

Northbound - Post Mile 10.18 to 10.20 <0.25 in/sec at buildings

Southbound - Post Mile 10.12 to 10.59 <0.25 in/sec at buildings

Southbound - Post Mile 10.59 to 10.64 <0.50 in/sec at buildings

2.5 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor, but collectively substantial, impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive types of agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act Guidelines Section 15130 describes when a cumulative impact analysis is warranted and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts, under the California Environmental Quality Act, can be found in Section 15355 of the California Environmental Quality Act Guidelines. A definition of cumulative impacts, under the National Environmental Policy Act, can be found in 40 Code of Federal Regulations, Section 1508.7 of the Council on Environmental Quality Regulations.

Project-specific Resources Considered in the Cumulative Impact Analysis

A cumulative impact analysis is required whenever an environmental document is prepared. The purpose of a cumulative impact analysis is to analyze the potential incremental environmental impacts associated with a project in conjunction with past, present, and reasonably foreseeable future projects. As specified in Caltrans/Federal Highway Administration guidance (Guidance for Preparers of Cumulative Impact

Analysis, July 2005), if the proposed project would not result in a substantial direct or indirect impact to a resource, it would not contribute to a cumulative impact on that resource. This cumulative impact analysis includes resources that are substantially affected by the project and resources that are currently in poor or declining health, or that would be at risk even if project impacts would not be substantial.

Based on the above guidance, the following resources were studied and would either not be substantially impacted by the proposed project or were determined not to be in poor or declining health. Therefore, these resources were not included in the cumulative impact analysis for this project.

- Land Use, Growth, and Community Impacts (see Sections 2.1.1 to 2.1.3)
- Farmland/Timberland (see beginning of Chapter 2)
- Wild and Scenic Rivers (see beginning of Chapter 2)
- Traffic and Transportation/Pedestrian and Bicycle Facilities (see Section 2.1.5)
- Cultural Resources (see Section 2.17)
- Hydrology and Floodplain (see Section 2.2.1)
- Geology/Soils/Seismic (see Section 2.2.3)
- Paleontology (see Section 2.2.4)
- Hazardous Waste (see Section 2.2.5)
- Air Quality (see Section 2.2.6)
- Noise (see Section 2.2.7)

Resources to Consider (and their respective study areas)

Traffic and Transportation/Pedestrian and Bicycle Facilities—Traffic studies prepared for the project analyzed the U.S. 101 corridor from the Ventura County line to the City of Goleta. The highway includes ramp intersections that would see changes as part of the project. Some secondary intersections that would not be physically affected by the Caltrans project but could see changes in traffic patterns were also included in the study.

A total of 104 intersections were analyzed within the 27.5-mile traffic study area. The intersections analyzed generally included ramp junction intersections as well as adjacent intersections near the end of the ramp within the traffic study area. This analysis was completed to ensure that the proposed project would not result in substantial changes to traffic levels at ramp junctions and local intersections. Many of the intersections in the study were outside of the project limits. The purpose for an expanded study was to

determine the current conditions and anticipate changes that could be brought about by the project as a result of shifting traffic patterns.

Visual/Aesthetics—The resource study area for aesthetic and visual resources includes views of and from the proposed project limits, largely within the Caltrans right-of-way. Although the project limits are defined by the U.S. 101 corridor between the Bailard Avenue overcrossing in the City of Carpinteria and Sycamore Creek in the City of Santa Barbara, the resource study area for visual/aesthetics is expanded along U.S. 101 from Goleta to the north to the Ventura County line to the south. There are specific locations outside the highway right-of-way where commercial or residential development can be seen along certain frontage roads: Jameson Lane, Padaro Lane, and Via Real. When seen from the highway throughout much of the project area, noticeability of the built character of the adjacent communities is limited due to differences in elevation, walls, and vegetation. The built character of the adjacent communities is most noticeable throughout some areas in Carpinteria, Summerland, and in the vicinity of Cabrillo Boulevard near the bird refuge and zoo. For transportation projects specifically occurring on U.S. 101, the resource area for visual/aesthetics was expanded to include highway projects from Ventura County to Goleta.

Water Quality— The resource study area for water quality is the South Coast Hydrologic Unit, which is made up of small coastal watersheds originating in the southern Los Padres National Forest and draining to the Santa Barbara Coast. Eleven large watersheds sit within the project limits (Carpinteria Creek, Franklin Creek, Santa Monica Creek, Arroyo Paredon, Garrapata Creek, Toro Creek, Greenwell Creek, Romero Creek, San Ysidro Creek, Oak Creek, and Montecito Creek). Most of the watersheds drain directly into the Pacific Ocean, but two watersheds drain into the Carpinteria Marsh.

The main watershed and topography in which this project is situated is the South Coast Hydrologic Unit, made up of small coastal watersheds originating in the southern Los Padres National Forest and draining to the Santa Barbara coast and Pacific Ocean (see Section 2.2.2 Water Quality and Storm Water Runoff).

For geomorphological purposes, waters of the United States delineated in this project fall into three general categories: partially altered creek channels, highly altered creek channels, and human-made drainage features (also see Section 2.2.2 Water Quality and Storm Water Runoff).

Biological Resources—Wetlands and endangered species were included in this category.

Wetlands—There are a number of coastal wetlands in the vicinity of the project, including the Carpinteria Salt Marsh and the Andrée Clark Bird Refuge. These wetlands occur within various watersheds that lie in the project limits (Carpinteria Creek, Franklin Creek, Santa Monica Creek, Arroyo Paredon Creek, Garrapata Creek, Toro Creek, Greenwell Creek, Romero Creek, San Ysidro Creek, Oak Creek, and Montecito Creek). The project is situated in the South Coast Hydrologic Unit, which is made up of small coastal watersheds originating in the southern Los Padres National Forest and draining to the Santa Barbara coast and Pacific Ocean (see Section 2.2.2 Water Quality and Stormwater Runoff). Water flows through steep slopes in the upper watershed, then through mid-elevations which support estate homes and other rural residential or agricultural uses, and finally across flat coastal terraces to the ocean. Coastal wetlands in the vicinity of the project area are associated with the flat coastal terraces in the lower portions of these watersheds. The resource study area consists of coastal terraces in the lower portions of coastal watersheds in the South Coast Hydrologic Unit.

Endangered Species—There are two endangered species in the project limits—tidewater goby and steelhead trout.

- *Tidewater goby* (*Eucyclogobius newberryi*)—Known occurrences in the vicinity of the project include the following locations: lower reaches of Arroyo Paredon Creek, lower reaches of Carpinteria Creek, the Carpinteria Salt Marsh (including near the mouth of Franklin Creek), the Andrée Clark Bird Refuge, and Sycamore Creek. Critical habitat for this species exists within the project limits at Arroyo Paredon Creek. The species has been found in the creek immediately downstream of the project area. The limits of critical habitat for the species in Arroyo Paredon Creek are from the ocean to approximately half a mile upstream. The species also occurs in the lower reaches of Carpinteria Creek, which is not critical habitat.
- *Steelhead trout* (*Oncorhynchus mykiss*)—Steelhead trout are an ocean-going form of rainbow trout native to Pacific Coast streams from Alaska south to northwestern Mexico. The Southern California Distinct Population Segment (DPS) of steelhead trout was listed as federally endangered on August 18, 1997. This Distinct Population Segment includes populations from the Santa Maria River south to the Tijuana River at the U.S.-Mexico border (NOAA 1997). Within the project limits, critical habitat for the Southern California DPS of steelhead trout includes the following creeks: Carpinteria, Arroyo Paredon, Romero, San Ysidro, Montecito, and Sycamore Creeks.

The National Oceanic and Atmospheric Administration's Southern California Steelhead Recovery Plan (2012) groups these creeks regionally as part of the recovery strategy. Creeks within the footprint of the South Coast 101 HOV lanes project fall within the Conception Coast Biogeographic Population Group (BPG), defined in the Recovery Plan. This region encompasses eight small coastal watersheds that drain a 50-mile stretch of south-facing slopes of the Santa Ynez Mountains in southern Santa Barbara County and extreme southwestern Ventura County. The resource study area includes the watersheds within the Conception Coast Biogeographic Population Group. These watersheds are relatively homogenous in slope, aspect, and size with steep upper watersheds and lower watersheds that cut across a relatively narrow coastal terrace.

Current Health and Historical Context

Traffic and Transportation and Pedestrian/Bicycle—Circulation on U.S. 101 in the project limits has been declining over the past 30 years as the numbers of vehicles using the facility have been increasing, but the facility itself has seen limited changes and improvements. As a result, heavy traffic conditions already occur several hours each day during the morning and evening commutes. As indicated in Table 1.1 (Chapter 1), congested conditions are already occurring for 4.5 hours per day and are predicted to reach 11 hours per day by 2040, without the project. Changes are needed to both the mainline and the Cabrillo Boulevard/Hot Springs Road interchange. The recently constructed 101 Operational Improvement Project from Milpas Street to Hot Springs Road improved highway conditions in the immediate vicinity, but not for the entire 10-mile length of the traffic study area. The Santa Barbara/Ventura HOV Lane project in northern Ventura County and the City of Carpinteria will improve conditions south of the project limits. The Linden and Casitas Pass Interchanges project will also provide improvements to U.S. 101 and adjacent local roads in the City of Carpinteria.

Visual/Aesthetics—Much of the area has been greatly influenced by development of some sort. The typical skyline vegetation along the highway and developed areas consists of mature cypress, pine, eucalyptus and palms. Native vegetation is visible mostly on the hillsides and consists of coast live oak woodland, coastal sage scrub, chaparral and riparian plant communities. Vegetation in the form of orchards is present at scattered locations, particularly in the foothills near Summerland and Carpinteria. Some degree of highway median planting is found throughout much of the project's length. At certain locations, particularly through the Padaro and Montecito Assessment Units, the median planting includes mature and skyline trees and dense shrubs. Along other sections of the

highway corridor, the median planting is somewhat sparse and at times has a weedy appearance. In most instances, the median planting, even if sparse, adds to the vegetative character of the corridor as well as reduces views of the opposing lanes of the highway.

The U.S. 101 corridor through southern Santa Barbara County has experienced low to moderate visual change over the last several years, while the Ventura County section of the corridor has experienced a higher degree of change. These changes have resulted from several highway improvement projects that occurred in the cities of Ventura and Oxnard along with numerous local development projects. Population increases have been greater in these two cities.

Except for the 101 Operational Improvement project (Milpas Street to Hot Springs Road) recently completed and the Ortega Hill bike path near Summerland, there have been few highway projects resulting in substantial visual changes within the project limits for the proposed project. For this reason, many of the median and roadside locations contain mature, well-established vegetation. The heavily vegetated stretches of this corridor along with open ocean views provide memorable views for people who travel the highway.

Water Quality—Water quality in the project-affected watersheds continues to decline. Historically, the water quality in these areas has been cumulatively impacted from various impairment sources. Groundwater throughout the project area may contain agricultural chemicals (fertilizers, herbicides and pesticides). The groundwater in the Arroyo Paredon Creek watershed is known to have high levels of nitrates.

Wetlands—There is an overall decline in the quality of the wetlands in the project vicinity due to ongoing development and encroachment. At least 75 percent of Southern California's former coastal wetlands has been lost, and the remainder experiences varying levels of degradation (Wiley and Zembel 1989). In 2007, a study of the health of the state's 44,000+ acres of salt marshes showed that 85 percent of the wetland area was in "good" or "very good" condition. Similarly, approximately 60 percent of the miles of riverine riparian habitat in wadeable streams are considered "healthy." However, statewide surveys of salt marsh and wetlands associated with streams show declining health as a function of increased urbanization (California State of the State's Wetlands Report, 2010).

Some wetlands in the project vicinity are considered high functioning and add value, such as the Carpinteria Salt Marsh and the Andrée Clark Bird Refuge. The Carpinteria Salt Marsh is the largest remnant of the native ecosystem in the region and has the highest occurrence of special-status species in the area. The Carpinteria Salt Marsh supports

several special-status wildlife species, providing shelter, foraging, breeding and rearing habitat. A portion of the marsh is protected as a conservation and research reserve by the University of California Natural Reserve System, and the remainder is overseen by the City of Carpinteria as the Salt Marsh Nature Park. Impacts to the Carpinteria Salt Marsh from agricultural runoff, sedimentation, invasive species, and mosquito abatement threaten its productivity (Santa Barbara Coastal Plan 1982).

The Andrée Clark Bird Refuge is a 42-acre open space that is an artificially modified estuary supporting brackish wetlands. The refuge is managed by the City of Santa Barbara and provides habitat for resident and migratory birds and other sensitive wildlife species. An annual vegetation/silt removal plan approved in 2012 includes the enhancement of 0.89 acre of previously disturbed wetland habitat. Enhancement and restoration will include removing non-native and invasive plant species from disturbed wetland areas and revegetation with wetland/riparian plantings.

Within the project limits, some human-made drainage features built for storm water conveyance are single-parameter wetlands under the Coastal Commission definition. This definition requires the observation of one diagnostic feature of a wetland such as wetland hydrology, dominance by wetland vegetation (hydrophytes), or presence of hydric soils as a basis for asserting jurisdiction under the Coastal Act. These drainage features may provide some level of function and service dependent on their size, hydrologic regime, and composition, but because vegetative cover and bank contours of human-made channels are routinely altered by maintenance activities, they are generally considered low-quality wetlands.

Tidewater Goby (Federally Endangered)—Historically, the tidewater goby occurred in at least 135 California coastal lagoons and estuaries ranging from Tillas Slough near the Oregon border south to Agua Hedionda Lagoon in northern San Diego County. The species is currently known to occur in about 112 locations, although the number of sites fluctuates with climatic conditions. According to the U.S. Fish and Wildlife Service, currently the most stable populations are in lagoons and estuaries of intermediate size (5 to 24 acres) that are relatively unaffected by human activities. The highest densities of tidewater gobies are typically present in the fall.

The decline of the tidewater goby is attributed mainly to habitat loss or degradation resulting from urban, agricultural, and industrial development in and around coastal wetlands. At present, the natural diversity and integrity of coastal lagoon and estuary habitats are threatened primarily by habitat modification and loss, discharge of sewage or agricultural effluents, introduction of exotic fish species, habitat channelization, summer

breaching or lagoons, decreased freshwater inflow and excessive sedimentation. No range-wide, long-term monitoring program is currently being conducted for the tidewater goby, and data on population dynamics are limited. As a result, it is difficult to obtain population size estimates for the tidewater goby because of the variability in local abundance. Tidewater goby populations can also vary greatly between years with varying environmental conditions (USFWS 2005).

In the 2005 Final Recovery Plan for the tidewater goby, the U.S. Fish and Wildlife Service recommended down-listing the status of the species from endangered to threatened (USFWS 2005). When the tidewater goby was proposed for listing as endangered in 1992 (57 FR 58770), California had just experienced what is considered the most severe drought in the history of the state, which lasted for 5 years from 1987 to 1992 (Priest et al., 1993). At the time of listing in 1994, it was believed that only 48 localities remained occupied; additional tidewater goby localities have been identified since the time of listing. Based on the more than doubling of the number of occupied localities since the tidewater goby was listed, the U.S. Fish and Wildlife Service determined that the Service considers the species to be more resilient to disturbance and climatic factors than previously expected. On March 12, 2014, the U.S. Fish and Wildlife Service formally proposed reclassifying the tidewater goby from endangered to threatened under the Endangered Species Act.

Steelhead Trout (Federally Endangered)—Estimates of historical (pre-1960s) and more recent (1997) abundance show a steep drop in numbers of spawning steelhead trout for major rivers in the Southern California Distinct Population Segment (DPS). Prior to 1960, steelhead trout were abundant in all of the streams and rivers in the resource study area. An updated status report states that the chief causes for the numerical decline of steelhead trout in Southern California include urbanization, water withdrawals, channelization of creeks, human-made barriers to migration, and the introduction of exotic fishes and riparian plants (NOAA 2013).

In 2011, the National Oceanic and Atmospheric Administration determined that the Southern California Coast steelhead trout DPS should remain classified as an endangered species due to the fact that “the extinction risk of the DPS is essentially unchanged and the threats responsible for its decline remain largely unchanged.” However, the review also noted that a number of recovery-related activities have been undertaken since 2005, which could reduce future threats and lead to increased abundance of steelhead trout populations. Recovery activities include inventories of passage impediments on major watersheds throughout the range of the DPS (Santa Maria/Sisquoc, Santa Ynez, Santa

Ynez Mountains complex, Ventura, Santa Clara, and Santa Monica Mountains complex, San Juan/Arroyo, San Luis Rey), and the construction of fish passage facilities along a number of streams including Ventura River (Robles Diversion Dam), Santa Paula Creek (Harvey Dam), Salsipuedes Creek, San Ysidro Creek, and a number of smaller watersheds along the Conception Coast. In addition, planning for the removal of various dams has advanced substantially, including Matilija Dam in the Ventura River watershed and Rindge Dam on Malibu Creek. Additional fish passage projects are in the planning stages along the Conception Coast, and a number of impediments to fish passage caused by road crossings and other in-stream structures have been eliminated or substantially improved as a result of retrofitting such structures.

Projects to Consider

Table 2.50 contains projects that are reasonably foreseeable in the near future or have recently been completed. Many are Caltrans-proposed projects, and several are railroad improvement projects. The remainder includes projects authorized by or proposed by local agencies.

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Table 2.50 Potential Cumulative Project List

| Project Name or Applicant | Project Location (Post Mile) | Project Description | Impacts |
|---|--|---|---|
| Transportation Projects—U.S. 101 | | | |
| Bailard Overcrossing | PM 1.6 | Provide standard clearance at this overcrossing. | Impacts unknown; project in preliminary studies. |
| U.S. 101 Operational Improvements—Milpas Street to Hot Springs Road | U.S. 101 (PM 10.8 to 12.8) | Completed in fall 2012, this project included 2.0 miles of improvements in the City of Santa Barbara. The project included additional northbound and southbound lanes, local road improvements, and bicycle and pedestrian enhancements. | Mitigation reduced potential visual impacts to a less than significant level. |
| U.S. 101 Linden Avenue to Casitas Pass Road Interchanges Project | U.S. 101 (PM 2.2 to 3.4) | This 1.1-mile-long project includes reconstruction of two interchanges, replacement of Carpinteria Creek Bridge, and a new Via Real connection south to Bailard Avenue. | Mitigation reduced potential visual impacts to a less than significant level. |
| Ventura/Santa Barbara 101 HOV Project | U.S. 101 (PM 39.8 Ven. Co to PM 2.2 SB Co) | The project consists of adding a high occupancy vehicle (HOV) lane in each direction between the Mobile Pier undercrossing in Ventura and Casitas Pass Road in Santa Barbara County. The project began construction in spring 2012 and will finish in 2015. | Mitigation reduced potential visual impacts to a less than significant level. |
| U.S. 101 Rehabilitation Project | U.S. 101 (PM 2.6 to 11.9) | The project proposes to replace the paved structural section of the highway to correct deficiencies indicated in the Pavement Condition Survey. Outside shoulders would be widened to 10 feet wide where feasible. Ramps would be rehabilitated, including removal of existing concrete curbs and concrete gutters. The work would occur within the existing right-of-way and would be performed simultaneously with the South Coast 101 HOV Lanes project. | The project would increase impervious coverage and encroach into wetland buffers. See Table 2.51 for details. |
| Santa Barbara Curb Ramp Project | U.S. 101 (PM 2.6 to 11.9) | Construct and/or improve 43 curb ramps (some with minor sidewalk extensions) at 20 locations along Routes 1, 101, 154, 192 and 246 in Santa Barbara County. | The project would not add impervious coverage. There would be no direct/indirect impacts to traffic circulation, visual resources, water quality or biological impacts. |

| Project Name or Applicant | Project Location (Post Mile) | Project Description | Impacts |
|--|--|---|--|
| Butterfly Pedestrian ADA | U.S. 101 (PM 11.0) | Bring the existing pedestrian overcrossing into compliance with ADA by constructing ramps at each entrance. Some landscaping will be removed, including skyline trees. There is room for some replacement landscaping and perhaps small trees, but unlikely any large varieties would go back at that location. | Potential visual impacts; the project adds impervious surface. |
| Local Infrastructure Improvements (parking, access and bike/pedestrian trail) | | | |
| Santa Claus Lane: Streetscape, Beach Access, and Parking | Santa Claus Lane | Santa Barbara County is proposing to construct parking along Santa Claus Lane and improve beach access for vehicles and pedestrians. | Caltrans design efforts will consider the county's proposal to avoid potential conflicts. |
| Santa Claus Lane Bike Path | | The Santa Claus Lane Class I bike path project would connect Santa Claus Lane to Carpinteria Avenue on the southbound side of U.S. 101. This project would close the coastal trail gap between Santa Claus Lane and the Carpinteria Marsh. | The project would likely impact wetlands due to conflicts with Carpinteria Marsh. |
| Carpinteria Rincon Trail | Carpinteria Avenue to Rincon Beach County Park | A paved bicycle/pedestrian trail intended to close the coastal trail gap between Carpinteria Avenue and the new Class I trail along U.S. 101 at Rincon. | About 0.95 acre of vegetation communities would be permanently impacted (0.41 acre of coastal sage scrub and 0.52 acre of coastal bluff scrub). An additional 0.26 acre of coastal sage scrub and 0.38 acre of coastal bluff scrub would be removed temporarily. |

| Project Name or Applicant | Project Location (Post Mile) | Project Description | Impacts |
|--|---|---|--|
| <i>Railroad Improvements</i> | | | |
| LOSSAN North | Multiple locations | The project consists of 39 individual railroad improvements between the San Luis Obispo train station and the Los Angeles Union Station, a total length of 222 miles. The project includes track upgrades, signal upgrades, new sidings and siding extensions, construction of second main tracks, curve realignments, grade separations, and station improvements in order to increase capacity and cost-effectiveness, reduce running time, and improve safety of intercity passenger rail. | Potential impacts will not be known until site-specific studies are completed. |
| San Luis Obispo - Santa Barbara Track Upgrades | Between SLO and Santa Barbara, mile post 248.44 to mile post 355.80 | The railroad project would upgrade 107.36 miles of track from Class 3 to Class 4 track standards (per Federal Railroad Administration). | Potential impacts will not be known until site-specific studies are completed. |
| South San Luis Obispo to Goleta Continuous Centralized Traffic Control | Between SLO and Goleta | This railroad project would link the previously established Centralized Traffic Control (CTC) between South San Luis Obispo and Goleta, establishing continuous CTC throughout the LOSSAN corridor from San Luis Obispo to San Diego. | Potential impacts will not be known until site-specific studies are completed. |
| Goleta Service Track Extension | Goleta Station | The railroad project would extend the existing service track at Goleta station, add a new power-operated Number 20 turnout at the current stub end, and relocate the existing train wash. | Potential impacts will not be known until site-specific studies are completed. |
| Ortega Railroad Siding | In the vicinity of Padaro Lane | The south end of the Ortega railroad siding was removed due to disrepair. The remaining portion is now used as a stub track for maintenance equipment. The project would reconstruct and lengthen this siding to 9,240 feet. Power-operated Number 24 turnouts would be installed and control points. | Potential impacts will not be known until site-specific studies are completed. |
| Sandyland Siding | Mile post 373.25 to Mile post 378.10, north of the existing Carpinteria station | The railroad project would add a new 11,000-foot long siding and would incorporate the Carpinteria siding built earlier. It would involve widening two pre-stressed concrete box bridges, one 36 feet and the other one 65 feet. The siding would feature power-operated Number 24 turnouts and control points. | Potential impacts will not be known until site-specific studies are completed. |

| Project Name or Applicant | Project Location (Post Mile) | Project Description | Impacts |
|---|---|---|---|
| Carpinteria Siding | Begin at mile post 377.5 and end at mile post 378.1 | The railroad project would construct a new siding at the Carpinteria station. The siding would be 2,640 feet long and would include Number 24 power-operated turnouts, as well as a new passenger platform to facilitate use of both tracks. | Potential impacts will not be known until site-specific studies are completed. |
| Rincon Siding | Begin at approximately mile post 380.3 south to mile post 381.3 | The proposed railroad siding would be constructed to the south of the Carpinteria siding. There appears to be sufficient clearance beneath the U.S. 101 overpass in addition to sufficient right-of-way. The siding would be roughly one-mile long. | Potential impacts will not be known until site-specific studies are completed. |
| Residential and Commercial Projects—Carpinteria | | | |
| Lagunitas Mixed Use | 6380 Via Real | This mixed-use project consists of 85,000 square feet of commercial office building space and 73 residential units (36 condominiums and 37 single-family dwellings). | Site design, landscaping, and architectural features as required by permit reduce potential visual impacts. |
| Dahlia Court Apartments | 1300 Dahlia Court | Construction is underway to add 33 affordable housing units to the existing 54 units. A 4,347-square-foot community center is also being added. | Increased local traffic. |
| Casas de las Flores Apartments | 4096 Via Real | Forty-three affordable housing units will be constructed on the former Camper Park site (70-space mobile home park). | None. |
| Albertsons Expansion | 1013 Casitas Pass Road | There is a 20,000-square-foot expansion of the Albertsons Grocery Store. | Increased local traffic. |
| Green Heron Springs | 1300 and 1326 Cravens Lane | Demolition of existing building and construction of 30 new condominiums and renovation of an existing circa-1904 2-story farmhouse. | Project is proposed with the balancing of resources approach to create a win-win for housing and resources. |
| Mission Terrace Estates | 1497 Linden | Construction is underway on a 27-unit housing project that includes 24 single-family market rate units and 3 affordable single-family units. | Increased local traffic. |
| Residential and Commercial Projects—Santa Barbara County | | | |
| Miramar Hotel | 1555 S. Jameson Way | Renovation of an abandoned resort. The project was reduced over the previous approval. Proposal is for 186 rooms and no tennis court. The project has been delayed due to the economic downturn. | Increased traffic. |

| Project Name or Applicant | Project Location (Post Mile) | Project Description | Impacts |
|--|--|--|--------------------------|
| Residential and Commercial Projects—City of Santa Barbara | | | |
| Beachfront Hotel Development | 433 E. Cabrillo Blvd and 103 S. Calle Cesar Chavez | A 50- to 60-room development plan for an upscale hotel and spa accommodations with parking and a working building. | Increased local traffic. |
| Paseo de la Playa | 101 Garden Street | This project consists of 3 sites: a 45,125-square-foot commercial building on one site and 107 residential units on the remaining sites (affordable and market rate). | Increased local traffic. |
| Sustainable Mixed-Use | 412 Anacapa Street | Proposal to subdivide existing 13,500-square-foot lot into 3 lots and build a 3-story sustainable mixed-use building on each new parcel. There will be a total of 4,074 square feet of commercial and 7,113 square feet of residential space and a total of 10 parking spaces. | Increased local traffic. |
| Mixed-Use Development | 630 Anacapa Street | This project proposes to merge 2 lots and build a 3-story mixed-use building with below-grade parking. The project includes 6 separate commercial spaces and 3 studio apartments. | Increased local traffic. |
| Mixed-Use Development | 528 Anacapa Street | This project proposes to demolish an existing 3,300-square-foot commercial building and build a mixed-use building in approximately 20,000 square feet (5,000 commercial/15,000 residential) on a 65,000-square-foot parcel. | No impacts. |
| Redevelop/Mixed-Use | 617 Bradbury Avenue | This revised project proposes to demolish a single-family residence and build a new 5,978-square-foot mixed-use development that includes 918 square feet of commercial area and about 3,400 square feet of residential area. | No impacts. |
| Mixed-Use Development | 825 De La Vina Street | Proposal for a mixed-use project that includes 1,606 square feet of commercial space, a 14,750-square-foot parking lot, and 7 residential condominiums averaging approximately 1,200 square feet each. | Increased local traffic. |
| Youth Hostel | 12 E. Montecito Street | Proposal to build an 11,091-square-foot commercial youth hostel. | None. |
| McReynolds – City Ventures | 535 E. Montecito Street | This project proposes to build 48 residential units on 10,285 square feet of land. | Increased local traffic. |

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

| Project Name or Applicant | Project Location (Post Mile) | Project Description | Impacts |
|--|------------------------------|---|------------------------------------|
| Redevelop Gas Station property to mixed-use | 1298 Coast Village Road | Proposal to demolish an existing gas station and build a 17,490-square-foot mixed-use building, including 5,215 square feet of commercial space and 12,275 square feet of residential space. A total of 36 parking spaces are proposed. | Potential hazardous waste impacts. |
| Commercial Building | 718 E. Mason Street | Proposal to build a new 2,414-square-foot commercial building with office and warehouse space. | No impacts. |
| Residential and Commercial Projects—City of Santa Barbara | | | |
| Residential | 1032 E. Mason Street | This project proposes to build six 2-story residential complexes on an existing 24,979-square-foot lot. | Increased local traffic. |
| Small Mixed Use Complex | 517 Chapala | This project would build six residential condominiums totaling 10,147 square feet and 2 commercial condominium spaces totaling 2,729 square feet. One residential unit would be affordable. | Increased local traffic. |
| Cottage Hospital Foundation Workforce Housing | 601 Micheltorena Street | This project proposes to demolish the former St. Francis Hospital and build workforce housing consisting of 115 residential condominiums on 5.94 acres of a 7.39-acre site. | Increased local traffic. |
| Commercial Buildings | 406/408 Quarantina Street | This proposed project would demolish a single-family residence and build a 2,653-square-foot commercial building. Adjacent to that a new 2,717-square-foot commercial building is proposed. | Increased local traffic. |
| Mixed Use | 116 E. Yanonali Street | Project proposes to demolish an existing warehouse/office and build a 13,203-square-foot mixed-use building, including 8,588 square feet of residential use and 4,615 square feet of commercial space. | Increased local traffic. |
| Mixed Use | 416 E. Cota Street | This proposed project would merge three existing lots, demolish a commercial building, and build 57 residential units on 39,603 square feet. | Increased local traffic. |
| Residential/Daycare Facility | 421 E. Cota Street | Proposal to demolish an existing building and build 8 residential apartments and a daycare center. | Increased local traffic. |
| Redevelopment/Mixed Use | 34 W. Victoria Street | Proposal to demolish an existing 20,125-square-foot commercial building on a 1.4-acre site and build 23,125 square feet of commercial/retail space with 37 residential condominiums. | None. |
| Residential/Open Space | 900-1100 Las Positas Road | This project would subdivide a 50-acre parcel into 30 lots; 15 acres will contain 25 single-family homes, while 35 acres will remain open space. | Increased local traffic. |

Direct and Indirect Impacts of the Proposed Project that Might Contribute to a Cumulative Impact

Traffic and Transportation/Pedestrian and Bicycle Facilities

The Forecast Operations Report discusses adding local development to the traffic mix and identifies 2040 cumulative-plus traffic conditions. See Figure 2-8, which shows the Future Level of Service results for all of the intersections evaluated for the project. The 2040 volumes include anticipated local land use development.

Project impacts were based on measured operations between the future no-build condition and the future build condition. Given that U.S. 101 freeway operations were shown to improve within the study area as a result of the project, project-specific impacts were primarily focused on the freeway interface with the local agency transportation systems (i.e., ramp intersections and local study area intersections adjacent to ramps).

Impact criteria established as part of the traffic study included the use of local jurisdiction traffic impact criteria (which is typically used for determining impacts associated with development projects). For state-operated facilities, the Caltrans Level of Service (LOS) standard of LOS C was the basis for identifying impacts associated with the project. For locally owned intersections, assessments of impacts were analyzed using the Highway Capacity Manual (HCM) method and the ICU method consistent with each respective local agency's policies. This analysis also took into account a number of factors including signal warrant criteria, the preferred methodology of the jurisdiction that owned and operated the intersection, and other factors.

Combining the impact analysis results described above, Table 2.51 lists all intersections identified with cumulative-plus project impacts. A total of 15 intersections are shown to have cumulative-plus project impacts associated with the South Coast 101 HOV Lanes project.

The cumulative-plus impacts identified in the Forecast Operations Report are largely due to the project's basic purpose to provide long-term corridor congestion relief. Due to redistribution of traffic, the project would result in some changes to local traffic patterns at some ramp junctions of the highway system. The project would enable the highway to better handle the vehicles currently using the corridor, and some intersections could see added delays because improved travel times on the highway would cause vehicles to enter nearby intersections in higher numbers. Other intersection operations would be consistent with the no-build condition or improved. The project would also encourage

future carpooling and facilitate delay reduction for transit services that travel within this corridor.

The final determination by Caltrans was that the impacts identified in the traffic studies do not reach a level of significance that requires mitigation. This determination is rooted in the fact that the purpose and need for the HOV project is to provide significant daily congestion relief in the larger corridor, and the traffic studies demonstrate that this overall congestion relief is achieved by the project (the project is anticipated to result in nearly 14,000 person hours of delay savings daily in 2040). Intersections outside the project limits where some increases in delay are projected to occur under a build scenario are tradeoffs associated with the project and are not significant in comparison to the overall level of congestion relief achieved by the project.

The draft environmental document for the project disclosed that there are some delay increases at a number of local jurisdiction and state-controlled intersections. The amount of added delay associated with these intersections, however, is not significant for two reasons: 1) the added intersection delay is minimal in relation to significant delay reduction benefits associated with the project, and 2) the project is a congestion relief project and is not generating trips (instead it allows individual motorists to make rational choices to travel at times they may find problematic without the larger corridor congestion relief project). Except for changes proposed at the Hot Springs/Cabrillo Interchange, no additional improvements are proposed as part of this project to address the delay changes associated with future traffic redistribution within or outside the project limits.

Table 2.51 2040 Cumulative-plus Traffic Conditions

| ID | Intersection | Control ¹ | Location | Total Entering Traffic Volumes | | | | No Build Results | | Build Results | | Signal Warrant Met? ⁵ | | Project Impact Threshold Criteria |
|-----|--|----------------------|--------------|--------------------------------|----------------|----------------|--------------------|--|------------------|--|------------------|----------------------------------|-------|-----------------------------------|
| | | | | Existing | No Build | Build | Delta ² | Delay (seconds) OR V/C ³ | LOS ⁴ | Delay (seconds) OR V/C ³ | LOS ⁴ | No Build | Build | |
| 4 | SB on/off ramp & SR 150 <i>PM Peak</i> | TWSC | Study Area | 644 | 644 | 672 | 28 | 30 | D | 36.3 | E | No | No | State |
| 7 | NB on/off ramp & Bailard Ave <i>PM Peak</i> | TWSC | Study Area | 1,123 | 1,215 | 1,390 | 175 | 21 | C | 27 | D | No | No | State |
| 14 | Carpinteria Ave & Casitas Pass Rd <i>PM Peak</i> | Signal | Study Area | 1,805 | 2,193 | 2,329 | 136 | 29.9 | C | 37.4 | D | N/A | N/A | City of Carpinteria |
| 18 | Linden Ave & Sawyer Ave <i>AM Peak</i> | TWSC | Project Area | 944 | 1,066 | 1,277 | 211 | 25.8 | D | 41.3 | E | No | No | State |
| 33 | SB on/off ramp & Sheffield <i>AM Peak</i> | TWSC | Project Area | 390 | 483 | 579 | 96 | 19.9 | C | 29.3 | D | No | No | State |
| 49 | SB on ramp & Milpas St <i>AM Peak</i> <i>PM Peak</i> | Signal | Study Area | 1,910 2,625 | 1,968 2,625 | 2,605 2,862 | 637 237 | 30 64.2 | C E | 48.4 60.6 | D E | N/A | N/A | State |
| 55 | NB on ramp & Castillo St <i>PM Peak</i> | Signal | Study Area | 2,205 | 2,571 | 2,605 | 34 | 129.4 | F | 131.4 | F | N/A | N/A | State |
| 57 | SB on/off ramp & Castillo St <i>PM Peak</i> | Signal | Study Area | 2,557 | 3,092 | 3,117 | 25 | 52.6 | D | 55.7 | E | N/A | N/A | State |
| 59 | SB on/off ramp & Carrillo St <i>AM Peak</i> <i>PM Peak</i> | Signal | Study Area | 3,435 3,778 | 3,677 4,141 | 3,689 4,164 | 12 23 | 56.8 33.6 | E C | 62.7 35.6 | E D | N/A | N/A | State |
| 60 | Carrillo St & Castillo St <i>AM Peak</i> | Signal | Study Area | 2,742 | 2,995 | 3,082 | 87 | 0.757 | C | 0.779 | C | N/A | N/A | City of SB |
| 64 | SB on/off ramp & Mission St <i>AM Peak</i> <i>PM Peak</i> | Signal | Study Area | 2,705 2,473 | 2,817 2,793 | 2,838 2,883 | 21 90 | 34.5 53.1 | C D | 35.9 65 | D E | N/A | N/A | State |
| 65 | Mission St & Castillo St <i>PM Peak</i> | Signal | Study Area | 2,451 | 2,887 | 3,001 | 114 | 0.787 | C | 0.849 | D | N/A | N/A | City of SB |
| 79 | SB on ramp & State St & Rt 154 <i>AM Peak</i> <i>PM Peak</i> | TWSC | Study Area | 1,941 1,635 | 2,054 1,818 | 2,081 1,867 | 27 49 | 101.1 96.9 | F F | 112.4 119.4 | F F | N/A | N/A | State |
| 90 | NB on/off ramp & Los Carneros Rd <i>AM Peak</i> | Signal | Study Area | 1,596 | 1,942 | 2,045 | 103 | 33.9 | C | 40 | D | N/A | N/A | State |
| 106 | Milpas St & Quinientos St <i>PM Peak</i> | Signal | Study Area | 2,518 | 3,118 | 3,181 | 63 | 0.866 | D | 0.909 | E | N/A | N/A | City of SB |

¹ TWSC - Two Way Stop Control, AWSC - All Way Stop Control
² As defined by difference between 2040 build and 2040 no build volume sets
³ Delay is based on HCM 2000, Chapter 16 and 17 methodology. V/C based on Transportation Research Board Special Report 209
⁴ HCM LOS is reported for the worst movement at TWSC intersections and for the overall intersection at AWSC and signalized intersections
⁵ Based on Peak Hour Warrants (Signal Warrant #3) as described in California Manual on Uniform Traffic Control Devices at unsignalized intersections

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Visual Resources/Aesthetics

The transportation projects considered in this section include those located on U.S. 101 in northern Ventura and Santa Barbara counties, which would be built or finished within approximately five years from the start of construction of the proposed project. These transportation projects are considered for their likelihood to permanently impact visual resources along U.S. 101 in the South Coast region.

The U.S. 101 corridor between the City of Goleta and south into Ventura County has several major projects either currently under construction or planned for construction. The recently completed U.S. 101 Cathedral Oaks/Hollister Avenue overcrossing and Milpas Street Interchange to Hot Springs/Cabrillo Interchange projects and the Ventura/Santa Barbara HOV project currently under construction, as well as future projects including the Linden Avenue and Casitas Pass Road Interchanges and Rehabilitation projects, would increase the visual scale of the highway corridor and its urban character.

Though each of those projects would individually minimize or mitigate visual impacts, residual adverse effects would remain. The changes proposed as part of the South Coast 101 HOV Lanes project would further contribute to an alteration of visual character along the route. Project features, which include additional lanes to the freeway, vegetation removal, larger bridge structures, two new interchanges, and a number of soundwalls would produce substantial visual changes to the overall corridor, despite extensive planting and special design treatment. Although each of those projects would individually minimize and/or mitigate visual impacts, the cumulative visual effect of those projects combined with this South Coast 101 HOV Lanes project would be substantial.

The two local projects being considered for cumulative impacts would add architectural and landscape elements in their designs to minimize potential visual impacts and better fit the communities. In spite of these features, these projects would either maintain or increase the visibility of developed visual character along the highway.

Although the implementation of the mitigation and minimization measures previously listed in Section 2.1.6 and Appendix F would reduce the project's visual impact as seen from U.S. 101 and the surrounding communities, extensive visual impacts would remain, regardless of the project alternative. Mitigation measures, combined with proposed project features such as replacement landscaping and aesthetic treatments to walls, would lessen the adverse visual change to the corridor. However, because of the inherent

alteration of scale, increase of hard surface, and loss of vegetative character, substantial adverse cumulative visual impacts would occur in this corridor.

Water Quality

Water quality impacts were added to the cumulative analysis section after public circulation of the draft environmental document.

The project would increase areas of impervious coverage, which potentially increases the volume and velocity of storm water flow to downstream receiving water bodies. Also, pollutant loading may also be increased. The added impervious area is directly related to the potential permanent long-term water quality impacts. The increase of impervious surface area from future off-highway development may adversely affect long-term water quality by increasing the amount of storm water runoff, transportation-related pollutants, and associated targeted design constituents entering the storm drain system. New development would have to comply with existing regulations regarding construction practices that minimize risks of erosion and runoff (refer to Section 2.2.2). The goal for this and other projects is to minimize impacts by treating existing and proposed runoff to the maximum extent practicable. The potential short-term and long-term impacts are discussed in Section 2.2.2 (Water Quality).

Table 2.52 was added to compare the project's new net impervious coverage area to the existing impervious coverage in the larger watersheds within the project area. Although several additional Caltrans projects were added to the list of projects in Table 2.50, only the U.S. 101 Rehabilitation project in combination with the HOV Lanes project was included in Table 2.52. Table 2.52 shows the total increase and percentage of increase in net new impervious areas per large watershed. As a result of increased impervious surfaces, storm water runoff volumes and velocities in the project area are expected to increase with construction of the South Coast 101 HOV Lanes project and the Highway 101 Rehabilitation project, which is currently undergoing the scoping process but is being developed for a section of the project limits (post miles 2.6 to 11.9). In the evaluation of the larger watersheds in the project limits, the increased flows from the Caltrans-proposed projects would be less than significant and would not contribute to cumulative impacts. And, with the project's incorporated minimization measures (refer to Section 2.2.2 and Appendix F), the proposed South Coast 101 HOV Lanes project would not have a cumulatively considerable contribution to the cumulative effects related to water quality.

Biological Resources

Wetlands

This project in combination with several other projects identified in Table 2.50 will potentially have a cumulative impact to wetlands. Alternative 1 (the preferred alternative) would permanently impact 0.23 acre of wetlands and temporarily impact 0.045 acre of wetlands. The project's impacts will be offset by a 3 to 1 replacement of higher value wetlands in addition to other measures listed in Section 2.3.2 and Appendix F. Therefore, the project's contributions to cumulative impacts for wetlands are relatively minor. It is anticipated that other listed projects in Table 2.50 with potential to impact wetlands will also be mitigated appropriately. Because impacts from projects such as the Highway 101 Rehabilitation project, the Santa Claus Lane Bike trail, and Ortega Siding cannot be quantified until the designs are further along, it is difficult to assess the overall cumulative impacts that could result collectively.

Tidewater Goby

There is a Biological Opinion and incidental take permit for the Linden-Casitas project for tidewater gobies at Carpinteria Creek for the proposed work associated with the U.S. 101 bridge replacement. There is also a Biological Opinion and incidental take permit for tidewater gobies in Arroyo Paredon Creek as part of the South Coast 101 HOV Lanes project. The formal Section 7 process with the U.S. Fish and Wildlife Service concluded that with the agreed upon avoidance and minimization measures in place for both projects, neither Caltrans project is likely to jeopardize the continued existence of tidewater gobies at either creek or to adversely affect critical habitat for the species. Therefore, when considering both projects from a cumulative perspective, there would not be a significant effect.

Steelhead Trout

There is a Biological Opinion and incidental take permit for the Linden-Casitas project for steelhead trout at Carpinteria Creek for the proposed work associated with the U.S. 101 bridge replacement. There is also a Biological Opinion and incidental take permit for steelhead trout in Romero Creek, San Ysidro Creek, and Arroyo Paredon Creek as part of the South Coast 101 HOV Lanes project. The formal Section 7 process with the U.S. Fish and Wildlife Service concluded that with the agreed upon avoidance and minimization measures in place for both projects, neither Caltrans project is likely to jeopardize the continued existence of steelhead trout or to adversely affect critical habitat for the species. Therefore, when considering both projects from a cumulative perspective, there would not be a significant effect.

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**Table 2.52 Comparison of the Net New Impervious Existing Impervious Area for Large Watersheds
(South Coast 101 HOV Lanes and 101 Rehabilitation Project)**

| Waterbody | Watershed Area | Watershed Impervious Area | U.S. 101 Existing Impervious Area | HOV Project Preferred Alt Increased Impervious Area | | U.S. 101 Existing + HOV Post-Development Impervious Area | | Rehab Project Increased Impervious Area | | HOV + Rehab Cumulative Post-Development Impervious Area | | Preliminary TBMP Tributary Areas | Notes |
|---|----------------|---------------------------|-----------------------------------|---|------------|--|-------------|---|------------|---|-------------|----------------------------------|---------------------------|
| | acres | acres | acres | acres | % Increase | acres | % Watershed | acres | % Increase | acres | % Watershed | | |
| Carpenteria Creek | 9820 | 72.2 | 15.1 | 0 | 0 | 15.1 | 0.15 | 0 | 0 | 15.1 | 0.15 | 18.1 ac | Offsite at Bailard Ave OC |
| Franklin Creek | 2530 | 282.9 | 12.7 | 5.4 | 0.21 | 18.1 | 0.72 | 0.3 | 0.01 | 18.4 | 0.73 | 2.8 ac | |
| Santa Monica Creek | 2450 | 45.3 | 0.2 | 0.1 | 0 | 0.3 | 0.01 | 0 | 0 | 0.3 | 0.01 | 11.3 ac | |
| Arroyo Paredon | 2810 | 55.9 | 7.2 | 3.8 | 0.14 | 11 | 0.39 | 0.3 | 0.01 | 11.3 | 0.4 | | |
| Garrapata Creek | 370 | 11.3 | 5 | 2.6 | 0.7 | 7.6 | 2.05 | 0.1 | 0.03 | 7.7 | 2.09 | | |
| Toro Creek | 2380 | 38.3 | 3.7 | 1.9 | 0.08 | 5.6 | 0.24 | 0.1 | 0.01 | 5.7 | 0.24 | 4.5 ac | |
| Greenwell Creek | 280 | 12.9 | 3.4 | 1.8 | 0.64 | 5.2 | 1.86 | 0.3 | 0.09 | 5.5 | 1.95 | 1.5 ac | |
| Romero Creek | 3820 | 117.3 | 4.4 | 2.3 | 0.06 | 6.7 | 0.18 | 0.5 | 0.01 | 7.2 | 0.19 | | |
| San Ysidro Creek | 2490 | 39.3 | 1.3 | 0.7 | 0.03 | 2 | 0.08 | 0.1 | 0 | 2.1 | 0.08 | | |
| Oak Creek | 980 | 77.9 | 2.8 | 1.5 | 0.15 | 4.3 | 0.44 | 0.1 | 0.01 | 4.4 | 0.44 | | |
| Montecito Creek | 4330 | 125.9 | 1.8 | 0.9 | 0.02 | 2.7 | 0.06 | 0.3 | 0.01 | 3.0 | 0.07 | | |
| All Other (Small) Locations (South Coast HOV) | | | 37.4 | 21.0 | | | | | | | | 6.5 ac | |
| Total for HOV | | | 95.0 | 42.0 | | | | | | | | 44.70 | |

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Avoidance, Minimization, and/or Mitigation Measures

The measures to be incorporated as part of the cumulative review are noted in the applicable sections in Chapter 2 and in Appendix F of the final environmental document.

Traffic and Transportation and Pedestrian/Bicycle—Section 2.1.5

Visual/Aesthetics—see below.

Water Quality and Storm Water Runoff—Section 2.2.2

Biological Resources:

Wetlands—Section 2.3.2

Threatened and Endangered Species—Section 2.3.4

Visual/Aesthetics

- All soundwalls shall include aesthetic treatment such as texture and/or color to blend with the community character.
- To avoid blocking prime ocean views, it is recommended the following soundwalls not be built in Summerland:
 - Along northbound U.S. 101 from about 200 feet west of Greenwell Road to the Summerland Fire Station
 - Along northbound U.S. 101 about 0.2 mile east of Greenwell Road to approximately Greenwell Road
 - Along northbound U.S. 101 from the Evans Avenue undercrossing to the Evans Avenue northbound on-ramp
 - Along northbound U.S. 101 from the beginning of the Evans Avenue northbound on-ramp to about 50 feet west of the beginning of the Evans Avenue northbound on-ramp
- To balance the need for noise attenuation and maintaining partial ocean views, a clear panel should be used along the top portion (10 feet or more above the ground) of a proposed soundwall in Summerland at the following location:
 - Along northbound U.S. 101, from about 50 feet west of the beginning of the Evans Avenue northbound on-ramp to about 650 feet west of the beginning of the Evans Avenue northbound on-ramp

- All proposed concrete barriers shall include aesthetic treatment such as texture and/or color appropriate for the setting.
- Drainage structures visible from public areas shall be designed to visually blend in with the setting as much as possible.
- Changes to existing bridge structures shall reflect the visual character of the existing structures in terms of materials, color, style, and the existing human scale of the area.
- Open-style bridge railing shall be used on all new or modified bridge structures, except at locations where solid barriers are needed to provide added noise attenuation.
- If new traffic management system elements such as radar, cameras, and other equipment are added to the project, all visible components shall be located in the least obtrusive locations possible and colored to reduce visibility.
- Aesthetic treatments and design such as textured surfaces, architectural relief, and color application shall be incorporated into all new bridge structures.
- Any new signage would be located so that it minimizes view blockage of the Pacific Ocean to the greatest extent feasible, considering the necessary function of the sign.
- All new lighting shall minimize excess light and glare by careful placement of the poles, height and position of luminaires, and the use of shielded lenses where feasible.
- All areas where existing ramps and other paved surfaces are removed and where new landscaping is proposed shall be made suitable for planting.
- Existing trees and shrubs shall be preserved to the greatest extent possible.
- Existing healthy palm trees that would be affected by the project shall be transplanted to other areas within the project where feasible.
- Planting shall be included with all soundwalls to the greatest extent possible.
- Planting shall be included with all retaining walls to the greatest extent possible.
- New landscaping shall minimize view blockage of the Pacific Ocean.
- Plants with the potential of becoming skyline trees would be used as much as possible without blocking views of the Pacific Ocean.

- Existing Memorial Oaks would be preserved to the greatest extent feasible, respective of the selected project alternative.
- All new oak trees planted as part of the Memorial Oak tree mitigation measure shall be propagated from the existing Memorial Oak trees.
- All new non-oak planting near the Memorial Oaks shall be species that are easily differentiated from the Memorial Oaks, in terms of their visual character (form, size, color, and or texture).
- Concrete median barrier and new soundwalls in the immediate vicinity of the Memorial Oaks shall include aesthetic treatment unique to the Memorial Oaks area.
- The landscaping plan shall include historically successful plant species throughout the corridor.
- All aesthetic planting shall use larger-container-size plant material where appropriate. Trees shall be planted, at minimum, from 15-gallon containers.
- All permanent storm water treatment measures would be designed to visually fit with the ornamental or natural landscaped roadsides to the greatest extent feasible considering their intended function. Swales, ditches and basins should appear as natural as possible. Built structures would be architecturally treated, colored or hidden from view with planting.
- If required, new access denial fencing along the southbound on- and off-ramp at Los Patos Way and Hermosillo Drive shall be ornamentally treated.

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