit an application for an amendment to this CDP prior to implementation.

b. WITHIN TWO YEARS OF ISSUANCE OF THIS CDP, the Permittee shall submit a pedestrian and cyclist safety study for the community of Bodega Bay that shall meet all the terms and conditions above (except reflecting engagement with the town of Bodega Bay rather than Valley Ford).

4. **Construction BMPs.** The Permittee shall adhere to appropriate construction-related best management practices (BMPs) for construction in, over, or adjacent to coastal waters and habitat, including, the proposed Avoidance, Minimization and Mitigation Measures (AMMMs), except as supplemented or modified herein:

a. **Construction Timing.** All work that has the potential to directly impact surface waters (including grading, cutting, and filling) shall take place between June 15 and October 15 unless otherwise approved in writing by the Executive Director as having no substantial impacts to coastal resources because of timing. Soil disturbing work shall be minimized to the extent feasible during the rainy season.

b. **Coastal Resource Awareness Training.** PRIOR TO COMMENCEMENT OF

ANY DEVELOPMENT, including major vegetation removal, a qualified biologist shall provide a pre-construction meeting with all construction personnel (contractors, subcontractors, and workers), consisting of a briefing on the terms and conditions of this CDP relating coastal resource protection, including requirements relative to each stage of the Project, including but not limited to work windows, construction site management within the project area, locations of sensitive areas, and how to identify and report sensitive species within the project area. This shall be repeated each season of construction and, if there is worker turnover within the construction season, each new worker shall be advised on same. This information shall also be available at the job site to ensure the importance of these measures are recognized.

c. **Flagging of Sensitive Areas.** Demarcation of the boundaries of riparian, wetland, and environmentally sensitive habitat areas within and adjacent to the project area pursuant to AMMMs in Exhibit 4 shall be inspected throughout construction to ensure that they are visible for construction personnel. Any temporary fencing that is used shall be properly installed. If any temporary fencing is removed, damaged, or otherwise compromised during the construction period, construction activities shall cease until the temporary fencing is repaired or replaced.

d. **Water Pollution Prevention.** PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT, including major vegetation removal, the Permittee shall ensure all temporary erosion, runoff, and sediment control BMPs are in place in accordance with the final Stormwater Pollution Prevention Plan (SWPPP) required by Special Condition 5 below.

e. **Spill Prevention.** Fuels, lubricants, solvents, and other hazardous materials shall not be allowed to enter coastal waters, wetlands, or other sensitive habitats. Fueling and maintenance of construction equipment and vehicles shall be conducted off-site, if feasible. Any fueling and maintenance of mobile equipment conducted on-site shall take place at a designated area located at least 50 feet from coastal waters and sensitive habitat. The fueling and maintenance area shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area (such as cranes) may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills. Hazardous materials management equipment shall be available immediately on-hand at the project site, and a registered first-response, professional hazardous materials cleanup/remediation service shall be locally available on call. Any accidental spill shall be rapidly contained and cleaned up.

f. **Invasive Species Prevention.** All construction equipment shall be cleaned prior to entering the work site consistent with California Department of Fish and Wildlife (CDFW) protocols to minimize the potential for the transport of non-native vegetation seeds and plant material or invasive species. Rock, sand, or any material used during construction shall originate from locally appropriate, commercially available sources to the maximum extent feasible, to avoid the

inadvertent introduction of non-native plant species to surrounding environmentally sensitive areas. To prevent the spread of invasive plant species in disturbed soil after construction, all disturbed areas shall be seeded with native herbaceous species and sterile straw, straw bales, seed, mulch, or other material used for erosion control or landscaping shall be free of noxious weed seed and propagules.

g. **Trash/Debris.** During construction, all trash and debris shall be properly contained, removed from the work site, and disposed of on a regular basis. Any debris inadvertently discharged into coastal waters or surrounding habitats shall be recovered immediately and properly disposed of. All construction debris shall be disposed of in an upland location outside of the coastal zone or at another disposal facility approved by the Executive Director.

h. **Plastic Netting Prohibition.** To minimize wildlife entanglement and plastic debris pollution, the use of temporary rolled erosion and sediment control products with plastic netting (such as polypropylene, nylon, polyethylene, polyester, or other synthetic fibers used in fiber rolls, erosion control blankets, and mulch control netting) is prohibited. Any erosion-control associated netting shall be made of natural fibers and constructed in a loose-weave design with movable joints between the horizontal and vertical twines.

i. **Vegetation Removal.** Vegetation cutting and removal activities shall be done with the use of hand tools (including chainsaws) to the maximum extent feasible. To minimize the opportunity of spreading tree pathogens, any trimmed branches or green woody material shall be chipped to a size equal to or less than six (6) inches in diameter and left on-site.

j. **Soil Protection.** To the extent feasible, vegetation within proposed access roads shall be cut back close to the ground with roots left undisturbed. Soils within temporarily disturbed areas shall be protected from compaction and tilling of native soils shall be avoided to the extent feasible. Any soil protection materials, barriers, or any additional road base shall be completely removed upon completion of construction. All areas of fill shall be amended with either locally sourced and as weed-free as feasible topsoil or with compost, to create conditions appropriate for planting and revegetation. Where feasible, existing topsoil shall be removed, stockpiled, and replaced on new fill. Fill slopes may also be amended by incorporating compost into the top layer. Topsoil shall not be stockpiled or redistributed from soils where invasive plant species are abundant.

k. **Nesting Bird Protection.** Prior to commencement of any activities that may impact potential bird nesting vegetation, a qualified biologist shall conduct pre-construction surveys for nesting birds and submit the results of all surveys. If vegetation removal is to take place during the nesting/breeding season, buffers of at least 300 feet from active nests and 500 feet from any active raptor nests shall be maintained until the young have fledged and no second nesting attempts have been observed. A smaller buffer may be established when the biologist submits a statement for the review and approval of the Executive Director

demonstrating the 300/500-foot buffer is infeasible and documenting why no significant adverse impacts to the nesting birds will occur with the revised buffer, including impacts from construction sounds.

l. Night Lighting. The use of artificial lighting shall be temporary and of short duration and lighting shall be directed away from any channel, shielded and pointed downward, and focused specifically on the portion of the project area actively under construction to reduce potential disturbance to sensitive species.

m. Wildlife Protection. To prevent the inadvertent entrapment of any special status wildlife, all excavated, steep-walled holes or trenches more than one foot deep shall be covered at the close of each working day by plywood or similar materials or, if that is infeasible, one or more escape ramps constructed of earthen fill or wooden planks shall be installed.

5. Stormwater Pollution Prevention Plan. NOT LESS THAN 30 DAYS PRIOR TO COMMENCEMENT OF ANY DEVELOPMENT, the Permittee shall submit, for the review and written approval of the Executive Director, a Stormwater Pollution Prevention Plan. The plan shall include written confirmation that the plan includes all proposed AMMMs included in Exhibit 4, as supplemented or modified herein, and complies with all terms and conditions of this CDP.

a. The plan shall include, at a minimum, the following required components:

1. A construction site map delineating the construction site and the location of all temporary construction-phase BMPs (such as silt fences, fiber rolls, straw wattle dikes, compost berms, and inlet protection), staging and stockpiling areas, vehicle and equipment maintenance and fueling areas, concrete washout areas, and dewatering facilities;

2. A description of the BMPs that will be implemented to minimize erosion and sedimentation, control runoff, and minimize the discharge of other pollutants as a result of construction activities, including temporary stream diversion and dewatering activities;

3. A description of how accumulated stormwater, groundwater, and surface water from excavations, temporary containment facilities, and dewatering operations would be handled and disposed of in a way that minimizes erosion and water quality impacts; and

4. A schedule for the management of all construction-phase BMPs (including installation and removal; training for construction personnel; and ongoing operation, inspection, maintenance, and monitoring and reporting).

b. The Permittee shall undertake development in accordance with the approved Stormwater Pollution Prevention Plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission approved amendment to this CDP unless the Executive Director determines that no amendment is legally

required.

6. **Tribal Cultural and Archaeological Resources Protection.** The Permittee shall undertake development in compliance with the proposed AMMMs included in Exhibit 4, to protect tribal cultural and archaeological resources, as supplemented or modified herein:

   a. Should any tribal cultural or archeological resources be encountered during project activities, the Permittee shall cease all project activities that have the potential to uncover or otherwise disturb cultural deposits and establish an "exclusion zone" where unauthorized equipment and personnel are not permitted (e.g., taped off) in an area not less than a 60-foot-wide buffer around the discovery, excepting the highway area where traffic may continue if it is not impacting the resources. The Permittee shall immediately notify any relevant Native American Tribe(s) for the project. Construction may continue outside of the exclusion area.

   b. If the Permittee seeks to recommence project activities within the sensitive area following discovery of cultural resources, the Permittee shall submit written documentation of any proposed measures or changes to construction activities to address the discovery. The Executive Director shall review the proposed changes and/or additional measures for conformance with this CDP and with the Coastal Act. Implementation of the changes or additional measures and recommencement of construction in the sensitive area shall not occur until the Executive Director provides written notice that no amendment to this CDP is legally required, or the Commission approves an amendment to this CDP.

7. **Deadline Extension.** The Executive Director may extend any deadline above if the Executive Director determines that the Permittee (a) has been diligently pursuing the completion of the tasks and milestones, (b) has demonstrated good cause for any identified delays, and (c) no amendment to this CDP is legally required.

8. **Assumption of Risk, Waiver of Liability, and Indemnity Agreement.** By acceptance of this permit, the Permittee acknowledges and agrees (A) that the site may be subject to hazards from tsunamis, storms, flooding, erosion, earth movement, and other natural hazards, which may worsen with climate change and 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.

4. FINDINGS AND DECLARATIONS

A. Project Location and Description

Map 1 Project Location

The applicant is proposing the Sonoma County Highway 1 Centerline Rumble Strips Project to provide safer traffic operations along Highway 1 through Sonoma County from its northern county border with Mendocino County and its southern county border with Marin County (see **Exhibit 1**). The Project is between Post Mile (PM) 0.0 and PM 58.58. The project limits are shown on **Map 1**.

Highway 1 in the project area is an essential way to reach most coastal recreational areas of the Sonoma County coast. Within the project limits, Highway 1 is primarily a conventional highway that runs north/south through a rural setting dominated by rural residential land uses, expansive prairie grasslands, dense forests, and rugged coastline. Much of it is marked by picturesque scenery and protected coastal agriculture. Highway 1 here generally consists of two lanes with 10-foot to 12-foot widths and zero- to maximum eight-foot-wide shoulders (vast majority of shoulders along corridor range from zero- to four feet wide or less). No changes in land use are anticipated as part of the Project.

The Applicant proposes to install five incontiguous segments of ground-in centerline mumble strips along Highway 1 totaling approximately 51 linear miles. **Table 1** below provides the locations which centerline mumble strips are proposed:

Table 1 Proposed Centerline Mumble Strips Locations

Segment Name	Begin Post Mile	End Post Mile	Community Span
Segment 1	2.45	9.40	Valley Ford to Bodega Bay
Segment 2	11.47	15.10	Bodega Bay to Scotty Creek
Segment 3	15.80	21.00	Gleason Beach to Jenner
Segment 4	22.00	30.60	Jenner to Fort Ross
Segment 5	31.95	58.53	Fort Ross to Sea Ranch

See **Exhibit 1** for larger map and aerial details regarding the project location; and **Exhibit 3** for sample project layouts.

The proposed mumble strips would be discontinued where the speed limit is equal to or less than 35 miles per hour (mph). Moreover, the mumble strips will not be installed within 660 feet of residential areas, or within 25 feet of commercial/town centers and certain features such as roadway intersections, pedestrian crossings, cattle guards, and left-turn lane openings.

Additionally, the Applicant proposes to replace the existing yellow and white traffic striping lines with six-inch-wide, wet-night visibility thermoplastic traffic striping. The main purpose of these elements of the project is to reduce the number and severity of head-on, cross centerline, and run-off road collisions to provide safe traffic operations

on Highway 1. The installation of the mumble strips would involve milling sequential parallel grooves into the existing pavement, perpendicular to and along the road centerline. Upon contact with a vehicle's tires, rumble/mumbles strips create a tactile vehicle vibration and an audible rumble. In this case, Caltrans would only install optimal sinusoidal "mumble" strips instead of the conventional ground-in rumble strips to reduce the noise generated when driving over them. These strips are intended to alert the driver to redirect vehicle path, thereby, reducing the potential for cross-centerline incidents and head-on collisions. Highway 1 in the project area is narrow and curvilinear and lacks sufficient safety features to help reduce cross-centerline collisions.

The project also includes shoulder widening to six feet at 29 locations (5 on the inland side of the northbound lane and 24 on the seaward side of the southbound lane) (see Table 2, Project Description, **Exhibit 2**, p. 4) where there is an existing width of shoulder that is relatively flat or on an uphill grade that does not require extensive embankment creation, excavation, or retaining structures to widened the shoulder. For the most part, the widening locations are currently gravel areas, so such widening would not extend into any areas that are not already covered with road improvements. The length of the widened shoulders would range between approximately 141 and 954 feet, but the majority would be between 300-500 feet long. While not Class II bikeways, a total of approximately 1.33 miles of six-foot-wide paved shoulders for cycling accessibility and safety would offer refuge areas for bicyclists when being passed by motorists.

Caltrans also proposes shoulder backing of up to three feet, in addition to shoulder widening, on the side of the roadway at the shoulder widening locations to protect the outside edge of the roadway pavement, and providing support that prevents pavement edge loss and cracking. Shoulder backing would be composed of gravel, however, such proposed shoulder backing essentially would extend the shoulder an additional three feet, so the six-foot shoulder widening should really be understood as a nine-foot shoulder widening. In some cases, the proposed widening and shoulder backing may extend from gravel lots into areas that are bare or vegetated with non-ESHA vegetation.

The Applicant also proposes to adjust the top of existing drainage inlets to grade after widening shoulders with new pavement as needed. The applicant also proposes biofiltration strips at two locations (PM 28.42 and PM 46.06) to mitigate for the new impervious area proposed to accommodate the shoulder widening and shoulder backing. The total new impervious surface due to shoulder widening and shoulder backing would be approximately 0.88-acre.

Existing utility poles and water lines would be protected in place. Additionally, approximately 500 cubic yards of grading (cut and fill) is proposed to accommodate the shoulder widening. The proposed project also includes repairs to damaged pavement with in-kind removal and replacement.

Construction activity is tentatively scheduled to occur between March 2025 and November 2025 and last up to 170 working days. Ground disturbing activities (e.g., shoulder widening) would be limited to between April 15 and October 31. Most

construction-related activities would be limited to daytime hours. The project would require rolling single lane closures during construction, and staging would be limited to areas within the Caltrans state right-of-way (ROW), such as shoulder widening locations or select Highway 1 pull-outs that would not require any vegetation removal. Construction work would be conducted within existing Caltrans' ROW, and ROW acquisitions for purposes of temporary construction easements are not required.

Along with the public review process for the required CEQA documentation for this Project, Caltrans presented the project at the Sonoma County Municipal Advisory Council meeting on January 19, 2023, and at the Sonoma County Bicycle Coalition meeting on January 24, 2023.

Regarding Environmental Justice communities, Caltrans states:

> *According to SB 535, disadvantaged communities are disproportionately affected by environmental pollution, low income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, and low levels of educational attainment. In Assembly Bill (AB) 1550, low-income communities are defined as census tracts with median household incomes at or below 80 percent of the statewide median income or with median incomes at or below the threshold designated as low income by the US Department of Housing and Urban Development. Both SB 535 and AB 1550 have a formula to direct that a percentage of State GHG-reduction funds be invested in disadvantaged and low-income communities. Caltrans identified no SB 535 communities in or near the project area but did identify AB 1550 communities in or near the project area.*

Caltrans did not identify any designated Environmental Justice communities in or near the project area, but there are Assembly Bill (AB) 1550 low-income communities nearby.

B. Standard of Review

The proposed Project involves development in both Commission's retained coastal development permit (CDP) jurisdiction, as well as in areas in Sonoma County's permitting jurisdiction through certification of the Sonoma County LCP. Section 30601.3 authorizes the Commission to process a consolidated CDP application in such cases when the local government, the Applicant, and the Executive Director all agree to such consolidation, and here Caltrans has requested such consolidation, and both Sonoma County and the Executive Director have agreed to process a consolidated CDP. As a result, the standard of review for the proposed Project is the Coastal Act, with the certified Sonoma County LCP providing non-binding guidance.

C. CDP Determination

1. Public Access and Recreation

Applicable Coastal Act Provisions

Coastal Act Sections 30210 through 30224 specifically require that public access be not only protected but maximized. In particular:

***Section 30210**: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

***Section 30211**: Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

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

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

***Section 30220**: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.*

***Section 30221**: Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

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

***Section 30240(b)**: Development in areas adjacent to … parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those … areas.*

Likewise, the Sonoma County LCP contains several policies very similar to these Coastal Act provisions that also protect public access and recreation in similar ways that may be considered as guidance. Since such policies do not provide additional detail to the Coastal Act provisions in this case, they are not here cited.

Consistency Analysis

The proposed project includes work in the Caltrans state right-of-way (ROW) on Highway 1, including areas adjacent to or near Bodega Bay and various state and regional parks with beaches, coastal trails, campgrounds, and other public recreational opportunities and visitor-serving facilities. Highway 1 is an essential transportation corridor along the Sonoma County coast that importantly serves as the primary access

route and a critical link to a large stretch of the Pacific coastline in this area north of Marin County and the San Francisco Bay Area. Highway 1 provides the only feasible tourist and recreation travel route up and down the coast for reaching beaches, scenic viewpoints, and several parks along this part of the coast. Thus Highway 1 is essential and critical for public access along the Sonoma coast, as well as to adjacent coastal counties. Highway 1 in the project area also provides several pull-out locations that support public access.

Highway 1 here provides essential access to some 10 state or local public parks and beaches, including Sonoma Coast State Park, Fort Ross State Historic Park, Stillwater Cove Regional Park, Russian Gulch State Beach, and Salt Point State Park. In addition, the project corridor includes several natural reserves (e.g., Jenner Headlands Reserve, Rocky Point, Del Mar Landing Ecological Reserve) and California Marine Protected Areas (e.g., Russian River State Marine Recreational Management Area, Salt Point State Marine Conservation Area, Stewarts Point State Marine Reserve). The proposed project would not reduce or impede access to these nearby coastal recreational areas.

Within the project limits, Highway 1 is primarily a two-lane rural conventional highway that consists of 10-foot to 12-foot-wide travel lanes with zero-foot- to eight-foot- wide shoulders (with either no shoulder or less than four-foot shoulders at most locations). The proposed development would maintain the existing Highway 1 two-lane roadway, includes general safety improvements, and would not alter the existing circulation system. Currently, coastal access along this route is generally adequate for motor vehicles, but the project would reduce the possibility of collisions and would improve access safety. Overall, the purpose of the project ensures continued and improved public access up and down the coast and to numerous coastal access and recreational points by maintaining the safety and reliability of the highway corridor.

Multi-modal Access

Highway 1 is also part of the Pacific Coast Bicycle Route and is popular with cyclists of all skill levels, although it does not include dedicated bicycle facilities. Sonoma County has designated much of the Highway 1 corridor for development as a Class II bike corridor. In addition, portions of the California Coastal Trail (CCT) run along Highway 1 and/or are in the project corridor (California Coastal Conservancy 2019). However, the project corridor can be unsafe for cyclists and pedestrians in much of the County as a result of the lack of off-highway alternatives (such as separated pedestrian/bicyclist pathways) and narrow shoulder areas in most places.

The project proposes shoulder widening in select locations that would improve access for multi-modal users. The proposed 29 shoulder widening locations were selected in existing gravel pullouts along the highway, in consideration of their expected benefit to cyclists, limited environmental impact, and limited ROW concern. The combined length of proposed shoulder widening is up to approximately 1.33 miles over the 58.58 miles of the highway corridor. The shoulder widening also requires shoulder backing, which the project proposes to be three feet and would be comprised of gravel.

This Project does not include a more general widening of all existing shoulders of Highway 1 along the nearly 60 miles in the County. There are multiple reasons for this,

including as cited by Caltrans the potential for ESHA and wetland impacts, the need for additional vegetation clearance, the additional cost, mitigation needs, visual character concerns, and ROW acquisitions. Caltrans states that this project is a Safety Improvements Project with limited funding from the California Transportation Committee through the State Highway Operation and Protection Program (SHOPP) program. Therefore, Caltrans asserts that additional multi-modal (or "Complete Streets") improvements are not feasible throughout this entire project area.

The shoulder widening project element is consistent with the Sonoma County certified LCP's recommendation that "[r]oad construction projects should include sufficient shoulder width to accommodate bicycles and pedestrians where off-road facilities are not feasible" (Sonoma County LCP, VII-33, p. 157). In addition, the Project does not include any new lane additions or make any changes to the automobile capacity of the highway. Furthermore, except for the shoulder widening and shoulder backing, the project would not result in any changes to existing lane widths.

Shoulder Width and Visual Resources
In any case, six-foot-wide shoulders provides greater space for cycling access and vehicles having engine or other troubles, which is a good thing. At the same time, existing typical shoulders on Highway 1 are generally very narrow, ranging from zero- to four feet wide or less, and those shoulders at that size generally contribute to the overall public view perception, which is perceived as a less significant road within a natural area. Widening can adversely impact such public views and upset the balance of that perception. On this point, the Coastal Act protects the scenic and visual character of Highway 1 "as a resource of public importance", requires that "development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas", and requires development in highly scenic areas such as this to "be subordinate to the character of its setting" (Coastal Act Section 30251). In addition, Coastal Act Section 30254 mandates that that "State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road."

Thus, the change from non-existing to six-foot shoulder areas (essentially nine-foot with the proposed shoulder backing) could change the visual nature of Highway 1 in the project area. Caltrans has provided a justification memo supporting the six-foot shoulder expansions (**Exhibit 6**). Visual concerns are tempered because these widening areas would generally take place in already graveled spots and would not extend to areas not already covered by road improvements, but the concern remains, especially for such an iconic stretch of Highway 1. The Sonoma State Route 1 Repair Guidelines ("Guidelines") developed through the Caltrans-Coastal Commission Partnership in 2019, articulated concerns over the visual resources of Highway 1, and the need for expanded shoulders for safer cycling. Those guidelines, which are not binding but are useful reference, recommend four-foot shoulders generally, "unless justified otherwise." In many cases in this corridor, a four-foot shoulder would already be an expansion of existing conditions, which would be an improvement for cyclists but that also raises these visual concerns.

One justification in the Guidelines for going beyond four-foot shoulders is when Highway 1 in Sonoma County is designated for a Class II bike facility. In that case, six-foot shoulders may be considered against the potential for resource constraints (e.g., visual, ESHA, etc.). The guidelines are also generally consistent with the Sonoma County LCP, which speaks to four-foot shoulders, but also that projects should "provide adequate width to accommodate bicyclists and pedestrians on Highway 1 through Sonoma County" (LCP Recommendation 28, Highway 1 Safety, Capacity and Access Improvements, pp. 165-166). This does not, however, indicate that six-foot shoulders are always appropriate along Highway 1 and in many cases more limited shoulder areas may be more appropriate. Rather the balance between shoulder widening's visual impacts and its multi-modal improvements should be considered in the wider context of the highway and landscape. Here, in those cases where a Class II bike facility is called for and where the widening occurs in gravel pullouts already larger than six feet (or nine feet with the proposed shoulder backing), such wider shoulders can be allowed given the changes to the character of Highway 1 would be limited as a result. There is still some question about the effect of wider shoulders here versus less wide shoulders elsewhere, including in terms of potential cumulative effects, but also in terms of maintaining some continuity in the "look" of Highway 1 through the County. Overall, what that points to is the need for Caltrans to do a larger corridor assessment on this point, including to address potential cumulative and consistency issues, and to come to some conclusions about where shoulders should be widened and to what a degree. Given that the project here only affects some 1.3 miles of the highway, such an assessment is probably not necessary in this case, but the Commission encourages Caltrans to move in that direction. Caltrans and Commission staff intend to work to develop an updated shoulder evaluation and best practices in rural scenic areas of Highway 1 that considers both visual and cycling access issues.

As mentioned, the project proposes shoulder backing for the widened shoulders of three feet. This could, in effect, extend the shoulders to nine feet in experience. However, the shoulder backing is composed of compressed gravel and rock. Therefore, in areas where the widening is in already existing gravel areas, the shoulder backing would result in little visual change.

In some cases, it is unclear if the proposed project would extend the six-foot shoulders and shoulder backing beyond the pullout areas currently gravel. Caltrans states that in some areas they may extend into areas that are barren or have ruderal vegetation (not ESHA). Given that the above analysis is dependent on the project essentially not making a visual change to the highway's character, any extension should be limited to areas already gravel or barren dirt.

Special Condition 2.E requires Caltrans to submit final plans, prior to construction, that demonstrate the proposed shoulder widening is minimized and is generally limited to four feet except in those gravel areas along sections of Highway 1 designated as development for a Class II Bike Facility by Sonoma County. **Special Condition 2.F** also generally limits shoulder backing to one foot in width, except in preexisting gravel areas, where three feet is allowed.

Outside of the shoulder widening element, the project does not propose any other active transportation improvements, such as improved sidewalks or new crosswalks for pedestrians. Caltrans states that this project is a narrow project to install rumble strips (e.g., conventional rumble strips or mumble strips), and only has funding for the rumble strip work. Caltrans states that further Complete Street improvements come in specific Complete Street projects, CAPM projects, or other larger corridor improvement projects.

While it is understandable that this project is funded and focused solely on the rumble strips, and those rumble strips to some degrees do provide increased safety for pedestrians and cyclists by lessening cross-centerline incidents and head-on collisions vehicles, the project still reflects a "safety for vehicles first" point of view. The lack of further active transportation / Complete Street projects is at odds with contemporary Caltrans policies and, at least to some degree, the public access provisions of the Coastal Act. In particular, Highway 1 in the project corridor traverses through numerous smaller communities and through various "Location Based Needs (LBNs)" sites where Caltrans itself identified the need for pedestrian crosswalks and other pedestrian and cyclist safety improvements. (See District 4 Pedestrian Plan for the Bay Area and Story Map for mapping of data points.) Most significantly, the towns of Valley Ford and Bodega Bay are smaller communities with significant pedestrian activities near Highway 1 traffic as well as active cycling. Sonoma County staff have highlighted pedestrian and cycling issues in Valley Ford as requiring urgent attention.

Caltrans states that installation of Complete Street elements, such as crosswalks, generally requires safety and traffic studies, as well as community engagement, and therefore such elements cannot be installed at this time. In working with Caltrans, however, they have agreed to conduct those studies and implement any recommended measures, and the time allotted would enable them to develop funding for such improvements. Therefore, **Special Condition 3** requires Caltrans to complete pedestrian and cyclist safety studies in the Valley Ford and Bodega Bay communities within one year and two years respectively of permit issuance that develops feasible measures and reflects community engagement. Feasible measures generally include improvements that do not change the highway capacity or roadway prism, including features such as crosswalks, crossing flashing beacons, bike shoulders or lanes, bike bulb-outs, and sidewalk improvements. The condition also requires Caltrans to develop a timetable for implementation of any feasible measures that result from the pedestrian and cycling safety studies. The condition recognizes that different Complete Street projects require different funding streams and different timetables. For instance, a crosswalk can be completed relatively quickly through Caltrans Director's Orders or maintenance work, as can in some cases, bicycle striping. Sidewalk improvement projects or larger shoulder expansions / bicycle bulb-outs typically require longer lead times for capital project funding. Thus, **Special Condition 3** requires Caltrans to develop a timetable that moves the recommended projects forward as quickly as feasible given project funding constraints, but that the projects be implemented within a minimum of five years.

Temporary Impacts

For installation of the centerline mumble strips and shoulder widening, the project would include rolling one-lane shoulder and one-way lane closures that would slow travel

along Highway 1. In areas where only shoulder widening is proposed, only shoulder closures are anticipated during construction. The project also includes staging during construction will be limited to areas within the Caltrans ROW including pullouts/shoulders, which would temporarily displace what could otherwise be used for parking. However, lane closures are a necessary element of highway repairs and upgrades, and the project minimizes lane closures to the greatest extent feasible. Although short-term localized traffic congestion and delays may occur, the impact would be temporary. The project also minimizes impacts to road pull-outs to the greatest extent feasible, and space at these existing pull-outs, as well as nearby pull-outs, would be maintained, so it is not anticipated that the public access impacts would be substantial.

To minimize and avoid significant public access impacts during construction, Caltrans is proposing a Traffic Management Plan (TMP), which would include elements, such as detour and haul routes, one-way traffic controls to minimize speeds and congestion, flag workers, and phasing, to reduce impacts to local residents and emergency and medical response services as much as feasible and maintain access to businesses in the local area. The TMP would also provide accommodation for police, fire emergency and medical services in the local area during construction. Therefore, no permanent impacts to public access are anticipated. **Special Condition 2** requires the submittal of final plans for the Project for Executive Director review and approval, requiring traffic control measures be implemented to minimize any adverse impacts from temporary access impacts during construction.

Conclusion

While not without its temporary public recreational access impacts, and soke concerns over the effect of widening on protected public views, the project overall would ultimately result in public access safety improvements. Therefore, it has public access benefits by ensuring that Highway 1 remains open and safe, providing essential travel for residents and visitors to the Sonoma Coast and ensuring continued access to multiple public access points. In addition, the project would increase safety for cycling public access through the widening proposed, where such widening can be feasibly accommodated without leading to undo coastal resource impacts, as discussed above. Thus, the project, as conditioned, can be found consistent with the Coastal Act's public recreational access provisions referenced above.

2. Coastal Hazards

Applicable Coastal Act Provisions

The Coastal Act generally requires that coastal hazards be minimized and protects against potential impacts associated with coastal hazard response. The Act also requires the Commission to take into account the effects of sea level rise in development review. The Coastal Act states:

> ***Section 30253****: 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. …

***Section 30270**: The commission shall 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.*

***Section 30001.5**: The Legislature further finds and declares that the basic goals of the state for the coastal zone are to: … (f) Anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise.*

While not the standard of review, on the subject of environmental hazards, the Sonoma County LCP offers guidance, in relevant part:

***Goal LU-7**: Prevent unnecessary exposure of people and property to environmental risks and hazards. Limit development on lands that are especially vulnerable or sensitive to environmental damage.*

***Goal PS-1**: Prevent unnecessary exposure of people and property to risks of damage or injury from earthquakes, landslides and other geologic hazards.*

***Goal PS-2.1**: Prevent unnecessary exposure of people and property to risks of damage or injury from flooding.*

***Goal PS-3.1**: Prevent unnecessary exposure of people and property to risks of damage or injury from wildland and structural fires.*

***Geologic Hazards**...2. Prohibit development within 100 feet of a bluff edge or within an area designated unstable to marginally stable on Hazards maps unless a registered engineering geologist reviews and approves all grading, site preparation, drainage, leachfield and foundation plans of any proposed building and determines there will be no significant impacts. The engineering geologist report shall contain, at a minimum, the information specified in the Coastal Administrative Manual.3. Enforce the requirements of the Alquist-Priolo Special Studies Zone Act for protection from fault rupture hazard. ... 5. Enforce the geologic provisions of Chapter 70 of the Uniform Building Code. 6. Require engineering geologic reports in accordance with the Permit and Resource Management Department geologic review procedure...*

The proposed project entails development of transportation infrastructure directly along the shoreline in an area potentially subject to high geologic, flood, and fire hazards, potentially including an array of coastal hazards associated with sea level rise.

Consistency Analysis

The Coastal Act requires that development minimize risks in areas of high flood hazard. The Commission has consistently found that development adjacent to the sea is inherently subject to hazards from erosional forces imposed against the shoreline from

wave energy, erosion, and storm flooding, that will be exacerbated by expected sea level rise. And Coastal Act Section 30253 requires, among other things, that all new development minimize risks to life and property from coastal and other hazards; and 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. Likewise, Section 30270 requires new development should avoid and minimize the impacts of sea level rise. Consistent with these requirements, the proposed Project has been analyzed for impacts from flooding, seismic and tsunami hazards, and Sea Level Rise, and for erosion.

Seismic and Tsunami Hazards

The project is located within the San Andreas fault system and may be prone to significant ground shaking over time. The fault crosses Highway 1 at approximately PM 10.2 in Bodega Bay and between approximately PM 30.5 and 32 just south of Fort Ross. In addition, according to Caltrans' Initial Study with Mitigated Negative Declaration (IS-MND) dated March 2023, the project corridor is located within mapped Tsunami Hazard Areas as designated by the California Geological Survey (CGS 2022a) and historic landslide potential (Manson et al. 2006). In the IS-MND, Caltrans concludes:

> *Construction-related activities primarily involve installation of incontiguous sections of ground-in centerline rumble strips within the existing highway pavement and would not disturb native soils. Additional construction-related activities would require widening the existing shoulder... Construction is unlikely to disturb native soils at these locations but more likely to encounter non-native backfill…*
>
> *Based on potential impacts of construction-related activities, Project components would not further add to the hazard…Soils may be subject to liquefaction during a strong seismic event; however, Project components would not further add to the hazard.*

Therefore, the proposed development is not anticipated to increase the potential risks to life and property due to seismically related liquefaction. In addition, the project would not create new structures that may increase risks from seismic or tsunami dangers.

Erosion

Sonoma County is located within the Coast Ranges Geomorphic Province of California, which are comprised of mountains and intermountain valleys that roughly parallel the San Andreas fault zone. The province extends from the Pacific Ocean to the west to the edge of the Great Valley to the east. According to Caltrans' technical memorandum dated September 30, 2022, the geology of Highway 1 through Sonoma County comprises:

> *… four distinct terrains underlain by four different rock units (from south to north): the Tertiary Wilson Grove Formation, Quaternary marine terraces, Cretaceous Franciscan Complex Melange, and Cretaceous granitic rocks (Salinian block).*

> *[Highway] 1 at its southern end traverses rolling terrain from the county line to Bodega Bay. At Bodega, the highway travels along flatter marine terraces along the Pacific Ocean. Just north of Jenner, the topography rises steeply, and the highway follows steep erodible cliffs to Fort Ross. North of Fort Ross the terrain is more subdued with occasional cliffside segments.*

The proposed shoulder widening and two biofiltration strips would require some soil disturbance (i.e., minor excavation), which could result in erosion. Proper grading, soil removal and/or implementation of standard construction best management practices (BMPs) is recommended for controlling runoff and erosion during project related activity to prevent any significant destabilization at the project sites. To minimize erosion and loss of topsoil, Caltrans proposes the implementation of a Stormwater Pollution Prevention Plan (SWPPP) and construction site best management practices (BMPs). **Special Condition 5** requires that Caltrans submit a final SWPPP prior to commencement of construction which protects water quality and minimizes or prevents erosion. Further, per the conditions, of approval, the contractor is required to have a certified Qualified SWPPP Preparer/Qualified Stormwater Developer prepare and oversee implementation of all temporary construction site BMPs during the Project.

The project does take place on Highway 1, segments of which are subject to potential coastal erosion. Given that this erosion is being exacerbated by sea level rise, these issues are discussed directly below.

Sea Level Rise and Flooding

Flood risks are expected to worsen and be exacerbated by projected sea level rise (SLR) in the coming decades. The State of California has undertaken significant research to understand how much SLR to expect over this century and to anticipate the likely impacts of such SLR. In 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 SLR science, including a discussion of probabilistic SLR projections as well as the potential for rapid ice loss leading to extreme SLR. This science synthesis was integrated into the OPC's State of California Sea-Level Rise Guidance 2018 Update (State SLR Guidance). This guidance document provides statewide recommendations for state agencies and other stakeholders to follow when analyzing SLR in association with projects. Notably, the guidance provides a set of regional projections recommended for use when assessing potential SLR vulnerabilities for a project. In January 2024, OPC released a Draft Update to the State SLR Guidance.[1] This Draft Update reflects the previous five years of scientific research on SLR projections, including the IPCC's Sixth Assessment Report (2021)[2] and NOAA's national report, Global and National Sea Level Rise Scenarios for the United States (Sweet et al., 2022).[3]

[1] See https://opc.ca.gov/wp-content/uploads/2024/01/SLR-Guidance-DRAFT-Jan-2024-508.pdf.

[2] See https://www.ipcc.ch/report/ar6/wg1/.

[3] See https://aambpublicoceanservice.blob.core.windows.net/oceanserviceprod/hazards/sealevelrise/noaa-nos-techrpt01-global-regional-SLR-scenarios-US.pdf.

The 2018 and Draft 2024 State SLR Guidance both provide SLR projections for 12 tide gauges in the state and recommend using the projections for the gauge closest to the project site. In this case, the Point Reyes tide gauge is the applicable gauge. The construction of this project is expected to be complete by the end of 2025 and the Applicant states that the design life of the proposed shoulder widening is 20 years. The other project components are estimated to have a shorter design life. The Commission's Sea Level Rise Guidance identifies transportation corridors as critical infrastructure and typically recommends analyzing the risks from an extreme SLR scenario. The amount of SLR projected at the Point Reyes tide gauge under the adopted 2018 State SLR Guidance for the year 2050 ranges from 1.1 feet (under the "low-risk aversion" scenario) to 2.0 feet (under the "medium-high risk aversion" scenario) to 2.8 feet (under the "extreme risk aversion" scenario). Under the Draft 2024 State SLR Guidance, which uses science from the previous five years, the amount of SLR anticipated at the Point Reyes tide gauge for the year 2050 is 0.8 feet under the intermediate scenario, 1.0 feet under the intermediate-high scenario, and 1.3 feet under the high scenario.[4]

The project location may be subject to tidal influence from current and/or future SLR. However, the project scope of work is limited in nature, the purpose of which is to install ground-in centerline mumble strips, install wet-night visibility striping, and widen the shoulders at 29 locations to provide refuge areas for bicyclists. Using Our Coast, Our Future's (OCOF's) Coastal Storm Modeling System (CoSMoS), 3.3 feet of SLR (which is closest to the highest predicted SLR listed above) combined with a 100-year storm could result in flooding of one shoulder widening location (Location 23 at PM 20.49), and partial inundation of the roadway near the mouth of the Russian River. The likelihood that SLR will meet or exceed the extreme risk aversion, or the high scenario is low and thus represents a precautionary projection that should be used for less adaptive projects.

The high scenario in the draft 2024 Guidance, and all the scenarios in the current 2018 Guidance, do show that sections of Highway 1 are vulnerable to cliff retreat in the project's lifespan.

Minor additions to existing roadway do not create the potential for additional adverse environmental and economic effects of sea level rise, rather the roadway itself will be the guiding force behind decisions about adaptation to the adverse effects of SLR. Although this project is susceptible to future SLR, the adaptive measures such as raising the highway grade would create additional impacts and cannot be included in the Project due to the Project's limited purpose, scope, and budget. Caltrans is currently working on a number or district and statewide projects to analyze the vulnerability of the coastal highways to SLR, including on Highway 1 in Sonoma County. Caltrans also has existing obligations to monitor and adapt some of the more vulnerable sections of Highway 1 under the existing CDP for the Gleason Beach Realignment project. Caltrans is also allocating funding for SLR adaptation projects in District 4 (CCC North Central

[4] The Draft 2024 State SLR Guidance uses five sea level rise scenarios from NOAA's Global and Regional Sea Level Rise Scenarios for the United States (Sweet et al., 2022), with further downscaling to reflect regional and local influences on sea level rise in California. These scenarios hypothetical trajectories of future sea level rise spanning the scientifically plausible range defined by the IPCC in AR6.

Coast District) and in Sonoma County, specifically to areas with a higher priority and greater need for SLR adaptation.

An important concern under Section 30253 is the potential need for shoreline protection to protect against coastal hazards, including related to SLR. Most shoreline protection devices are inconsistent with multiple policies in Chapter 3 of the Coastal Act because they generally cause significant impacts to coastal resources and can constrain the ability of the shoreline to respond to dynamic coastal processes. This is expected to be exacerbated with future SLR. However, in this case, no rock slope protection or other forms of shoreline protective devices are proposed. Nor does the addition of rumble strips increase the potential need for shoreline protective devices or provide the future basis for justification for such armoring.

Assumption of Risk

There remains some inherent risk to development on such sites (e.g., along the sea, seismically active areas, etc.). The Coastal Act recognizes that certain types of development, such as the proposed project, may involve some risk. While, overall, the proposed development would be subject to the similar coastal conditions as the original structure, the Commission finds that due to the uncertainties associated with future surges and erosion, the Applicant needs to assume these risks as a condition of approval. Therefore, considering the risks discussed above, the Commission imposes **Special Condition 8**, which requires the Applicant to assume the risks of hazards to the property and waive any claim of liability on the part of the Commission. The condition also requires Caltrans to indemnify the Commission if third parties bring an action against the Commission as a result of the failure of the development to withstand the hazards.

Conclusion

The purpose of the Project is to improve safety of Highway 1. The project would not exacerbate existing coastal hazard risks. The Commission finds that the proposed project, as conditioned, would minimize risks to life and property from geologic and flood hazards and assure stability and structural integrity, consistent with Coastal Act Section 30253.

3. Visual Resources

Applicable Coastal Act Provisions

The scenic and visual qualities of coastal areas are protected by the Coastal Act, stating:

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

Parks and Recreation and by local government shall be subordinate to the character of its setting.

***Section 30254**: … it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road … it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road.*

Likewise, the Sonoma County LCP contains a number of policies to protect visual resources that may be considered as guidance. LCP coastal view protection provisions require visual impacts to be minimized, including the following recommendations, found in the LCP's Visual Resource Chapter:

1. Prevent development (including buildings, structures, fences, paved areas, signs, and landscaping) from obstructing views of the shoreline from coastal roads, vista points, recreation areas, and beaches.

2. Prohibit development which will significantly degrade the scenic qualities of major views and vista points. …

4. Minimize visual destruction of natural landforms caused by the cutting, filling, and grading for building sites, access roads and public utilities by: Constructing roads, buildings, and other structural improvements to fit the natural topography. …

6. Minimize the visual impacts of development on terraces by: Designing structures to be in scale with the rural character of the region.

7. Minimize the visual impacts of development on ridges by: Prohibiting development in rural areas that projects above the ridgeline silhouette. …

9. Locate and design development to fit the setting and to be subordinate to the pre-existing character of the site.

10. Design structures to be compatible with existing community characteristics.

The LCP Visual Resources Chapter also provides:

The most important rural design issues are preservation of coastal views, and visual quality and compatibility of development with the natural landscape. (VII44, p.168.)

Ridgelines are the most visually vulnerable of the landforms in Sonoma County. Ridgelines are often seen from great distances. The contrast between the land and the sky makes structural intrusions very obvious. (VII-44, p.168.)

Consistency Analysis

For most of Sonoma County, Highway 1 is a highly scenic two-lane roadway, and the surrounding lands are predominantly rural. Travel along Highway 1 in Sonoma County

is iconic and reveals coastal bluffs providing vistas of the Pacific Ocean, tucked-away coves, and striking rocky beaches to the west. To the east, the regional landscape is composed of layers of pastoral rolling hillsides, grassy terraces, rock outcroppings, and conspicuous ridgelines. The linear and curvilinear stretches of this highway corridor are bordered by sporadic commercial and residential developments on both sides of the highway. The Russian River, Salmon Creek, the Gualala River, and smaller streams cross the highway, adding to its scenic quality. Highway 1 in the project area is eligible for State Scenic Highway designation. Given the abundance of coastal visual resources in the project corridor, avoiding or minimizing visual impacts is essential.

Because the project scope is mostly limited to minor upgrades of existing infrastructure, the proposed development is not anticipated to significantly adversely impact public coastal views or degrade the existing visual character. The project would also generally not introduce significant new roadway elements that would significantly impact visual resources. The proposed mumble strips are largely a new feature but would appear nearly undistinguishable from the existing highway striping.

Shoulder Widening

The project would, however, also add new paved shoulders in 29 locations up to six feet wide, with an additional three feet of shoulder backing (i.e., compacted graveled area that appears somewhat visually similar to pavement), for a total paved width of nine feet for each shoulder widening area, which could be considered an expansion of the roadway facility, and does represent a visual change to the rural character of Highway 1. The interaction between public access improvements and visual resources for these shoulder widening locations is discussed above in **Section 4.C.1 (Public Access)**. Part of the visual allure of this stretch of Highway 1 is its narrow width within a vegetated landscape, and the widening would diminish public view utility and diminish the public view accordingly. Caltrans has not identified any alternatives nor mitigating features that could be applied to such widening.

The Sonoma LCP generally allows for four-foot shoulders, but also states that shoulders should be sized to accommodate bicycle use. Overall, some areas of these sections of Highway 1 would be wider (up to nine feet on each side) due to widened/expanded shoulders and shoulder backing. However, these shoulder expansions would primarily take place in areas that are currently gravel pullouts and, therefore, the change in visual character is expected to be relatively minor. In addition, only a total of 1.33 miles of shoulders would be widened. Furthermore, the views of the ocean and other public visual resources would not be impacted; the view beyond the roadway would remain the dominant visual feature. **Special Condition 2.E** minimizes the extent of these shoulder improvements by requiring that Caltrans submit final plans, prior to construction, that demonstrate the proposed shoulder widening is generally limited to four feet except in areas designated as development for a Class II Bike Facility by Sonoma County and where the widening occurs in already existing gravel areas that are currently at a minimum six feet wide. **Special Condition 2.F** also generally limits shoulder backing to one foot in width, except in preexisting gravel areas, where three feet is allowed.

To recap the discussion in Section 4.C.1 (Public Access), existing typical shoulders on Highway 1 are generally very narrow, ranging from zero- to four feet wide or less, and

those shoulders at that size contribute to the overall public view perception, which is perceived as a less significant road within a natural area. Widening can adversely impact such public views and upset the balance of that perception. On this point, the Coastal Act protects the scenic and visual character of Highway 1 "as a resource of public importance", requires that "development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas", and requires development in highly scenic areas such as this to "be subordinate to the character of its setting" (Coastal Act Section 30251). In addition, Coastal Act Section 30254 mandates that that "State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road." Thus, the change from non-existing to essentially nine-foot shoulder areas (adding 18 feet if both sides of the road are so developed) could change the visual nature of Highway 1 in the project area. This concern is tempered by the fact that these widening areas would generally take place in already graveled spots and would not extend to areas not already covered by road improvements, but the concern remains, especially for such an iconic stretch of Highway 1. Caltrans has provided a justification memo for the six-foot shoulders (**Exhibit 6**). Again, the Sonoma State Route 1 Repair Guidelines ("Guidelines") developed through the Caltrans-Coastal Commission Partnership in 2019, articulated concerns over the visual resources of Highway 1, and the need for expanded shoulders for safer cycling. Those guidelines, which are not binding but are useful reference, recommend four-foot shoulders generally, "unless justified otherwise." In many cases in this corridor, a four-foot shoulder would already be an expansion of existing conditions, which would be an improvement for cyclists, but that also raises these visual concerns.

One justification in the Guidelines for going beyond four-foot shoulders is when Highway 1 in Sonoma County is designated for a Class II bike facility. In that case, six-foot shoulders may be considered against the potential for resource constraints (e.g., visual, ESHA, etc.). The guidelines are also generally consistent with the Sonoma County LCP, which speaks to four-foot shoulders, but also that projects should "provide adequate width to accommodate bicyclists and pedestrians on Highway 1 through Sonoma County" (LCP Recommendation 28, Highway 1 Safety, Capacity and Access Improvements, pp. 165-166). This does not, however, indicate that six-foot shoulders are always appropriate along Highway 1 and in many cases more limited shoulder areas may be more appropriate. The balance between visual impacts and the need to expand active transportation should be evaluated in the context of the highway and landscape conditions. Here, in those cases where a Class II bike facility is called for and where the widening occurs in gravel pullouts already larger than nine feet, such wider shoulders can be allowed given the changes to the character of Highway 1 would be limited as a result. There is still some question about the effect of wider shoulders here in discontiguous areas versus less wide shoulders elsewhere, including in terms of potential cumulative effects, but also in terms of maintaining some continuity in the "look" of Highway 1 through the County. Really, with that points to is the need for Caltrans to do a larger corridor assessment on this point, including to address potential cumulative and consistency issues, and to come to some conclusions about where shoulders should be widened and to what a degree. Given that the project here only

affects some 1.33 miles of the highway, such an assessment is probably not necessary in this case, but the Commission encourages Caltrans to move in that direction.

Conclusion

Overall, the project would maintain existing scenic views in the project area as much as possible with a project of this scope and scale. The project is not anticipated to significantly affect the appearance of the highway corridor for the reasons discussed above. Highway 1 would remain a two-lane scenic highway, with the so-modified shoulders of course, but the views from the highway, with panoramas westward of the coast and ocean and eastward over the landscape of coastal hillsides and agricultural fields, would remain largely unchanged. Again, the Commission believes that additional study is necessary for the entire corridor on this question of widening and encourages Caltrans to move towards that as quickly as possible, especially before a larger scale project on Highway 1 in Sonoma might be proposed to the future.

In any case, the Commission finds that the proposed development, as conditioned, can be found consistent with Coastal Act public view provisions.

3. Biological and Marine Resources

Applicable Coastal Act Provisions

The Coastal Act provides protection for natural resources and habitats, including environmentally sensitive habitat areas (ESHAs), and coastal waters and related habitats, such as wetlands. Relevant polices for this matter include:

> ***Section 30107.5****: "Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*
>
> ***Section 30240****: (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such 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 such areas, and shall be compatible with the continuance of such habitat areas.*
>
> ***Section 30231****: The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

> ***Section 30232****: Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.*
>
> ***Section 30233****: (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following: … (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.…(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary...*

Coastal Act Sections 30230 and 30231 require that marine resources be maintained, enhanced, and where feasible, restored and that the biological productivity and quality of coastal waters appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained. The marine resources of concern that have the potential to be adversely impacted by the proposed Project activities include, but are not limited to, western snowy plover and grunion.

Consistency Analysis

Environmentally Sensitive Habitat Areas Monitoring and Avoidance

Section 30240 of the Coastal Act limits the amount and types of development that may occur within ESHA to uses that are dependent on the ESHA resource. ESHA includes native vegetation alliances listed in the California Department of Fish and Wildlife's (CDFW's) California Sensitive Natural Communities List with ranks between state rarity S1 to S3. However, an important thing to note is that the Coastal Commission, as well as some LCPs, recognize ESHA categorically (e.g., dunes, bluffs, riparian), and ESHA determinations can also be made on the basis of providing "especially valuable habitat," which is independent of a rarity ranking. That would potentially include things like habitat corridors, tree stands (including non-native) that support monarch roosts or rookeries, grasslands with at least 10% cover of native grasses and forbs, etc.

Caltrans completed multiple documents and surveys to evaluate the Project's potential to affect habitats and natural resources, which are described in the IS-MND and as shown on the Rare Plants and Environmentally Sensitive Habitat Areas maps and Potential Aquatic Resources maps prepared by Caltrans, dated May 14, 2024 (**Exhibit 5**). The project site is located within a rural setting dominated by prairie grasslands, dense forests, and rugged coastline. There are numerous drainages of varied hydrology, riparian corridors, wetlands, estuaries, and ponds throughout, adjacent to and intersectional with Highway 1. ESHA determined to be present adjacent to or near Highway 1 includes sensitive natural communities and designated critical habitat for potentially occurring special-status wildlife, such as the California Red-Legged Frog (*Rana draytonii*), Myrtle's silverspot butterfly (Speyeria zerene myrtleae), Behren's

silverspot Butterfly (Speyeria zerene behrensii), Northern Spotted Owl (*Strix occidentalis caurina*), Western Snowy Plover (Anarhynchus nivosus nivosus), and Marbled Murrelet (Brachyramphus marmoratus).

However, the project as proposed would avoid any impacts to ESHA. The rumble strip work would take place within the center of the already paved highway and would not intrude deeply into the soils. There are 29 proposed shoulder widening locations, however, these locations were selected in consideration of their expected benefit to cyclists and limited environmental impact (i.e., existing dirt and/or gravel pullouts). Thus, none of the proposed shoulder widening and shoulder backing would impact ESHA.

Moreover, Caltrans has incorporated several project minimization features and mitigation measures to avoid impacts to ESHA. These measures are attached as Caltrans' Avoidance, Minimization and Mitigation Measures (AMMMs) (see **Exhibit 4**) and described in greater detail below. The AMMMs will ensure protection nearby and adjacent ESHA. **Special Condition 4** requires that Caltrans adheres to these AMMMs, unless modified by this CDP.

Coastal Waters and Wetlands

The proposed project has the potential to adversely impact the water quality of the nearby wetlands, Pacific Ocean, and other coastal waters. Multiple water bodies are located within and around the project limits. These include Pocolimi Creek, Cheney Gulch, Salmon Creek, Scotty Creek, Russian River and Russian Gulch. Additionally, Highway 1 in Sonoma County runs primarily along the Pacific coastline. There are more than 500 cross culverts within the project corridor that drain towards the Pacific Ocean. There are also CCC-jurisdictional wetlands adjacent to the subject roadway. The project area includes a series of highway drainage ditches, adjacent highway culvert areas, and roadside swales, much of which delineates as wetland under the Coastal Act (as defined by Section 30121 of the Coastal Act and Title 14 Section 13577(b) of the California Code of Regulations).

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. Additionally, the Coastal Act recognizes the importance and scarcity of wetlands. Section 30233 of the Coastal Act limits the fill of wetlands to specific, enumerated uses, and also requires that any project which results in fill of wetlands (a) be the least environmentally damaging feasible alternative, and (b) provide feasible mitigation measures to minimize adverse environmental effects. However, in general the installation of rumble strips would occur in the centerline of the already paved highway, avoiding impacts to wetlands or coastal waters, and the proposed shoulder widening and shoulder backing is not anticipated to impact wetlands/coastal waters, because no work is proposed in wetlands/coastal waters and Caltrans is proposing avoidance, minimization and mitigation measures, which are described in greater detail below, to avoid all direct impacts to nearby natural resources. Therefore, no direct impacts to nearby wetlands are anticipated within the project area.

However, the proposed development would create approximately 0.88-acre of net new paved, impervious surface area due to the proposed shoulder widening. This new impervious area would increase runoff; however, Caltrans has indicated that the existing drainage facilities, such as cross culverts and roadside ditches, have the capacity to handle this increase. Caltrans is also proposing two bio-filtration strips at PM 28.42 and PM 46.06 to capture and treat runoff from the impervious surface with the accumulative area goal of 0.88-acre.

In any case, given the project's location near coastal waters, it is necessary to ensure that construction activities would be carried out in a manner that would not adversely affect water quality or marine resources. The project has the potential to result in polluted runoff and sedimentation from construction activities or new impervious surfaces. Construction would include ground disturbance such as grading and earth moving activities, stockpiling of soils, and the loading, unloading, and transporting of excavated and fill material. Such activities could result in loose soils and pollutants entering groundwater. Caltrans has adopted several Avoidance, Minimization and Mitigation Measures (AMMMs), as previously described above, to avoid impacts to coastal waters and wetlands. These measures are attached as **Exhibit 4**, and **Special Condition 4** requires adherence to these AMMMs. **Special Condition 4** also requires: multiple construction BMPs be implemented; environmental awareness training on sensitive species and plants; flagging of biologically sensitive areas; measures to reduce the spread of invasive species; exclusion fencing to protect habitat from construction impacts and accidental worker trespass; wildlife fencing or other measures to prevent entrapment; proper disposal of trash and debris; and pre-construction surveys conducted by a qualified biologist for nesting birds and measures to ensure buffers and other protective measures during the nesting/breeding season (February 1 through September 30).

Caltrans is also proposing a Storm Water Pollution Prevention Plan, and that erosion control BMPS be implemented to minimize wind- or water-related erosion and to also fulfill the requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB). Therefore, to ensure that adverse effects to the marine environment are minimized, **Special Condition 5** requires the applicant to submit a final Stormwater Pollution Prevention Plan (SWPPP).

Conclusion

The mitigation measures incorporated into the project and required by the special conditions discussed above would ensure that the Project would not have significant adverse impacts on ESHA, coastal waters, wetlands or other protected biological resources. Therefore, Commission finds that the project, as conditioned will ensure that marine resources, including water quality and biological productivity, are protected and maintained and ensure the protection of human health as required by Sections 30230, 30231, 30232 and 30233 of the Coastal Act.

4. Cultural Resources

Applicable Coastal Act Provisions

Section 30244: Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Consistency Analysis

Archaeological Resources and Tribal Consultation

The project footprint is in the vicinity of culturally sensitive areas. In addition to Coastal Act Section 30244 cited above, the Commission adopted a Tribal Consultation Policy in 2018 to guide consultation with Tribal entities in permitting and other matters. The Commission recognizes that the entirety of the State's Coastal Zone was originally indigenous territory that continues to have cultural significance to Native American tribes. The Commission's Tribal Consultation Policy recognizes the importance of State efforts to protect Tribal Cultural Resources and improve communication and coordination with Tribes, and it sets out a tribal consultation process that is fully consistent with and complementary to the nature of the Commission's goals, policies (including Section 30244), and mission statement. Tribal Cultural Resources can be sites, features, cultural landscapes, sacred places, and objects with cultural value and can also qualify as archeological, paleontological, visual, biological, or other resources that the Commission is tasked with protecting pursuant to the Coastal Act.

Caltrans engaged in its own Tribal Consultation process including discussions with relevant Tribes listed under the Native American Heritage Commission (NAHC) including various meetings and correspondence with members of the Federated Indians of Graton Rancheria, and members of the Tribal Historic Preservation Office of the Kashia Band of Pomo Indians to discuss survey updates and avoidance measures for known archaeological sites. (More details regarding Caltrans' Tribal Consultation process are available in Caltrans' Initial Study with Mitigated Negative Declaration (IS-MND).) Caltrans indicates that consultation with the Federated Indians of Graton Rancheria and the Kashia Band of Pomo Indians is ongoing and will continue throughout the life of the Project. In addition, measures that are responsive to concerns raised by the Tribes throughout the project are incorporated into the proposed Project and are described below.

A total of 36 archaeological resources have been identified within the Area of Potential Effects (APE) within the project corridor but none are in the Area of Direct Impact (ADI). Four of these sites were identified by local Tribes as significant, and avoidance measures were requested as a precaution to protect them. One of these four sites is eligible for listing on the California Register of Historical Resources; however, none of the four sites are in the ADI and, therefore, would not be impacted by the Project. The extent of ground-disturbing work for the Project is approximately 1.8 feet of grading below ground surface for the proposed shoulder widening-related work. Furthermore, the proposed Project would be constructed on previously disturbed ground within fill areas, making discovery of unidentified cultural materials or human remains unlikely to occur.

Consistent with the Commission's Tribal Consultation Policy, Commission staff reviewed the tribal consultation undertaken by Caltrans. Commission staff wrote to the tribal representatives and individuals identified by the NAHC and/or that consulted with

Caltrans 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. Commission staff was scheduled to meet with the Tribal Historic Preservation Officer (THPO) for the Kashia Band of Pomo Indians of the Stewarts Point Rancheria for a general discussion of the Project. However, this meeting was canceled pursuant to the THPO's request. Subsequently, following additional correspondence efforts from Commission staff, Commission staff received an email response from the tribal chairperson on April 30, 2024, indicating that they appreciate the notification of the upcoming hearing and look forward to the final hearing notice for this item.

Coastal Act Section 30244 requires that reasonable mitigation measures be employed where development could adversely impact archaeological or paleontological resources. While the proposed Project is unlikely to result in any impacts to known cultural resources, construction activities could impact unknown archaeological resources. Nevertheless, Caltrans has adopted cultural resource protection and avoidance measures, including procedures (i.e., cease work) in the event of an inadvertent discovery to reduce potential impacts to undiscovered human remains and cultural resources, as shown in the AMMMS (PF-Cult-1 and PF-Cult-3, **Exhibit 4**).

To reinforce Caltrans' proposed measures to protect any sensitive archaeological resources in the project area and to ensure that any project changes resulting from an inadvertent discovery are consistent with this CDP, the Commission includes **Special Condition 6** (Protection of Archaeological Resources). Special Condition 6 further requires that in the event of such a discovery, Caltrans shall submit, for Executive Director review and approval, a report documenting any proposed changes to construction activities or the adoption of any new avoidance, minimization, and mitigation measures. The Executive Director would subsequently respond in writing with a determination of whether the proposed changes are allowable under this CDP or other applicable Coastal Act policies, or an amendment application to this CDP is required.

Historic Resources

The proposed project would not result in an adverse effect to historical resources. The Fort Ross Historic State Park would not be affected by the proposed Project. Additionally, Caltrans determined a Finding of No Historic Properties for this Project under Section 106.

Paleontological Resources

The project includes new pavement at locations that would not require significant ground disturbance (no large cuts or other excavations) because these locations are primarily existing pullouts covered in fill or other disturbed soils. The Wilson Grove Formation is the only unit along the highway corridor of the Project area with the potential for significant fossils. While the Wilson Grove Formation may contain fossils, soil disturbance would be minimal and would not likely reach the native material.

Conclusion

In conclusion, based on the findings of cultural research by Caltrans, the tribal consultation and outreach performed by Caltrans and the Commission, as well as the cultural resource protection protocols that would be implemented by Caltrans as part of the Project, the Commission finds that the proposed Project, as conditioned, includes reasonable mitigation measures to protect archaeological or paleontological resources consistent with Coastal Act Section 30244.

5. Air Quality and Greenhouse Gas Emissions

Applicable Coastal Act Provisions

Coastal Act Section 30253 states, in part:

> ***Section 30253****: New development shall do all of the following: ... (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled.*

This section of the findings primarily discusses the project's consistency with Section 30253(c) and (d). However, it should be recognized that along with Section 30253, various global climate change effects that result from increases in greenhouse gas (GHG) emissions directly impact numerous coastal resources. Among other things, these impacts can include: (1) coastal flooding and erosion from SLR; (2) inundation of public access and recreation areas from SLR or extreme rainfall events; (3) alterations to existing environmentally sensitive habitat areas; (4) impacts to marine species diversity, distribution, and productivity from ocean warming and acidification; (5) increased extreme fire events that can burn coastal habitat or reduce public access through road closures, beach closures, and unsafe smoke conditions; and (6) various other impacts to coastal resources. Thus, actions to reduce GHG emissions and to protect coastal resources at risk from the adverse effects of climate change are consistent with a number of Coastal Act goals and policies, beyond those in Section 30253.

Consistency Analysis

Transportation is California's largest current source of GHG emissions, typically around 40% of state emissions (Taylor, Legislative Analyst Office, 2018). Moreover, in recent years, while California has reduced emissions in other sectors, transportation emissions have grown with the increase of traditional gas passenger vehicles driving more miles on state roadways. As recognized by Caltrans as an agency, "[g]iven the large contribution of the transportation sector to California's GHG [Green House Gas] emissions, Caltrans and other state transportation agencies have an important role to play in fostering solutions." Caltrans estimates that 21 percent of all California GHG emissions occur from vehicles on state Caltrans highways, and Caltrans highway construction and maintenance contribute approximately 0.6 percent.

Several state laws and executive orders mandate the reduction of GHG emissions, including AB 32 (California Global Warming Solutions Act of 2006), mandating a 40%

reduction in GHG from 1990 levels by 2030. Under AB 32, California Air Resources Board was required to create a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required CARB to develop a Scoping Plan that describes the approach California will take to reduce GHGs and update the program every five years. CARB adopted a scoping plan in 2008, which underwent several updates including most recently in 2022. Overall, CARB implements several state laws that aim to reduce GHG emissions, though, none of these are necessarily affirmative project-specific mandates on Caltrans.

Overall, the proposed development would improve and maintain existing facilities and would not increase roadway capacity or alter long-term vehicular circulation that could affect energy use. Furthermore, by reducing the number and severity of collisions, the Project is anticipated to result in smoother traffic flow and less needed maintenance from damage to highway structures caused by accidents. The proposed development would not enable new connections that would lead to new commercial or industrial development spurring increased Vehicle Miles Traveled / GHGs. No adverse air quality impacts are anticipated because of the proposed development. In addition, the proposal would not result in changes of use of lands, induce growth, or otherwise change land use patterns. Overall, the project would not generate long-term GHG emissions.

The proposed development would however result in construction related GHG emissions. As described in the Construction Greenhouse Gas Emissions Analysis prepared by Caltrans, dated November 2022, and summarized in the IS-MND, Caltrans calculated its construction related GHG emissions using the Construction Emissions Tool 2020 (CAL-CET 2020), version 1.0, developed by Caltrans. The Tool focuses on vehicle-emitted GHG, and carbon dioxide (CO_2) emissions is the single most important GHG pollutant because of its abundance when compared with other vehicle-emitted GHG, including methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbon and black carbon. During construction, the project is anticipated to emit less than 800 tons of CO_2, less than 0.023 ton of CH_4, and less than 0.051 ton of N_2O (note: “less than” is approximated because these estimates were originally calculated for the original proposal which has since been reduced in scope. (In comparison, in 2020 California’s CO_2 emissions were 369.2 million metric tons.)

GHG emissions are cumulative, and even these relatively small emissions would still contribute to the cumulative load of GHG emissions. Caltrans has identified some mitigation measures to reduce GHG emissions associated with construction activities, that are incorporated into the project description. These steps include measures designed to reduce the number and duration of idling vehicles, limit construction activities that would create traffic back-ups and increase idling vehicles, require proper maintenance and operation of all equipment, use solar-powered signal board if feasible, and recycle nonhazardous waste and excess material if practicable.

This project, as proposed, also includes some, albeit limited, shoulder widening and paving to improve bicycle safety and increase multi-modal transportation and public access, which may help reduce GHG emissions and VMTs along Highway 1. Special conditions here also require pedestrian and safety studies in the project corridor, which should result in some Complete Street improvements. Although minor in scale, these

may also help minorly reduce GHG emissions and VMTs. Therefore, because the Project does not increase VMTs or spur increased GHG emissions and includes some elements to help reduce VMTs and GHG emissions, despite some construction related impacts, the project is consistent with Section 30253(c) and (d).

D. California Environmental Quality Act (CEQA)

Section 13096 of Title 14 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. Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

Caltrans served as the lead agency for the project for CEQA purposes. Caltrans approved an Initial Study with Mitigated Negative Declaration for the Project in March 2023. 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.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. No public comments regarding potential significant adverse environmental effects of the project were received by the Commission prior to preparation of the staff report. As discussed above, the proposed project has been conditioned to be consistent with the policies of the Coastal Act. As specifically discussed in these above findings, mitigation measures that would minimize or avoid all significant adverse environmental impacts have been required.

As conditioned, there are no other feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impacts which the activity may have on the environment. Therefore, the Commission finds that the proposed Project, as conditioned to mitigate the identified impacts, is the least environmentally damaging feasible alternative, has no remaining significant environmental effects, either individual or cumulative, and complies with the applicable requirements of the Coastal Act to conform to CEQA.

5. APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

1. CDP Application No. 2-24-0241 and associated materials
2. Sonoma County certified Local Coastal Program
3. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future prepared by National Research Council (NRC), dated 2012. [National Academies Press, Washington, DC. 250 pp. http://www.nap.edu/catalog/13389/sea-level-rise-for-the-coasts-of-california-oregonand-washington.]
4. Rising Seas in California: An Update on Sea-Level Rise Science prepared by California Ocean Protection Council Science Advisory Team, dated April 2017.
5. Environmental Study for State Route 1 Center Line Rumble Strips prepared by Caltrans, dated September 2022.
6. Updated Scenic Resource Evaluation and Visual Impact Assessment prepared by Caltrans, dated September 2022.
7. Preliminary Drainage Study prepared by Caltrans, dated October 2022.
8. Water Quality Study prepared by Caltrans, dated October 2022.
9. Construction Greenhouse Gas Emissions Analysis prepared by Caltrans, dated November 2022.
10. Office of Cultural Resource Studies (OCRS) Section 106 Closeout Memo for the Sonoma 1 Install Centerline Rumble Strip Project Between Postmiles 0.00 and 58.58 on State Route 1, in Sonoma County prepared by Caltrans, dated November 2022.
11. Biological Opinion, Formal Consultation on the Sonoma 1 Centerline Rumble Strip Installation Project, Sonoma County, California (Caltrans EA 04-4G780) prepared by United States Fish and Wildlife Service (USFWS), dated January 2024.