Highway 1 Auxiliary Lanes and Bus-on-Shoulder Improvements Freedom Boulevard to State Park Drive and Coastal Rail Trail Segment 12 Project

Potential Environmental Effects

The proposed project is expected to result in temporary and permanent environmental effects. The Santa Cruz County Regional Transportation Commission (SCCRTC) is working with the California Department of Transportation (Caltrans) to prepare a draft environmental impact report/environmental assessment (EIR/EA) that will determine what resources would be affected, the level of significance of these impacts, and feasible avoidance, minimization and mitigation measures to lessen the impacts. Based on preliminary information, potential environmental effects of the proposed project are outlined below.

Environmental Topic	Potential Impact
Air Quality and Greenhouse Gas Emissions	Construction activities may result in temporary increases in fugitive dust and emissions from construction equipment and vehicles. An air quality study will be prepared and will quantify construction emissions and assess the potential for exposure to asbestos, lead, mobile source air toxic emissions, and cumulative impacts. The air quality study will also evaluate project-related regional changes in long-term mobile source emissions.
Biological Resources	Preliminary studies indicate that the project may result in potential impacts to federally listed animal species (steelhead belonging to the Central California Coast Distinct Population Segment (DPS), tidewater goby, California red-legged frog, least Bell's vireo, southwestern willow flycatcher, as well as Santa Cruz long-toed salamander, which is also listed under the California Endangered Species Act and is a State Fully Protected species) or their habitat, the State Fully Protected species white-tailed kite, California Rare Plant Rank species, California Species of Special Concern, and nesting birds. Impacts to wetlands and waters of the United States may also occur. A fish passage assessment will be completed to identify potential barriers to upstream and downstream migration of anadromous fish that may be present in the biological study area. Any project-related impacts to fish passage will be studied. A Natural Environment Study will be prepared (including an Aquatic Resources Delineation), and a Biological

Environmental Topic	Potential Impact
Biological Resources (cont.)	Assessment will be prepared as part of the Section 7 Endangered Species Act consultation process with the U.S. Fish and Wildlife Service and National Marine Fisheries Service. Coordination with the California Coastal Commission, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, and the Regional Water Quality Control Board is also anticipated.
Cultural Resources	Previous technical studies have indicated elevated sensitivity for prehistoric archaeological resources within the project area. Additionally, portions of a known multi-component archaeological resource site are unevaluated and require subsurface investigation to make an eligibility determination for listing in the National Register of Historic Places. There is also potential for historic architectural resources to occur within the project area. Research, fieldwork, and technical reporting will be undertaken to identify cultural resources in the project's Area of Potential Effects, in accordance with Caltrans guidelines and Programmatic Agreement pursuant to Section 106 of the National Historic Preservation Act. The draft EIR/EA will provide information on the potential to affect cultural resources and identify appropriate avoidance, minimization, and mitigation measures.
Geology and Soils	A preliminary geotechnical design report will be prepared and will consider potential geotechnical, geologic and seismic impacts. Appropriate avoidance, minimization, and mitigation measures will be identified. The project will be designed in accordance with the Caltrans Highway Manual. Sound walls, retaining walls, and bridges will be designed in accordance with the applicable Caltrans Seismic Design criteria.
Hazardous Waste and Materials	An Initial Site Assessment (ISA) prepared for the Tier I Project found that potentially hazardous materials may be present along SR 1 within the limits of the currently proposed project. This may include aerially deposited lead, asbestos-containing materials, lead-containing paint, treated wood waste, and yellow thermoplastic traffic stripe. The potential presence of these and other potentially hazardous materials will be evaluated in an ISA for the proposed project, which will identify appropriate avoidance, minimization, and mitigation measures to provide for proper handling, reuse, disposal, and treatment of hazardous materials.
Hydrology, Floodplain, and Sea Level Rise	The proposed project has the potential to result in floodplain encroachment by increasing base flood water surface elevations of Aptos Creek due to bridge improvements. A Floodplain Evaluation Report will be prepared that will identify feasible measures to avoid, minimize, and mitigate adverse

Environmental Topic	Potential Impact
Hydrology, Floodplain, and Sea Level Rise (cont.)	impacts related to flooding. Additionally, the project site is located within an area that is susceptible to sea level rise (SLR). The project will take into account State and federal guidance for incorporating SLR projections into planning and decision-making.
Hydromodification, Water Quality, and Stormwater Runoff	Construction activities and operations of the proposed project could result in short-term and long-term impacts to Aptos and Valencia Creeks, portions of which are within the project limits, and Valencia Lagoon, which is located near the proposed project. Impacts during construction may include erosion and sedimentation associated with the disturbance of soil, and discharge of pollutants associated with construction activities. A stormwater pollution prevention plan will be prepared and implemented to provide appropriate construction best management practices and other measures to address the potential for adverse impacts during construction. The project is anticipated to result in an increase of impervious surfaces, which has the potential for long-term water quality impacts during project operations. Permanent stormwater treatment facilities are anticipated to be included in the project in accordance with National Pollutant Discharge Elimination System permit requirements. The potential need for hydromodification management control measures will be evaluated and, if necessary, appropriate control measures will be incorporated in the project.
Land Use and Coastal Zone	Portions of the project area are located in the Coastal Zone, and the project may potentially affect resources protected by the federal Coastal Zone Management Act (CZMA), California Coastal Act, and the Santa Cruz County Local Coastal Plan. A Coastal Development Permit pursuant to the California Coastal Act is anticipated to be required. The draft EIR/EA will provide information on potential impacts and identify appropriate avoidance, minimization, and mitigation measures to reduce impacts on sensitive resources in the Coastal Zone, such as biological resources, water quality, parks and recreational resources.
Noise	Construction activities may result in short-term noise impacts during construction of the proposed project. Additionally, traffic on auxiliary lanes and bus-on-shoulder operations may potentially result in long-term noise impacts. The proposed Coastal Rail Trail has the potential to result in long-term noise impacts for nearby residences, such as sound generated by trail users, maintenance workers and dogs. A noise study will be conducted and will identify appropriate measures to minimize and mitigate noise impacts.

Environmental Topic	Potential Impact
Paleontological Resources	The Paleontological Evaluation Report (PER) and Addendum to the PER prepared for the Tier I and Tier II Project identified the potential for paleontological resources to occur in within the limits of the currently proposed project. A paleontological study will be prepared for the proposed project and will provide information on the potential to affect paleontological resources and identify appropriate avoidance, minimization, and mitigation measures.
Parks and Recreational Facilities	Construction activities for the proposed project has the potential for temporary traffic impacts such as lane closures along SR 1 (described below), which may adversely affect access to nearby public parks and recreational facilities such as the Forest of Nisene Monks State Park, Seacliff State Beach, Aptos Village County Park, Polo Grounds Park, Aptos Seascape Golf Course, Rio del Mar Park, and Rio del Mar Beach. No parkland is located within the project limits, and construction activities would not occur on park property.
Transportation and Traffic	Impacts during construction of the proposed project my include temporary lane and/or partial roadway closures along SR 1. Work associated with bridge modification or replacement has potential to result in temporary lane or partial roadway closures of Spreckels Drive and Seacliff Drive. A construction period traffic management plan will be developed and implemented to identify traffic handling practices and public awareness activities that will inform the public regarding closures and provide detours with consistent access for vehicles and bicycles. Operations of the proposed Coastal Rail Trail improvements could result in potential conflicts between trail users and automobile traffic at the trail crossings of roadways. Overall, it is anticipated that auxiliary lanes and bus-on-shoulder improvements would improve traffic congestion and enhance safety, and that the proposed Coastal Rail Trail improvements would enhance transportation safety for bicycle and pedestrian modes of travel.
Utilities and Emergency Services	The temporary relocation of utilities may be required during construction due to project activities such as pavement widening and the proposed replacement or modification of the two vehicle bridges over Aptos Creek and Spreckels Drive, the two railroad bridges over Highway 1, the railroad bridge over Aptos Creek, and the railroad bridge over Valencia Creek. Additionally, any lane closures could affect emergency providers. The draft EIR/EA will identify feasible measures to avoid and minimize impacts on service providers and users.

Environmental Topic	Potential Impact
Visual and Aesthetic Resources	The proposed project may result in short-term temporary impacts to visual and aesthetic resources during construction. Long-term impacts may include the degrading of visual quality due to removal of trees, addition of new retaining walls and sound walls, widening or replacement of bridges, and the introduction of Coastal Rail Trail facilities, including the proposed safety fence between the trail and the railroad tracks. Depending on further studies, lighting fixtures may be recommended in some locations along the proposed Coastal Rail Trail segment and could introduce new sources of lighting. A Visual Impact Assessment will be prepared that will identify feasible measures to avoid, minimize, and mitigate adverse impacts.