State Route 1 Auxiliary Lanes and Bus-on-Shoulder Improvements—Freedom Blvd. to State Park Dr.—and Coastal Rail Trail Segment 12 Project

SANTA CRUZ COUNTY, CALIFORNIA

DISTRICT 5 – SCR – (8.1/10.7)

EA 05-0C734

Draft Environmental Impact Report/
Environmental Assessment

Prepared by the
State of California, Department of Transportation

The environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.

April 2023
General Information about This Document

What's in this document:
The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Environmental Impact Report/Environmental Assessment, which examines the potential environmental impacts of the alternatives being considered for the proposed project in Santa Cruz County, California. Caltrans is the lead agency under the National Environmental Policy Act (NEPA). Caltrans is the lead agency under the California Environmental Quality Act (CEQA). The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:
• Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans Midway Office at 2885 South Higuera Street in San Luis Obispo and at the County of Santa Cruz Public Works office (fourth floor) at 701 Ocean Street in Santa Cruz. This document may be downloaded at the Caltrans website: https://dot.ca.gov/caltrans-near-me/district5 and the Santa Cruz County Regional Transportation Commission website: https://sccrtc.org/projects/streets-highways/.
• Attend the public hearings on May 2 and May 4, 2023, 6:00 p.m. to 7:30 p.m.
• We’d like to hear what you think. If you have any comments regarding the proposed project, please attend the public hearing, and/or send your written comments to Caltrans by the deadline.
• Submit comments via U.S. mail to: Lara Bertaina, Senior Environmental Scientist, California Department of Transportation, District 5, 50 Higuera Street, San Luis Obispo, California, 93401.
• Submit comments via email to: Lara.Bertaina@dot.ca.gov.
• Submit comments by the deadline: June 2, 2023.

What happens next:
After comments are received from the public and reviewing agencies, Caltrans, as assigned by the Federal Highway Administration, may (1) give environmental approval to the proposed project; (2) do additional environmental studies; or (3) abandon the project. If the project is given environmental approval and funding is obtained, the project proponent could design and construct all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

Accessibility Assistance
Caltrans makes every attempt to ensure our documents are accessible. Due to variances between assistive technologies, there may be portions of this document that are not accessible. Where documents cannot be made accessible, we are committed to providing alternative access to the content. Should you need additional assistance, please contact us at the phone number in the box below.
For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Lara Bertaina, Central Region Environmental, 50 Higuera Street, San Luis Obispo, California 93401; 805-779-0792 (Voice) or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.
Widen State Route 1 from post miles 8.1 to 10.7 in Santa Cruz County and Construct Coastal Rail Trail Segment 12

DRAFT ENVIRONMENTAL IMPACT REPORT
/ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation
and
Santa Cruz County Regional Transportation Commission
Responsible Agencies: California Transportation Commission, County of Santa Cruz

Scott Eades
District 5 Director
California Department of Transportation
NEPA and CEQA Lead Agency

04-18-2023
Date

The following may be contacted for more information about this document:
Lara Bertaina, California Department of Transportation, District 5, 50 Higuera Street, San Luis Obispo, California, 93401; 805-779-0792
Summary

S.1 NEPA Assignment
California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with The Federal Highway Administration. The NEPA Assignment MOU became effective October 1, 2012, and was renewed on May 27, 2022, for a term of ten years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, The Federal Highway Administration assigned and the Department assumed all of the United States Department of Transportation Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that The Federal Highway Administration assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

S.2 Introduction and Overview
The California Department of Transportation (Caltrans), in cooperation with the Santa Cruz County Regional Transportation Commission and the County of Santa Cruz, proposes to widen State Route 1 to include auxiliary lanes, accommodate Bus-on-Shoulder operations between the Freedom Boulevard and State Park Drive interchanges, and construct Coastal Rail Trail Segment 12.

One build alternative and the no-build alternative are proposed for further consideration. The project is located in Santa Cruz County on State Route 1 from post mile 8.1, south of Freedom Boulevard, to post mile 10.7, north of State Park Drive, with 1.14 miles of trail along the Santa Cruz County Regional Transportation Commission-owned Santa Cruz Branch Rail Line between State Park Drive and Rio Del Mar Boulevard. The total length of the project on State Route 1 is 2.6 miles, and on the Santa Cruz Branch Rail Line is 1.14 miles. Within the limits of the proposed project, State Route 1 is a controlled access freeway with two 12-foot lanes; shoulder width varies within project limits. The average width of the inside shoulders is approximately 5 feet, and the average width of the outside shoulders is approximately 10 feet. Within the project area, the existing railroad right-of-way is generally in the
range of 40 to 55 feet wide, with the existing railroad tracks generally in the center of the right-of-way. The existing railroad has at-grade crossings at State Park Drive, Aptos Creek Road, and Trout Gulch Road, with bridges over State Route 1 at two locations, Soquel Drive/Aptos Creek and Valencia Creek, and crosses under Rio Del Mar Boulevard. The Santa Cruz Branch Rail Line is currently an active freight railroad.

S.3 Purpose and Need
The purpose of the project is to do the following.

- Reduce delay and improve system reliability and safety along State Route 1.
- Improve traffic operational movements, local circulation, and transit operations.
- Enhance bicycle and pedestrian connectivity and safety, including access across State Route 1 within the project limits.
- Promote the use of alternative transportation modes to increase transportation system capacity and reliability, improve health and reduce mortality, as well as to reduce vehicle miles of travel and vehicular emissions.

This project is needed for the following reasons.

- Several bottlenecks along State Route 1 in the southbound and northbound directions cause delays during peak hours, significantly delaying drivers.
- Cut-through traffic, or traffic on local streets, is increasing because drivers are seeking to avoid delays on State Route 1.
- There are limited opportunities for pedestrians and bicyclists to safely cross State Route 1 and navigate the project corridor, even though portions of the project area are designated as regional bicycle routes.
- There are insufficient incentives to increase transit service in the State Route 1 corridor because delay threatens reliability and cost-effective transit service delivery.

S.4 Proposed Action
The project under consideration in this EIR/EA is a widening of State Route 1 between post mile 8.1 to post mile 10.7 in the County of Santa Cruz to include auxiliary lanes and to accommodate Bus-on-Shoulder operations between the Freedom Boulevard/State Park Drive interchanges, and to construct Segment 12 of the Coastal Rail Trail.

This EIR/EA analyzes a No-Build (No Action) Alternative and a Build Alternative. The proposed Build Alternative would involve the construction of
12-foot auxiliary lanes between the Freedom Boulevard/State Park Drive interchanges. Moosehead Drive to the south of State Route 1, south of Aptos Creek would be realigned where it runs parallel to State Route 1 and a new retaining wall would be placed along the outside freeway shoulder to support the realignment. The Build Alternative would include replacement of two Santa Cruz Branch Line railroad bridges over State Route 1 and widening of the State Route 1 bridge (on the south side only) over Aptos Creek and Spreckels Drive.

Bus-on-shoulder features are proposed, which would allow future bus operations on the outside shoulders of State Route 1 through the interchanges during peak congestion periods. At the Freedom Boulevard, Rio Del Mar Boulevard, and State Park Drive interchanges, the project would widen and improve State Route 1 shoulders, which currently lack the width and pavement structural section to support bus operations.

The limits of Coastal Rail Trail Segment 12 extend from the southern terminus of the trail segment at Sumner Avenue, just of the south of the Rio Del Mar Boulevard underpass, to the northern terminus at State Park Drive. The proposed Coastal Rail Trail Segment 12 ultimate trail configuration includes the construction of a paved bicycle and pedestrian shared use trail within the Santa Cruz Branch Rail Line right-of-way on the inland side of the tracks. An optional first phase is being considered for Segment 12 of the Coastal Rail Trail, where all or a portion of the trail could be located along the alignment of the existing railroad tracks.

Under the ultimate trail configuration, new trail bridge crossings of State Route 1 at two locations and adjacent to the existing railroad bridges at Soquel Drive/Aptos Creek, and Valencia Creek would be constructed. New at-grade trail crossings would be constructed at Aptos Creek Drive, Parade Street, and Trout Gulch Road. An at-grade trail connection from the new trail to the Aptos Village County Park between Aptos Creek and Aptos Creek Road would be constructed. Under the optional first phase being considered, the two existing railroad bridges over State Route 1 would be removed and two new trail overcrossings over State Route 1 would be constructed in their place. The existing railroad bridges at Aptos Creek and Valencia Creek/Soquel Drive (south) would be repurposed for the new trail by removing the railroad decking and replacing with a new trail deck and railing system. The existing single span railroad bridge superstructure over Soquel Drive (north) would be removed and replaced with a new trail deck and railing system.

If all or a portion of the optional first phase of the trail is implemented, the trail along the existing railroad track alignment would need to be removed, a trail would be constructed adjacent to the tracks as described by the proposed ultimate trail project, and the railroad tracks re-installed in their approximate existing location. At-grade railroad crossings of Aptos Creek Drive, Parade Street, and Trout Gulch Road would need to be reconstructed.
Summary

The Build Alternative would require full or partial acquisitions for the construction of the State Route 1 and Coastal Rail Trail Segment 12 ultimate trail improvements, as well as temporary easements for construction activities such as the construction of sound walls and retaining walls along State Route 1 and the Santa Cruz Branch Rail Line. In addition, the fish passage at Valencia Creek will be implemented.

Under the No-Build (No-Action) Alternative, the existing lane configuration and width of State Route 1 would remain as it is. No widening of State Route 1 would occur, and auxiliary lanes, Bus-on-Shoulder improvements, and Coastal Rail Trail Segment 12 would not be built.

The project is a joint project by Caltrans and the Federal Highway Administration and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. Caltrans is the lead agency under NEPA. Caltrans is the lead agency under CEQA. Additionally, the Federal Highway Administration’s responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 U.S. Code Section 327 and the Memorandum of Understanding dated May 27, 2022, and executed by the Federal Highway Administration and Caltrans.
## Summary of Potential Impacts from Alternatives

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Build Alternative (State Route 1 and Bus-on-Shoulder)</th>
<th>Build Alternative (Optional First Phase)</th>
<th>Build Alternative (Ultimate Trail Configuration)</th>
<th>No-Build (No-Action) Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use—Consistency with the Santa Cruz County General Plan</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
</tr>
<tr>
<td>Coastal Zone</td>
<td>The project is consistent with policies from the County of Santa Cruz Local Coastal Program. Project design and avoidance and minimization measures would ensure protection against coastal hazards.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>Inconsistent with several policies in the County of Santa Cruz 1994 General Plan and Local Coastal Program</td>
</tr>
<tr>
<td>Parks and Recreational Facilities</td>
<td>No permanent impacts on Aptos Village County Park or any other public parks or recreational facilities would occur.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Growth</td>
<td>The project is not expected to result in growth-related effects that would result in significant impacts on resources of concern.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Community Character and Cohesion</td>
<td>Due to the limited number of parcels affected by permanent acquisitions, and the dispersal of the temporary impacts along the State Route 1 corridor, the overall adverse effect on neighborhood cohesion would be limited.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>Worsened delay could result in access impacts.</td>
</tr>
<tr>
<td>Relocations and Real Property Acquisition</td>
<td>25 temporary construction easements, six permanent partial acquisitions, four underground easements are needed.</td>
<td>No property acquisitions.</td>
<td>15 temporary construction easements, 13 permanent partial acquisitions, two aerial easements.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Potential Impact</td>
<td>Build Alternative (State Route 1 and Bus-on-Shoulder)</td>
<td>Build Alternative (Optional First Phase)</td>
<td>Build Alternative (Ultimate Trail Configuration)</td>
<td>No-Build (No-Action) Alternative</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Environmental Justice</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
</tr>
<tr>
<td>Utilities and Emergency Services</td>
<td>Temporary impacts to utilities and short-term road closures during construction. No impacts on solid waste.</td>
<td>Similar to Build Alternative.</td>
<td>Temporary impacts to utilities and no impacts on solid waste.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Traffic and Transportation/ Pedestrian and Bicycle Facilities</td>
<td>Temporary impacts related to access, circulation, parking, public transportation, and bicycle and pedestrian facilities during construction. Compared to the No-Build Alternative, delay and bottlenecks would be reduced on State Route 1, traffic speeds and fuel efficiency would increase, and traffic would be diverted from local streets.</td>
<td>Similar to Build Alternative.</td>
<td>Similar to Build Alternative.</td>
<td>Existing circulation and access deficiencies would remain and worsen.</td>
</tr>
<tr>
<td>Visual/Aesthetics</td>
<td>Visual impacts from loss of vegetation required for widening and construction of sound walls and retaining walls. Blocking of views by sound walls and retaining walls. AMMs VA-1 through VA-18 are required.</td>
<td>Visual impacts from loss of vegetation required. AMMs VA-1 through VA-18 are required.</td>
<td>Visual impacts from loss of vegetation required. AMMs VA-1 through VA-18 are required.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>Project activities would not affect the Bay View Hotel but would affect the Southern Pacific Railroad and could affect archaeological resources CA-SCR-2/H and CA-SCR-222/H during construction. AMMs CUL-1 through CUL-3 and CUL-4 are required.</td>
<td>Impacts on secondary character-defining features (removal of rails and ties) but not primary character-defining feature (i.e., railroad alignment). Similar to Build Alternative for archaeological resources. AMMs CUL-1 through CUL-4 are required.</td>
<td>This alternative would not destroy or significantly impact any character-defining features of the property. Similar to Build Alternative for archaeological resources. AMMs CUL-1 through CUL-4 are required.</td>
<td>No Impact</td>
</tr>
</tbody>
</table>
## Summary

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Build Alternative (State Route 1 and Bus-on-Shoulder)</th>
<th>Build Alternative (Optional First Phase)</th>
<th>Build Alternative (Ultimate Trail Configuration)</th>
<th>No-Build (No-Action) Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hydrology and Floodplain</strong></td>
<td>No change in the 100-year water surface elevation; no substantial impacts on floodplain; no significant longitudinal encroachment; and no sea level rise impacts.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td><strong>Water Quality and Storm Water Runoff</strong></td>
<td>Potential impacts from construction include stormwater runoff, erosion, water quality degradation, and short-term discharges. An increase in impervious surfaces would result in a loss in volume or amount of water that may have previously recharged localized aquifers and thereby reduce regional groundwater volumes.</td>
<td>Similar to Build Alternative.</td>
<td>Similar to Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td><strong>Geology, Soils, Seismicity and Topography</strong></td>
<td>Potential impacts for severe ground shaking from earthquakes. Low risk for landslides, liquefaction, and tsunami. Compliance with the erosion-related requirements would ensure that construction activities do not result in significant erosion. Low risk for expansive soil impacts.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td><strong>Paleontology</strong></td>
<td>Potential for direct impacts during excavation for State Route 1 and the Coastal Trail, construction of soundwalls, retaining walls, and relocating utilities. Mitigation Measure-PALEO-1 would be required</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative. Mitigation Measure-PALEO-1 would be required</td>
<td>No Impact</td>
</tr>
<tr>
<td><strong>Hazardous Waste and Materials</strong></td>
<td>Potential for human exposure to existing contaminated soil or groundwater. Moderate risk for previously unknown hazardous materials. Potential for hazardous conditions from the accidental release of hazardous materials during construction activities. AMMs HAZ-1 and HAZ-2 are required.</td>
<td>Same as Build Alternative. AMMs HAZ-1 and HAZ-2 are required.</td>
<td>Same as Build Alternative. AMMs HAZ-1 and HAZ-2 are required.</td>
<td>No Impact</td>
</tr>
</tbody>
</table>
### Summary

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Build Alternative (State Route 1 and Bus-on-Shoulder)</th>
<th>Build Alternative (Optional First Phase)</th>
<th>Build Alternative (Ultimate Trail Configuration)</th>
<th>No-Build (No-Action) Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality</td>
<td>The project would generate minimal air quality impacts for Federal Clean Air Act criteria pollutants and have not been linked with any special Mobile Source Air Toxics concerns. Construction activities are expected to result in short term degradation of air quality and increases in emissions from traffic during delays.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Noise and Vibration</td>
<td>Temporary increase in noise levels due to the operation of construction equipment and construction activities. Potential long-term noise impacts due to traffic noise. Polling of the benefitted receptors would be required.</td>
<td>No construction or operational impacts.</td>
<td>No construction or operational impacts.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Energy</td>
<td>Temporary energy consumption during construction for the use of construction equipment and on-road vehicles. With substantial improvements in engine fuel efficiency anticipated, fuel consumption per vehicle mile will decrease in the future. AMMs EN-1 through EN-3 are required.</td>
<td>Similar to Build Alternative. AMMs EN-1 through EN-3 are required.</td>
<td>Similar to Build Alternative. AMMs EN-1 through EN-3 are required.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Natural Communities</td>
<td>Permanent impacts associated with the project would result from project activities and tree removal. Temporary impacts would occur throughout the work area and would result from equipment operation, access, staging, worker foot traffic, and utility relocation. Both temporary and permanent impacts to annual grassland, eucalyptus woodland, riparian woodland, mixed coast live oak woodland, mixed coniferous woodland, eucalyptus woodland, ruderal/disturbed habitat areas, and developed/landscaped areas. AMMs BIO-1 through BIO-24 are required.</td>
<td>Similar to Build Alternative. AMMs BIO-1 through BIO-24 are required.</td>
<td>Similar to Build Alternative. AMMs BIO-1 through BIO-24 are required.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Potential Impact</td>
<td>Build Alternative (State Route 1 and Bus-on-Shoulder)</td>
<td>Build Alternative (Optional First Phase)</td>
<td>Build Alternative (Ultimate Trail Configuration)</td>
<td>No-Build (No-Action) Alternative</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Wetlands and Other Waters</td>
<td>The project would result in about 0 acre of permanent impacts and 0.226 acre of temporary impacts to waters of the State. The project would also result in 0.061 acre of permanent impacts and 0.697 acre of temporary impacts to Coastal Zone riparian non-wetlands and stream.</td>
<td>Similar to Build Alternative.</td>
<td>Similar to Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Plant Species</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
</tr>
<tr>
<td>Animal Species</td>
<td>Potential impacts from grading or other earthwork could affect California giant salamanders and Santa Cruz black salamanders. Construction activities involving in-water work and dewatering could impact western pond turtles. Construction could impact Townsend’s big-eared bats, hoary bats, other roosting bats, and San Francisco dusky-footed woodrat. AMMs BIO-25 through BIO-42 are required</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Threatened and Endangered Species</td>
<td>Potential impacts on monarch butterfly, California red-legged frogs, Central California coast steelhead, tidewater goby, and southwestern willow flycatcher during construction. AMMs BIO-17, BIO-43 and BIO-44, and BIO-45 through BIO-88 are required.</td>
<td>Same as Build Alternative. AMMs BIO-17, BIO-43 and BIO-44, and BIO-45 through BIO-88 are required.</td>
<td>Same as Build Alternative. AMMs BIO-17, BIO-43 and BIO-44, and BIO-45 through BIO-88 are required.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Invasive Species</td>
<td>During construction, areas where temporary disturbance occurs would be more susceptible to the introduction and colonization or spread of invasive plants. AMMs BIO-87 through BIO-91 are required.</td>
<td>Same as Build Alternative. AMMs BIO-87 through BIO-91 are required.</td>
<td>Same as Build Alternative. AMMs BIO-87 through BIO-91 are required.</td>
<td>No Impact</td>
</tr>
<tr>
<td>Cumulative Impacts</td>
<td>The incremental contribution of the project to the cumulative visual impact may be considerable.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>Existing traffic network deficiencies remain and worsen.</td>
</tr>
<tr>
<td>Wildfire</td>
<td>The project is in an urban area and is not expected to exacerbate the impacts of wildfires intensified by climate change.</td>
<td>Same as Build Alternative.</td>
<td>Same as Build Alternative.</td>
<td>No Impact</td>
</tr>
</tbody>
</table>
### Summary

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Build Alternative (State Route 1 and Bus-on-Shoulder)</th>
<th>Build Alternative (Optional First Phase)</th>
<th>Build Alternative (Ultimate Trail Configuration)</th>
<th>No-Build (No-Action) Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Change</td>
<td>Long-term operation of the Build Alternative would decrease greenhouse gas emissions slightly compared to the No-Build Alternative.</td>
<td>No Impact</td>
<td>No Impact</td>
<td>No Impact</td>
</tr>
</tbody>
</table>

Note: Avoidance, minimization, and mitigation measures are summarized in Appendix C.
S.5 Coordination with Other Public Agencies
Caltrans has had several conference calls with the California Department of Fish and Wildlife regarding a fish passage barrier at Valencia Creek. Because this is a known fish passage barrier, it was determined that this project falls within the requirements of Senate Bill 857 and Streets and Highways Code section 156.3 and section 156.4, and that remediation of the fish passage barrier is required. Caltrans and the California Department of Fish and Wildlife also conducted a field visit on November 17, 2022 to see the fish passage barrier and discuss remediation options. The California Department of Fish and Wildlife responded in a memo with comments and recommendations on January 12, 2023.

S.6 Notice of Preparation
A Notice of Preparation was published on September 17, 2020. It was filed with the State Clearinghouse and sent to the appropriate elected officials, agencies, and interested parties. A copy of the Notice of Preparation is included in Appendix D.

An online scoping open house was open from September 17, 2020 through October 18, 2020. The purpose of the online open house was to present to the public factors to be considered in the draft environmental document and to receive comments. The online scoping open house was announced in the Notice of Preparation. Sixty-two comment letters were received, and comments included:

- Requests for descriptions of project elements and measurements of impact areas.
- Comments on the purpose and need of the project.
- Recommendations for alternatives, including a trail-only project, bus-only lanes instead of auxiliary lanes, increased bus service, construction of a trail without rail service, and consider the project elements separately rather than combining them.
- Comments on special status species, including recommendations to include mitigation measures and avoid all “take” of the Santa Cruz long-toed salamander.
- Comments to avoid impacts to wetlands and waters, and to consider bridge designs that avoid placing piles in Aptos Creek.
- Comments regarding sea level rise and climate change.
- Comments to evaluate opportunities to maximize coastal access.
- Comments regarding traffic, including safety concerns, vehicle miles traveled, Bus-on-Shoulder protocols, and loss of parking.
Summary

- Concerns related to increased impervious surface and a resulting reduction in aquifer recharge and loss of mature trees.
- Requests to inform property owners of the potential of the acquisitions of private property.
- General support and opposition to the project.

Since the Notice of Preparation was released, the trail component of the project was refined to present the optional first phase and the ultimate trail configuration. In addition, the current design widens the existing Aptos Creek Bridge on the coastal (southbound) side of State Route 1, which requires the realignment of Moosehead Drive.

S.7 Necessary Permits and Approvals

In addition to the completion of CEQA and NEPA documentation and project approvals by the lead and responsible agencies, the following permits, licenses, agreements, and certifications are required for project construction:

<table>
<thead>
<tr>
<th>Agency</th>
<th>Permits, Licenses, Agreements, and Certifications</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Fish and Wildlife Service</td>
<td>Coordination regarding threatened and endangered species Section 7 formal consultation and Biological Opinion for Central California coast Steelhead and Tidewater Goby</td>
<td>To be obtained before approval of the final environmental document.</td>
</tr>
<tr>
<td>National Marine Fisheries Service</td>
<td>Coordination regarding threatened and endangered species Section 7 formal consultation and Biological Opinion for Central California coast Steelhead and Tidewater Goby</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers</td>
<td>Section 404 Permit</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>California Department of Fish and Wildlife</td>
<td>Section 1602 Department of Fish and Game Code Streambed Alteration Agreement</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>California Coastal Commission</td>
<td>Coastal Development Permit</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>State Historic Preservation Officer</td>
<td>National Historic Preservation Act Section 106 Concurrence</td>
<td>To be obtained before approval of the final environmental document.</td>
</tr>
<tr>
<td>State Water Resources Control Board</td>
<td>Construction General National Pollutant Discharge Elimination System Permit requirements through Caltrans National Pollutant Discharge Elimination System Permit</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>Air Quality Management District</td>
<td>Formal notification prior to construction</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>Agency</td>
<td>Permits, Licenses, Agreements, and Certifications</td>
<td>Status</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>Regional Water Quality Control Board</td>
<td>Section 401 Water Quality Certification and coverage under the existing Caltrans National Pollutant Discharge Elimination System Permit (Order Number 99-06-DWQ) National Pollutant Discharge Elimination System Municipal Separate Storm Sewer Systems General Permit</td>
<td>To be obtained before construction starts.</td>
</tr>
<tr>
<td>Santa Cruz County Planning Department</td>
<td>Coastal Development Permit for development within the Coastal Zone within the Santa Cruz County Local Coastal Program area. Determination and Agreement of any need to revise the Floodplain Map.</td>
<td>To be obtained before construction starts.</td>
</tr>
</tbody>
</table>
Table of Contents

Summary .................................................................................................... S-1
S.1 NEPA Assignment .................................................................................. S-1
S.2 Introduction and Overview .................................................................. S-1
S.3 Purpose and Need ................................................................................. S-2
S.4 Proposed Action ................................................................................... S-2
S.5 Coordination with Other Public Agencies ........................................... S-11
S.6 Notice of Preparation .......................................................................... S-11
S.7 Necessary Permits and Approvals ......................................................... S-12

Chapter 1 Proposed Project .................................................................. 1
1.1 Introduction ........................................................................................ 1
1.2 Purpose and Need ............................................................................. 1
  1.2.1 Purpose ................................................................................... 1
  1.2.2 Need ........................................................................................ 2
  1.2.3 Independent Utility and Logical Termini ................................... 5
1.3 Project Description ............................................................................ 6
  1.3.1 Build Alternative ....................................................................... 6
1.4 Project Alternatives .......................................................................... 22
  1.4.1 No-Build (No-Action) Alternative .......................................... 22
1.5 Comparison of Alternatives .............................................................. 22
1.6 Alternatives Considered but Eliminated from Further Discussion .......... 23
  1.6.1 Rail Trail Coastal Alignment Alternative ................................... 23
  1.6.2 Rail Trail Hybrid Alignment Alternative ................................... 24
  1.6.3 Bus-on-Shoulder Only Alternative .......................................... 25
  1.6.4 Outside Widening for Auxiliary Lanes .................................... 26
  1.6.5 Aptos Creek Bridge Replacement .......................................... 26
1.7 Permits and Approvals Needed ....................................................... 26

Chapter 2 Affected Environment; Environmental Consequences; and Avoidance, Minimization, and/or Mitigation Measures ............................................. 35
2.1 Human Environment ......................................................................... 38
  2.1.1 Coastal Zone .......................................................................... 38
  2.1.2 Parks and Recreational Facilities .......................................... 60
  2.1.3 Growth ................................................................................... 64
  2.1.4 Community Character and Cohesion ..................................... 71
  2.1.5 Relocations and Real Property Acquisition ......................... 80
  2.1.6 Utilities/Emergency Services .............................................. 84
  2.1.7 Traffic and Transportation/Pedestrian and Bicycle Facilities ................................................................................. 89
  2.1.8 Visual/Aesthetics ............................................................... 121
  2.1.9 Cultural Resources ............................................................... 163
Table of Contents

2.2  Physical Environment ................................................................. 178
  2.2.1  Hydrology and Floodplain .................................................... 178
  2.2.2  Water Quality and Stormwater Runoff .................................... 185
  2.2.3  Geology, Soils, Seismicity and Topography ............................ 203
  2.2.4  Paleontology ...................................................................... 215
  2.2.5  Hazardous Waste/Materials .................................................. 223
  2.2.6  Air Quality ......................................................................... 233
  2.2.7  Noise .................................................................................. 248
  2.2.8  Energy ............................................................................... 274

2.3  Biological Environment .............................................................. 282
  2.3.1  Natural Communities ............................................................ 282
  2.3.2  Wetlands and Other Waters .................................................. 300
  2.3.3  Plant Species ....................................................................... 309
  2.3.4  Animal Species ................................................................... 321
  2.3.5  Threatened and Endangered Species .................................... 333
  2.3.6  Invasive Species .................................................................. 354

2.4  Cumulative Impacts .................................................................. 363
  2.4.1  Regulatory Setting ................................................................. 363

Chapter 3  California Environmental Quality Act Evaluation .............. 387
  3.1  Determining Significance Under CEQA ...................................... 387
  3.2  CEQA Environmental Checklist ............................................... 388
      3.2.1  Aesthetics ....................................................................... 388
      3.2.2  Agriculture and Forest Resources ...................................... 390
      3.2.3  Air Quality ..................................................................... 391
      3.2.4  Biological Resources ....................................................... 392
      3.2.5  Cultural Resources .......................................................... 396
      3.2.6  Energy ............................................................................ 398
      3.2.7  Geology and Soils .............................................................. 398
      3.2.8  Greenhouse Gas Emissions .............................................. 400
      3.2.9  Hazards and Hazardous Materials .................................... 401
      3.2.10  Hydrology and Water Quality ......................................... 403
      3.2.11  Land Use and Planning .................................................... 406
      3.2.12  Mineral Resources .......................................................... 407
      3.2.13  Noise ............................................................................. 407
      3.2.14  Population and Housing .................................................. 408
      3.2.15  Public Services ................................................................. 409
      3.2.16  Recreation ..................................................................... 411
      3.2.17  Transportation ................................................................. 412
      3.2.18  Tribal Cultural Resources ............................................... 413
      3.2.19  Utilities and Service Systems .......................................... 414
      3.2.20  Wildfire ......................................................................... 416
      3.2.21  Mandatory Findings of Significance .................................. 416
  3.3  Climate Change ........................................................................ 417
      3.3.1  Regulatory Setting ............................................................... 418
      3.3.2  Environmental Setting ........................................................ 421
      3.3.3  Project Analysis ................................................................. 426
Table of Contents

3.3.4 Greenhouse Gas Reduction Strategies ........................................ 428
3.3.5 Adaptation ............................................................................. 431
3.4 References ................................................................................. 437

Chapter 4 Comments and Coordination ........................................ 441
4.1 Scoping Process for the EIR/EA ..................................................... 441
  4.1.1 Public Outreach ................................................................ 441
  4.1.2 Notice of Preparation and Public Scoping Meetings .......... 441
  4.1.3 Consultation and Coordination with Public Agencies .... 444

Chapter 5 List of Preparers .............................................................. 449
  5.1 Caltrans ............................................................................... 449
  5.2 Santa Cruz County Regional Transportation Commission .... 451
  5.3 Mark Thomas ....................................................................... 452
  5.4 ICF ....................................................................................... 452
  5.5 LSA Associates, Inc. ............................................................... 453
  5.6 Paleo Solutions, Inc. ............................................................... 454
  5.7 Parikh Consultants, Inc. .......................................................... 454
  5.8 SWCA Consultants ................................................................. 455
  5.9 Terry A. Hayes Associates, Inc. ............................................. 455
  5.10 WRECO .............................................................................. 455
  5.11 Far Western ........................................................................ 456
  5.12 Monument ........................................................................... 456
  5.13 Brunzell Historical LLC ....................................................... 456
  5.14 CDM Smith ........................................................................ 456

Chapter 6 Distribution List .............................................................. 457

Appendices

Appendix A: Title VI Policy Statement
Appendix B: Relocation Benefits
Appendix C: Avoidance, Minimization, and/or Mitigation Summary
Appendix D: Notice of Preparation
Appendix E: Section 4(f) Concurrence Letter
Appendix F: Right-of-Way Exhibits
Appendix G: Geometric Approval Drawings
Appendix H: List of Technical Studies
| Figure 1-1 | Project Vicinity .............................................................. 28 |
| Figure 1-2 | Project Location ................................................................... 29 |
| Figure 1-3a | Project Components, Sheet 1 of 3 ....................................... 30 |
| Figure 1-3b | Project Components, Sheet 2 of 3 ....................................... 31 |
| Figure 1-3c | Project Components, Sheet 3 of 3 ....................................... 32 |
| Figure 1-4 | Ultimate Trail Configuration .............................................. 33 |
| Figure 1-5 | Optional First Phase ......................................................... 34 |
| Figure 2-1  | Coastal Zone Boundary ....................................................... 59 |
| Figure 2-2  | Parks and Recreational Facilities ........................................ 63 |
| Figure 2-3  | Roadway Network ................................................................ 118 |
| Figure 2-4  | Transit Network .................................................................. 119 |
| Figure 2-5  | Bicycle and Pedestrian Facilities ......................................... 120 |
| Figure 2-6  | Aerial View of Landscape Units from Tier I Visual Impact Assessment (July 2013) ......................................... 122 |
| Figure 2-7  | State Route 1 Visual Assessment Unit and Associated View Locations ....................................................... 124 |
| Figure 2-8  | State Route 1 Visual Assessment Unit Typical Views ................ 125 |
| Figure 2-9  | Rail Trail Visual Assessment Unit and Associated View Locations ....................................................... 127 |
| Figure 2-10 | Rail Trail Visual Assessment Unit Typical Views.................... 128 |
| Figure 2-11 | Visual Impact Assessment Process Concept Diagram ................ 142 |
| Figure 2-12 | Key View 1, Existing View and Simulated Conditions—from State Route 1 looking North toward the Rail Trail Visual Assessment Unit ............................................. 147 |
| Figure 2-13 | Key View 2, Existing View and Simulated Conditions—from the Existing South Aptos Rail Bridge looking West toward the State Route 1 Visual Assessment Unit ..................................................... 150 |
| Figure 2-14 | Key View 3, Existing View and Simulated Conditions—from Freedom Boulevard overcrossing looking west (northbound) .............................................................. 154 |
| Figure 2-15 | Key View 4, Existing View and Simulated Conditions—from the Intersection of Trout Gulch Road and Soquel Drive Looking West ........................................ 156 |
| Figure 2-16 | Federal Emergency Management Area Floodplain Map, Project Vicinity ..................................................... 183 |
| Figure 2-17 | Federal Emergency Management Area Floodplain Map, Aptos Creek .............................................................. 184 |
| Figure 2-18 | Geological Map of Western Project Area .................................. 220 |
| Figure 2-19 | Geological Map of Central Project Area .................................. 221 |
| Figure 2-20 | Geological Map of Eastern Project Area .................................. 222 |
| Figure 2-21 | Noise Levels of Common Activities ........................................ 250 |
Table of Contents

Figure 2-22a  Noise Barrier and Receptor Locations, Sheet 1 of 5.........269
Figure 2-22b  Noise Barrier and Receptor Locations, Sheet 2 of 5.........270
Figure 2-22c  Noise Barrier and Receptor Locations, Sheet 3 or 5........271
Figure 2-22d  Noise Barrier and Receptor Locations, Sheet 4 of 5........272
Figure 2-22e  Noise Barrier and Receptor Locations, Sheet 5 of 5........273
Figure 2-23a  Land Cover in the Biological Study Area........................294
Figure 2-23b  Land Cover in the Biological Study Area........................295
Figure 2-23c  Land Cover in the Biological Study Area........................296
Figure 2-23d  Land Cover in the Biological Study Area........................297
Figure 2-23e  Land Cover in the Biological Study Area........................298
Figure 2-23f  Land Cover in the Biological Study Area........................299
Figure 2-24a  Jurisdictional Waters..................................................306
Figure 2-24b  Jurisdictional Waters..................................................307
Figure 2-24c  Jurisdictional Waters..................................................308
Figure 3-1   U.S. 2020 Greenhouse Gas Emissions (Source:
               U.S. Environmental Protection Agency 2022b)..................423
Figure 3-2   California 2020 Greenhouse Gas Emissions by
               Scoping Plan Category (Source: California Air
               Resources Board 2022a)...........................................424
Figure 3-3   Change in California Gross Domestic Product,
               Population, and Greenhouse Gas Emissions Since
               2000 (Source: California Air Resources Board
               2022a)........................................................................424

List of Tables

Table 1-1  State Route 1 Property Acquisitions .................................18
Table 1-2  Coastal Rail Trail Segment 12 Ultimate Trail
           Configuration Property Acquisitions..................................19
Table 1-3  Permits and Approvals....................................................27
Table 2-1  Local Coastal Program Consistency Analysis,
           County of Santa Cruz 1994 General Plan and Local
           Coastal Program..................................................................39
Table 2-2  Parks and Recreational Facilities Within 0.5 Mile of
           Project Area........................................................................60
Table 2-3  Study Area Race and Ethnicity Demographics...................72
Table 2-4  Study Area Income Data...................................................73
Table 2-5  Study Area Housing Data..................................................74
Table 2-6  2025–2045 Population, Housing Unit, and
           Employment Growth..........................................................75
Table 2-7  Tenant Occupants of 7992, 7994, and 7996 Soquel
           Drive..................................................................................81
Table 2-8  Displacements Associated with 7992, 7994 and
           7996 Soquel Drive..................................................................82
Table 2-9  Estimated Weekday Volumes (in vehicles) by State Route 1 Northbound Mainline Segments and Ramps within the Project Limits ........................................... 97
Table 2-10 Estimated Weekday Volumes (in vehicles) by State Route 1 Southbound Mainline Segments and Ramps within the Project Limits ........................................... 97
Table 2-11 Summary of Northbound AM Existing (2019) Traffic Operational Performance within Corridor Limits ........................................... 97
Table 2-12 Summary of Northbound PM Existing Traffic Operational Performance within Corridor Limits ........................................... 98
Table 2-13 Summary of Southbound AM Existing Traffic Operational Performance within Corridor Limits ........................................... 98
Table 2-14 Summary of Southbound PM Existing Traffic Operational Performance within Corridor Limits ........................................... 99
Table 2-15 Existing Level of Service in the State Route 1 Northbound Direction by Mainline Segment and Time Period ........................................................................... 99
Table 2-16 Existing Level of Service in the State Route 1 Southbound Direction by Mainline Segment and Time Period ........................................................................ 100
Table 2-17 Existing Estimated Daily Vehicle Miles Traveled, Vehicle Hours Traveled and vehicle hours of delay in the State Route 1 Northbound Direction ........................................... 101
Table 2-18 Existing Estimated Daily Vehicle Miles Traveled, Vehicle Hours Traveled and vehicle hours of delay in the State Route 1 Southbound Direction ........................................... 101
Table 2-19 Summary of Operational Performance During Northbound AM Peak Period, Opening Year No-Build Versus Opening Year Build ........................................... 104
Table 2-20 Summary Of Operational Performance During Northbound PM Peak Period, Opening Year No-Build Versus Opening Year Build ........................................... 104
Table 2-21 Summary Of Operational Performance During Southbound AM Peak Period, Opening Year No-Build Versus Opening Year Build ........................................... 105
Table 2-22 Summary Of Operational Performance During Southbound PM Peak Period, Opening Year No-Build Versus Opening Year Build ........................................... 105
Table 2-23 Opening Year (2025) Level of Service in the State Route 1 Northbound Direction by Mainline Segment and Time Period for the No-Build Condition ........................................... 105
Table 2-24 Opening Year (2025) Level of Service in the State Route 1 Northbound Direction by Mainline Segment and Time Period for the Build Condition .......... 106
Table 2-25  Opening Year (2025) Level of Service in the State Route 1 Southbound Direction by Mainline Segment and Time Period for the No-Build Condition ................................................................. 106

Table 2-26  Opening Year (2025) Level of Service in the State Route 1 Southbound Direction by Mainline Segment and Time Period for the Build Condition .................. 107

Table 2-27  Horizon Year (2045) Level of Service in the State Route 1 Northbound Direction by Mainline Segment and Time Period for the No-Build Condition ............................................................................ 108

Table 2-28  Horizon Year (2045) Level of Service in the State Route 1 Northbound Direction by Mainline Segment and Time Period for the Build Condition ............. 108

Table 2-29  Horizon Year (2045) Level of Service in the State Route 1 Southbound Direction by Mainline Segment and Time Period for the No-Build Condition ............................................................................ 109

Table 2-30  Horizon Year (2045) Level of Service in the State Route 1 Southbound Direction by Mainline Segment and Time Period for the Build Condition ............. 109

Table 2-31  Opening Year (2025) and Horizon Year (2045) Estimated Daily Vehicle Hours Traveled and vehicle hours of delay in the State Route 1 by Direction of Flow ................................................................. 111

Table 2-32  Opening Year (2025) and Horizon Year (2045) Estimated Daily Vehicle Hours Traveled and vehicle hours of delay in the State Route 1 by Direction of Flow ................................................................. 111

Table 2-33  Countywide Vehicle Miles Traveled Impacts (per day) .................................................................................... 112

Table 2-34  Visual Impact Ratings Using Viewer Response and Resource Change .............................................................................. 142

Table 2-35  Summary of Key View Narrative Ratings .............................................................................................................. 158

Table 2-36  Property Listed in the National Register of Historic Places .......................................................................................... 170

Table 2-37  Property Recommended Eligible .............................................................................................................. 170

Table 2-38  Properties Recommended Eligible for Purposes of This Project .............................................................................. 170

Table 2-39  Properties Previously Determined Not Eligible .......................................................................................... 170

Table 2-40  Newly Evaluated Properties Determined Not Eligible .......................................................................................... 171

Table 2-41  Clean Water Act Section 303(d)-Listed Pollutants, Aptos Creek .......................................................................................................................... 192

Table 2-42  Clean Water Act Section 303(d)-Listed Pollutants, Valencia Creek .......................................................................................................................... 192
Table of Contents

Table 2-43  Clean Water Act Section 303(d)-Listed Pollutants, Ocean at Rio Del Mar (Santa Cruz County), Aptos Creek Mouth ................................................................. 192
Table 2-44  Build Alternative Disturbed Soil Area and Impervious Surface Area ................................................................. 196
Table 2-45  Geologic Unit Sensitivity ................................................................. 217
Table 2-46  State and Federal Criteria Air Pollutant Effects and Sources ............................................................................. 236
Table 2-47  State and Federal Criteria Air Pollutant Standards and Project Area Attainment Status (CARB 2016) .................. 238
Table 2-48  Sensitive Receptors Located Within 500 feet of the Project Site ........................................................................ 239
Table 2-49  Summary of Total Daily Comparative Emissions Analysis for Baseline Conditions (2019) .......................... 240
Table 2-50  Summary of Total Daily Comparative Emissions Analysis for the Opening Year (2025) .................. 241
Table 2-51  Summary of Total Daily Comparative Emissions Analysis for the Horizon Year (2045) .......................... 241
Table 2-52  Daily Construction Emissions for Roadway and Coastal Rail Trail Components (pounds/day) .................. 244
Table 2-53  Noise Abatement Criteria ................................................................. 249
Table 2-54  Construction Equipment Noise ................................................... 254
Table 2-55  Noise Survey Report Results Summary ................................ 258
Table 2-56  Construction Fuel Consumption ................................................... 278
Table 2-57  Natural Communities in the Biological Study Area ................ 283
Table 2-58  Summary of Land Cover Impacts for the Build Alternative ................................................................. 286
Table 2-59  Summary of Aquatic Resources Impacts .................. 304
Table 2-60  Plant Species within the Biological Study Area ............. 310
Table 2-61  Regionally Occurring Species of Concern .................... 322
Table 2-62  Threatened and Endangered Species .................. 335
Table 2-63  List of Plant Species Observed ................................................. 354
Table 2-64  Summary of Impacts from Future Actions .................. 366
Table 3-1  Regional and Local Greenhouse Gas Reduction Plans ................................................................. 425
Table 3-2  Monterey Sea Level Rise Projections ............................ 435