

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter examines the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the Tier I Corridor Alternatives and the Tier II Auxiliary Lane Alternative, potential impacts from each of these alternatives, and proposed avoidance, minimization, and/or mitigation measures.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion of these issues in this document:

- Wild and Scenic Rivers – No rivers classified as wild and scenic are present in the proposed project area.
- Timberlands – No timberlands are located in the proposed project area.
- Farmlands – No farmlands would be affected by the project.
- Parks and Recreation – No parks and recreation facilities would be affected as a result of the Tier I Corridor Alternatives or Tier II Auxiliary Lane Alternative (Community Impact Assessment, 2015). A discussion of all parks and recreational resources located within 0.5 miles of the proposed project is provided in Appendix B.
- Community Impacts: Economic – Economic impacts were considered during project scoping, but no adverse impacts were identified.

2.1 Human Environment

2.1.1 Land Use

This section evaluates potential impacts to land use that could result from operation of the Tier I and Tier II project alternatives. Impacts to land use that could occur during project construction are discussed in Section 2.4, and cumulative impacts are discussed in Section 2.5.

2.1.1.1 Existing and Future Land Use

Affected Environment

The information in this section is derived from the *Community Impact Assessment* (2015) prepared for the proposed project.

Tier I Corridor Alternatives

The limits of the Tier I Corridor Alternatives, on Route 1 from approximately 0.4 mile south of the San Andreas-Larkin Valley Road interchange to 0.3 mile north of the Morrissey Boulevard interchange and covering a distance of approximately 8.9 miles, traverse the cities of Santa Cruz and Capitola; the villages of Live Oak, Soquel, and Aptos; and unincorporated Santa Cruz County. Urban residential land uses predominate along most of the Route 1 corridor, with some commercial and industrial property located primarily in the unincorporated areas. Major public facilities include the Dominican Santa Cruz Hospital and Cabrillo College, as well as the Arana Gulch Open Space, De Laveaga Park and Golf Course, and numerous other state, regional, and local parks and coastal recreation areas.

Route 1 is the major north-south transportation route for the residents of Santa Cruz and Monterey counties. Traffic on Route 1 is affected by a pronounced commute pattern between housing in southern Santa Cruz County and jobs in the Santa Cruz area and farther north in Silicon Valley. Residential growth in the Route 1 corridor communities in Santa Cruz County is projected to be slowing by the Association of Monterey Bay Area Governments. Because Watsonville and the unincorporated areas of the county have most of the remaining room to build housing, housing growth in Watsonville and the unincorporated urban service areas of Aptos and Freedom make up more than 70 percent of the total projected housing growth in Santa Cruz County between 2000 and 2030. Many jobs in the Santa Cruz area are service jobs; however, the lower paid service workers and many of those with moderate incomes cannot afford to live in Santa Cruz. The resulting jobs/housing imbalance will reinforce the south-to-north commute pattern because the relatively job-rich Santa Cruz area will continue to draw workers from the southern part of the county where housing is more available and more affordable. Increased demand for workers in the Santa Cruz area, plus commute trips to Silicon Valley is expected to exacerbate recurrent peak-period highway congestion in the project area.

Based on 2014 Association of Monterey Bay Area Governments population, housing, and employment forecasts, Santa Cruz County is expected to experience continued growth over the next 30 years, but at a slower rate than the state and the nation. The region is expected to continue to see population and housing growth associated with job growth outside the region. In particular, job growth in Silicon Valley, combined with high housing prices, is expected to lead to an increase in the number of commuters traveling to the San Francisco Bay Area. As a result of this projected growth, Santa Cruz County and its cities will share challenges in providing an adequate supply and range of housing opportunities; developing economic and employment opportunities; locating housing and jobs in proximity to one another; and maintaining the quality of life for residents.

Existing land uses in the study area are shown in Figure 2.1.1-1 and are described below. The City of Santa Cruz is the county seat and commercial capital of Santa Cruz County. Its land uses are a mix of residential, commercial, park, industrial, and open space.

The City of Santa Cruz

North of Route 1 within the study area, land uses include De Laveaga Park and Golf Course, De Laveaga Elementary School, and residential areas. South of Route 1 are Harbor High School, Branciforte Elementary School, Gault Elementary School, the Yacht Harbor and Wharf, Arana Gulch Open Space, Tyrell Park/Natural History Museum, several interior and shoreline parks, and residential areas.

The City of Santa Cruz is experiencing low to moderate population growth, but that growth will continue to decline because the city is relatively built out. Limited remaining residentially zoned vacant land will require the City to focus on infill development in the urban core and along transportation corridors. Rising residential land values has led to erosion of the commercial land inventory. A few vacant or underutilized industrial parcels are left that could accommodate future employment centers. Santa Cruz's average household size dropped from 2.44 to 2.39 persons between 2000 and 2010. From 2000 to 2010, the city experienced a 15.4 percent decline in residents aged 25 to 44, while the number of residents from ages 45 to 64 increased by 21.8 percent.

The City of Capitola

The city of Capitola sits on the northeast shore of Monterey Bay between the unincorporated areas of Live Oak and Aptos. Its land uses are a mix of residential, commercial, park, and open space, and include the 41st Avenue and Auto Plaza commercial area; Capitola Elementary School and New Brighton Junior High School; Capitola Wharf; open space areas such as Capitola City Beach, the Soquel Creek waterway, and New Brighton State Beach; and residential neighborhoods. Natural resource areas include the Monterey Bay and beach area, Soquel Creek and Lagoon, Rodeo Creek Gulch, and several riparian corridors and monarch butterfly groves.

Industrial uses in Capitola account for a small percentage of total land area; the most prominent industrial area is along Kennedy Drive, which fronts Route 1. Capitola is basically built out, with very little vacant land and little opportunity for annexation. Growth is expected to focus on intensification of existing land uses and scattered infill development.

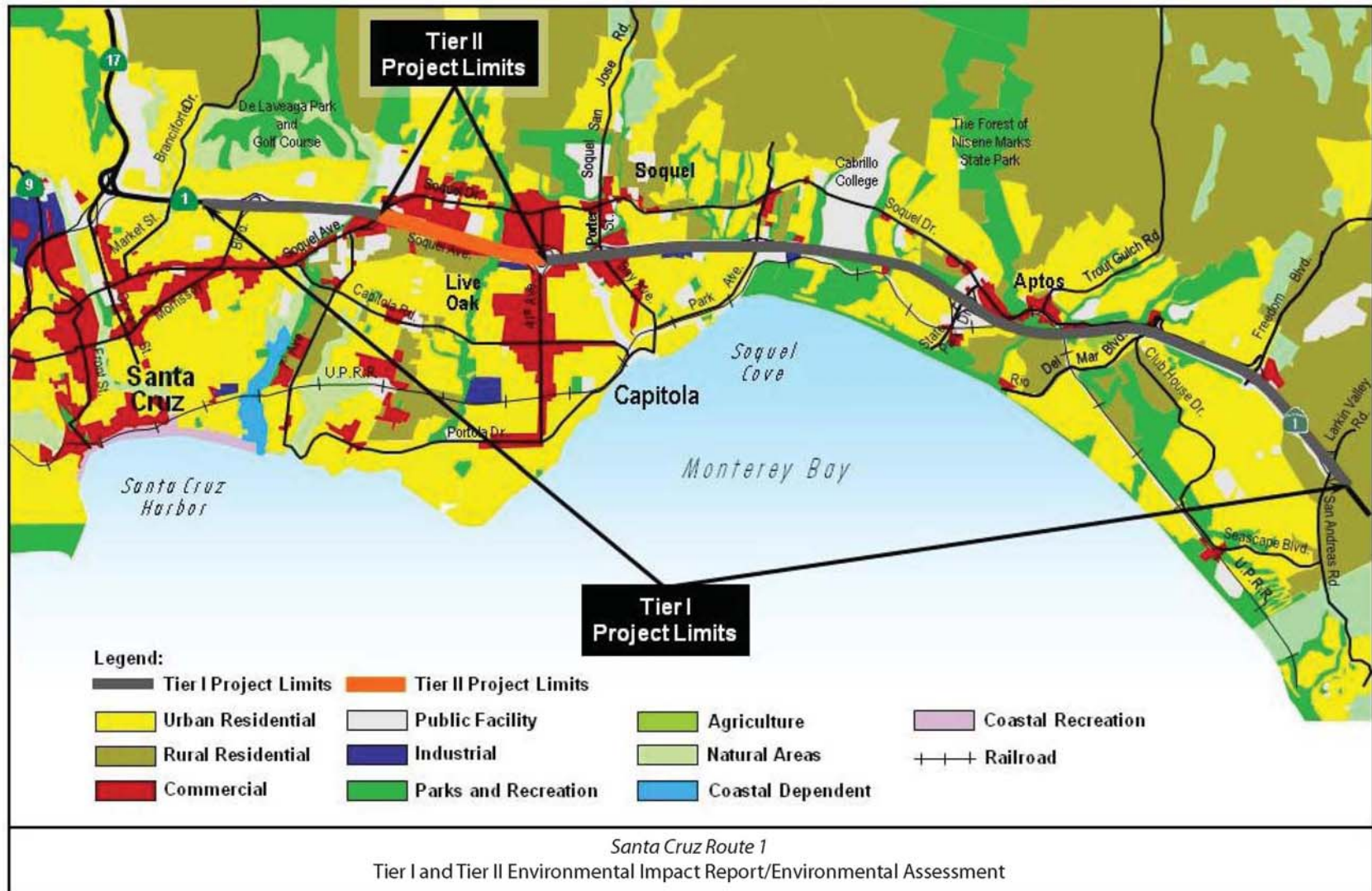


Figure 2.1.1-1: Existing Land Use

The Village of Live Oak

Live Oak is an unincorporated area that straddles Route 1 between the cities of Santa Cruz and Capitola. Its land uses are primarily residential, commercial, and industrial, and include the Oak Wood Cemetery, Dominican Hospital, Holy Cross Cemetery, Live Oak Elementary School, and several shoreline and interior parks.

Unincorporated Area of Soquel

The unincorporated area of Soquel is located north of Route 1 between Live Oak to the west and Aptos to the east and has a total area of approximately 1 square mile. Its major land uses include Anna Jean Cummings County Park, Soquel Village and Porter Library, Soquel High School, Soquel Elementary School, Soquel Lions Park, Richard Vessey Park, Willowbrook Park, and residential and industrial areas. The 97-acre O’Neill Ranch is northwest of the Village and adjacent to the high school.

Unincorporated Area of Aptos

The unincorporated area of Aptos straddles Route 1 east of Soquel and has a total area of approximately 7 square miles. Its land uses include commercial retail, office, industrial, and residential. Aptos is home to Cabrillo College, Aptos High School, Aptos Village, Aptos Village County Park, Aptos Branch Library, Calvary Cemetery, Polo Grounds Regional Park, Aptos Seascape Golf Course, and several interior and shoreline parks.

Several major projects are currently in various phases of planning in the project vicinity. These projects, which are listed in Table 2.1.1-1, are located in the city and county of Santa Cruz and the communities of Aptos and Soquel.

Table 2.1.1-1: Major Projects within the Tier I and Tier II Study Area

Name	Jurisdiction	Proposed Uses	Status
Residential Projects			
Redwood Commons*	City of Santa Cruz	A development of 36 single-room occupancy residential units to be constructed within Santa Cruz, at 1606 Soquel Avenue, approximately 0.47-mile from Route 1.	Completed
Canterbury Park	Aptos	A development of 19 new 2-, 3-, and 4-bedroom townhomes located at Canterbury Drive and Sea Ridge Road. The townhomes are priced to be affordable to moderate-income families and should open in April 2013.	Completed
Aptos Blue	Aptos	Development of a 40-unit complex for low-income individuals. Located on part of the original Aptos Ranch.	Completed
St. Stephen’s Senior Housing	City of Santa Cruz	Development of up to 40 units of affordable housing for seniors, located on vacant lands on the site of St. Stephen’s Church off of Soquel Avenue.	Permit application pending
Hyatt Place Hotel	City of Santa Cruz	A development for a 111-room hotel property to be constructed at 407 Broadway, approximately 1-mile from Route 1.	Permit application pending

Table 2.1.1-1: Major Projects within the Tier I and Tier II Study Area

Name	Jurisdiction	Proposed Uses	Status
Erlach Site on Cunnison Lane—MidPen Housing Project	Soquel	Development of a 102-unit affordable housing project at 3250 – 3420 Cunnison Lane, approximately 0.35 mile from Route 1.	Permit approved – project on hold
Nigh Property*	Soquel	A proposed 100-unit residential development to be constructed at 5940 Soquel Avenue, approximately 0.33 mile from Route 1.	Permit application pending
Tannery Arts Center	Santa Cruz County	<p>The project, which is located approximately 0.3 mile from Route 1, includes three phases:</p> <ul style="list-style-type: none"> • The Tannery Artist Lofts, 100 units of affordable housing for artists (completed) • The Digital Media and Creative Arts Center, which includes rehabilitation of the historic buildings on the property to be used as studio space for artists (under construction) • The Performing Arts Center (fundraising stage) 	In operation
Multi-Use Development Projects			
The Farm Neighborhood Park and Community Center*	Santa Cruz County	Development of a 2-story community center, 39 units of housing, 0.75 mile of meandering pathways, a skate feature, 1/2 basketball court, children's play structures, a bocce ball court, nature interpretive signage, a pedestrian bridge, a dog enclosure, community and heritage gardens, oak woodland habitat restoration, turf and picnic areas, landscaping, a restroom, and parking areas. Located at 3120 Cunnison Lane, Soquel, CA 95073, approximately 0.5 mile from Route 1.	Permit application has been submitted
350 Ocean Street	City of Santa Cruz	A mixed-use project including 82 residential condominiums, 8,900 square feet of retail commercial space, and a 7,500-square-foot gymnasium and spa, located at 350 Ocean Street, approximately 0.98 mile from Route 1.	Completed.
Heart of Soquel - Soquel Creek Linear Park and Parking Improvements	Santa Cruz County	A potential development of community facility projects such as pedestrian and vehicular safety and circulation improvements, environmental enhancement, and facility improvements for potential event hosting activities located at Soquel Drive and Porter Street, Soquel, CA 95073, approximately 0.32 mile from Route 1.	Unknown
Pacific Station	Santa Cruz County	The current conceptual plan is for a 5-story, mixed-use, transit-oriented development with the expanded METRO center on the ground floor, along with limited commercial uses; parking on the second floor; and affordable housing with limited office space on the remaining 3 floors, approximately 1 mile from Route 1.	In planning phase.
Transportation Projects			
Metrobase	City of Santa Cruz	A development that would consolidate all of METRO's Operations, Administration, Fueling, Maintenance, and ParaCruz facilities in the Harvey West area of Santa Cruz, to be constructed near the end of State Route 9, at the intersection of River Street and Route 1.	Under construction

Table 2.1.1-1: Major Projects within the Tier I and Tier II Study Area

Name	Jurisdiction	Proposed Uses	Status
Rio del Mar Boulevard Improvements	City of Santa Cruz	Roadway improvements.	Under construction
Deploy Intelligent Transportation System on Route 1*	City of Santa Cruz	Deploy Intelligent Transportation System technology on Route 1.	Under construction
Route 1 Soquel to Morrissey Auxiliary Lanes Project	City of Santa Cruz	Construction of auxiliary lanes between the Soquel Avenue/Drive and Morrissey Boulevard interchanges. Also includes replacement of the Route 1/La Fonda Avenue overcrossing.	Completed
Route 1 San Lorenzo Bridge Widening	City of Santa Cruz	Widen the Route 1 San Lorenzo River Bridge to improve flow from Highway 17 through the Junction of Route 1 and Highway 9.	Planning phase
Route 1/9 Intersection Improvements	City of Santa Cruz	Improvements to the intersection of Route 1 and Highway 9 in the city of Santa Cruz.	Planning phase
Route 1/Harkins Slough Road Interchange – Santa Cruz	City of Santa Cruz	Reconstruct interchange on Route 1 at Harkins Slough Road in the city of Watsonville.	Planning Phase
Bicycle and Pedestrian (Class I)	City of Santa Cruz	Construction on Route 1 at Morrissey Boulevard	Under construction
Santa Cruz Branch Line	Santa Cruz County	Conversion of a 32 mile coastal freight rail corridor to a mix of passenger rail, transit, bicycle, and pedestrian uses.	Feasibility and planning phase
Source: Santa Cruz County Redevelopment Agency, September 2011; City of Santa Cruz Planning and Community Development Department, February 2008, March 2011, March 2013, and August 2014. City of Santa Cruz Economic Development Department, March 2013, August 2014. * Project located within the Tier II Study Area.			

Tier II Auxiliary Lane Alternative

The Tier II Auxiliary Lane Alternative begins on Route 1 at the Soquel Avenue/Soquel Drive interchange and ends at the 41st Avenue interchange. The Tier II project is located in the City of Capitola and in unincorporated areas within the villages of Live Oak and Soquel.

Descriptions of each of these areas are provided above in the Tier I Corridor Alternatives section. Existing land uses within the Tier II project limits are primarily residential, commercial, and industrial, and include several schools, parks, libraries, and cemeteries.

Land uses in the Tier II study area, along with schools, parks, churches, and hospitals, can be seen below in Figure 2.1.1-2.

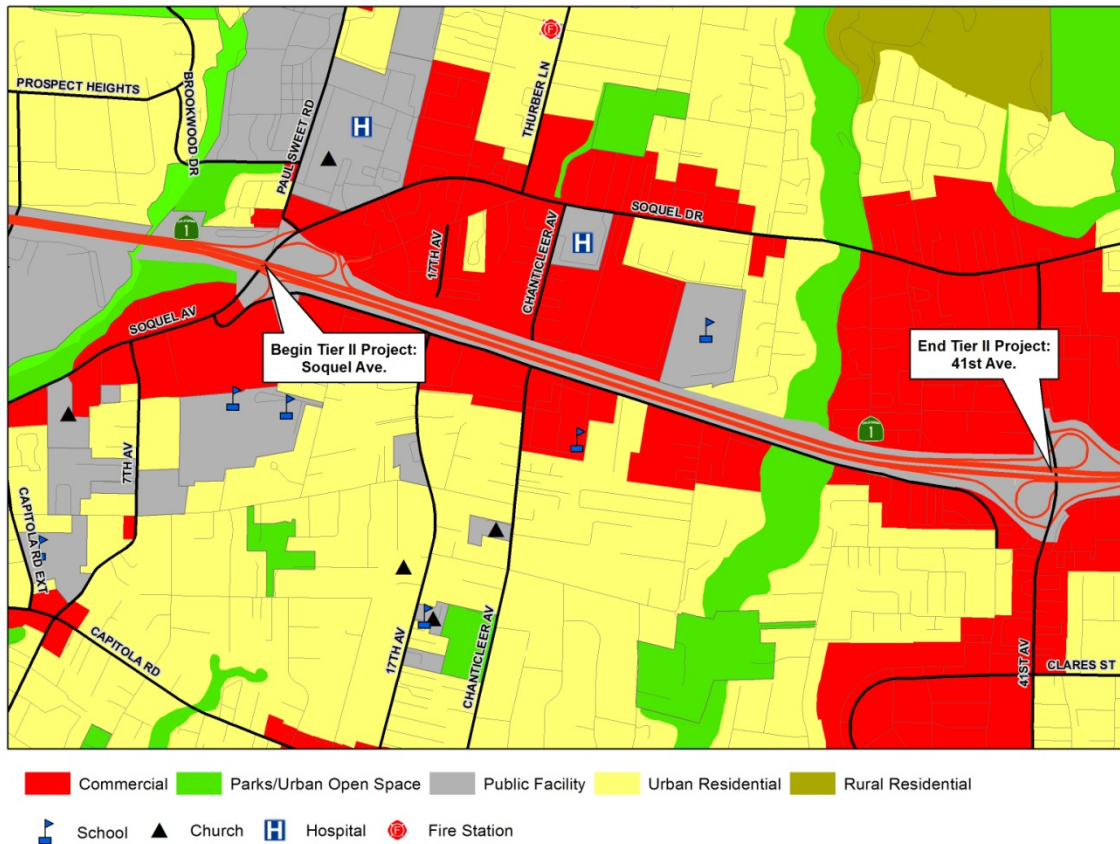


Figure 2.1.1-2: Tier II Study Area

Several residential and roadway projects are currently in various phases of the planning process within the Tier II Auxiliary Lane Alternative project limits. Residential projects are located in Soquel while planned transportation projects affect the entire Route 1 corridor. These are listed above in Table 2.1.1-1.

Environmental Consequences

Tier I Corridor Alternatives

The Tier I Corridor Alternatives would require the acquisition of property in order to be implemented, discussed further in Section 2.1.3.2 Relocations and Real Property Acquisitions. The TSM Alternative would convert 1.80 acres of land to transportation use, including approximately 0.27 acre of industrial land uses, 0.35 acre of commercial uses, and 0.34 acre of residential land uses.

The HOV Lane Alternative would convert approximately 11.59 acres of land to transportation use, based on the current engineering estimate. This would include

approximately 5.5 acres of commercial land, 0.27 acre of industrial land use, and 1.46 acres of residential land use.

The right-of-way impacts of the Tier I Corridor HOV Lane Alternative would be substantially greater than the Tier I Corridor TSM Alternative owing to the wider footprint of the HOV Lane Alternative; however, overall, the Tier I build alternatives would result in only a minor conversion of land from the corridor perspective.

Tier II Auxiliary Lane Alternative

The Tier II Auxiliary Lane Alternative would convert a minor amount of land relative to the study corridor from its existing uses to transportation uses. Approximately 0.33 acre would be converted to transportation land uses. No residential or commercial structures would be displaced by the Tier II Auxiliary Lane Alternative.

No Build Alternative

The No Build Alternative under the Tier I Corridor Alternatives and Tier II Auxiliary Lane Alternative would not convert any existing land uses to transportation uses. Implementation of the No Build Alternative would have no direct effect on land uses in the project area, and location and the characteristics of corridor transportation facilities and uses generally would not change. The Route 1/ Highway 17 Merge Lanes project would be constructed, improving traffic operations at the north of the corridor. Traffic congestion elsewhere in the corridor would worsen, however, including increased diversion of freeway traffic to local arterials. This could adversely affect land uses abutting these arterials, as vehicles would make use of local streets rather than the Route 1 mainline.

Avoidance, Minimization, and/or Mitigation Measures

Tier I Corridor Alternatives

Because no actual construction would take place as a result of selecting a Tier I Corridor Alternative, no avoidance, minimization, and/or mitigation measures are required at this time. As portions of the Tier I corridor are programmed as Tier II construction-level projects, they will be subject to separate environmental review. Based on the impacts that have been identified in this section, the following avoidance and minimization measures are provided to minimize impacts to right-of-way acquisition. These measures are subject to revision based on the changes in the setting, project design, or regulatory requirements in place when individual corridor projects undergo environmental review.

- Adjust project alignment to fit within existing right-of-way where feasible;
- Include retaining walls in the design instead of grading out vertical differentials where feasible;
- Propose exceptions to design standards that would impact the right-of-way.

In addition, the measures identified in Section 2.1.3.2 Relocations and Real Property Acquisitions, Avoidance, Minimization, and/or Mitigation measures also apply.

Tier II Auxiliary Lane Alternative

The following avoidance measures apply to the Tier II Auxiliary Lane Alternative.

- The project alignment has been adjusted to fit within existing right-of-way where feasible;
- In the vicinity of Rodeo Gulch, retaining walls will be included on both sides of the roadway to minimize impacts;
- Exceptions to design standards are proposed to reduce right-of-way impact in the vicinity of the Chanticleer Avenue pedestrian overcrossing.

In addition, the measures identified in Section 2.1.3.2 Relocations and Real Property Acquisitions, Avoidance, Minimization, and/or Mitigation measures also apply.

2.1.1.2 Consistency with State, Regional, and Local Plans

The following section describes local, regional, and state plans regarding the affected areas within the Tier I and Tier II project limits. Both the Tier I Corridor Alternatives and the Tier II Auxiliary Lane Alternative are subject to the guidance and policies of these general plans and town plans. The area plans address growth and development within both the Tier I and Tier II project vicinities.

Affected Environment

The information in this section is derived from the *Community Impact Assessment* (2014) prepared for the proposed project.

Future growth and development within the study area is guided by land use policies and programs set forth in the *Santa Cruz County 1994 General Plan and Local Coastal Program*; the *City of Santa Cruz General Plan and Local Coastal Program, 2030*; the *City of Capitola General Plan*; and village design plans for the unincorporated areas of Soquel and Aptos.

Santa Cruz County 1994 General Plan and Local Coastal Program. The 1994 General Plan for Santa Cruz County, adopted in May 1994, includes the Local Coastal Program Land Use Plan; various Village, Town, Community, and Specific Plans for local jurisdictions within the County; and the General Plan and Local Coastal Program Environmental Impact Report. These documents follow a basic policy of maintaining separation of urban and rural areas, encouraging new development in urban areas, and protecting agricultural land and natural resources in the rural areas. The primary areas of concern as the County approaches build-out are to (1) provide adequate services, particularly water, to present and future residents; (2) provide affordable housing; (3) preserve the County's environmental quality; and (4) prevent conversions of agricultural lands.

The Circulation Element of the *1994 General Plan and Local Coastal Program* for Santa Cruz County promotes the need to make more efficient use of the existing transportation system through a TSM program. This approach supports capacity improvements and alternatives to driving alone during peak periods. Additionally, the Circulation Element places an emphasis on increasing the provision of transit, pedestrian, and bicycle facilities throughout Santa Cruz. The following goals are relevant to the proposed Tier I and Tier II projects:

- **Transportation System:** Provide a convenient, safe, economical transportation system for the movement of people and goods, promoting the wise use of resources, particularly energy and clean air, and the health and comfort of residents.
- **Mode Choice:** Provide the public with choices in transportation modes on a well-integrated system.
- **Limit Increase in Automobile Use:** Limit the increase in automobile usage to minimize adverse impacts. Increase transit ridership, carpooling, vanpooling, walking, bicycling, etc.
- **Efficiency:** Provide for more efficient use of existing transportation facilities.
- **Access:** Provide for the special transportation needs of the elderly and disabled.
- **Bikeway System:** Develop and implement a comprehensive bikeway system that promotes bicycle travel as a viable transportation mode and meets the recreation and travel needs of the citizens of Santa Cruz County.
- **Safety:** Reduce the number and severity of bicycle accidents.

City of Santa Cruz General Plan and Local Coastal Program, 2030. The *General Plan/Local Coastal Program* for the City of Santa Cruz, adopted in June 2012, includes policies and guidelines for land use for the city as a whole, as well as area and specific plans that refine and customize the policies of the *General Plan* for distinct areas to enhance their unique character.

Land-use goals for the study area are formulated to maintain and build upon the city's diverse natural and built environment. The *General Plan* stipulates that development and intensification of residential, commercial, and industrial lands should be focused within the city's existing boundaries. The Pacific Ocean, agricultural/grazing lands, publicly owned open space, and natural areas will also be preserved to create a boundary and contain urban developments. Objectives, programs, and policies related to the proposed project are to develop the following:

- Land-use patterns, street design, parking, and access solutions that facilitate multiple transportation alternatives;

- A safe, sustainable, efficient, adaptive, and accessible transportation system; and
- A safe, efficient, and adaptive road system by acknowledging and managing congestion, and ensuring road safety for all users.

The Mobility Chapter of the *City of Santa Cruz General Plan and Local Coastal Program* looks at ways to facilitate transportation alternatives, keep transportation and road systems safe and efficient, and systematically interconnect bicycle and pedestrian facilities. The proposals below aim to encourage greater use of alternative transportation modes and reduce automobile travel in concert with other parts of the Plan that foster supportive land uses, building types, and activities. Goals, policies, and actions of the Mobility Chapter that are related to the proposed project are to:

- Reduce automobile dependence by encouraging appropriate neighborhood and activity center development by creating walkable, transit-oriented activity centers throughout the city; connect activity centers with pedestrian and bicycle paths, and implement pedestrian and bicycle improvements that support transit ridership.
- Ensure that sidewalks, transit centers, and major transit stops are conveniently located, usable, and accessible to all.
- Provide leadership on sustainable regional mobility.
- Increase the efficiency of the multi-modal transportation system to:
 - Design for and accommodate multiple transportation modes;
 - Promote alternative transportation improvements with TSM strategies, road improvements, and widening/expansion projects that can achieve an acceptable level of service; and
 - Incorporate pedestrian, bicycle, and mass transit facilities in the design of bridges and road projects.
- Acknowledge and manage congestion.
- Create a citywide interconnected system of safe, inviting, and accessible pedestrian ways and bikeways.

City of Capitola General Plan. The General Plan for the City of Capitola was updated and adopted in June 2014. The Housing Element of the General Plan was updated in 2010. Policies and programs to guide development consistent with the goals and quality of life desired by Capitola residents include maintaining Capitola's existing small-town scale and character; providing year-round opportunities for residents of all ages to meet and gather in public places; protecting and enhancing the quality of life within residential neighborhoods; and providing a balanced transportation system.

Specific policies of relevance to the proposed project are to:

- Provide a balanced multimodal transportation system that enhances mobility in a safe and sustainable manner;
- Support regional efforts to increase the capacity of Highway 1 to accommodate future forecasted traffic demands, including the proposed Highway 1 high-occupancy vehicle (HOV) project;
- Continue to maintain the established Level of Service C or better at intersections throughout Capitola, with the exception of the Village area, Bay Avenue, and 41st Avenue;
- Support regional efforts to improve the availability, affordability, reliability, and convenience of public transportation service in Capitola;
- Provide a complete network of bikeways and bicycle facilities in Capitola; and
- Provide high-quality pedestrian facilities that support walking and the enjoyment of the outdoors in Capitola.

Soquel Village Plan. Major land use objectives of the Soquel Village Plan, adopted May 1990, are to make the village more pedestrian-oriented and to limit traffic improvements to accommodate existing, not future, regional traffic. Specific goals of relevance to the proposed project are:

- Make the village more pedestrian-oriented.
- Accommodate regional traffic in a manner that does not compromise the goals of enhancing the pedestrian environment and cohesive village character.
- Provide adequate parking for existing and future needs.

Aptos Village Plan. The Aptos Village Area Plan, adopted in February 2010, identifies land use, circulation, and community design issues that focus on developing and maintaining the Village as a community focal point; encouraging mixed-use development; achieving a pedestrian environment; preserving architectural quality; and integrating the creek system, open space, and the Forest of Nisene Marks in maintaining Village character.

Of particular relevance to the proposed project are the goals of facilitating access to the Village for the Aptos community, minimizing regional automobile traffic through the Village, and promoting the prosperity of business and residential activities of distinctive “village” nature. Related policies are to support an update of the County Regional Transportation Plan that relieves the Village of through regional traffic, encouraging a variety of transit modes serving the Village, and establishing a system of bicycle pathways connecting the Village to surrounding areas and activities.

Environmental Consequences

Tier I Corridor Alternatives

The Tier I Corridor Alternatives are consistent with local planning goals and policies. Either alternative would serve local jurisdictions' stated objectives for improving the existing Route 1 corridor. The Tier I Corridor HOV Lane Alternative would be more effective than the Tier I Corridor TSM Alternative in encouraging use of alternative modes and reducing through traffic on local streets.

Tier II Auxiliary Lane Alternative

The Tier II Auxiliary Lane Alternative is consistent with local planning goals and policies and is identified in regional plans and studies. Because the project is aimed at reducing congestion and improving safety, the Tier II Auxiliary Lane Alternative objectives are consistent with adopted local planning goals and policies for improving the existing Route 1 corridor.

No Build Alternative

Implementation of the No Build Alternative would not support achievement of the local and regional goals aimed at improving the transportation system.

Avoidance, Minimization, and/or Mitigation Measures

Tier I Corridor Alternatives

Because no actual construction would take place as a result of selecting a Tier I Corridor Alternative, no avoidance, minimization, and/or mitigation measures are required at this time. As portions of the Tier I corridor are programmed as Tier II construction-level projects, they will be subject to separate environmental review. Based on the impacts analysis provided above, no conceptual avoidance, minimization, and/or mitigation measures are required for either of the Tier I Corridor Alternatives.

Tier II Auxiliary Lane Alternative

No mitigation measures are necessary for the Tier II Auxiliary Lane Alternative.

2.1.1.3 Coastal Zone

Regulatory Setting

This project has the potential to affect resources protected by the Coastal Zone Management Act of 1972. The Coastal Zone Management Act is the primary federal law enacted to preserve and protect coastal resources. The Coastal Zone Management Act sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the Coastal Zone Management Act: they include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs. Local coastal programs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals. A federal consistency determination may be needed as well.

Affected Environment

The information in this section is derived from the *Community Impact Assessment* (2014) prepared for the proposed project.

As shown in Figure 2.1.1-3, the segment of Route 1 between the southern project limit near the San Andreas Road/Larkin Valley Road interchange and east of the Bay Avenue - Porter Street interchange lies within the coastal zone. Significant coastal resources within this area include Valencia Lagoon, Valencia Channel, freshwater marsh/riverine habitat, and riparian forest. The Valencia Lagoon and Valencia Channel are located on the southern side of Route 1, between Freedom Boulevard and Rio Del Mar Boulevard. Valencia Channel is hydrologically connected to the Valencia Lagoon; both contain riverine and freshwater marsh, scrub-shrub wetland, and riparian forest habitats. Freshwater marsh/riverine habitat is primarily located within the Valencia Channel and within Aptos Creek. Riparian forest is located between the Union Pacific railroad tracks and Spreckles Drive and in pockets surrounding Route 1 from Mar Vista Drive to the end of the coastal zone east of the Bay Avenue - Porter Street interchange.

The California Coastal Commission defines the Local Coastal Program within Santa Cruz County as part of the Central Coast Area. Both the city and county of Santa Cruz have Local Coastal Programs incorporated into their respective general plans.

Land uses in this portion of the coastal zone include parks and recreation, residential, commercial, and public facilities. Wetlands and other biological resources in the coastal zone are discussed in Section 2.3.

Environmental Consequences

Tier 1 Corridor Alternatives

Table 2.1.1-2 evaluates whether the Tier I Corridor Alternatives are consistent with relevant policies from the Local Coastal Programs of the city and county of Santa Cruz.

As shown in Table 2.1.1-2, the Tier I Corridor Alternatives are potentially inconsistent with policies from the Santa Cruz County and City of Santa Cruz Local Coastal Programs regarding visual resources, biological resources, wetland and creek protection, and historical resources. However, measures are identified in the respective sections of this EIR/EIS to address the potential inconsistencies. The Tier I Corridor Alternatives would be consistent with other policies from the local coastal programs because they would preserve park and recreational land uses as stated in the Local Coastal Programs, and they would improve access to these resources by decreasing congestion and delay along Route 1. As portions of the Tier I corridor are programmed as Tier II construction-level projects, the future Tier II projects that are located within the coastal zone would require a Coastal Development Permit from Santa Cruz County. In addition, consultation with the California Coastal Commission regarding discharges into Critical Coastal Areas and a federal consistency determination would also be needed for future Tier II projects located within the coastal zone. Specific impacts to biological resources as they pertain to the Local Coastal Program are discussed in Section 2.3 and impacts to wetlands are discussed in Section 2.3.2. Visual changes to the coastal zone are discussed in Section 2.1.6, and historical resources are discussed in Section 2.1.7.

Tier II Auxiliary Lane Alternative

The Tier II Auxiliary Lane Alternative is located outside of coastal zone jurisdiction; therefore, no coastal zone determinations would be required.

No Build Alternative

As shown in Table 2.1.1-2, the Tier I No Build Alternative would be consistent with some coastal zone policies. However, it would be inconsistent with policies that relate to improving access to coastal resources because, under this alternative, traffic conditions would continue to worsen along Route 1, which would not improve access to beaches or recreational land uses, as outline in the Local Coastal Programs.

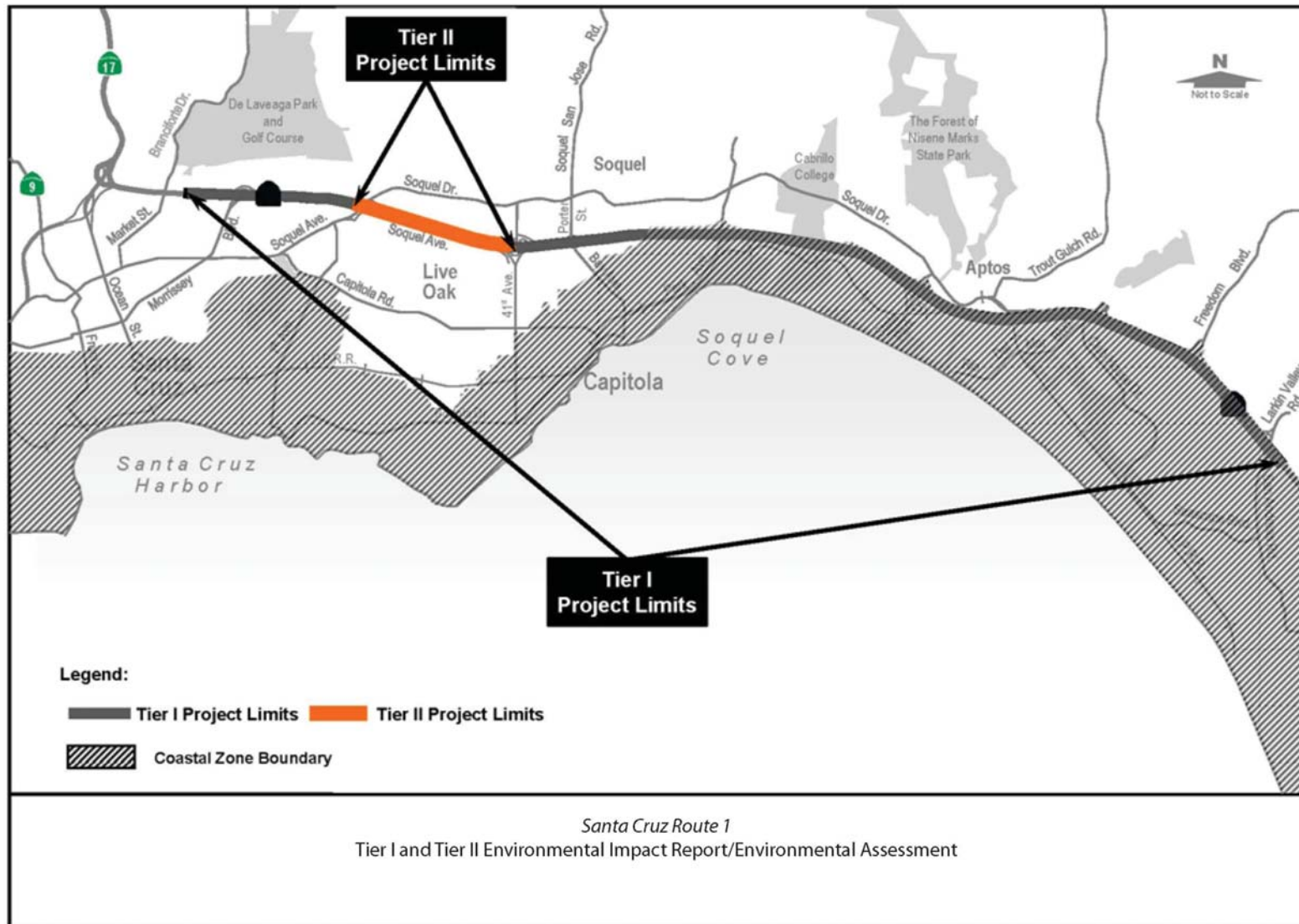


Figure 2.1.1-3: Coastal Zone Boundary

Table 2.1.1-2: Potential Inconsistency with Local Coastal Programs		
Subject of Policy	Local Policies	Assessment
Scenic and Visual Resources	County of Santa Cruz – Local Coastal Program: <ul style="list-style-type: none"> • Policy 5.10.2 – Development within visual resources • Policy 5.10.4 – Preserving natural buffers • Policy 5.10.8 – Significant tree removal ordinance 	<p>Tier I Corridor Alternatives</p> <p>The project would be potentially inconsistent with these policies because substantial visual changes would occur from the highway due to the addition of auxiliary lanes, bridge widening; installation of pedestrian/bicycle overcrossings; reconstruction of existing ramps; construction of new soundwalls and retaining walls; and removal of trees and mature vegetation. Avoidance, minimization, and/or mitigation measures to address these impacts include aesthetic treatments, vine plantings, and revegetation of disturbed areas.</p>
		<p>No Build Alternative</p> <p>The No Build Alternative would be consistent with these policies because it would not cause substantial visual changes to occur, nor would it require the removal of trees.</p>
Biological Resources	County of Santa Cruz – Local Coastal Program: <ul style="list-style-type: none"> • Policy 5.1.6 – Development within sensitive habitats • Policy 5.1.7 – Protection of sensitive habitats City of Santa Cruz – Local Coastal Program – Environmental Quality Element Policies 4.5.3 – Protection of monarch butterfly	<p>Tier I Corridor Alternatives</p> <p>The Tier I Corridor Alternatives would affect sensitive habitats and is potentially inconsistent with policies that relate to protection of sensitive habitats. The project would have permanent and temporary effects on riverine/freshwater marsh, riparian forest, coast live oak woodland, mixed conifer woodland, coastal scrub, and annual grassland. Removal of this habitat could affect foothill yellow-legged frog, California red-legged frog, Santa Cruz long-toed salamander, California tiger salamander, western pond turtle, tidewater goby, central California coast steelhead, monarch butterfly, California linderiella, Cooper’s hawk, tricolored blackbird, great blue heron, short-eared owl, burrowing owl, white-tailed kite, least Bell’s vireo, pallid bat, hoary bat, roosting bats, badger, and nesting birds. Avoidance, minimization, and/or mitigation measures, such as compensatory mitigation, monitoring, and revegetating, will be implemented to avoid and minimize impacts. Onsite and in-kind mitigation for temporary impacts would be provided at a 1:1 ratio, and permanent impacts would be mitigated at a 2:1 ratio, unless otherwise directed by regulatory agencies.</p>
		<p>No Build Alternative</p> <p>The No Build Alternative would be consistent with these policies because it would not affect sensitive habitats.</p>

Table 2.1.1-2: Potential Inconsistency with Local Coastal Programs		
Subject of Policy	Local Policies	Assessment
Wetland and Creek Protection	<p>County of Santa Cruz – Local Coastal Program:</p> <ul style="list-style-type: none"> • Policy 5.2.2 – Riparian corridor and wetland protection • Policy 5.2.3 – Activities within riparian corridors and wetlands • Policy 5.2.5 – Setbacks from wetlands <p>City of Santa Cruz – Local Coastal Program – Environmental Quality Element Policies 4.2.2, 4.2.2.4 – Minimize the impact of development upon riparian and wetland areas</p>	<p>Tier I Corridor Alternatives</p> <p>The project would be potentially inconsistent with these policies. The Tier I Corridor Alternatives would permanently affect 0.23 acre of U.S. Army Corps of Engineers wetlands, 0.10 acre of U.S. Army Corps of Engineers other waters, 2.20 acres under the jurisdiction of Local Coastal Plans approved by the California Coastal Commission, and 3.58 acres of California Department of Fish and Wildlife jurisdiction wetland area. Permanent impacts would result from changes in bank configuration, loss of riparian habitat associated with road widening and culvert extensions, realignment of existing roadways, and construction of new road sections. Onsite and in-kind mitigation for temporary impacts would be provided at a 1:1 ratio, and permanent impacts to wetlands would be mitigated at a 3:1 ratio.</p>
		<p>No Build Alternative</p> <p>The No Build Alternative would be consistent with these policies because it would not affect wetlands or other waters.</p>
Historical Resources	<p>County of Santa Cruz – Local Coastal Program:</p> <ul style="list-style-type: none"> • Policy 5.19.3 – Development around archeological resources 	<p>Tier I Corridor Alternatives</p> <p>The project would be potentially inconsistent with this policy. The Tier I Corridor Alternatives may adversely affect portions of three unevaluated archaeological sites and their potential buried archaeological deposits within the archaeological Area of Potential Effects. If discovered during ground disturbing activities, comply with 36 <i>Code of Federal Regulations</i> 800.13 (b)(3) and, if applicable, part (c), as stipulated in the 2004 Section 106 Programmatic Agreement for Federal-aid Highway Programs in California regarding post-review discoveries.</p>
		<p>No Build Alternative</p> <p>The No Build Alternative would be consistent with these policies because it would not affect archaeological deposits.</p>
Traffic/Circulation	<p>County of Santa Cruz – Local Coastal Program:</p> <ul style="list-style-type: none"> • Policy 3.14.2 – Priority to road improvements that provide access to recreational resources 	<p>Tier I Corridor Alternatives</p> <p>The Tier I Corridor Alternatives would be consistent with this policy by improving access to these resources by decreasing congestion and delay along Route 1.</p>
		<p>No Build Alternative</p> <p>The No Build Alternative would be potentially inconsistent with these policies because it would not improve access to beaches or recreational land uses.</p>

Avoidance, Minimization, and/or Mitigation Measures

Tier I Corridor Alternatives

Based on the impacts that have been identified in this section, the following avoidance, minimization, and mitigation measures are provided. These measures are subject to revision based on the changes in the setting, project design, or regulatory requirements in place when individual corridor projects undergo environmental review.

Avoidance and minimization measures will employ sound resource conservation principles, such as minimizing and avoiding impacts to protected natural resources. Design approaches will also be employed to minimize impacts to the maximum extent feasible, such as widening to one or the other side of the highway, requesting design exceptions for reduced inside shoulder widths, and the placement of retaining walls to reduce right-of-way requirements.

Tier II Auxiliary Lane Alternative

Because the Tier II Auxiliary Lane Alternative is located outside the coastal zone and would have no impact on the coastal zone, no associated avoidance, minimization, and/or mitigation measures are required.