

South Coast 101 HOV Lanes Project

Santa Barbara County, California

05-SB-101-PM 1.4 to 12.3

05-0N7000

Project ID# 0500000225

SCH# 2009051018

Final Environmental Impact Report/ Environmental Assessment with Finding of No Significant Impact



Prepared by the
State of California Department of Transportation

Volume I of IV

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by the California Department of Transportation under its assumption of responsibility pursuant to 23 U.S. Code 327.

August 2014



General Information about This Document

What's in this document?

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration, has prepared this Final Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact, which examines the potential environmental impacts of alternatives being considered for this project in Santa Barbara County, California. The document describes the project proposal, alternatives for the project, the existing environment that could be affected by the project, potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

The Draft Environmental Impact Report/Environmental Assessment was circulated to the public from March 23, 2012 to July 9, 2012. Comments were received from the public during this circulation period. The comments and Caltrans' responses to those comments are provided in Appendix M of this document, located in Volume IV.

Elsewhere throughout this document, a vertical line in the right margin of the page indicates a content change made since the draft document circulation. Minor editorial changes and clarifications have not been so indicated. This information supersedes and/or clarifies information contained in the Draft Environmental Impact Report/Environmental Assessment.

Project website:

http://www.dot.ca.gov/dist05/projects/sb_101hov/index.html

Hardcopies of the four volumes of this Final Environmental Impact Report/Environmental Assessment along with the associated technical studies can be found at:

- ❖ Caltrans district office at 50 Higuera Street, San Luis Obispo, CA 93401

Hardcopies of the four volumes of this Final Environmental Impact Report/Environmental Assessment along with a CD containing the associated technical studies can be found at these libraries:

- ❖ Santa Barbara City Central Library (40 E. Anapamu Street)
- ❖ Santa Barbara Eastside Library (1102 E. Montecito Street in Santa Barbara)
- ❖ East Montecito Branch Library (1469 E. Valley Road in Montecito)
- ❖ Carpinteria City Library (5141 Carpinteria Avenue in Carpinteria)

There are four volumes that total more than 1,600 pages. Maps contained in Volume III measure 11 inches by 17 inches. The document can be viewed electronically on the project website or by requesting a CD. As noted above, hardcopies of the final environmental document can be found at the specified libraries and offices. Lastly, a copy can be requested by contacting: Jason Wilkinson at (805) 542-4663.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Jason Wilkinson, Environmental Analysis, 50 Higuera Street, San Luis Obispo, CA 93401; (805) 542-4663 Voice, or use California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2922 (Voice) or 711.

SCH# 2009051018
05-SB-101-1.4/12.3
EA 0N7000
Project ID# 0500000225

Widen U.S. 101 to three lanes in each direction from 0.22 mile south of the Bailard Avenue overcrossing
in the City of Carpinteria to Sycamore Creek in the City of Santa Barbara (post miles 1.4 to 12.3)

**FINAL ENVIRONMENTAL IMPACT REPORT/
ENVIRONMENTAL ASSESSMENT
WITH FINDING OF NO SIGNIFICANT IMPACT**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 U.S. Code 4332(2)(C) and 23 U.S. Code 327

THE STATE OF CALIFORNIA
Department of Transportation

8/26/14
Date of Approval



Timothy M. Gubbins
District Director
California Department of Transportation
NEPA and CEQA Lead Agency

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California Department of Transportation

Finding of No Significant Impact

for

South Coast 101 HOV Lanes Project

The California Department of Transportation (Caltrans) has determined that Alternative 1 with the F Modified configuration for the Cabrillo Boulevard/Hot Springs Road Interchange Project will have no significant impact on the human environment. This Finding of No Significant Impact is based on the attached Environmental Assessment, which has been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. Caltrans takes full responsibility for the accuracy, scope, and content of the attached Environmental Assessment and incorporated technical reports.

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

Notwithstanding any other provision of law, a claim arising under federal law seeking judicial review of the permit, license or approval issued by a federal agency for a highway or public transportation project shall be barred unless it is filed within 180 days after publication of a notice in the Federal Register announcing that the permit, license, or approval is final pursuant to the law under which agency action is taken, unless a shorter time is specified in the federal law pursuant to which judicial review is allowed.

Date

8/26/14

Timothy M. Gubbins
District Director

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Summary

Effective July 1, 2007, the California Department of Transportation (Caltrans) has been assigned environmental review, consultation, and coordination responsibilities under the National Environmental Policy Act pursuant to 23 U.S. Code 327.

Overview of Project Area

U.S. 101 is a regional freeway that extends from the Los Angeles basin through Northern California and plays a large role in the state economy by serving as a secondary route to Interstate 5. The proposed project covers more than 10 miles of U.S. 101 from the City of Carpinteria (post mile 1.4) to the southern portion of the City of Santa Barbara (post mile 12.3). In addition to these two cities, the project runs through the unincorporated area of Toro Canyon and the communities of Summerland and Montecito in Santa Barbara County.

In the project limits, U.S. 101 is two lanes of traffic in each direction with an intermittently landscaped median. Each travel lane is predominantly 12 feet wide; the outside shoulder is generally 8 feet wide, and the inside shoulder is generally 5 feet wide. The existing median varies in width from 26 feet in Montecito to 150 feet in the City of Santa Barbara at the Cabrillo Boulevard interchange. The existing side slopes vary from 1.5:1 to 4:1. Right-of-way width varies from 96 feet to 380 feet.

Just north of the project limits, U.S. 101 has three lanes of traffic in each direction. Three lanes exist in the northbound direction beginning at the Cabrillo Boulevard on-ramp in the City of Santa Barbara, and three lanes exist in the southbound direction ending just south of the Cabrillo Boulevard undercrossing. Upon completion of the Ventura/Santa Barbara 101 High Occupancy Vehicle Project (expected by late 2015), three lanes in each direction will exist from the City of Ventura to the Carpinteria Creek Bridge.

Purpose

The purpose of the project is the following:

- Reduce congestion and delay.
- Provide capacity for future travel demand.
- Improve travel time on U.S. 101 within the project limits.
- Provide for high occupancy vehicle (HOV) lane continuity on U.S. 101 in southern Santa Barbara County, as planned for in the 2040 Regional Transportation Plan and Sustainable Communities Strategy updated in 2013.

Summary

- Encourage a modal shift to transit and carpooling.

To achieve the project goals in 2040, on typical weekdays¹ this project should do the following:

- Reduce corridor delay by at least 7,000 person-hours daily.²
- Reduce peak hour peak direction travel time on U.S. 101 in the project area for carpoolers and express bus riders by 25 percent or more on average.

Need

U.S. 101 is the main route for commuters, interregional traffic, and cargo throughout the South Coast area. U.S. 101 serves as the primary connection for vehicle travel between the communities of Goleta, Santa Barbara, Montecito, Summerland, and Carpinteria. It is a major interregional road as part of the national highway system, connecting Northern California and Southern California. U.S. 101 also plays a large role in the state economy by serving as a secondary route to Interstate 5. Local highway travelers rely on U.S. 101 for commuting purposes as well as for travel related to school, personal use, business and leisure. Employment is concentrated at the northern end of the corridor in and near the cities of Santa Barbara and Goleta. The University of California Santa Barbara campus, near Goleta, also attracts a large number of vehicles during the peak commute periods.

The project limits consist of a high-demand stretch of U.S. 101 that is a four-lane section bounded by a six-lane section to the north and the Ventura/Santa Barbara 101 HOV project to the south. Currently under construction and expected to be completed late 2015, the Ventura/Santa Barbara 101 HOV project is the second phase of the U.S. 101 widening plan for the South Coast area. This project is adding a high occupancy vehicle lane in each direction from Ventura County to the southern limits of the South Coast 101 HOV Lanes project. The completion of the South Coast 101 HOV Lanes project would provide six lanes from the City of Ventura through the City of Goleta.

Motorists on U.S. 101 through the project limits experience traffic congestion during the morning and afternoon peak travel periods. Currently, peak travel periods occur for two to four hours daily in each direction. According to the Forecast Operations

¹ Performance measures were derived from *101 In Motion*, sponsored by Santa Barbara County Association of Governments—a consensus package of solutions that address the growing congestion problem along the U.S. 101 corridor in Santa Barbara County (adopted October 2005).

² Delay is a measure of time “lost” per person due to travel in congested conditions. Delay occurs on U.S. 101 when vehicles travel at speeds below 55 miles per hour. Total person hours of delay are calculated by multiplying the amount of time lost per person per day during peak hours by the number of vehicles traveling during the congested peak periods.

Report prepared as part of the South Coast 101 HOV Traffic Studies, by 2040, peak travel periods are expected to increase to 11 hours each day. For through-travelers from Ventura to Northern Santa Barbara and beyond, this area would continue to act as a bottleneck without the project.

Proposed Action

Caltrans proposes to modify U.S. 101 to provide a part-time, continuous access HOV lane in each direction on U.S. 101 extending from Carpinteria Creek in the City of Carpinteria to Cabrillo Boulevard in the City of Santa Barbara. The project begins 0.22 mile south of the Bailard Avenue overcrossing (post mile 1.4) in the City of Carpinteria and extends to the southern portion of the City of Santa Barbara (post mile 12.3) near Sycamore Creek.

Four alternatives were under consideration, including the No-Build Alternative. Alternative 1 was selected as the preferred alternative along with the F Modified configuration for the Cabrillo Boulevard/Hot Springs Road interchange. This decision by Caltrans and the Project Development Team was based on engineering and environmental analysis and considered comments from the public, community, government agencies, and elected officials. Project funding, schedule, right-of-way constraints, and project alternative feasibility were also taken into consideration. While all of the build alternatives would satisfy the purpose and need, Alternative 1 was developed to maximize opportunities to retain and enhance high-value resources including scenic views, wetlands and median/outside landscaping. Although Alternative 3 has the smallest construction footprint and slightly fewer impacts to wetlands, it would provide no opportunities for median landscaping. Alternative 2 has the greatest opportunity for median planting, but would have a larger footprint and greater impacts to wetlands and other waters.

The project would be separated into phases for construction based on funding and permit process. It is expected that the total duration for construction would be approximately 10 years.

Five changes were made to Alternative 1 (preferred alternative) since the Draft Environmental Impact Report/Environmental Assessment was released:

- 1) By using a single median barrier instead of retaining enough room for a planted median from South Padaro Lane to the Carpinteria Marsh (post miles 4.7 to 5.3), the originally proposed retaining wall in this area is no longer needed, making it more compatible with the County of Santa Barbara's proposal for Santa Claus Lane parking and beach access.

Summary

- 2) The construction footprint would be reduced by narrowing the inside shoulder width in the northbound direction in the vicinity of the Via Real Redeposited Midden.
- 3) A realignment and separation will be accommodated in the northbound and southbound mainlines at the Sheffield Drive interchange (post miles 8.9 to 9.1) to provide a wider median. The new alignment was in response to comments from local agencies that expressed the desire for keeping a wider median, if possible. The change requires two additional retaining walls along the southbound mainline shoulder edge.
- 4) The proposed structural section for the highway is currently proposed to be continuously reinforced concrete pavement instead of asphalt concrete pavement, which could improve noise attenuation and extends the service life (from the previous estimate of 20 years) to 40 years.
- 5) The Cabrillo Boulevard Interchange F Modified configuration is to be revised to have a lane added to Cabrillo Boulevard between the northbound and southbound ramp connections to provide for two eastbound lanes. The originally proposed median will be shifted north one lane width to provide for a continuation of two eastbound lanes to the roundabout. There will be only one Cabrillo Boulevard westbound right-turn lane into the northbound on-ramp instead of two.

In addition to the above noted changes, the Project Development Team recommended removal of certain soundwalls due to blockage of prime ocean views and the addition of several soundwall segments that were initially found to not be financially reasonable when evaluated as longer walls. These smaller segments were near areas of dense residential development and were found to be financially reasonable when broken into smaller length segments. Also, Federal Emergency Management Agency (FEMA) floodway mapping was revised after a resident (in the vicinity of Oak and Romero creeks) applied for a Letter of Map Revision, which was approved by FEMA on December 4, 2012. The revised mapping allowed for extending a portion of soundwall S464 to the revised floodway limit provided design features are added to avoid raising base flood elevations. Refer to Section 2.2.7 (Noise) and Figures 2.21 to 2.31 (Recommended Soundwalls) for more information. Soundwall recommendations are identical for all three build alternatives.

Refer to Section 1.3.5 for details on Alternative 1 (preferred alternative), which includes the F Modified configuration for Cabrillo Boulevard/Hot Springs Road.

Each build alternative would also do the following:

Summary

- Add pavement width in each direction on U.S. 101 to provide for a six-lane facility within the project limits.
- Add a part-time, continuous-access HOV lane in each direction on U.S. 101 extending from Carpinteria Creek in the City of Carpinteria to Cabrillo Boulevard in the City of Santa Barbara.
- Improve the southbound shoulder ditches near the Bailard Avenue interchange to provide graded, flat-bottom swales to be used for storm water treatment.
- Replace bridge structures at Arroyo Paredon (Parida), Toro Canyon, Romero (Picay), Oak, and San Ysidro creeks.
- Widen bridge structures at Franklin and Santa Monica creeks.
- Widen traffic undercrossing structures at South Padaro Lane and Evans Avenue.
- Build a southbound auxiliary lane (for merging) between the Sheffield Drive on-ramp and the Evans Avenue off-ramp.
- Reconstruct the highway to remove a localized rise in the roadway north of Sheffield Drive near the Romero (Picay) Creek bridge that causes drivers to have somewhat limited visibility of the freeway ahead of them. The freeway profile would be lowered a maximum of 2 feet to flatten the roadway.
- Reconstruct the interchange at Sheffield Drive, including reconfiguring the southbound highway lanes and ramps. Note that a change to the interchange was made for Alternative 1 (preferred alternative).
- Provide median landscaping from 0.4 of a mile south of Carpinteria Creek to 0.3 of a mile south of Carpinteria Creek (this is the only spot where median planting is common to all build alternatives).
- Install replacement planting.
- Build new retaining walls (the total number varies by alternative and Cabrillo Boulevard interchange configuration).
- Build soundwalls for noise abatement where appropriate.
- Provide a noise-attenuating pavement surface on all mainline travel lanes on U.S. 101 within the project limits where HOV lanes are added. The current proposal is for continuously reinforced concrete pavement. Because pavement strategies are evolving, the final decision regarding type of treatment would be determined during the design phase.

Summary

- Relocate utilities as needed.
- Lengthen cross culverts to accommodate additional pavement width.
- Build maintenance vehicle pullout areas: Alternative 1 (preferred alternative)—11 pullouts; Alternative 2—21 pullouts; Alternative 3—1 pullout).
- Incorporate permanent storm water treatment Best Management Practices, with an emphasis on vegetated bio-filtration type Temporary Best Management Practices.
- Incorporate measures that will preserve the pre-construction runoff rates.

The differences in the alternatives are listed below:

Alternative 1 (preferred alternative) proposes selective inside and outside widening within available right-of-way. This alternative was developed to maximize opportunities to retain and enhance high-value resources including scenic views, wetlands and median/outside landscaping.

Alternative 2 widens to the outside in many areas to maximize available areas for median landscaping.

Alternative 3 widens to the inside throughout, which would have meant building all new paved lanes within the existing available median.

The No-Build Alternative would not see any changes take place to the existing highway configuration.

A number of design configurations for the Cabrillo Boulevard interchange were also evaluated for consideration. The other alternatives and related interchange configurations are addressed in Section 1.3.6, Alternatives Considered but Eliminated from Further Discussion.

Joint California Environmental Quality Act/National Environmental Policy Act Document

The proposed project is a joint project by the California Department of Transportation (Caltrans) and the Federal Highway Administration, so the project is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with the California Environmental Quality Act and the National Environmental Policy Act. Caltrans is the lead agency under the California Environmental Quality Act. In addition, the Federal Highway Administration's responsibility for environmental review, consultation, and any other action required in

accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S. Code 327.

Some impacts determined to be significant under the California Environmental Quality Act may not lead to a determination of significance under the National Environmental Policy Act. Because the National Environmental Policy Act is concerned with the significance of the project as a whole, it is quite often the case that a “lower level” document is prepared for the National Environmental Policy Act. One of the most commonly seen joint document types is an Environmental Impact Report/Environmental Assessment.

Following receipt of public comments on the Draft Environmental Impact Report/Environmental Assessment and completion of the Final Environmental Impact Report/Environmental Assessment, findings were prepared, and a statement of overriding concerns was prepared. Caltrans certified the Environmental Impact Report and issued Findings and a Statement of Overriding Considerations under the California Environmental Quality Act. Caltrans issued a Finding of No Significant Impact under the National Environmental Policy Act.

Project Impacts

In the draft environmental document, one table summarized all of the potential impacts resulting from project alternatives. However, in response to requests made during the public comment period, a second table was created to list potential impacts (under the California Environmental Quality Act) requiring mitigation measures. Please see Tables S.1 and S.2. In addition, see Appendix F in Volume II for the complete listing of minimization and/or mitigation measures.

Summary

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Table S.1 Summary of Potential Impacts from Alternatives

Potential Impact		Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3	No-Build Alternative
Land Use/ Local Coastal Plan (LCP)	Consistency with City of Carpinteria General Plan/LCP	The preferred alternative and other two build alternatives are potentially inconsistent with the Local Coastal Plans for both jurisdictions because the applicable plans contain no exception language for a required setback/buffer for wetlands. The setback requirement is 50 feet in urban areas and 100 feet in rural areas.			No conflict with buffer/setbacks, but may be in conflict with Circulation Elements in City of Carpinteria and County of Santa Barbara
	Consistency with County of Santa Barbara LCP				
Coastal Zone		Project limits are located entirely in the Coastal Zone. The project crosses three separate coastal jurisdictions. All alternatives require acquiring coastal development permits from three jurisdictions: Cities of Carpinteria and Santa Barbara, and County of Santa Barbara. In addition, County of Santa Barbara requires a Final Development Plan and the City of Carpinteria requires a Conditional Use Permit.			No Coastal Development Permits would be required.
Parks and Recreation		The project does not use any park or recreation areas, and it does not block access to these areas. As a result of decreased congestion, the project could improve access to recreation areas and facilities.			Access to park and recreation facilities would not be improved.
Growth		None of the alternatives would substantially induce population or commercial development beyond planned levels.			No impacts to growth inducement.
Community Character and Cohesion		None of the build alternatives would impact existing housing or community character.			Further degradation of local street operations due to diversion of through trips onto local street system.
Environmental Justice		Project would not displace any residents and would not have a disproportionate impact on minority or low-income populations.			No impacts
Utility/Emergency Services		Coordination between Caltrans and service providers would strive to ensure utility services are not disrupted. Preconstruction utility location would be required, in conjunction with service providers, to avoid disruption of any utility service. Before and during construction, all utilities in conflict with the proposed project would be relocated, avoided, or protected in place. A Traffic Management Plan would be developed prior to construction to avoid impacts to emergency service providers. All five Cabrillo Boulevard interchange configurations require work within the railroad right-of-way, but two configurations (F and F Modified) require a minimal amount compared to the three			The increased traffic congestion on U.S. 101 would result in longer response times for emergency services.

Summary

Potential Impact	Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3	No-Build Alternative
Utilities/Emergency Services continued	configurations (J, M, and M Modified) that require a full reconstruction of the interchange. Full interchange reconstruction would have required raising the rail line profile (approximately 4 feet) for half a mile and replacement of existing structures to provide hook ramps under the tracks with standard vertical clearances. The full interchange reconstruction would have required 36 months of lead time from Union Pacific Railroad and would cost approximately \$50 million. With the F Modified configuration, approvals and permanent railroad easements require 12 months lead time.			
Traffic and Transportation/ Pedestrian and Bicycle Facilities	The project would reduce congestion through the corridor and encourage carpooling and public transportation with the introduction of HOV lanes. Certain intersections within the City of Santa Barbara may see increased traffic due to changes to traffic patterns that would occur as a result of the reconstructed Cabrillo Boulevard/Hot Springs interchange. Bicycle and pedestrian facilities would be maintained in areas where construction occurs.			Further degradation of local street operations due to diversion of through-trips onto the local street system could affect pedestrian and bicycle facilities. Freeway congestion would continue to worsen.
Geology/Soils/Seismic/ Topography	<p>Liquefaction potential may be high in the project limits since this area contains groundwater at shallow depths, is underlain by unconsolidated or poorly consolidated alluvial soils, and there is a likelihood for strong ground-shaking due to nearby potentially active earthquakes in the area. The project design would incorporate Caltrans standards and construction methods to minimize risks associated with potential liquefaction hazards and strong ground shaking.</p> <p>Although new cut and fill slopes and embankments could increase potential for erosion due to erodible materials that may underlie certain areas of the project, all new slopes would be excavated with slopes of 2:1 or flatter whenever feasible. If steeper slopes are considered, embankments would be built of select material that meet the geotechnical unit specifications.</p>			No impacts
Hydrology and Floodplain	The project includes widening two bridges (Franklin and Santa Monica creeks) and replacing five bridges (Arroyo Paredon, Romero, San Ysidro, Oak, and Toro creeks). All bridges would be designed to improve flood flows over existing conditions. However, full capacity of the bridges at Arroyo Paredon, Romero, San Ysidro, and Oak creeks would not be used until flow capacity improvements are made by others up and downstream along the creeks. Four of the five bridges would be designed to handle a 100-year storm; Arroyo Paredon would be designed to meet a 25-year storm. The project avoids encroaching into two floodways by eliminating segments of two considered soundwalls. Soundwalls encroaching on other floodways would be designed to pass flood flows and not raise base flood elevations. The proposed improvements do not constitute a longitudinal encroachment on any of the identified floodplains.			Existing hydraulic structures that impede flood flow would remain.

Summary

Potential Impact	Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3	No-Build Alternative
Hazardous Waste/Materials	The Preliminary Site Investigation concluded that 11 of the 12 sites investigated are a low risk to the project. The only high risk site (an underground storage tank) was physically removed in May 2012. The Santa Barbara County Fire Department monitored the site and gave it a clearance.			No impacts
Air Quality	No long-term air quality impacts are anticipated from the proposed project.			Air quality may deteriorate as traffic congestion worsens.
Noise	Noise levels with the project are projected to increase between 0 and 3 decibels, which is not considered a significant impact under CEQA (a noise increase up to 3 decibels is not perceptible to the human ear). Per Caltrans and FHWA noise abatement protocol, 27 soundwalls were considered at locations throughout the project area. Since release of the draft environmental document several wall locations along the project length were reevaluated to determine whether any additional segments could meet the reasonable and feasibility criteria. A total of 14 soundwalls are currently recommended (note: soundwalls could be eliminated during soundwall voting and the coastal development process, both of which occur in the design phase). A noise-attenuating pavement surface would be applied in the project limits. Where severe receptors exist without a recommended soundwall, two abatement options are available—provide acoustical treatment for residences or coordinate with the affected property owner and others (County of Santa Barbara) to provide a soundwall off the state right-of-way, on county property.			No sound-attenuating measures would be constructed.
Invasive Species	Removal of arundo (giant reed grass) and other invasive plant species would occur when possible with the project.			Opportunity to remove arundo (giant reed grass) as part of this project would not occur.

Summary

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Table S.2 Summary of Major Potential Impacts from Alternatives with Mitigation/Minimization Measures*

Potential Impact	Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3	No-Build Alternative	Mitigation Measures for Potentially Significant Impacts*
Visual/Aesthetics	Implementation of the project would result in substantial visual changes throughout much of the highway corridor due to loss of vegetation, increased paving and potential soundwalls. 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 visual impacts would remain.			No impacts	All soundwalls would receive aesthetic treatment such as texture and/or color along with vine plantings. Decisions for location and types of soundwalls would consider ocean views. Soundwalls determined to block prime ocean views were eliminated from the project. Visible features such as bridges, drainages, radar equipment would be treated to blend into the setting. Existing and new planting would offset some of the impacts to the visual quality of the corridor.
Cultural Resources	There is one prehistoric archaeological site, the Via Real Redeposited Midden (P-42-0039430), that has been determined eligible for listing in the National Register of Historic Places. Comprehensive studies conducted by Caltrans suggest that the National Register-eligible portion of the site is not only located below the level of proposed U.S. 101 construction, but is also located outside the State right-of-way—and therefore outside the Area of Direct Impact. Nevertheless, Caltrans deems it prudent to consider that there may be a potential for adverse effects if unidentified archaeological resources are present under the highway.			No impacts	The known site limits of the Via Real Redeposited Midden will be protected during construction by the establishment and enforcement of a physical barrier (an Environmentally Sensitive Area) and will be monitored by an archaeologist and Chumash representative during construction. In the unlikely event that previously unidentified archaeological resources are encountered during construction—either in the vicinity of the Via Real Redeposited Midden or at another project location—the Treatment and Data Recovery Plan appended to the June 2013 Programmatic Agreement will be implemented (see Section 2.1.7, Cultural Resources, and Appendix D, <i>State Historic Preservation Officer Correspondence</i>).
Paleontology	Because the project study area includes three geologic formations of concern, the project could have the potential to adversely affect paleontological resources that cannot be avoided.			No Impacts	If resources are found, mitigation would include proper paleontological monitoring, salvage, and data recovery. A Paleontological Mitigation Plan would be prepared.
Water Quality and Storm Water Runoff	Alternative 1 (preferred alternative) adds 42 acres of impervious surfaces to the project limits; less than 50% impervious surfaces totals. The maximum footprint evaluated (Alternative 2) would have added 52 acres of impervious surfaces, more than 50% impervious surfaces totals. There is potential for discharging pollutants into surface waters during construction. The project would include permanent storm water treatment facilities within the project limits with the overall goal of matching pre-project runoff rates. This goal would be accomplished by using a combination of best management practices and good landscaping practices. Minimization measures would also be incorporated into the project to avoid temporary and long-term impacts.			Existing storm water runoff would remain untreated.	Measures to avoid temporary and permanent impacts to water quality include selecting stormwater treatment best management practices that will minimize pollutant discharges to surface waters, minimize stormwater discharge rates and volumes, and recharge groundwater. Techniques include biofiltration swales and biofiltration strips to intercept overland flow. Storm water best management practices would be further developed during the design phase.
Natural Communities	Approximately 22 native hardwood trees and 19 arroyo willows would be removed from riparian areas. Up to 253 coastal live-oak trees would be removed from along the right-of-way. Impacts to these native oak trees would be offset by replacement planting within the project limits. Temporary and permanent Impacts to riparian vegetation would occur at four locations where creek bridges would be replaced with wider structures and two locations where bridges would be widened.			Riparian vegetation would continue to be routinely cleared for flood control maintenance. No oaks would be removed.	All remaining oaks and other native trees greater than 6 inches in diameter at breast height (DBH) would be delineated on plans. Prior to any ground-disturbing activities, Environmentally Sensitive Area fencing would be installed around the drip line of the trees to be protected. Where feasible, fencing would be established at least 5 feet from the drip line of these trees. Permanent impacts to riparian vegetation would be offset by replacement planting and enhancement using the following ratios: 3:1 for willows; 3:1 for coast live oaks and sycamores greater than 6 inches DBH; 1:1 for Monterey cypress and Monterey pines. At Greenwell Creek, permanent impacts to riparian vegetation would be offset by the enhancement of 0.145 acre of the creek, south of U.S. 101. Non-native plants would be removed from the streambanks in the work area. Bio-engineering techniques would be applied in and above the rock slope protection along the banks to reduce erosion and enhance riparian habitat available for wildlife. Where non-native invasive plants are removed from the work area and creek banks, these areas would be replanted with native riparian species (i.e., willow and sycamore).
Wetlands – Federal Jurisdiction (Army Corps of Engineers)	Temporary impacts : 0.082 acre Permanent impacts: 0.001 acre	Temporary impacts: 0.077 acre Permanent impacts: 0.012 acre	Temporary impacts: 0.082 acre Permanent impacts: 0.001 acre	No impacts	Permanent impacts to wetlands would be compensated at a 3:1 ratio. Offsite mitigation is proposed in the Carpinteria Salt Marsh if total mitigation cannot occur onsite. Temporary impacts to wetlands, other waters, and riparian areas would be minimized by the use of Environmentally Sensitive Area fencing installed 12 feet from the work limits around wetlands and other waters. Any temporary impacts to plants/trees in the riparian areas would be mitigated by replanting and restoration efforts using a minimum of a 1:1 ratio to a maximum of a 3:1 ratio, depending on the plant species. Temporary impacts to
Wetlands - Coastal (one parameter)	Temporary impacts : 0.369 acre	Temporary impacts: 0.383 acre	Temporary impacts: 0.369 acre		

Summary

Potential Impact	Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3	No-Build Alternative	Mitigation Measures for Potentially Significant Impacts*
Wetlands - Coastal continued	Permanent impacts: 0.229 acre	Permanent impacts: 0.403 acre	Permanent impacts: 0.229 acre	No impacts	creeks would be re-graded, as needed, to reflect their pre-existing state.
Other Waters of the United States	Temporary impacts: 0.449 acre Permanent impacts: 0.249 acre	Temporary impacts: 0.470 acre Permanent impacts: 0.345 acre	Temporary impacts: 0.449 acre Permanent impacts: 0.249 acre	No impacts	All constructed roadside drainage features delineated as "other waters" removed during construction would be replaced in-kind. Temporary impacts to other waters would be restored to their pre-existing condition.
Threatened and Endangered Species	<p>The project could affect the tidewater goby and critical habitat for the tidewater goby during bridge replacement at Arroyo Paredon Creek (identified as critical habitat for tidewater goby). Incidental take of the tidewater goby could occur during bridge construction.</p> <p>The project could affect steelhead trout and critical habitat for steelhead trout. Bridge replacement would occur at three creeks (Arroyo Paredon, Romero, and San Ysidro) that are designated critical habitat for steelhead trout. Incidental take of steelhead trout could occur during construction of the three bridges.</p>			No impacts	<p><u>Tidewater goby:</u> All measures included in the U.S. Fish and Wildlife Service-issued Biological Opinion must be incorporated into the project. The construction work window for working within or next to Arroyo Paredon creek is June 1 to October 31 (low-flow period). Riparian vegetation removed during construction would be replanted at a 3:1 ratio. An existing stand of invasive arundo (giant reed grass) would be removed at Arroyo Paredon creek.</p> <p><u>Steelhead trout:</u> All measures listed in the NOAA Fisheries-issued Biological Opinion (see Appendix H and Appendix F) must be incorporated into the project. The construction work window for working in steelhead critical habitat creeks is between June 1 and October 31 (low flow period). The project includes two permanent, beneficial effects at Arroyo Paredon Creek: 1) net gain of about 0.012 acre of creek bed and 2) widening the creek channel by 3 feet under the highway would decrease velocities at peak flows, improving conditions for migrating steelhead.</p>
Construction Impacts	<p>Construction impacts to water quality would be minimized by incorporating temporary best management practices (Section 2.4).</p> <p>There would be temporary increases in fugitive particulate matter as a result of soil disturbance and demolition activity. Construction equipment would be responsible for emitting ozone precursors.</p> <p>There is potential for noise and vibration impacts to occur during construction. With the addition of avoidance, minimization and mitigation measures, there would be no adverse impacts. It should be noted that although Caltrans standards minimize noise levels to the greatest extent possible, there are times where construction noise levels may exceed local noise thresholds due to the high probability for night work.</p> <p>Temporary impacts to wetlands, other waters and riparian areas would be minimized by the use of Environmentally Sensitive Area fencing installed 12 feet from the work limits around wetlands and other waters</p>			No impacts	<p>The required Storm Water Pollution Prevention Plan would address all the best management practices necessary to prevent water quality impacts during construction of the project. In addition, buffers (using Environmentally Sensitive Area fencing) from sensitive resources such as wetlands and riparian corridors would be established throughout the project area.</p> <p>Measures based on policies adopted in the 1979 <i>Air Quality Action Plan for Santa Barbara County</i> to reduce dust would be implemented. Some of these measures are watering disturbed areas, using gravel pads, and covering stock piles. Measures would also be implemented to reduce exhaust, per the California Code of Regulations and regulatory agencies. These include limiting the number of vehicles in operation at one time, installing filters, and using electric equipment when feasible.</p> <p>Measures to reduce potential impacts for construction noise would be implemented. These include: not exceeding the Caltrans maximum threshold of 86 dBA for trucks/equipment passing at 50 feet, the use of mufflers, and development of a public outreach plan that keeps the public notified of the construction schedule and provides contacts for complaints.</p> <p>A Vibration Reduction Plan would be prepared to address potential effects of construction vibration. In all cases where properties fall within the established buffer zones, impacts from vibration would be avoided by using alternative construction methods near susceptible structures. Elsewhere, minimization measures to reduce the effects would be developed and included in the plan.</p> <p>Temporary impacts to wetlands, other waters and riparian areas would be minimized by the use of Environmentally Sensitive Area fencing installed 12 feet from the work limits around wetlands and other waters.</p> <p>Any temporary impacts to plants/trees in riparian areas would be mitigated by replanting and restoration efforts from a minimum 1:1 ratio, up to a 3:1 ratio.</p>

Summary

Potential Impact	Alternative 1 (Preferred Alternative)	Alternative 2	Alternative 3	No-Build Alternative	Mitigation Measures for Potentially Significant Impacts*
Cumulative Impacts	The project would contribute substantial direct and/or indirect cumulative impacts to the visual resources/aesthetics in the U.S.101 corridor and surrounding areas. Direct and indirect Impacts to traffic circulation, water quality, and biological resources will also contribute to cumulative impacts, but will be mitigated below the level of significance.			No impacts	Refer to measures specified for impacts to Traffic and Transportation/Pedestrian and Bicycle Facilities, Visual/Aesthetics, Water Quality and Storm Water Runoff, and Biological Resources - Wetlands, Tidewater Goby, and Steelhead.

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Coordination with Other Agencies

The following permits are required for this project to move forward:

- Coastal Development Permits are needed from the cities of Carpinteria and Santa Barbara and the County of Santa Barbara. All three permits are under authority of the California Coastal Commission. In addition, a Local Coastal Plan Amendment will be required for the City of Carpinteria and the County of Santa Barbara.
- The Santa Barbara County Comprehensive Plan states that all proposed development for areas where there are views from U.S. 101 to the ocean shall require Board of Architectural Review.
- A Biological Opinion and Conference Opinion from the U.S. Fish and Wildlife Service for the tidewater goby and proposed critical habitat was issued on August 6, 2012 (see Appendix H). A conference opinion is a mechanism used by the U.S. Fish and Wildlife Service to address potential impacts to proposed critical habitat under Section 7 consultation (Arroyo Paredon Creek was proposed critical habitat). Once the critical habitat unit is formally designated, the Service can issue confirmation of a conference opinion and biological opinion. Following the formal designation of revised critical habitat for Arroyo Paredon Creek on February 6, 2013, the U.S. Fish and Wildlife Service issued Caltrans confirmation of the Conference Opinion and Biological Opinion on August 26, 2013.
- A Biological Opinion from the National Oceanic and Atmospheric Administration National Marine Fisheries Service for endangered steelhead trout and designated critical habitat was issued on September 30, 2013 (see Appendix H).
- A Section 404 permit is needed from the U.S. Army Corps of Engineers.
- A 1602 Streambed Alteration permit is needed from the California Department of Fish and Wildlife for work in Franklin, Santa Monica, Arroyo Paredon, Toro Canyon, Greenwell, Romero, San Ysidro and Oak creeks.
- A Section 401 Certification is needed from the Regional Water Quality Control Board.
- A Railroad Agreement is required for any encroachments that occur during work associated with constructing the Cabrillo Boulevard/Hot Springs interchange. With identification of the F Modified configuration for the Cabrillo interchange, minimal roadway modifications are needed within the railroad right-of-way; a temporary permit is required for retaining walls for the ramps near the right-of-way line for both the Cabrillo Boulevard/Hot Springs Road and Sheffield interchanges.