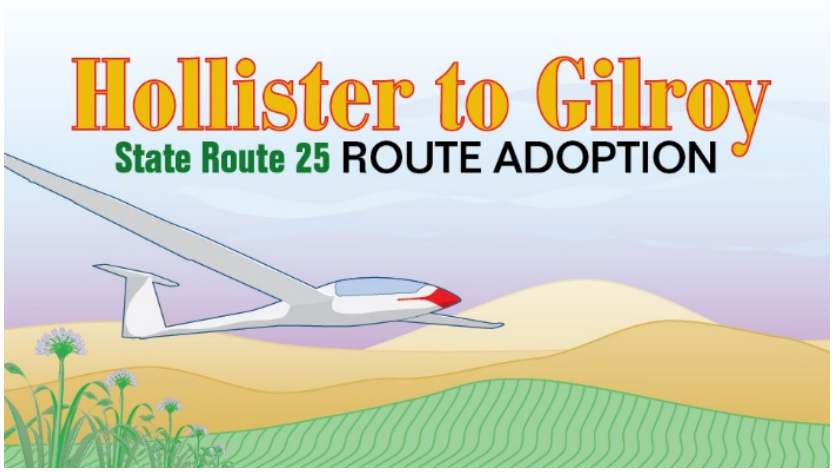
Hollister to Gilroy State Route 25
~~Widening and~~ Route Adoption

San Benito and Santa Clara Counties, California
05-SBt-25 (PM 51.5/60.1), 04-SCl-25 (PM 0.0/2.6)

05-485400
Project ID 05-0000-0565



Technical Studies

Volume II of II

State of California Department of Transportation

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.C. 327.

June 2016

Technical Studies
Volume II

Community Impact Assessment

Natural Environment Study

Stormwater Report

Historic Property Survey Report

Community Impact Assessment

M e m o r a n d u m

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To: **Wendy Kronman**
Associate Environmental Planner
Sierra Pacific Environmental Analysis Branch

Date: **May 16, 2011**

File: 05-SBT25-PM51.5/60.1
04-SCL25 PM0.0/2.6
06-SBT156 PMR10.5-12.2
EA05-485400

From: **G. WILLIAM "TRAIS" NORRIS III**
Senior Environmental Planner
Sierra Pacific Environmental Analysis Branch

Subject: **Re-evaluation of Community Impact Assessment for the SR25 Route Adoption and Widening Project on State Route 25, San Benito and Santa Clara Counties**

OBJECTIVES

The objective of this Community Impact Assessment (CIA) memorandum is to re-evaluate impacts resulting from changes in the description and design of the selected preferred alternatives. Caltrans prepared a Community Impact Assessment in January 2009.

The project proposes the eventual replacement of 11.2 miles of the existing State Route 25 two-lane conventional highway with a four-lane expressway in San Benito and Santa Clara counties. The project extends from San Felipe Road in the City of Hollister (post mile 51.5) in San Benito County to the end of State Route 25 at U.S. 101 (post mile 2.6), south of the City of Gilroy in Santa Clara County. A future interchange at State Route 25/State Route 156 would require widening State Route 156 between post miles R10.5 and R12.2.

The combined Draft Environmental Impact Report/Draft Tier I Environmental Impact Statement evaluated two proposed projects: (1) a route adoption and (2) a proposed construction project within the limits of the proposed route adoption. Five alternatives were under consideration including the No-Build Alternative: Alternatives 1 and 2 were route adoption alignments, and Alternatives A and B were proposed build alternatives.

Alternative 2 was selected as the preferred route adoption alternative and Alternative B was selected as the preferred build alternative. Selection was based on construction and right of way costs, environmental impact analysis, and community and agency input. Route adoption Alternative 2 and build Alternative B were modified based on public comments received during the circulation of the draft environmental document. These modifications reduced the amount of farmland impacts and lowered the project costs.

PROJECT PURPOSE AND NEED

The project's Purpose has been changed slightly. The purpose of the proposed route adoption is to:

- Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand
- Facilitate local and regional land use planning by identifying future right of way needed for the State route 25 corridor

The purpose of the proposed build project is to:

- Improve traffic flow and reduce delays on State Route 25 between San Felipe road in Hollister and Hudner Lane in San Benito County
- Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural san Benito County

A route adoption is needed in order to identify and preserve the location of a transportation corridor on State Route 25 between Hollister and U.S. 101 with the fewest environmental effects on resources.

The need for the build project generally remains the same:

- Conflict between slow-moving farm equipment and trucks with local and commuter traffic during peak commute house results in congestion
- Local traffic turning into and out of intersecting driveways and local roads affect the flow and traffic, sometimes causing delays and safety hazards

PROJECT LOCATION AND DESCRIPTION

Old Alternative Descriptions:

Route Adoption Alternative 2: The route adoption study extends from San Felipe Road within the City of Hollister (post mile 51.5) in San Benito County to U.S. 101 south of the City of Gilroy (post mile 2.6) in Santa Clara County. Alternative 2 is 11.2 miles long and would be aligned to the west (or south) of the existing two-lane highway.

The alternative would be wide enough to accommodate a future 342 feet-wide four-lane expressway, including a 62-feet median, and frontage roads on either one or both sides. New structures planned for the future within the route adoption area include:

- new bridges over Carnadero Creek and the Pajaro River
- new overheads to cross over the Union Pacific Railroad Hollister branch line and the Union Pacific main line just east of U.S. 101
- a new State Route 25/U.S. 101 interchange built to the north of the existing interchange
- a new interchange to replace the State Route 25/State Route 156 at-grade intersection, which includes improvement to State Route 156 (post mile R10.5/R12.2)

Build Alternative B: Alternative B extends 3.8 miles in San Benito County, from San Felipe Road (post mile 51.5) to west of Hudner Lane (post mile 55.3) and maintains the proposed alignment of the route adoption Alternative 2 for its whole length except for the intersection of State Routes 156 and 25. Unlike the route adoption alternative, the build alternative proposes a

realigned and widened at-grade intersection at State Route 25 and State Route 156 instead of an interchange, and would transition back to the existing two-lane highway north of Hudner Lane. Alternative B would be constructed at the south end of the route adoption Alternative 2 alignment. Direct access to the expressway would be provided from San Felipe Road, Wright Road, Briggs Road, two new west-side frontage roads, State Route 156, and one new east-side frontage road.

New Project Summary Description:

The changes for both alternatives include:

- Reducing the median width from 62 feet to 46 feet
- Reducing the minimum right of way width from 342 feet to 240 feet
- Moving the new alignment closer to the existing highway
- Eliminating some paved frontage roads (60 feet right of way) for private access easements

In addition, the route adoption Alternative 2 would include:

- Moving the proposed future interchange at State Routes 156 and 25 to the east
- Shortening the length of the proposed frontage road south Hudner Lane on the west side of the new alignment
- Ending the same proposed frontage road south Hudner Lane on the west side of the new alignment with a cul-de-sac
- Moving the above frontage road close to the expressway alignment in the vicinity of Hudner Lane

Modifications made specifically to Build Alternative B include:

- Removing the Briggs Road connector that would intersect with the new alignment
- Reducing the project limit by 0.3 mile to end south of Hudner Lane
- Replacing the proposed west side frontage roads with private road easements

HUMAN ENVIRONMENT IMPACTS

This memorandum clarifies Caltrans' determination that the project would not induce growth and discusses the changes to Relocation and Farmland impacts as a result of the design modifications. With the exception of Relocation and Farmland impacts, the modifications to the preferred alternatives would not result in substantial changes to the 2009 Community Impact Report. Any other minor changes to impacts are discussed with the appropriate reference in the final environmental document; such as commute time. For consistency purposes the build alternative is discussed before the route adoption in each section.

Growth

Caltrans used the May 2006 *Guidance for Preparers of Growth-related, Indirect Impact Analyses* (Guidance) [http://www.dot.ca.gov/ser/Growth-related_IndirectImpactAnalysis/gri_guidance.htm] as a tool for the 2009 Community Impact

Assessment. Since that analysis, the design for the preferred build and route adoption alternative has been modified to reduce impact to farmland resulting in less frontage roads.

Build Alternative B: Based on the first cut screening, Caltrans determined Alternative B would not induce growth because access to State Route 25 is currently available and the project would not change that condition. When determining whether a project is growth inducing, the first question in the decision flow chart from the guidance referenced above asks whether the project has the potential to change accessibility. Alternative B does not increase access but eliminates all the existing access points on State Route 25 between San Felipe Road and State Route 156 except for Wright Road. Access at Wright Road would remain the same, an at-grade unsignalized intersection.

Route Adoption Alternative 2: Based on the first cut screening, Caltrans determined Alternative 2 would not be growth-inducing. This alternative would eliminate all the existing driveway and local road access onto State Route 25. Existing intersections at San Felipe Road, Wright Road, Briggs Road, State Route 156, Shore Road, and Bolsa Road would be improved. Intersections at Hudner Lane, Flynn Road, and Bloomfield Road would be eliminated and a new connector at Grantline Road is proposed. All of these intersections currently provide access onto State Route 25 except for the Grantline Road connector, which was proposed to provide access to the private driveways and local roads that would be provided private access easements or a limited number of frontage roads for access. The Grant Line Road location was determined to be the best location to connect the frontage roads to State Route 25 because Hudner Road is too close to the interchange of State Routes 156 and 25.

Alternative 2 proposes conversion of a two-lane conventional highway to a four-lane controlled access expressway. According to the Caltrans Highway Design Manual, controlled access is the condition where the right to access or connect to a highway by owners or occupants of abutting land, or other persons, is fully or partially controlled by public authority; i.e., Caltrans. Once right of way for the project is acquired, fencing will be placed on the new right of way lines eliminating access onto the new roadway except at the designated intersections mentioned above. Furthermore, the use of private access easements instead of frontage roads reduces use of the roadway by the general public.

Alternative 2 is a route adoption alternative. A route adoption identifies a specific corridor for placement of a project for future needs and also serves the purpose of looking at environmental issues on a broad scale. A route adoption would preserve land for future improvements. Although there is no construction that would directly result from a route adoption alignment decision, once a preferred alternative is adopted, it is mandated to be incorporated in all planning documents with jurisdiction in the study area. By defining the future location of a regional state route early in the process of updating their general plan, it is expected that the proposed route adoption would aid San Benito County, and to a lesser degree Santa Clara County, in planning growth and development in the broader project study area, as well as supporting and accommodating those planning decisions.

It is plausible the route adoption may be viewed as having the potential to affect the timing and location of growth in the area; however, a route adoption only preserves an area for future needs

and any growth could be, and should be, avoided or minimized based on the goals and objectives adopted in the General Plans of both jurisdictional counties.

In the future, as portions of Alternative 2 are funded and proposed for construction, Tier II environmental documents would be prepared for each project. A Tier II document would provide an analysis of the environmental impacts at that time, and specific minimization and/or mitigation measures would be presented.

Relocations

Caltrans completed a Final Relocation Study for the project in March 2011 based on the design modifications. This section of the Community Impact Assessment update is based on that study.

Affected Environment

The affected environment remains the same as described in the 2009 Community Impact Assessment.

Environmental Consequences

Build Alternative B: This alternative would not displace any residential units, which includes multiple unit residences and single-family residences, despite acquiring right of way from 19 property owners and 124.3 acres along State Route 25.

Route Adoption Alternative 2: Alternative 2 has the potential to displace approximately 23 residential units: 8 single family residences, 3 mobile homes, and 12 tenant occupants of multiple unit residences. This alternative also has the potential to displace approximately 10 non-residential units: 0 nonprofit organizations, 8 commercial businesses, and 2 industial/manufacturing businesses. Alternative 2 would require partial acquisition from 38 property owners and 400.6 acres, including portions of nine parcels that would be used for private access easements or frontage roads..

Parcels impacted by this alternative are in a diversified fringe area of Hollister developed with housing on ranches and farm housing on agricultural lands. There are no impacts to sub-divisions or multi-family dwellings. Most remaining housing will be served by private access easements or existing county roads. Some businesses impacted by this alternative may require the payment of severance damages and in some cases full acquisition of the structure because it will not be functional in the after condition. The ability of the business to rebuild and establish new parking on the remainder would have to be considered on a case by case basis during appraisal with appropriate severance damages or Relocation Assistance or in some instance both provided to the owner and/or tenants.

Altogether, Alternative 2 would need right of way from 80 property parcels along State Route 25. Approximately 52.5 percent of the acquisitions would require slivers or small segments of the property parcels (partial acquisition) and would result in the relocation of the residential unit or business operations on the parcel (42 relocations / 80 property parcels)

Table 1.1 Alternative 2 Relocations

Type of Structure	Number of Displacements
Owner Occupants of Single-family Residences	7
Tenant Occupants of Single Family Residences	1
Tenant Occupants Multiple-Unit Residences	12
Owner Occupants of Mobile homes	3
Tenant Occupants of Mobile Homes	0
A. Total Residential Units	23
Commercial Businesses	8
Industrial/Manufacturing Businesses	2
Non-Profit Organizations	0
Agricultural/Farms	47
B. Total Non-Residential	57
Total Relocations (A + B)	**80**

Source: 20011 Final Relocation Impact Report

Avoidance, Minimization, and Mitigation Measures
Avoidance, Minimization, and Mitigation Measures adopted in the 2009 Community Impact Assessment remain adequate.

Farmland
The preferred alternatives were modified to reduce right of way and the amount of farmland converted. Farmland cannot be avoided and Caltrans has adopted additional mitigation measures for the loss of farmland.

Affected Environment
The affected environment remains the same as described in the 2009 Community Impact Assessment.

Environmental Consequences
Build Alternative B: After the public hearings were held and, with consideration of the public comments received, Caltrans selected a preferred build alternative, Alternative B. The San Benito Council of Governments concurred with that decision provided Alternative B was modified to minimize farmland conversion. The design modification to Alternative B moves the new alignment to the east resulting in a narrower corridor between the old and new alignments of SR25 between Wright Road and State Route 156. A proposed connector from Briggs Road to the new alignment was dropped from Alternative B, also. North of State Route 156, the new alignment intersects with State Route 156 nearer to the existing location and keeps an alignment very close to the existing alignment until the project ends. Proposed frontage roads have been replaced by private access easements.

According to right of way data provided by Caltrans Design in November 2010, after changing the design, Alternative B would require right of way from 24 parcels totaling 124 acres, plus approximately 3 acres for access or utility easements. All of the parcels are identified for

agricultural use except for two. The total estimated farmland converted is approximately 127 acres, a reduction of 62 acres from the previous design.

Alternative B would acquire approximately 53.3 acres from two property parcels under Williamson Act contracts. The additional two acres is a result of moving the new alignment closer to the existing intersection of State Routes 25 and 156. The modification to this alignment does not appear to acquire enough farmland from any single parcel to result in the cancellation of any Williamson Act contracts.

Table 1.2 shows the total farmland, including land under Williamson Act contracts, converted as a result of the changes to the preferred Alternative B (modified) to the original build alternatives previously considered in the 2010 draft environmental document.

Table 1.2 Farmland Converted by Build Alternatives

Alternatives	Land Converted (acres)	Prime & Unique Farmland (acres)	Percentage of Farmland in San Benito County	Percentage of Farmland in State	Farmland Conversion Impact Rating	Williamson Act Parcels Converted (acres)
A	180	180	0.20	0.00070	198	13.30
B	189	189	0.22	0.00074	198	51.10
B (modified)	**127**	**n/a**	**n/a**	**n/a**	**n/a**	**53.3**

Source: Form NRCS-AD-1006 (Farmland Conversion Impact Rating)

Route Adoption Alternative 2: After the public hearings were held, and with consideration of the public comments received, Caltrans selected a preferred route adoption alternative, Alternative 2. The San Benito Council of Governments concurred with that decision provided Alternative 2 was modified to minimize farmland conversion.

Some of the changes to Alternative 2 included reducing the median width, replacing some frontage roads with private access easements, and moving the new alignment to the east resulting in a narrower corridor between the old and new alignments of State Route 25. Between Wright Road and State Route 156 the changes are similar to the build alternative except Alternative 2 proposes a connector from Briggs Road to the new alignment to meet future traffic demand. North of State Route 156, the new alignment intersects with State Route 156 nearer to the existing location and keeps an alignment closer to the existing alignment than previously designed. South of Hudner Avenue, on the west side of State Route 25, a large portion of the previously proposed frontage road north of State Route 156 would be replaced by a private access easement. On the east side of State Route 25, the same type of modification would occur resulting with the proposed frontage road (existing State Route 25) ending closer to McConnell Road, and a longer portion of the existing State Route 25 being eliminated between McConnell Road and Hudner Avenue. The modification would use existing State Route 25 as a frontage road beginning mid-way between State Route 156 and Hudner Avenue instead of beginning just north of State Route 156. The property owners south of that point would gain access through private property easements. Both east- and west-side frontage roads would parallel the new

alignment closer than previously designed until reaching the new connector known as Grantline where a new intersection is proposed and the east-side frontage road (existing State Route 25) ends. North of Grantline, the design alignment is closer to the existing alignment of State Route 25 than the previous design and the frontage road on the east side of the new alignment has been replaced with private access easements between the Grantline connector and the Pajaro River.

According to right of way data provided by Caltrans Design in November 2010, in San Benito County Alternative 2 would require right of way from 39 parcels totaling 401 acres, plus an additional 11 acres for access or utility easements. All of the parcels are identified for agricultural use except for two. The total estimated farmland converted is 412 acres.

In Santa Clara County Alternative 2 would require right of way from 11 parcels totaling 85 acres. No acreage is needed for access or utility easements and all of the parcels are identified for agricultural use. The total estimated farmland converted is 85 acres.

Alternative 2 has the potential to acquire approximately 74.2 acres from three property parcels under Williamson Act contracts in San Benito County, which is an increase from the previous design. The additional acreage is a result of moving the new alignment closer to the existing intersection of State Routes 25 and 156, and the design of the interchange proposed in that location. In Santa Clara County, only 55.2 acres from seven property parcels would be converted. The alternative does not appear to acquire enough farmland from any single parcel to result in the cancellation of any Williamson Act contracts. The total estimated farmland under Williamson Act contracts converted is 129.4 acres.

Table 1.3 shows the total farmland, including land under Williamson Act contracts, converted as a result of the changes to the preferred Alternative 2 (modified) to the original route adoption alternatives previously considered in the 2010 draft environmental document.

Table 1.3 Total Farmland Converted by Route Adoption Alternatives

Category	San Benito County			Santa Clara County			Total Farmland Converted		
Route Adoption Alternative	1	2	**2 (modified)**	1	2	**2 (modified)**	1	2	**2 (modified)**
Total Land Converted (acres)	525	528	**412**	132	132	**85**	657	660	**497**
Prime and Unique Farmland (acres)	323	326	**n/a**	85	85	**n/a**	408	411	**n/a**
Percentage of Farmland in the County	0.6		**n/a**	.03		**n/a**	**n/a**		
Percentage of Farmland in the State	0.002		**n/a**	0.0005		**n/a**	0.0024		**n/a**
Farmland Conversion Impact Rating	198		**n/a**	184		**n/a**	**n/a**		
Williamson Act Parcels Converted (acres)	13.3	51.1	**74.2**	108	108	**55.2**	121.3	159.1	**129.4**

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-type Projects)

Avoidance, Minimization, and Mitigation Measures

Build Alternative B: Caltrans will preserve farmland of roughly equal quality by purchasing a conservation easement(s) to partially compensate for the acreage of farmland converted by the project in addition to the mitigation measures already adopted for this project, such as reducing the median and moving the alignment.

Route Adoption Alternative 2: Caltrans will defer any mitigation proposals for the route adoption alternative to the future. As portions of Alternative 2 are funded and proposed for construction, Tier II environmental documents would be prepared for each project. A Tier II document would provide an analysis of the environmental impacts at that time, and specific minimization and/or mitigation measures would be presented.

Avoiding the Impact

Only the No-Build Alternative would completely avoid converting farmland, but it would not meet the purpose and need of the project. Caltrans' policy is to avoid or minimize farmland impact to the maximum extent possible; however, this segment of State Route 25 is surrounded by farmland, which makes the avoidance of farmland impacts impossible.

Minimizing the Impact

Caltrans has incorporated measures to minimize farmland impacts by reducing the median and modifying the preliminary design of Alternative B resulting in the conversion of fewer acres of farmland (from 189 acres to 127 acres).

As part of the right of way process for purchasing land, Caltrans would negotiate parcel exchanges with neighboring farmers to reconfigure split farmland parcels for resale so that the parcels would continue to be farmed and not contribute further to the segmentation and conversion of farmland. Generally, when Caltrans resells or reconfigures land in an area zoned for agriculture as buffers or conservation easements, deed restrictions limiting future use to agriculture would be included to keep land in agricultural use in perpetuity. Remnant parcels of farmland are avoided as much as possible by acquiring right of way in "slivers" or linear strips of property adjacent to the existing parcels. When possible, Caltrans will allow farmland to be kept in production (after purchase) until it is needed for construction.

Rectifying/Repairing/Rehabilitating/Restoring

Caltrans would provide relocation advisory assistance to any person, business, farm, or non-profit organization that would be displaced, or that has onsite investments, such as wells and irrigation systems, displaced as a result of acquisition of real property for public use. Relocation resources would be available to all displaced individuals, free of discrimination. In addition, any right of way acquisition would be purchased at fair market value.

If an excess parcel of farmland results from construction, adequate access to water for the irrigation of crops would be established and a permanent easement would be attached to ensure agricultural land use of the parcel in perpetuity.

During construction, provisions for adequate access (temporary driveways/easements) would ensure that agricultural operations are not impaired along the project limits.

Reducing or Eliminating the Impact over Time by Preservation and Maintenance Operations during the Life of the Action

Caltrans currently is allowed to transfer only title (ownership), but cannot transfer endowment or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The transfer of direct endowment is considered a gift of public funds (actual dollars) and is prohibited by Article 16, Section 6 of the California Constitution. In other words, Caltrans cannot donate fees; therefore, this recommendation is not legally feasible.

Compensating for the Impact by Replacing or Providing Substitute Resources

The California Department of Conservation recommends the use of conservation easements of land of at least equal quality and size as partial compensation for the direct loss of agricultural land. This agency states that this form of mitigation will protect a portion of those remaining land resources and lessen project impacts in accordance with California Environmental Quality Act Guideline 15370.

According to the California Department of Conservation website, an agricultural conservation easement is a voluntary legally recorded deed restriction that is placed on a specific property used for agricultural production. The goal of an agricultural conservation easement is to maintain agricultural land in active production by removing the development pressures from the land. Such an easement prohibits practices that would damage or interfere with the agricultural use of the land. Because the easement is a restriction on the deed of the property, the easement remains in effect even when the land changes ownership. Agricultural conservation easements are held by the property owner, land trusts or local governments, which are responsible for ensuring that the terms of the easement is upheld.

Caltrans has determined that a conservation easement or deed restriction is a feasible form of mitigation for the farmland impacts resulting from the project. Deed restrictions would limit future use of the land to agriculture in perpetuity and the property owner is responsible for ensuring that the terms of the easement are upheld because the property owner retains ownership.

Caltrans programmed the State Route 25 project for right of way capital costs for approximately $1.5 million, which will be used toward farmland mitigation. Additional funds for farmland mitigation are currently unavailable. If there are any additional savings from other mitigation costs programmed for the project, the savings may be used toward farmland mitigation. However, before purchasing the conservation easement, the Final Supplemental Environmental Impact Report must be approved, and Caltrans is required to conduct environmental studies and an appraisal on the parcel(s) proposed for the easement. Once compensation has been accepted, the terms of the agricultural conservation easement would be a deed restriction on the land being acquired.

A conservation easement(s) would be established before construction of the project begins in the year 2015. Caltrans Right of Way agents would correspond with property owners within the Hollister Valley with the intention of establishing a conservation easement near the project. If negotiations are not successful locally, Caltrans will establish a conservation easement elsewhere

in California. Caltrans made inquiries to several farmland trusts, non-profit 501(c)(3) organizations with the mission of conserving farmland in California. The farmland trusts were in Northern, Central, and Coastal California. Several of these organizations stated they were willing to work with Caltrans in acquiring conservation easements of farmland subject to development pressure. These trusts stated that, depending on the location, similar properties available for sale range between $3,000 and $25,000 per acre. At a 1-acre to 1-acre ratio, the $1.5 million reserved for farmland mitigation should be adequate to acquire properties of similar quality for a conservation easement based on the low sale range provided by the farmland trusts contacted.

The conservation easement will limit future use of the land to agriculture in perpetuity, and the property owner retains ownership but will be responsible for ensuring that the terms of the conservation easement are upheld. The parcel(s) proposed for conservation will continue to be used for, and is large enough to sustain, commercial agricultural production. The land will also be in an area that possesses the necessary market, infrastructure, and agricultural support services, and the surrounding parcel sizes and land uses will support long-term commercial agricultural production.

The loss of farmland resulting from the project represents an unavoidable permanent reduction in California's agricultural land resources. However, the use of a conservation easement, along with the mitigation measures already built into the project design, would partially compensate the direct loss of agricultural land and will protect a portion of California's remaining land resources in accordance with California Environmental Quality Act Guideline 15370

CONCLUSION:

Except for the impacts discussed in this memorandum, the 2009 Community Impact Assessment remains adequate. In view of the new project description, it is our opinion that no further assessment is needed to proceed with the project. However, please request an additional investigation for this project in the event that the scope of work changes.

If you have any questions, please contact Julie Dick Tex, (559) 243-8299.

c: Julie Dick Tex, Assoc. Environmental Planner, CIA

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Julie Dick Tex
Associate Environmental Planner
Central Region Environmental

Date: April 7, 2010

File: 05-48540
05-SBt-25 (PM 51.5/60.1)
04-SCl-25 (PM 0.0/2.6)
and 05-SBt-156 (PM R10.5/R12.2)

From: G. William 'Trais' Norris III
Branch Chief
Sierra Pacific Environmental Analysis Branch

Subject: Change to Purpose Statement

The Purpose statement for the SR25 Widening and Route Adoption project has changed. The new wording is

The purpose of the proposed route adoption project is to:

- Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand.
- Facilitate local and regional land use planning by identifying future right-of-way needed for the State Route 25 corridor.

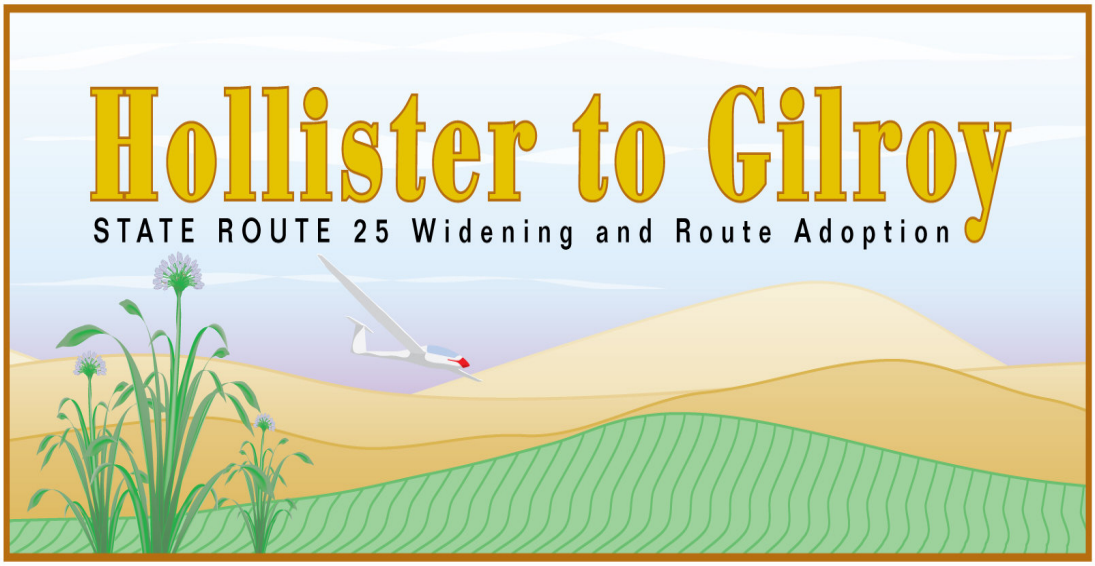
The purpose of the proposed build project is to:

- Improve traffic flow and reduce delays on State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.
- Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural San Benito County.

The new purpose does not affect the conclusions of the Community Impact Assessment for this project completed in January 2009 and updated in January 2010.

c: Project file

Hollister to Gilroy State Route 25 Widening and Route Adoption



Community Impact Assessment

San Benito and Santa Clara Counties, California
5-SBt-25 PM 51.5/60.1 and 4-SCl-25 PM 0.0/2.6
and 5-SBt-156 PM R10.5/R12.2
05-485400

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 Department under its assumption of responsibility pursuant to 23 U.S. Code 327.

January 2010

Caltrans

Summary

The California Department of Transportation (Caltrans), in cooperation with San Benito Council of Governments and Santa Clara Valley Transportation Authority, is evaluating the conversion of 11.2 miles of the existing State Route 25 two-lane conventional highway to a four-lane expressway in San Benito and Santa Clara counties. The draft Environmental Impact Report/Tier I Environmental Impact Statement includes both a route adoption study and a proposed construction or build project within the limits of the proposed route adoption.

The purpose of the proposed project is to select and preserve a route adoption corridor for State Route 25 between Hollister and Gilroy for planning purposes and to improve traffic flow, reduce delays, enhance the movement of goods, and to add capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County. A new route adoption would ensure that the appropriate area for a future expressway is incorporated into city and county general and specific plans now, before future development occurs along this stretch of highway.

Five alternatives are under consideration: Alternatives 1 and 2, which are route adoption alignments; Alternatives A and B, which are proposed build alternatives; and a No Action Alternative. The route adoption study extends from San Felipe Road within the northern city limits of Hollister (post mile 51.5) in San Benito County to the end of State Route 25 at U.S. 101 south of the City of Gilroy (post miles 0.0/2.6) in Santa Clara County. The route adoption also proposes an interchange between State Routes 156 and 25, which includes improvements to State Route 156 (post miles R10.5/R12.2).

The proposed build project extends 3.8 miles in San Benito County, from San Felipe Road to west of Hudner Lane (post miles 51.5/55.3). Detailed descriptions of the proposed alternatives and their alignments are provided in Chapter 1, Section 1.3 Project Summary Description.

The project is located on a segment of State Route 25 that travels through the relatively flat terrain of the Hollister Valley. The project begins in San Benito County at San Felipe Road north of the City of Hollister and runs northwest through the counties of San Benito and Santa Clara, crossing Carnadero Creek and the Pajaro River before terminating at U.S. 101 south of the City of Gilroy.

Agriculture dominates the surrounding landscape, and farmsteads and single-family residences are scattered along the length of the study area. Residences, retail businesses, and agriculture-related commercial operations are more concentrated on the outskirts of Hollister and south of Gilroy.

For this Community Impact Assessment, the general study area for all sections surrounds the proposed route adoption alignments except for the analysis for Environmental Justice. Caltrans determined that an Environmental Justice analysis for the route adoption would be illogical given the time that may lapse before the construction of the entire project and the inevitable changes to the population over time. The route adoption is needed to preserve a corridor for an alignment and would have no immediate effect to any population. The Environmental Justice analysis was completed for only the Build Alternatives A and B, which if funded, may affect the project's minority and low-income populations in the near future.

Land Use

The proposed project begins within the northern city limits of the City of Hollister in San Benito County and ends south of the City of Gilroy in Santa Clara County. The proposed project is compatible with the land use designations established by both counties and the City of Hollister and would not require nor encourage a change in the existing and planned land use. The City of Hollister and the County of San Benito General Plans envision this segment of State Route 25 to be a four-lane expressway. However, Santa Clara County plans an eventual six-lane freeway from the junction of State Route 25 and U.S. 101 to a proposed interchange at State Route 25 and Bolsa Road near the Santa Benito county line. The project area is south of the City of Gilroy and is not included in the city's existing or future land use designations.

Growth

The proposed project was not determined growth inducing; however, it would have influence on determining orderly growth in the area because the area proposed for the route adoption would be preserved in the General Plans of San Benito and Santa Clara Counties and new construction within the preserved alignments should not be approved.

Community Character

The project would not contribute to the isolation of any community; however, route adoption Alternative 1 and Build Alternative A would result in the disruption of a church community located near Wright Road. Relocation assistance would be available, which would mitigate this temporary disruption.

Also, the project would reduce the number of access points on State Route 25 by combining existing driveways and local roads along frontage roads, which would eliminate direct access to State Route 25. The change in access has the potential to increase traveling time for some local drivers but the increase in traveling time would not be substantial.

Traffic and Transportation/Pedestrian and Bicycle Facilities

The level of service would improve with this project because roadway capacity would increase with additional travel lanes, which would improve the flow of traffic. The expressway would have controlled access, which would eliminate direct access from private driveways and reduce access from local roads. The elimination of direct access reduces conflict between through-traffic (commuters) and traffic that decelerate or accelerates from driveways and local roads. Frontage roads would be provided for local access and would provide a safety improvement for the transfer of slower moving farm equipment.

The project does not include bicycle lanes or sidewalks. However, due to the controlled access of the expressway and the largely agricultural setting, there is very little non-motorized and pedestrian traffic.

The proposed project would not disrupt any public or business parking but may affect an existing Park-and-Ride lot located across from Briggs Road in front of the Sheriffs' Training Center (shooting range). The lot has been closed for approximately three years because it was not being used for its intended purpose.

Public Involvement

Early and continuing coordination with the general public and appropriate public agencies was attained for the project. Between 2001 and 2009, numerous meetings for the Project Development Team, various Caltrans functional units, and focused meetings were held to discuss the development of the project. Meetings to inform the general public and appropriate agencies were held in September 2003 and April 2008. In addition, Caltrans notified agencies via a Notice of Preparation (July 2007) and a Notice of Intent (April 2008). Native American consultation was initiated in December 2003 and has been ongoing since then.

Table S.1 Summary of Major Potential Impacts From Alternatives

Potential Impact		Route Adoption San Felipe Road to U.S. 101		Build Alternatives		No-Build Alternative
		Alternative 1	**Alternative 2**	**Alternative A**	**Alternative B**	
Land Use Is the project consistent with the General Plans of:	**City of Hollister**	A four-lane expressway is planned	A four-lane expressway is planned	Yes, a four-lane expressway is planned	Yes, a four-lane expressway is planned	No widening of State Route 25 would occur
	San Benito County	A four-lane expressway is planned from Hollister to U.S. 101	A four-lane expressway is planned from Hollister to U.S. 101	Yes, a four-lane expressway is planned from Hollister to U.S. 101	Yes, a four-lane expressway is planned from Hollister to U.S. 101	No widening of State Route 25 would occur
	Santa Clara County	A six-lane freeway is planned from U.S. 101 to Bolsa Road	A six-lane freeway is planned from U.S. 101 to Bolsa Road	This portion of the project is in San Benito County	This portion of the project is in San Benito County	No change
Growth		Is not growth inducing but would influence future planned growth in the area	Is not growth inducing but would influence future planned growth in the area	Is not growth inducing but would accommodate planned growth	Is not growth inducing but would accommodate planned growth	Would not accommodate any growth
Farmland How much acreage is converted?	**Total**	**657**	**660**	**180**	**189**	None
	Prime/Unique	**408**	**411**	**180**	**189**	None
	Williamson Act	**108**	**108**	**13.3**	**51.1**	None

Potential Impact		Route Adoption San Felipe Road to U.S. 101		Build Alternatives		No-Build Alternative
		Alternative 1	**Alternative 2**	**Alternative A**	**Alternative B**	
Community Character and Cohesion		Disrupts a church community	Not expected to result in any disruption or isolation of a community	Disrupts a church community	Not expected to result in any disruption or isolation of a community	No impact
Relocations Will the project result in any displacements of:	**Residences**	21	14	14	9	None relocated
	Businesses	10	4	8	4	None relocated
	Utility	Relocates: AT&T aboveground telephone lines and underground telephone cables PG&E aboveground electric lines and underground electric cables and portions of the Sargent-Hollister 115kV electrical line City of Hollister recycled water pipeline	Relocates: AT&T aboveground telephone lines and underground telephone cables PG&E aboveground electric lines and underground electric cables and portions of the Sargent-Hollister 115kV electrical line City of Hollister recycled water pipeline and water lines in Wright Road	Relocates: AT&T aboveground telephone lines and underground telephone cables PG&E aboveground electric lines and underground electric cables portions of the Sargent-Hollister 115kV electrical line City of Hollister recycled water pipeline	Relocates: AT&T aboveground telephone lines and underground telephone cables PG&E aboveground electric lines and underground electric cables and portions of the Sargent-Hollister 115kV electrical line City of Hollister recycled water pipeline and water lines in Wright Road	No changes

Potential Impact	Route Adoption San Felipe Road to U.S. 101		Build Alternatives		No-Build Alternative
	Alternative 1	**Alternative 2**	**Alternative A**	**Alternative B**	
Traffic and Transportation/ Pedestrian and Bicycle Facilities	Would improve Level of Service Frontage roads provided would change local access No bicycle lanes or sidewalks planned	Would improve Level of Service Frontage roads provided would change local access No bicycle lanes or sidewalks planned	Would improve Level of Service Frontage roads provided would change local access No bicycle lanes or sidewalks planned During construction ten-minute traffic delays and detours could occur	Would improve Level of Service Frontage roads provided would change local access No bicycle lanes or sidewalks planned. During construction ten-minute traffic delays and detours could occur	Level of Service would continue to worsen
Cumulative Impacts	Right-of-way acquisition for this project would have cumulative impacts to farmland The visual impacts of building an expressway in this location would be cumulative Paleontological impacts would be cumulative	Right-of-way acquisition for this project would have cumulative impacts to farmland The visual impacts of building an expressway in this location would be cumulative Paleontological impacts would be cumulative	Right-of-way acquisition for this project would have cumulative impacts to farmland The visual impacts of building an expressway in this location would be cumulative Paleontological impacts would be cumulative	Right-of-way acquisition for this project would have cumulative impacts to farmland The visual impacts of building an expressway in this location would be cumulative Paleontological impacts would be cumulative	No changes

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Chapter 1 Introduction

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.

The purpose of this report is to provide information regarding social, economic, and land use effects of the project so that final transportation decisions will be made in the public interest. The report is intended to clearly describe the relevant existing conditions and the potential socioeconomic impacts of the project. The report focuses on important topics identified through the scoping process (preliminary environmental analysis). Indirect and cumulative impacts are discussed in the general impact sections of Chapters 2 through 5.

Both the National Environmental Policy Act and the California Environmental Quality Act require consideration of social and economic impacts of projects in the preparation of environmental documents.

The Hollister to Gilroy State Route 25 Widening and Route Adoption Project includes two proposed projects: a route adoption and a proposed build project within the limits of the route adoption. In the future, as portions of the selected alignment are funded and proposed for construction, Tier II environmental documents would be prepared for each project. A Tier II document would provide an analysis of the environmental impacts at that time, and specific minimization and/or mitigation measures would be presented.

State Route 25, a two-lane conventional highway, runs northwest from the City of Hollister in San Benito County through the relatively flat terrain of the Hollister Valley. It ends south of the City of Gilroy at U.S. 101 in Santa Clara County after crossing the Pajaro River and Carnadero Creek. The proposed route adoption alternatives generally parallel the existing highway and would use portions of it as frontage road where possible. The proposed Build Alternatives A and B follow the same alignments as the route adoption alternatives for 3.8 miles, from the project limits in Hollister to Hudner Road in San Benito County.

Agriculture dominates the surrounding landscape of all alternatives, with farmsteads, ranchettes, and rural housing scattered along the length of the study area. There are a

few retail businesses, and agriculture-related commercial operations on the outskirts of Hollister and south of Gilroy at either end of the proposed route adoption.

1.1 Community Profile

Historical Background of the Project Area

From the time Mission San Juan Bautista in San Benito County was established in 1797 to the present day, some form of agriculture has dominated land use in the study area. During the Spanish, Mexican, and early American settlement in the 1840s, the lands once held by the missions were privatized and held in large ranchos. Large holdings continued to dominate through the 1880s as wheat and other grains covered vast acreages of valley land. Commercial fruit growing began during the 1880s in the Santa Clara Valley, and fruit drying and canning technologies were developed to process the abundance of fruit. Land use today continues to be based on agricultural production, both corporate and family-based, or in agricultural-related businesses such as packing plants. Because of the long and persistent agricultural heritage of the region, the project study area remains sparsely populated and retains its rural character.

Santa Clara County was one of the original counties of California when California became a state in 1850 and the city of San Jose, north of the project area, was the first capital of the new state. The American settlement of Gilroy started in 1850, and became a city in 1867.

San Benito County was created from a portion of Monterey County in 1874, and expanded thirteen years later with land from Fresno and Merced counties. The San Justo Homestead Association established the Hollister area in 1868. In July 1871, a branch line of the Southern Pacific from Gilroy reached Hollister. The railroad enabled shipping of agricultural crops, and so the town grew. When San Benito county was established in 1874, Hollister was selected as the county seat.

Present Conditions of Project Area

Agriculture and associated industries has remained the major source of revenue for San Benito County. While agribusiness still has economic importance in Santa Clara County, particularly in the project area, aerospace, electronics manufacturing and other high technology industries have taken first place in the county economy.

As State Route 25 does now, the proposed Route adoption would provide the main connection between two cities of similar size and economy (Hollister and Gilroy)

situated in two counties (San Benito County and Santa Clara County), which are also similar in size but with very different socio-economic characteristics, which will be discussed throughout this document.

The two counties are different in population density, ethnic composition, and economics. Only 1.2 percent of Santa Clara's population is considered rural; whereas, more than 22 percent of the residents in San Benito County live in a rural area. Santa Clara County has one of the highest personal, median household, and median family incomes in California, with relatively low unemployment. Most of Santa Clara County's population lives in the cities of the North Valley, concentrated in the employment and technology center approximately 30 miles from the project area. The City of Gilroy, located in the southern portion of Santa Clara County, is more similar to the lower incomes, higher percentages of seasonal unemployment, and families living below the poverty level that are true for San Benito County and the city of Hollister. Because the agricultural industry is the largest employer in San Benito County, unemployment can be as high as 11 or 12 percent during the months of January through March and drop to 4 or 5 percent during the months of July through September. Table 1.1 summarizes some of the demographic data discussed in greater detail in Chapter 4.

Table 1.1 Comparison of Demographic Data

Statistic	County		City	
	San Benito	Santa Clara	Hollister	Gilroy
Population 1990	36,700	1,497,577	19,212	19,212
Population 2000	53,234	1,682,585	34,413	41,464
Population 2008 (projected)	57,784	1,837,075	37,051	51,173
Families below the poverty level	6.7%	4.0%	6.9%	7.3%
Commute out of county	94%	14%	N/A	N/A

Source: U.S. Census Bureau State & County Quick Facts (2000)

The population growth rate is also different in the two counties. In Santa Clara County, the population has been slowing since a peak of 8.4 percent in 1960. Despite this slowdown, the areas of Gilroy and the South Valley are growing faster than the 13 larger cities in the North Valley where 90 percent of the county's population resides.

County and city governments are concerned about managing growth and preserving agricultural land and address those concerns in their general plans. San Benito County

has begun the process of updating their general plan, using mail surveys and workshops to identify how its residents view the future—what is working and what needs to be fixed. Participants generally agreed that future growth should be compact to preserve agriculture. They feel that growth should be concentrated within and around existing cities, and along transportation corridors. Santa Clara County is also working to preserve the agricultural land and other open space that remain, most of which is in the South Valley.

1.2 Project Background

The California Department of Transportation Caltrans, in cooperation with San Benito Council of Governments and Santa Clara Valley Transportation Authority are evaluating the conversion of 11.2 miles of the existing State Route 25 two-lane conventional highway to a four-lane expressway in San Benito and Santa Clara counties. This project includes both a route adoption study and a proposed build project within the limits of the proposed route adoption. See Figure 1.1 for the project vicinity map and Figure 1.2 for a location map.

Serving as a bedroom community for the Southern San Francisco Bay Area since about 1990, San Benito County, especially in the project area, has been growing rapidly. According to the U.S. Census Bureau, between 1990 and 2000, San Benito County's population increased by 45.1 percent, with most of the county's population growth in or near the two incorporated cities of Hollister and San Juan Bautista. (Between 2003 and 2004, however, population growth in the county slowed down and increased by only 1.4 percent.)

Economic growth in the neighboring county of Santa Clara has created pressure for residential growth in San Benito County where housing is more affordable. As a result, San Benito County's population growth rate has outpaced the State's, and the proportion of employed persons commuting from San Benito County to Santa Clara County each day has grown. According to the 2000 U.S. Census Bureau, almost half of the workers that are 16 years and older in San Benito County commute outside San Benito County for employment. The number of registered vehicles and registered drivers has also grown accordingly. This growth trend has increased demands on the regional transportation system.

1.3 Project Summary Description

Five alternatives are under consideration including the No Action Alternative: Alternatives 1 and 2 are route adoption alignments, and Alternatives A and B are proposed build alternatives.

The route adoption study extends from San Felipe Road within the City of Hollister (post mile 51.5) in San Benito County to U.S. 101 south of the City of Gilroy (post mile 2.6) in Santa Clara County. Route adoption Alternativea 1 and 2 are 11.2 miles long and share the same alignment from approximately 0.5 mile~~s~~ south of Shore Road (post mile 56.1) in San Benito County to U.S. 101 in Santa Clara County. Between the south end of the proposed project at San Felipe Road and post mile 56.1 in San Benito County the two alignment alternatives separate. Alternative 1 proposes to align the future four-lane expressway to the east (or north) of the existing two-lane north/south highway. Alternative 2 would be aligned to the west (or south) of the existing two-lane highway. See Figures 1.3 and 1.4 for maps of Alternatives 1 and 2.

Both route adoption alternatives would be wide enough to accommodate a future 342 foot-wide four-lane expressway, including a 62-foot median, and frontage roads on either one or both sides. New structures planned for the future within the route adoption area include:

- new bridges over Carnadero Creek and the Pajaro River
- new overheads to cross over the Union Pacific Railroad Hollister branch line and the Union Pacific main line just east of U.S. 101
- a new State Route 25/U.S. 101 interchange built to the north of the existing interchange
- a new interchange to replace the State Route 25/State Route 156 at-grade intersection, which includes improvement to Sate Route 156 (post mile R10.5/R12.2)

Alternatives A and B, the build alternatives, extend 3.8 miles in San Benito County, from San Felipe Road (post mile 51.5) to west of Hudner Lane (post mile 55.3). Unlike the route adoption alternatives, the build alternatives propose a realigned and widened at-grade intersection at State Route 25 and State Route 156 instead of an interchange. Both build alternatives would transition back to the existing two-lane highway near Hudner Lane.

Alternative A would be constructed at the southeastern end of the Alternative 1 route adoption alignment. Direct access to the expressway would be available from San Felipe Road, Wright Road, Flynn Road, two new west-side frontage roads, State Route 156, and one new east-side frontage road. Access to the gravel quarry driveway south of State Route 156 would be provided by a new undercrossing.

Alternative B would be constructed at the southeastern end of the Alternative 2 route adoption alignment. Direct access to the expressway would be provided from San Felipe Road, Wright Road, Briggs Road, two new west-side frontage roads, State Route 156, and one new east-side frontage road. See Figure 1.5 and 1.6 for maps of Alternatives A and B.

The No Action Alternative proposes no change in the existing conditions, and the alignment of a future expressway would not be secured by a route adoption within the eleven-mile long corridor. No further improvements would be made to State Route 25 other than the Route 25 Safety and Operations Enhancement Project that began construction in May 2009.

The Route 25 Safety and Operations Enhancement Project begins just south of Hudner Lane (post mile 55.1) and end just south of the Union Pacific Railroad Hollister line crossing at the Santa Clara County line (post mile 60.1). The proposed improvements for the project include:

- two 10-foot outside shoulders
- two 12-foot travel lanes
- two 5-foot inside shoulders
- placement of a temporary concrete median barrier
- installation of rumble strips on all inside and outside shoulders
- improvements to the Hudner Lane and Shore Road intersections

The location of access routes and construction staging areas for the project's build alternatives is not yet known.

Figure 1-1 Vicinity Map

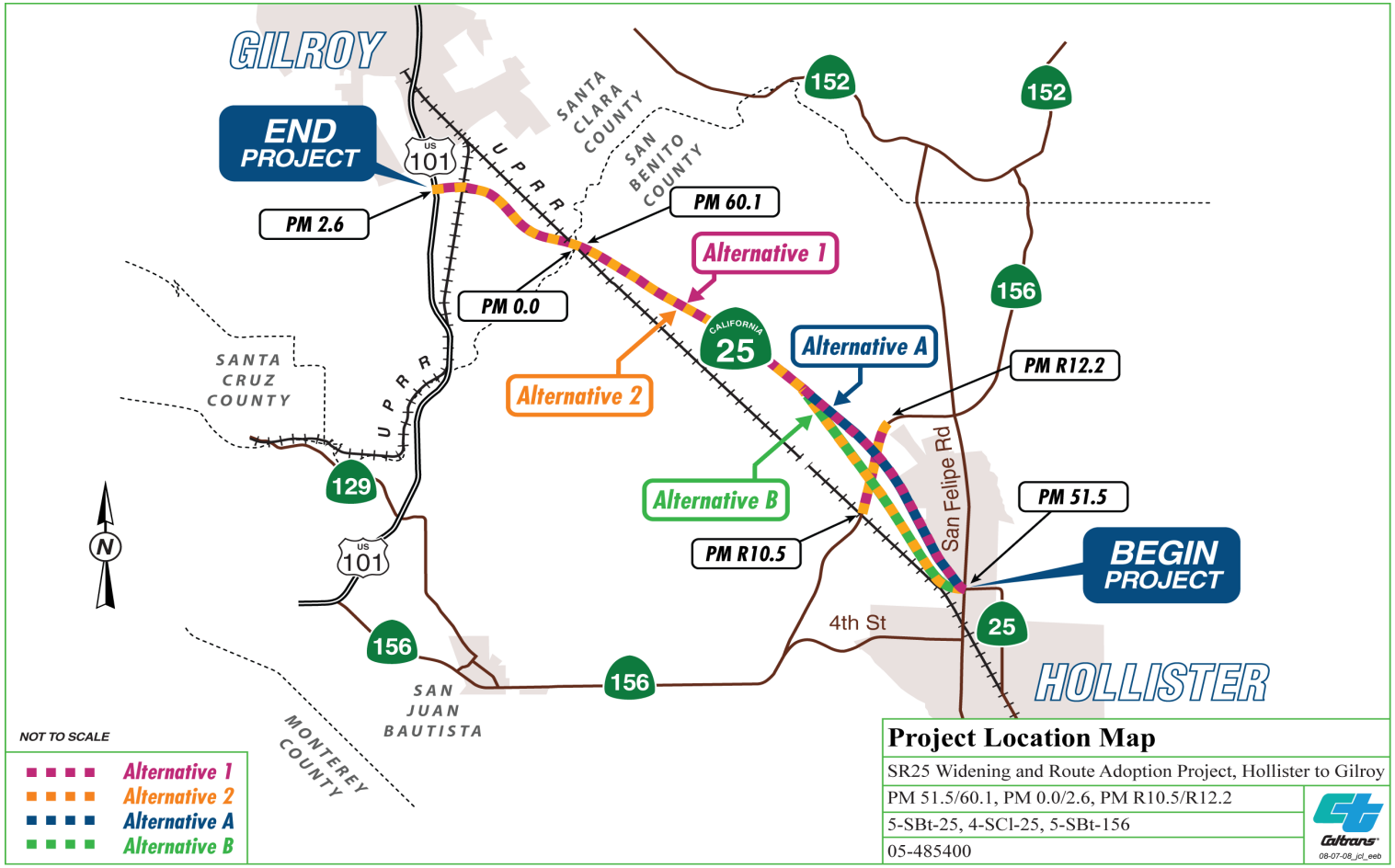
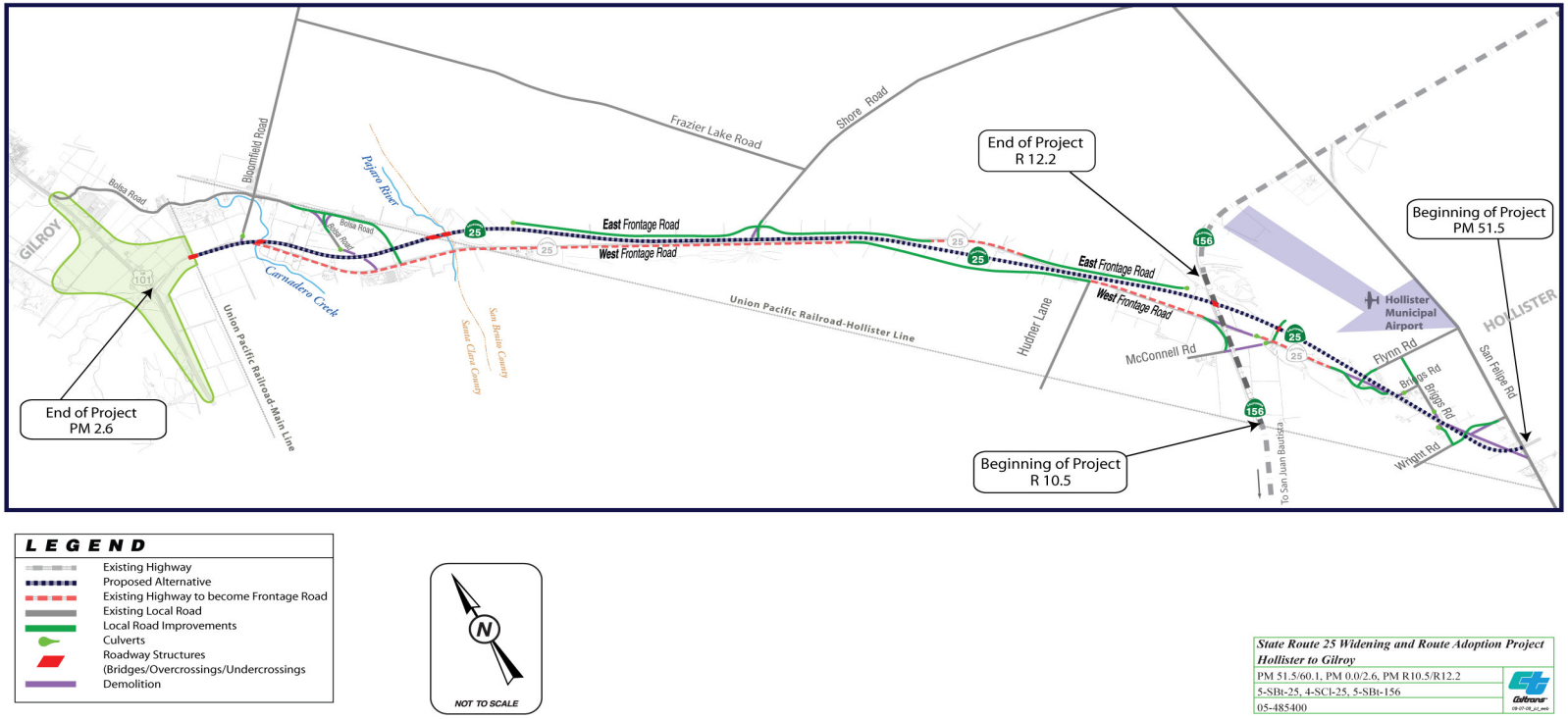


Figure 1-2 Location Map

State Route 25 Widening Project and Route Adoption: Hollister to Gilroy (San Felipe Road to US 101)

ROUTE ADOPTION ALTERNATIVE 1



LEGEND

- Existing Highway
- Proposed Alternative
- Existing Highway to become Frontage Road
- Existing Local Road
- Local Road Improvements
- Culverts
- Roadway Structures (Bridges/Overcrossings/Undercrossings
- Demolition

N

NOT TO SCALE

State Route 25 Widening and Route Adoption Project
Hollister to Gilroy
PM 51.5/60.1, PM 0.0/2.6, PM R10.5/R12.2
5-SBt-25, 4-SCl-25, 5-SBt-156
05-485400

Figure 1-3 Route Adoption Alternative 1

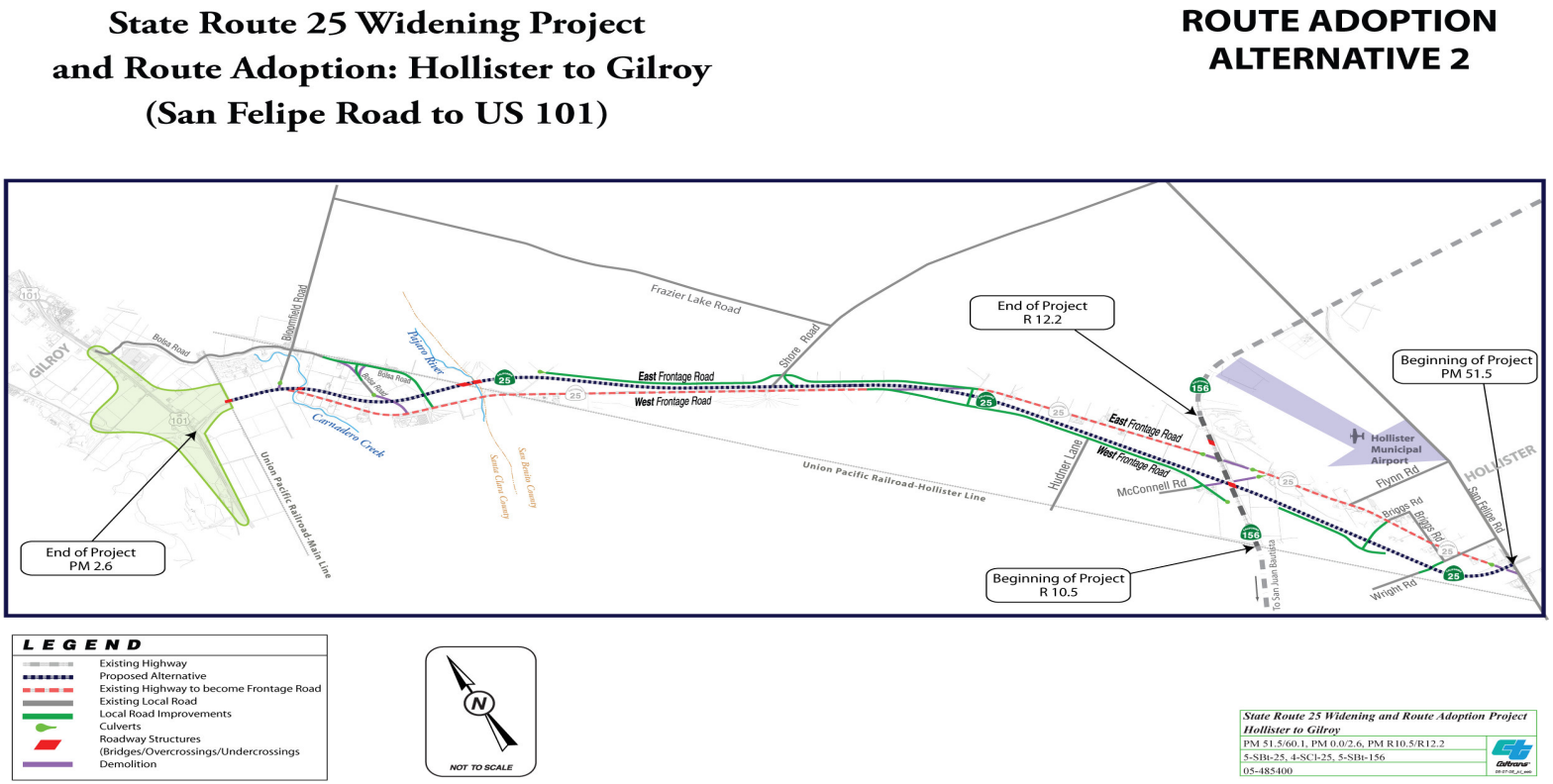


Figure 1-4 Route Adoption Alternative 2

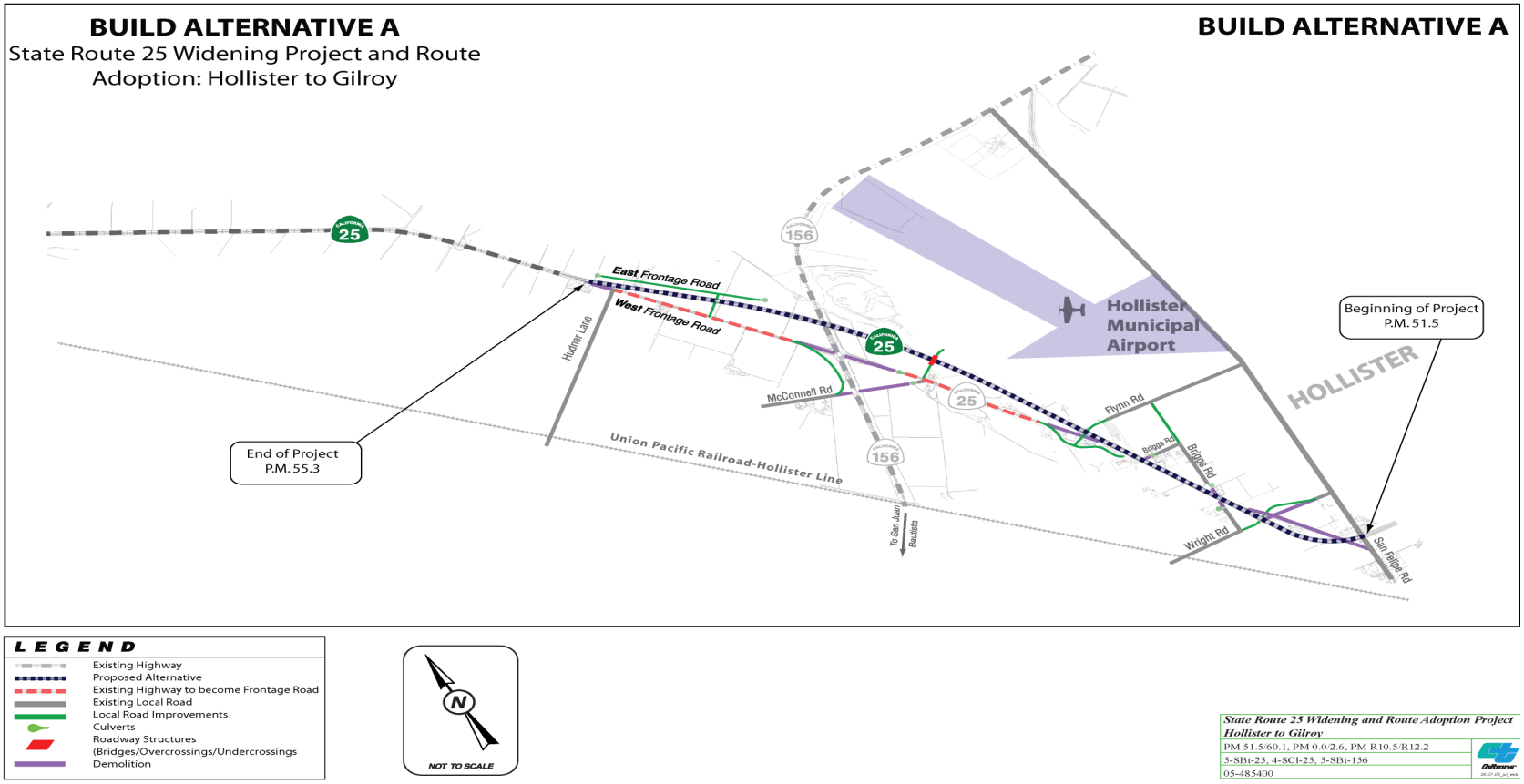


Figure 1-5 Build Alternative A

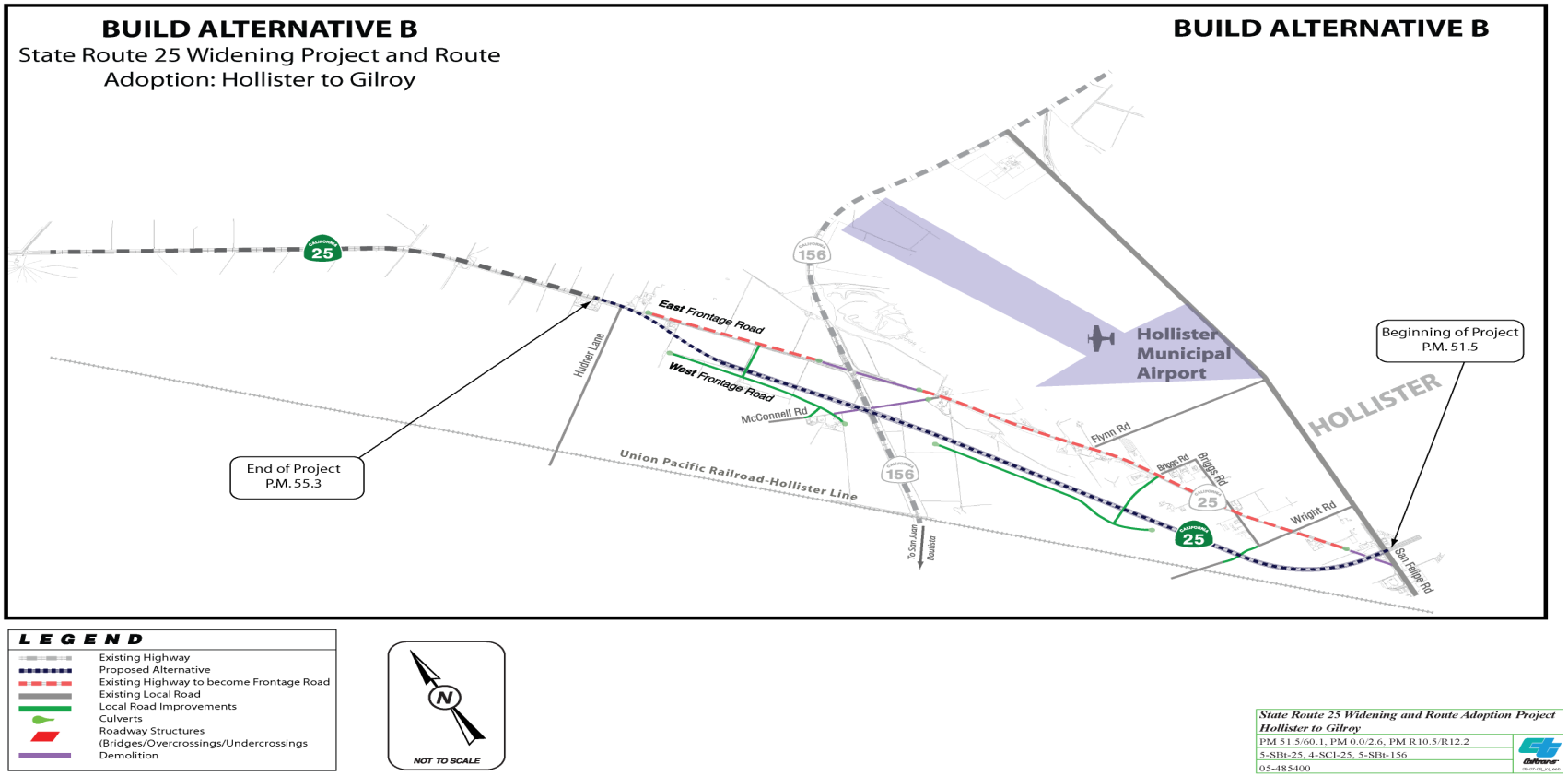


Figure 1-6 Build Alternative B

1.4 Study Area Definition

The general study area surrounds the proposed route adoption alignments that would extend from San Felipe Road (in the northern city limits of the City of Hollister) northwest through San Benito County into Santa Clara County, to U.S. 101 just south of the City of Gilroy (See Figure 1.1).

Several different study area boundaries are needed to properly discuss the different topics addressed in this Community Impact Analysis. For instance:

- The study area for the build alternatives includes the 3.8 miles between San Felipe Road (post mile 51.5) and west of Hudner Lane (post mile 55.3) in San Benito County.
- Parcel boundaries are used to define the discussion of Farmlands in Section 2.3 and Relocation impacts in Section 4.4.
- Data for discussion in most of Chapter 4, Community Character, is derived from the 2000 U.S. Census Bureau, so that the study area is defined by the boundaries of Census Tracts, Census Block Groups, and Blocks adjacent to the proposed alternatives.
- General Plans and other planning documents determine the limits of analysis for Section 2.1, Existing and Future Land Use; Section 2.2, Consistency with State, Regional and Local Plans; Chapter 5, Traffic and Transportation/Pedestrian and Bicycle Facilities; and some aspects of Chapter 3, Growth.
- To fully discuss Chapter 3, Growth, as well as Sections 4.2, Economic Conditions, the study area was broadened to include regional employment centers, which are destinations for many residents in the project area.

Chapter 2 Land Use

This chapter explains the impacts that the proposed project would have on land use. As part of the preliminary scoping and environmental analysis conducted for the project, the following environmental issues were considered but no impacts were identified.

- Coastal Zone – The proposed project is not located in a coastal zone. California's coastal zone generally extends 1,000 yards inland from the mean high tide line, or in significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five (5) miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards.
- Wild and Scenic Rivers – The Pajaro River is not classified as part of the National Wild and Scenic River System nor is it classified as a National Study River. The river is also not classified as part of the California Wild and Scenic River System nor is it classified as a Special River (California). No other rivers were identified in the proposed project area.
- Parks and Recreation – Based on field surveys and research into the local, county, and state park and recreation systems, no parks or recreation facilities were identified in the proposed project area.
- Farmland/Timberlands – Based on field surveys, no timberlands are located in the proposed project area. Farmland impacts are discussed in Section 2.3.

2.1 Existing and Future Land Use

The purpose of this section of the report is to convey a general understanding of the amount of developed, undeveloped, and underdeveloped land as it may relate to project associated growth impacts. This section analyzes the project area for both a route adoption study and a proposed build project within the limits of the proposed route adoption.

2.1.1 Affected Environment

According to the U.S. Census Bureau 2006 estimates, Santa Clara County has a land area of 1,291 square miles and a population estimated close to 1.7 million people with a density of approximately 1,303 people per square mile. Santa Clara County has the fifth most populous county in California, with almost a quarter (24 percent) of the San Francisco Bay area's total population living within its jurisdiction (Santa Clara

County Planning Department of Economic Planning). However, the majority of the county's population is in the north. The southern part of the county, near the cities of Morgan Hill and Gilroy, has an agriculture economy. Santa Clara County recently (August 2008) issued a new land use map under the existing General Plan (adopted in 1994). The map shows that the project area within Santa Clara County is currently used for agriculture and would continue to be in agriculture, at least in the near future.

The City of Gilroy General Plan, adopted in 2002, shows in its future land use map for the year 2023 that the city does not plan to expand into the project area and intends for the area to remain in agriculture.

In San Benito County, agriculture is the predominant land use. According to the 2007 Crop Report for San Benito County, there is a total area of about 893,440 acres of land in the county. Approximately 99 percent of the county is unincorporated land, with approximately 95 percent of that land being used as farmland, rangeland, forest, and federal land, including The Pinnacles National Monument and the Bureau of Land Management Clear Creek Recreation area (San Benito County General Plan, adopted in 1994). The county has only two incorporated cities, San Juan Bautista and Hollister, and the county's population is about 56,000 people with a density of approximately 39 people per square mile.

Row crops and orchards dominate the proposed route adoption alignments; however, a few agriculture-related businesses such as packinghouses, cold storage, and a commercial composting facility are scattered throughout the project area. Some farmers also have seasonal fruit and produce stands along the highway, as well.

As State Route 25 gets closer to San Felipe Road and passes through the city limits of Hollister, the land use is intermixed with agricultural use and commercial and retail businesses. The land use in this area includes a gravel quarry, trailer sales, a mini storage facility that also stores vehicles, farm equipment rental/sales, plumbing and irrigation supply, a chocolate factory, an auto body shop and painting business, and a private day care facility and a church.

The county facilities in the area include the San Benito County Sheriffs' Training Center (shooting range), the San Benito County Jail, and the San Benito County juvenile detention center. All of the businesses are outside the Hollister city limits except for the church; and, with the exception of the businesses and church, all of the land within the project study area in San Benito County is considered agricultural. The properties within the Hollister city limits are zoned for light industrial uses, and

there are also some airport-related businesses adjacent to the Hollister Municipal Airport east of State Route 25 but they are outside the project area.

According to the Land Use Designation map from the General Plan of San Benito County (adopted in 1994), the project area between Flynn Road and the Pajaro River is designated for agriculture. Figures 2.1 shows the existing land use between San Felipe Road in San Benito county and U.S. 101 in Santa Clara county.

Future Land Use

The City of Hollister's sphere of influence as shown in the city's General Plan (adopted in 2005 and amended in June 2007) includes all of the land east of State Route 25 within the project area (Figure 2.2.). Land uses within the project area are planned to be industrial and airport-related in the planning horizon year of 2023. The land west of State Route 25 and south of Wright Road would also be in the city. High-density residential use is planned for this area.

Table 2.1 shows developments approved or under consideration near the project area. The study area for Table 2.1 includes the greater Hollister area (San Benito County), the southern outskirts of Gilroy (Santa Clara County), and the area along State Route 25 between Hollister and U.S. 101. All of the developments are outside the limits of this project except for El Rancho San Benito, a proposed "new town" that would be on the south side of the existing State Route 25 from the land grant line (east of Shore Road where the highway bends) to the county line at the Pajaro River.

Table 2.1 Proposed and Approved Developments

Development	Jurisdiction	Proposed Uses	Status
El Rancho San Benito	San Benito County	6,800-unit development off U.S. 101 and State Route 25 between Hollister and Gilroy	Specific Plan pending, draft EIR in preparation
Santana Ranch	San Benito County	1,000-plus-unit development east of Fairview Road on about 290 acres	Specific plan application pending
West of Fairview	San Benito County	677-unit development west of Fairview Road and north of State Route 25 on 125 acres	Tentative map approved June 2007
Fairview Corners (part of Gavilan College campus development)	San Benito County	220 single-family homes on 57 acres off of Fairview Road near State Route 25	Final EIR in preparation
Gavilan College San Benito Campus	San Benito County	New campus to serve 3,500 students on 80 acres at the northeast corner of Fairview Road an State Route 25	Final EIR in preparation
Glen Loma Ranch	Santa Clara County	1,643 unit development on 392 acres within the City of Gilroy	Specific Plan adopted into Gilroy's General Plan

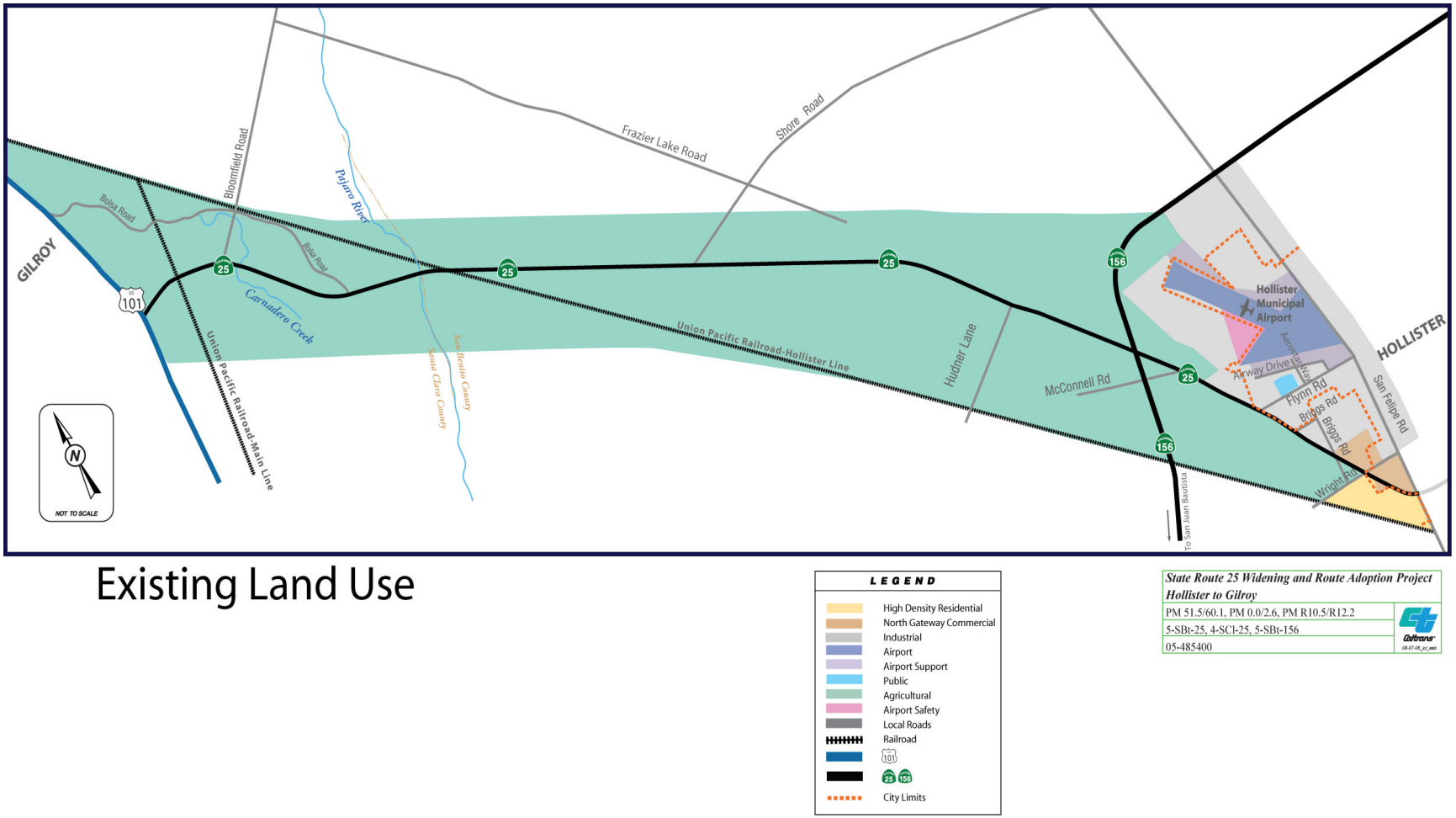


Figure 2-1 Existing Land Use Between San Felipe Road and U.S. 101

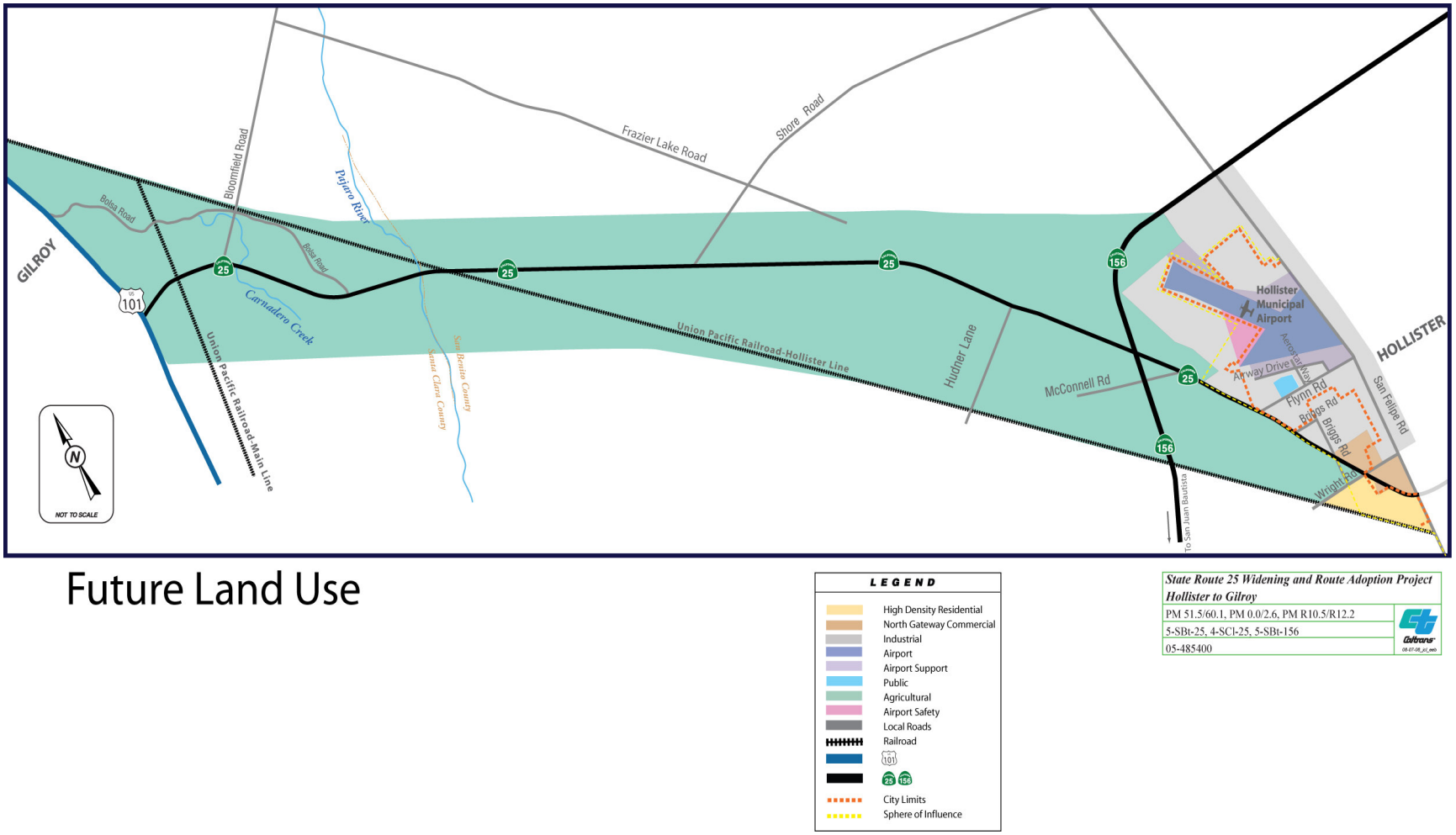


Figure 2-2 Future Land Use Between San Felipe Road and U.S. 101

In August 2008, Santa Clara County issued a new land use map under the existing General Plan (adopted in 1994) whose planning year is 2010. The map shows that, within the project area in Santa Clara County, parcels would continue to be in large-scale agriculture, at least in the near future.

The City of Gilroy General Plan, adopted in 2002, shows in its future land use map for the year 2020 that the city does not plan to expand into the project area, but intends to keep the area in agriculture.

2.1.2 Environmental Consequences

The route adoption would affect local planning because it must be included in the local plans once approved. The proposed project requires the preservation of linear strips of additional right-of-way adjacent to the existing State Route 25 or nearby to the east or west of the existing highway. Most of the right-of-way needed is currently used for agricultural purposes, and some residences and businesses near the north and south end of the route adoption alternatives would also be affected.

In regards to future development, if the proposed route adoption were constructed, the proposed El Rancho San Benito development would become more accessible. However, the route adoption would not open new areas to development or lead to changes in land because access would be controlled and jurisdictional counties would have to approve future development within or adjacent to the area preserved for the route adoption.

All the other developments proposed would be outside the limits of the project and access would not be affected by the project.

2.1.3 Avoidance, Minimization, and Mitigation Measures

No avoidance, minimization, or mitigation measures are needed.

2.2 Consistency with State, Regional, and Local Plans

This section of this report identifies the local or regional plans that pertain to the affected area and the associated city, county, or region.

2.2.1 Affected Environment

The proposed project is included in the 2005 San Benito County Regional Transportation Plan (the most recent plan issued to date) and was also in the 2002, 2006, and 2008 San Benito County Regional Transportation Improvement Program plans, the Metropolitan Transportation Commission's 1998 Region Transportation Plan, and the 1998 cost-constrained regional Transportation Improvement Program.

The Santa Clara County General Plan envisions State Route 25 from the new State Route 25/U.S.101 interchange to the vicinity of Bloomfield Avenue as a six-lane freeway. This plan is also stated in the Valley Transportation Plan 2030 (2005).

The General Plan for the City of Hollister includes the proposed project but also shows an additional interchange at State Route 25 and San Felipe Road in their Land Use Plan map for the year 2023. This map also shows a potential future roadway extension that would go around the Hollister Municipal Airport and east to Airway Drive.

2.2.2 Environmental Consequences

This project proposes a four-lane expressway alignment throughout its length from San Felipe Road in Hollister to U.S. 101 in Santa Clara County, which is contrary to Santa Clara County's vision of a freeway between U.S. 101 and the vicinity of Bloomfield Avenue.

The project is compatible with the San Benito County General Plan; however, the County's General Plan assumes a build project for an expressway, not a route adoption.

Neither the route adoption or build alternatives include an interchange or intersection south of Shore Road on State Route 25 as proposed by the El Rancho San Benito development.

The proposed route adoption alternatives do not include the interchange at State Route 25 and San Felipe Road that is included in the Hollister General Plan, although the intersection was considered and dropped from this project. A portion of the future roadway extension around the Hollister Municipal Airport and east to Airway Drive may encroach into the right of way needed for route adoption Alternative 1 and Build Alternative A. Alternatives B and 2 would not have an effect on the proposed perimeter road.

2.2.3 Avoidance, Minimization, and Mitigation Measures

Caltrans will continue to coordinate with the Council of San Benito County Governments, the Valley Transportation Authority, both of which have provided funding for the project. Caltrans will also coordinate with San Benito County regarding the proposed El Rancho San Benito development if the development is approved.

2.3 Farmlands/Timberlands

The National Environmental Policy Act and the Farmland Protection Policy Act (FPPA, 7 U.S. Code 4201-4209; and its regulations, 7 Code of Federal Regulations Part 658) require federal agencies, such as the Federal Highway Administration, and Caltrans as assigned, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

2.3.1 Affected Environment

Agriculture is the predominant land use and economic source for San Benito County. According to the 2007 Crop Report for San Benito County, agriculture continues to be the county's major producing industry with a 2007 gross value in excess of $293 million. This is the largest increase in gross value for the county since 2004, and an increase of almost eight percent above the 2006 total. There are 893,440 acres of land in the county and 35,000 acres (4 percent) are planted in row crops. Row crops that do well in the area include artichokes, broccoli, cabbage, celery, cilantro, and lettuces. Other row crops include kale, spinach, onion (dry bulb), bell peppers, chards, and tomatoes. Approximately 508,000 acres (57 percent) are rangeland or open space land used for grazing livestock, such as cattle and sheep. Fruit crops, such as apples, apricots, cherries, wine grapes, olives were profitable in the year 2007, as well as nut crops. Fruit and nut crops grossed almost $38 million last year but the top valued crop

was nursery stock, with a gross value in excess of $34 million. Nursery stock includes mushroom spawn, vegetable transplants, turf, Christmas trees, nursery plants and trees and cut flowers (dry and fresh).

According to the 2007 Crop Report for Santa Clara County the total gross value for agricultural production in 2007 was $255 million, an increase of 4.3 percent from the 2006 value of $244 million. Nursery stock crops remained the County's number one agricultural crop grossing almost $88 million.

2.3.2 Environmental Consequences

A Natural Resource Conservation Service Farmland Conversion Impact Rating was completed for the proposed project. The Natural Resource Conservation Farmland Conversion Impact Rating Forms NRCS-CPA-106 (corridor studies) were completed for the route adoption segments in San Benito County and Santa Clara County in March 2008 and updated in September 2008, and the Natural Resource Conservation Farmland Conversion Impact Rating Form (AD-1006) was completed in March 2008 for the build alternatives (see Appendix A).

The Natural Resource Conservation Service determines the relative value of farmland to be converted by using a formula that weighs farmland classification, soil characteristics, irrigation, acreage, creation of non-farmable land, availability of farm services, and other factors. The Natural Resource Conservation Service determined that the proposed project would convert farmland having a relative value between 92 and 100 out of 100 possible points under these criteria. Because acreage converted is only one of several factors, alternatives may be allotted similar points even with dissimilar acreage conversion. An additional 89 to 98 points were factored in on the Natural Resource Conservation Service form using other criteria for a total impact rating ranging from a low of 184 points for farmland in Santa Clara county to a high of 198 points for both route adoption alternatives (Alternatives 1 and 2) in San Benito County.

The Farmland Protection Policy Act requires consideration of impacts from those alternatives exceeding 160 points on the Natural Resource Conservation Service Farmland Conversion Impact Rating. Measures to minimize impacts include selecting the alternative with the fewest potential impacts that still meets the purpose and need of the project. Selection of the preferred alternative will occur after the public circulation phase of this environmental document is completed. Farmland impact will

be a consideration in determining which alternatives would warrant further consideration and which alternatives would be withdrawn.

Table 2.2 shows farmland conversion information for the route adoption Alternatives 1 and 2. Alternatives 1 and 2 are 11.2 miles long and share the same alignment from approximately ½ mile south of Shore Road in San Benito County to U.S. 101 in Santa Clara County.

Based on preliminary designs for the route adoption alternatives, Alternative 1 would acquire approximately 657 acres of right-of-way from 65 property parcels in San Benito County and 13 property parcels in Santa Clara County. The National Conservation Resources Service classifies 655 acres of the needed right of way as farmland, of which 408 acres of the converted farmland are considered prime or unique. The farmland converted represents 0.0026% of the total farmland in California.

Alternative 1 would require approximately 108 acres (rounded) from 11 parcels under Williamson Act contracts in Santa Clara County, and approximately 13.3 acres from 2 parcels under the Williamson Act in San Benito County. However, the amount of right of way needed from any single parcel should not result in the cancellation of any Williamson Act contracts. This alternative has the potential to divide (cut into sections) 9 property parcels, which may remove two orchards from production (a 2.4-acre orchard and a 58.3-acre orchard). It may also result in up to 5 excess or non-farmable parcels. Parcels become excess or non-farmable parcels when the remaining sections become too small to farm or the shape makes farming the property parcel difficult or not cost-effective.

Alternative 2 would acquire approximately 660 acres of right-of-way from 9 property parcels in San Benito County and 13 property parcels in Santa Clara County. The National Conservation Resources Service classifies 658 acres of the needed right of way as farmland, of which 411 acres of the converted farmland are considered prime or unique. The farmland converted represents 0.0026% of the total farmland in California.

Alternative 2 would require approximately 108 acres (rounded) from 11 parcels under Williamson Act contracts in Santa Clara County, and approximately 51.1 acres from 2 parcels under Williamson Act contracts in San Benito County. However, the amount of right of way needed from any single parcel should not result in the cancellation of any Williamson Act contracts. This alternative has the potential to

divide 15 property parcels, which may result in up to 8 excess or non-farmable parcels.

The total for farmland acreage converted in Santa Clara County in Table 2.2 includes only the area between the Santa Clara County line at the Pajaro River and the Union Pacific Railroad main line. Another highway project, the U.S. 101 Widening Project Monterey Road to State Route 129, includes improvements to State Route 25 between U.S 101 and the Union Pacific Railroad main line and an interchange at U.S. 101 and State Route 25. According to preliminary information obtained from the U.S. 101 Widening Project team, it appears 13 property parcels would be affected by the interchange construction and proposed improvements to State Route 25. An estimated 77.4 acres would be needed for right-of-way. All of the land converted is zoned for agriculture and most of it is considered prime farmland. This project would require approximately 28.1 acres from 8 parcels under Williamson Act contracts from within the route adoption corridor.

Table 2.2 Total Farmland Converted by Route Adoption

Category	San Benito County		Santa Clara County		Total Farmland Converted	
Route Adoption Alternative	1	2	1	2	1	2
Total Land Converted (acres)	525	528	132	132	657	660
Prime and Unique Farmland (acres)	323	326	85	85	408	411
Percent of Farmland in the County	0.6	0.6	.03	.03	N/A	N/A
Percent of Farmland in the State	0.002	0.002	.0005	.0005	.0026	.0026
Farmland Conversion Impact Rating	198	198	184	184	N/A	N/A
Williamson Act Parcels Converted (acres)	13.3	51.1	108	108	121.3	159.1

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-Type Projects)

Table 2.3 displays farmland conversion information for the Build Alternatives A and B. Both Build Alternatives are located within San Benito County.

Table 2.3 Farmland Converted by Build Alternatives

Alternatives	Land Converted (acres)	Prime & Unique Farmland (acres)	Percent of Farmland in San Benito County	Percent of Farmland in State	Farmland Conversion Impact Rating	Williamson Act Parcels Converted (acres)
A	180	180	0.20	.00070	198	13.3
B	189	189	0.22	.00074	198	51.1

Source: Form NRCS-CPA-106 (Farmland Conversion Impact Rating for Corridor-Type Projects)

Alternative A proposes to align a four-lane expressway to the east of the existing two-lane north/south highway. Alternative A would acquire approximately 180 acres of right-of-way from 45 property parcels; all the acreage is classified as farmland and all is considered prime or unique. The farmland converted represents 0.00070% of the total farmland in California. This alternative has the potential to divide 9 property parcels, which may result in up to 7 excess or non-farmable parcels.

Alternative A would require approximately 13.3 acres from 2 parcels under Williamson Act contracts in San Benito County, but the amount of right of way needed from any single parcel should not result in the cancellation of any Williamson Act contracts.

Alternative B proposes to align to the west of the existing two-lane highway. Alternative B would acquire 189 acres of right-of-way from 24 property parcels; all the acreage is classified as farmland and all are considered prime or unique. The farmland converted represents 0.00074% of the total farmland in California. This alternative has the potential to divide 8 property parcels, which may result in up to 3 excess or non-farmable parcels.

Alternative B would require approximately 51.1 acres from 2 parcels under Williamson Act contracts in San Benito County, but the amount of right of way needed from any single parcel should not result in the cancellation of any Williamson Act contracts.

All of the projects would offer a safer route for through traffic since it would remove slow-moving farm equipment from the main roadway by providing frontage roads. Frontage roads would offer a safer route for local traffic, farm equipment, and pedestrians. Farm equipment would be moved east and west of State Route 25 via safer intersections and interchanges. Measures were taken to provide access to all farmland and residential properties. In addition, the project would improve the movement of goods, including agricultural produce, which is important to the economy of San Benito and Santa Clara Counties.

During the construction phase, farms that have their water pumped across the roadway may experience a disruption in irrigation resources while the pipelines are relocated, but with careful planning and cooperation between Caltrans and the farming community any disruption would be avoided or minimized.

Although the No-Build Alternative would not convert any farmland, adverse impacts to the transport and processing of local produce may occur as projected traffic increases lead to delays and/or re-routing of farm equipment and produce trucks.

2.3.3 Avoidance, Minimization, and Mitigation Measures

Impacts to farmland cannot be avoided, because farmland surrounds the proposed project area. Farmland acquisition would occur with any of the alternatives.

As part of the right-of-way process for purchasing land, Caltrans tries to negotiate parcel exchanges with neighboring farmers to reconfigure split farmland parcels for resale so that the parcels would continue to be farmed and not contribute further to the segmentation and conversion of farmland. Generally, when Caltrans resells or reconfigures land in an area zoned for agriculture as buffers or conservation easements, deed restrictions limiting future use to agriculture would be included to keep land in agricultural use in perpetuity. Caltrans considered measures to convert fewer acres of farmland during the design of the intersections and frontage roads by keeping the alignment as close to the new highway as permitted. Remnant parcels of farmland were avoided as much as possible by acquiring right-of-way in “slivers” or linear strips of property adjacent to the existing parcels.

As noted above, Caltrans also tries to negotiate parcel exchanges with neighboring farmers to reconfigure split farmland parcels for resale so that the parcels can continue to be farmed and not contribute further to the segmentation and conversion of farmland. When possible, Caltrans will allow farmland to be kept in production (after purchase) until it is needed for construction.

Cumulative Impacts

Despite the counties’ goals to preserve agriculture areas, cumulative impacts to farmland are occurring as planning for the area includes new housing developments, new industrial facilities, and the infrastructure to support the development. According to the California Department of Conservation Farmland Conversion Report for 2004-2006 (the most current report) both counties have suffered a net loss of agricultural land. San Benito County gained 4,691 acres of grazing land but lost 424 acres of prime farmland and 5,534 acres of farmland of local importance. The net acreage change for agricultural land was a loss of 798 acres. During the same report period, Santa Clara County gained 71 acres of unique farmland but lost over 1,860 acres of prime farmland and 1,336 acres of farmland of local importance. The net acreage change for agricultural land was a loss of 3,477 acres.

In comparison, the project conversion taken in conjunction with the other proposed projects in the area would result in cumulative impacts to farmland in the area.

The current zoning maps for San Benito and Santa Clara Counties indicate that most of the farmland in the project area is Prime and Unique Farmland and will continue to be preserved for agriculture. It would be impossible to build the project without converting farmland due to the rural nature of the project. The only option to avoid the conversion of farmland would be the No-Build Alternative, which does not meet the Purpose and Need of the project.

Chapter 3 Growth

This chapter examines the relationship of the proposed project to economic and population growth or to the construction of additional housing in the project area. It focuses on the potential for a project to facilitate or accelerate growth beyond planned developments, or induces growth to shift from elsewhere in the region.

Factors affecting growth patterns depend on a range of forces that can be local, statewide, or even national in scope and may include the relative cost and availability of housing, commutes to higher wage jobs, availability of amenities, local and regional growth policies, and development constraints, as well as travel time savings.

By defining the future location of a regional state route early in the process of updating their general plan, it is expected that the proposed route adoption would aid San Benito County, and to a lesser degree Santa Clara County, in planning growth and development in the broader project study area, as well as supporting and accommodating those planning decisions.

3.1 Affected Environment

Caltrans conducted a preliminary analysis, a “first-cut screening”, to determine whether there would be a potential for project-related growth. Caltrans considered the interrelated factors of accessibility, project type, project location, and growth pressure. The analysis considered changes in travel time and cost, and accessibility to destinations, such as employment and shopping, and how those changes, if any, would affect travel behavior and pattern. Consideration was given to whether any change in accessibility would affect growth or land use change, and what resources of concern would be affected by any growth or land use change. In addition, Caltrans consulted San Benito County Planning in regards to forecasted growth and planned development.

Santa Clara County’s General Plan places emphasis on making the most efficient use of existing urban areas and their infrastructure and confining new growth in, or adjacent to, existing cities.

The land use goals and objectives of the San Benito County General Plan emphasize managing growth to maintain the county’s rural atmosphere, character, and amenities. Currently, the San Benito County Planning Department is preparing an

Environmental Impact Report for the El Rancho San Benito Master Community Specific Plan located east of U.S 101 and south of State Route 25. The main entrance to this development would be at an interchange at U.S. 101 and Betabel Road. The pending development proposes a parkway extending from U.S. 101 to an interchange on State Route 25 south of Shore Road.

The Route Adoption Alternatives propose improving the existing access onto State Route 25 at U.S 101, Bolsa Road (a new alignment), Shore Road, State Route 156, Flynn Road (Alternative 1 only), Wright Road, San Felipe Road, and the northern segment of Briggs Road (Alternative 2 only). A new access point is proposed between Hudner Lane and State Route 156 for both alternatives. The proposed project would not provide any other additional access points (driveways or easements) or result in zoning changes.

The Build Alternatives propose improving the existing access onto State Route 25 at State Route 156, Flynn Road (Alternative A only), Wright Road, San Felipe Road, and the northern segment of Briggs Road (Alternative B only). A new access point is proposed between Hudner Lane and State Route 156 for both alternatives. The proposed project would not provide any other additional access points (driveways or easements) or result in zoning changes.

Both the route adoption and build alternatives would, in fact, reduce the number of access points on State Route 25 by combining existing driveways and local roads along frontage roads.

Environmental Consequences

Based on the first-cut screening, Caltrans concluded that no further analysis on growth would be required. With, or without, the proposed improvements to State Route 25, the project area may experience growth based on the jurisdictional counties' proposed future land use (See Section 3.1.1.1 Existing and Future Land Use).

The route adoption would preserve land for future improvements. Although there is no construction that would directly result from a route adoption alignment decision, once adopted, it is mandated to be incorporated in all planning documents with jurisdiction in the study area. Therefore, project-related growth could be avoided or minimized based on the goals and objectives adopted in the General Plans of both jurisdictional counties.

Both build alternatives propose limited access and eliminate several existing intersections. This project would result in a decrease in some travel time but it is unlikely that the amount of time saved (1.4 minutes in 2015 and 1.9 minutes in 2035) would lead to changes in travel behavior, trip patterns, or other destination.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation measures pertaining to growth inducement are included in the proposed project because growth is not reasonably foreseeable as a result of this project.

Chapter 4 Community Character

4.1 Population and Housing

This section of the report discusses whether the project would impact human made resources, community cohesion, and the availability of public facilities and services.

4.1.1 Affected Environment

Regional Population Characteristics

According to data from the 2000 U.S. Census Bureau, the counties of San Benito and Santa Clara are very similar in area: San Benito County has an area of 1,289 square miles and Santa Clara County has an area of 1, 291 square miles. However, San Benito County remains primarily rural and has only two (2) incorporated cities and a population density of 38.3 persons per square mile. In contrast, Santa Clara County has fifteen (15) incorporated cities and a population density of 1,304 persons per square mile, which is thirty (30) times greater. The high-density population of Santa Clara County is concentrated in the cities of the North Valley, within the urban areas of Santa Clara, San Jose, Sunnyvale, and Palo Alto, approximately 30 miles from the project area.

Despite the seeming contrasts, however, the 2000 U.S. Census indicates that the population within the project study area, south of Gilroy to Hollister, in both counties is 100 percent rural.

The same dissimilarities between the two counties are true for other demographic data, as are the similarities among the nearest cities or census blocks in both counties. Santa Clara County had the highest median household income of any county in California, although San Benito County is only ranked about five places below it. Nevertheless, at $65,330, the median household income for Gilroy in Santa Clara County was much closer to that of San Benito County ($60,665) than Santa Clara County's $81,717. The percent of families whose income is below the poverty level is also within a narrower range among San Benito County (6.7 percent), Hollister (6.9 percent), and Gilroy (7.3 percent) than any one of them compared to Santa Clara County (4.9 percent).

Table 4.1 compares the population, ten-year growth increase, out-of-county commuter travel time, available housing, land area, and population density for both counties and the state.

Table 4.1 Comparison of Population and Housing in 2000

	San Benito County	Santa Clara County	California
Population	53,234	1,682,585	34,501,130
Percentage increase in population (1990 to 2000)	45.1%	12.4%	13.6%
Percentage of employed persons whose travel time to work is more than 15 minutes	67%	78.9%	27.7%
Percentage commuting to work outside county of residence	48.5	12.2	Not applicable
Housing units	16,499	579,329	12,214,549
Land area in square miles	1,389	1,315	155,959
Persons per square mile	38.3	1,280	217.2

Source: U.S. Census Bureau State & County Quick Facts (2000)

Approximately half the populations of the two counties and the nearest cities to the project, Hollister and Gilroy, identify their race as White: San Benito County (65 percent), Hollister (59 percent), Santa Clara County (54 percent), and Gilroy (59 percent). In San Benito County, almost half the population also considered themselves Hispanic or Latino: 48 percent in San Benito County, 55 percent in Hollister, and 54 percent in Gilroy. In Santa Clara County, however, only 24 percent considered themselves Hispanic or Latino and another 25 percent Asian. Santa Clara County also had an American Indian/Alaska Native population of almost seven (7) percent. All other races in the four groups were less than three (3) percent of the total population.

At 2.9 persons, household size in Santa Clara County is lower than the other three groups (Gilroy at 3.5, San Benito County at 3.3 and Hollister at 3.5). It is also true for households with children under 18 years of age: Santa Clara County has only 35 percent in that category as compared to 48 percent for Gilroy, 46 percent for San Benito County and 52 percent for Hollister.

Neighborhoods/Communities

The proposed project alignment passes through primarily agricultural land except for the area adjacent to and within the Hollister city limits, where a mixture of single-family homes, ranchettes of less than five (5) acres, and farmstead housing are

scattered along the highway and on Wright Road, Briggs Road, Flynn Road, and McConnell Road. Some farmsteads include housing for seasonal farm workers.

Based on field surveys conducted for the Community Impact Assessment, there were no traditional neighborhoods or distinct geographic divisions identified between U.S. 101 and State Route 156. Closer to the city limits of Hollister, the farm parcels become smaller and the density of scattered homes and businesses increase, but no schools or public parks were identified within a mile of the project area.

The only identifiable community facility within the project area is the Abundant Life Four Square Church located on State Route 25 between San Felipe Road and Wright Road. The church building was formerly a warehouse, which the church members remodeled into a church edifice. A portable building is used for youth activities, and a house serves as an office. The Hollister Municipal Airport is east of the project area and outside the project limits.

Housing

The 2000 U.S. Census Bureau data indicates the population of San Benito County has grown at a rapid rate. San Benito County growth rate has been increasing from a yearly average of 0.7 percent between 1950 and 1960 to 45.1 percent between 1990 and 2000. As housing costs rose in Santa Clara and other San Francisco Bay Area counties, commuters began moving into San Benito County where housing was more affordable. The growth change has been great enough that the U.S. Census considers San Benito County as an outlying county to the San Jose-Sunnyvale-Santa Clara Metropolitan Area. This means that at least 25 percent of San Benito County residents who are employed work in Santa Clara County.

Table 4.2 displays the growth trend in the counties of San Benito and Santa Clara and the two cities nearest the project area, Hollister and Gilroy.

Table 4.2 Comparison of Population Growth

Residents	San Benito County	City of Hollister	Santa Clara County	City of Gilroy
Population 2007 (estimated)	54,667	34,908	1,748,976	49,119
Population 2000	53,234	34,413	1,682.585	41,464
Population 1990	36,697	19,212	1,497,577	31,487

Source: U.S. Census Bureau State & County Quick Facts (2000)

Between 1990 and 2000, the county experienced a 45.1 percent population increase, over 90 percent of which occurred in the City of Hollister. In the year 2000, there

were 17,824 housing units in San Benito County; sixty (60) percent of the housing units were in the City of Hollister. The homeownership rate was 68.2 percent with 3.32 persons per household and the median value for owner-occupied housing was $284,000. By comparison, Santa Clara County supported 609,749 housing units, of which only two (2) percent were located in the City of Gilroy. The homeownership rate was 59.8 percent with 2.92 persons per household and the median value for owner-occupied housing was $446,400. An estimated 50 percent of residents within the project limits are renters.

According to the 2008 Draft Relocation Impact Study completed by Caltrans for the project, the housing supply of nearby Hollister is typical for a small rural farm town with minimal industry. During the peak agricultural seasons, the availability of housing varies due to the influx of seasonal labor. According to local realtors there is a demand for affordable housing and the demand for used houses is constant. However, house sales are currently static. The predominant housing type for the area is a single-family residence. The median price for a house is $284,000 and houses with an average price ranging between $200,000 and $500,000 representing 76.1 percent. Houses with average prices less than $150,000 represent only 4.2 percent.

Table 4.3 Average prices of typical single-family homes in San Benito County

Price range in dollars	Number	Percentage in range
Less than 50,000	27	.03
50,000-99,999	87	0.90
100,000-149,999	283	3.00
150,000-199,999	963	10.30
200,000-299,999	3,983	42.40
300,000-499,999	3,167	33.70
500,000-999,999	40	9.00
1,000,000 or more	5	0.40

Source: U. S. Census 2005

In San Benito County, according to the 2005 U.S. Census Bureau Quick Facts, approximately 95.5 percent of available housing is occupied. Only 1.0 percent of the homes that are owned are vacant, and 2.7 percent of renter-occupied houses are vacant.

The cities of Hollister and San Juan Bautista have been growing so rapidly that demands on infrastructure and concerns about losing their rural character have resulted in strict controls on new development. Measure U, a growth control initiative, was passed in November 2002. Measure U limits new housing within the city limits of Hollister to 244 units per year until June 13, 2012. Also in 2002, as a result of a sewage overflow, a moratorium on new sewer connections and a cap on building permits were imposed and have slowed growth considerably in Hollister, and in the county, as well. However, the moratorium ended in December 2008 after a new wastewater treatment plant was completed and approved by the Regional Water Quality Board. The end of the moratorium would allow the start of the construction of some 1,200 housing units already approved when the moratorium was imposed.

The San Benito County General Plan emphasizes managing growth to maintain the county's rural atmosphere, character, and amenities, and emphasizes a diversified economic base with commercial developments that are compatible with other land uses.

Santa Clara County's General Plan emphasizes making the most efficient use of the existing urban areas and confining new growth in, or adjacent to, existing cities.

4.1.2 Environmental Consequences

Regional Population Characteristics

The proposed project is not expected to have disproportionate impacts on low-income or minority residents; therefore, this project is not subject to the provisions of Executive Order 12898 (see Section 4.5 for the discussion on Environmental Justices).

The proposed project is not expected to substantially influence population growth (see Chapter 3 for the discussion on Growth).

Neighborhoods/Communities

Alternatives 1 and A have the potential to displace a church. The church property is situated on two parcels, and both parcels would be acquired for these alternatives. The relocation of the church would temporarily disrupt the church community but would not damage its community cohesion.

Alternatives 2 and B would not have an effect on neighborhoods and communities.

Housing

Owner and tenant-occupied properties would be affected and some residents would be relocated. Tables 4.4 and 4.5 provide the estimated residential relocations based on the 2008 Draft Relocation Impact Report. Table 4.4 provides the residential relocations estimated for route adoption alternatives, and Table 4.5 provides the residential relocations estimated for the build alternatives.

Table 4.3 Residential Relocations Alternatives 1 and 2

Type of Housing	Alternative 1	Alternative 2
Single-family residences	16	9
Multiple-family residences	2	2
Mobile homes	3	3
Total residences	21	14

Source: Draft Relocation Impact Report

Table 4.4 Residential Relocations Alternatives A and B

Type of Housing	Alternative A	Alternative B
Single-family residences	12	7
Multiple-family residences	2	2
Total residences	14	9

Source: Draft Relocation Impact Report

Relocations and available housing is discussed in detail in Section 4.4 Relocations.

4.1.3 Avoidance, Minimization, and Mitigation Measures

Neighborhoods/Communities

Relocations would temporarily disrupt, but would not damage any community cohesion. The relocation of the church would temporarily disrupt the church community but would not damage its community cohesion.

Some businesses affected by the project, including the church, may require the payment of severance damages and in some cases, full acquisition of the structure and/or parcel, because the business/church would not be functional in the after condition. The ability of any business affected by the project to rebuild on the remaining parcels (after right of way acquisition) would have to be considered on a

case-to-case basis during appraisal with appropriate severance damages or Relocation Assistance, or in some instances, both provided to the owner and/or tenants.

Housing

Adequate, comparable replacement housing exists for the residential owners and businesses that may be affected. Rental housing may be less available depending upon seasonal labor occupancy. At the time of acquisition, when relocation would become necessary, all activities would then be conduced in accordance with the Uniform Relocation Assistance and real Property Acquisition Act of 1970, as amended. For greater detail, please refer to Section 4.4 Relocations.

4.2 Economic Conditions

This section discusses the project's potential impacts to businesses, employment, and regional functions.

4.2.1 Affected Environment

Regional Economy

Agriculture and associated industries has remained the major source of revenue for San Benito County. The top five private industries for the county in 2004 were agriculture, forestry support activities, manufacturing of wood products, manufacturing of mineral product, and private households. For the same year, the unemployment rate increased from 6.0 to 7.9 percent but the number of businesses was up by only 3 percent.

In Santa Clara County, although the agriculture industry still has economic importance, particularly in the project area, aerospace, electronics manufacturing and other high technology industries have become the major source of revenue. Between 2000 and 2005 the total population of Santa Clara County decreased slightly (0.7 percent) but the labor force decreased three times as much (2.2 percent). At the same time, unemployment has increased from 3.1 to 5.5 percent but the number of business has also increased by 8.5 percent.

Employment and Income

Two-thirds of the proposed project is located in San Benito County where, at a median home price of $605,000 in 2005, housing is still more affordable than Santa Clara, with a median of $750,000 in 2005, and other Bay Area counties. Well-paying

jobs, however, are much less available in the primarily agricultural project area of both counties.

The two counties fill very different economic niches—urban, technology-related industries did not appear in the top ten for San Benito County, nor did any of the fastest growing occupations in Santa Clara County. Conversely, the rural, agricultural-related industries and construction-related occupations high on the San Benito County lists did not appear in Santa Clara's top ten. In the project area, the residents live a mostly rural lifestyle but may work in more urban surroundings. Almost half (47 percent) of the San Benito County labor force commutes out of the county for work and over a third (37 percent) of workers who commute to Santa Clara County reside in San Benito County.

Business Activity

Other than farms, the project area has some agribusiness operations that include produce packing, storage, and trucking facilities, seasonal fruit stands, a commercial composting operation, and an agricultural chemical supplier. Retail/service businesses within the project area include an auto body shop, trailer sales, a mini-storage facility, a chocolate factory, a plumbing retailer, a farm equipment retailer, a fruit/vegetable stand, and a private day-care center. Other lands uses within the proposed project area include a San Benito County Sheriffs' shooting range and a church.

The Hollister Municipal Airport, the San Benito County Jail, and Juvenile Hall facility, and an aggregate quarry and batch plant operation are not directed affected by the proposed project but are located east of State Route 25 and south of State Route 156.

Fiscal Conditions

The majority of the project area is used for agricultural purposes. All of the parcels would require partial right of way acquisition in the form of linear slivers of property adjacent to State Route 25. Only a few of the properties in Santa Clara County are under a Williamson Act contract to reduce their property taxes, and none of the properties in San Benito County are under a Williamson Act contract.

There are approximately eight (8) retail/service businesses and a non-profit church within the project area for the route adoption. All of the businesses and the non-profit church are in San Benito County except for two (2) retail businesses, which are in Santa Clara County.

There are six (6) retail/service businesses and a non-profit church within the build portion of the project, Alternatives A and B, in San Benito County.

4.2.2 Environmental Consequences

Regional Economy

Linear slivers of farmland would be acquired along the proposed route for all alternatives, which may disrupt farming operations but would not result in the discontinuance of any farming operations or changes in employment (see Section 2.3 Farmland).

The impact of the proposed project on the regional economy would not be substantial because several of the businesses affected are relatively new in age, are not large and do not provide a large labor force.

Employment and Income

Relocation of businesses can result in unemployment and associated financial impacts. According to the 2008 Draft Relocation Impact Study, none of the businesses affected employ more than 100 individuals and most businesses employ less than 20, generally in service or semi-skilled positions. None of the businesses appear dependent on ready access to State Route 25 and most serve primarily local customers.

According to the Draft Relocation Impact Study, the route adoption Alternative 1 and the build Alternative A would have an effect on seven (7) businesses and a church. The right of way needed for these alternatives would require the full acquisition of four different parcels containing one business on each parcel: the private day-care center, the auto body shop, the fruit/vegetable stand, and the trailer sales. The full acquisition of the two parcels containing the church complex is needed, also. Alternatives 1 and A would also require a partial acquisition or linear strips of land from three more parcels that contain three more businesses. However, the partial acquisition would have no effect on these businesses except for the mini-storage facility. The partial acquisition would disrupt their vehicle storage operations (outside rental spaces) but would not interfere with the enclosed storage facility. Based on contact with the businesses and church, and on information gained from the their websites, these businesses employ at least 20 employees.

Alternatives 2 and B would require partial acquisition of two (2) parcels containing one business on each parcel. However, the partial acquisitions would not result in the

discontinuance or temporary disruption of any businesses; therefore, would not result in any loss of employment and income.

Assuming the disruption of the affected businesses would be temporary and operations would continue after relocation, the effect on employment and income would be minimal.

Business Activity

Assuming the impacted businesses relocate in the same general area, the effect on the community and existing clientele would be minimal. Based on discussion with the Caltrans design engineers, no business parking or access would be reduced by the proposed project once construction is complete.

Fiscal Conditions

There would be some loss of tax revenue from conversion of farmland to transportation uses. During Fiscal Year 2007/2008, Santa Clara County received approximately $768 million from property taxes and San Benito County received approximately $71 million from property taxes. Tables 4.3 shows the estimated tax revenue that would be lost in each county from the route adoption alternatives shows based on the Fiscal Year 2007/2008 property tax revenues received (Property Taxes Paid/Total County Taxes Received X 100 = %).

Table 4.5 Route Adoption Estimated Tax Loss

Category	San Benito County		Santa Clara County	
Route Adoption Alternative	1	2	1	2
Total Acreage in Affected Parcels	3678.0	3278.4	768.3	768.3
Total Property Taxes Paid from Affected Parcels	$353,394.	$195,827	$194,056	$194,056
Total Acreage Converted (acres)	523.3	526.5	131.5	131.5
Percent of County Taxes Paid from Affected Parcels	0.50	0.28	.25	.25

Table 4.5 shows the estimated tax revenue that would be lost in each county from the build Alternatives A and B based on the property tax revenues received for each county in Fiscal Year 2007/2008 (Property Taxes Paid/Total County Taxes Received X 100 = %).

Table 4.6 Build Alternatives Estimated Tax Loss

Category	San Benito County	
Build Alternative	A	B
Total Acreage in Affected Parcels	1,244.9	1,201.4
Total Property Taxes Paid from Affected Parcels	$216,882	$87,774
Total Acreage Converted (acres)	177.8	187
Percent of County Taxes Paid from Affected Parcels	.31	.12

The estimated amount of property tax from the route adoption Alternative 1 would be 0.50 percent of the total tax revenue received in San Benito County and 0.25 percent in Santa Clara County.

The estimated amount of property tax from the route adoption Alternative 2 would be 0.28 percent of the total tax revenue received in San Benito County and 0.25 percent in Santa Clara County.

The estimated amount of property tax from Alternatives A would be 0.31 percent of the total tax revenue received in San Benito County.

The estimated amount of property tax from Alternatives A would be 0.12 percent of the total tax revenue received in San Benito County.

Based on these estimates, the proposed project would not result in a substantial loss of tax revenue for either county.

4.2.3 Avoidance, Minimization, and Mitigation Measures

Impacts to farmland cannot be avoided because farmland surrounds the proposed project area. Farmland acquisition would occur with any of the alternatives except for the No Build. Discussion of minimization measures for farmland impacts is discussed in detail in Section 2.3, Farmlands.

4.3 Community Facilities and Services

The examples of public services and facilities provided by the Caltrans Environmental Handbook, Volume 4, includes but is not limited to parks, schools, hospitals, day care centers, libraries, counseling facilities, alcohol and drug rehabilitation, bike paths, and emergency services.

4.3.1 Affected Environment

Community Facilities

The build portion of the project area is primarily rural except near the area surrounding San Felipe Road. Two community facilities are located within the project limits (post mile to post mile) and within the area of right of way acquisition (right of way needed for all alternatives proposed). They are the Abundant Life Four Square Church and a private day care facility.

The non-profit church facility is located on State Route 25 near Wright Road. The church building was formerly a warehouse. A portable building is used for youth activities, and a house serves as an office. The private day care center is located on State Route 25 south of Flynn Road in a single-family residential rental.

The Hollister Municipal Airport, the San Benito County Jail, and the San Benito County Juvenile Hall detention center, are located near State Route 25, but not within an area that would be directly affected by the project.

No other community facilities were identified within the project area, although there are a number of churches, parks, and schools within a couple of miles from the beginning of the project along San Felipe Road. Most of these facilities are within the city limits of Hollister south and southeast of the project area. No bicycle paths are located within the project area.

Emergency Services

The San Benito County Sheriff's Department and the Hollister's city police force provide law enforcement within the proposed project study area. In the San Benito County portion of the project area, the Hollister City Fire Department provides fire protection south of State Route 156 and the California Division of Forestry covers rural San Benito County. American Medical Response provides emergency medical transportation or ambulance service.

The South County Sub-station of the Santa Clara County Sheriff's Department is located in San Martin, approximately 13 miles from the north end of the study area. Although outside the Gilroy city limits, first response for fire emergencies within the Santa Clara County section of the study area would come from the Chestnut station of the Gilroy Fire Department. Standard ambulance services are available out of

Hollister and Gilroy and St. Louise Regional Hospital in Gilroy also maintains an emergency helicopter transport service.

Utilities

Pacific Gas and Electric owns the overhead electrical lines and underground cable within the project limits. The electrical lines include 12 kilovolt (kV) and 21 kilovolt (kV) overhead electrical lines and underground cable. The Sargent-Hollister 115 kilovolt (kV) electric line crosses over or is adjacent to the existing highway in several places between U.S 101 and San Felipe Road.

AT&T also has overhead lines and underground cable within the project area.

The City of Hollister installed a 14-inch recycled water pipeline system in 2007. A branch of this system runs from the new Hollister wastewater facility to the Hollister Municipal Airport. Within the project area, the pipeline is under Wright Road from the west to Briggs Road, then turns north under Briggs Road, crossing the existing highway.

The City of Hollister Public Works Department is responsible for producing and distributing potable water for approximately half of the City of Hollister. The Sunnyslope County Water District services the remaining portion of the City, and is also responsible for wastewater collection and conveyance to the wastewater treatment plants. Within the Hollister city limits, city water lines are under the street. Within the project area, the pipeline stays mostly on the east side of State Route 25 while it runs up and down, and east and west, along the local streets. However, the pipeline briefly crosses State Route 25 several times between San Felipe Road and north of Wright Road.

4.3.2 Environmental Consequences

Community Facilities

Alternatives 1 and A would directly impact the Abundant Life Four Square Church and the private day care facility. Both facilities would be displaced and require relocation. The disruption of services provided by these facilities would be temporary, and the relocation of these facilities would not affect school attendance or school district tax revenue.

Alternatives 2 and B would have no effect on the community facilities identified within the project area.

No bicycle facilities currently exist along State Route 25 and none are proposed. However, the frontage roads proposed for the project would provide a safer route for pedestrian and bicyclists.

Emergency Services

When completed, the project would have a beneficial impact on fire protection, law enforcement, emergency, and other public services by providing an upgraded highway. In addition, the project would increase access to the project area and facilitate faster fire and medical response times to emergencies in the area by providing additional travel lanes, passing opportunities, and improved intersection crossings. During construction, however, construction activities may disrupt response times.

Utilities

The proposed project would require the relocation of utility facilities. In March 2008, Caltrans Right-of-Way Division prepared a preliminary data sheet for utility relocation for each alternative (except the No-Build). The No Build Alternative would not have an effect on utilities.

The route adoption Alternative 1 would require the relocation of the steel poles where segments of the Sargent-Hollister 115-kilowatt (kV) electrical lines cross State Route 25 in two locations: south of the county line and north of Flynn Road. This alternative would require the relocation of approximately 11 wooden telephone poles, 95 wooden electrical poles, 42 joint poles (telephone and electrical), and 17 steel poles. An estimated 1,444 feet of underground telephone line would be relocated, as well as a portion of the recycled water pipeline that crosses the project area along Wright Road. Total cost for utility relocation is estimated at $3.29 million.

The route adoption Alternative 2 would require the relocation of the steel poles where segments of the Sargent-Hollister 115-kilowatt (kV) electrical lines cross State Route 25 in two locations: south of the county line and south of Flynn Road. This alternative would require the relocation of approximately 46 wooden electrical poles, 63 joint poles (telephone and electrical), and 13 steel poles. An estimated 600 feet of underground telephone line would be relocated, as well as a portion of the recycled water pipeline that crosses the project area along Wright Road, and the city-owned water line south of Wright Road. Total cost for utility relocation is estimated at $2.63 million.

The build Alternative A would require the relocation of the steel poles where segments of the Sargent-Hollister 115-kilowatt (kV) electrical lines cross State Route 25 north of Flynn Road. This alternative would require the relocation of approximately 11 wooden telephone poles, 45 wooden electrical poles, 26 joint poles (telephone and electrical), and an estimated 1,000 feet of the recycled water pipeline that crosses the project area along Wright Road. Total cost for utility relocation is estimated at $1.63 million.

The build Alternative B would require the relocation of the steel poles where segments of the Sargent-Hollister 115-kilowatt (kV) electrical lines cross State Route 25 south of Flynn Road. This alternative would require the relocation of approximately 60 wooden electrical poles, 32 joint poles (telephone and electrical), 10 steel poles, and an estimated 1,000 feet of the recycled water pipeline that crosses the project area along Wright Road, and the City-owned water line south of Wright Road. Total cost for utility relocation is estimated at $2.26 million.

4.3.3 Avoidance, Minimization, and Mitigation Measures

Community Facilities

At the time of acquisition, when relocation would become necessary, all activities would then be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended.

Refer to Section 5.1 regarding minimization measures for changes to local road circulation.

Emergency Services

During construction, a Traffic Management Plan would be developed to accommodate local traffic patterns and reduce delay, congestion, and accidents. By building the project in construction phases and rerouting traffic to local roads, disruption to local and regional traffic would be minimized. Caltrans will also coordinate with ambulance, police, sheriff and fire departments prior to any construction to minimize effects on emergency services.

Utilities

Caltrans would coordinate with Pacific Gas & Electric Company and AT&T on relocation of utilities. Electric and telephone lines affected would be maintained in operation during construction. All of the affected electrical and telephone poles, as well as underground cable lines, would be relocated outside the re-aligned highway right-of-way in new easements, most probably along the planned frontage roads.

In the future, when the portion of the route adoption alignments that includes the Pacific Gas and Electric Company's 115-kilovolt (kV) Sargent-Hollister line is in the design phase, a relocation plan for the affected portion of the line would be prepared. This relocation plan would require environmental review before approval to comply with the California Environmental Quality Act and Public Utilities Commission regulations.

Caltrans would coordinate with the City of Hollister on relocation of both the recycled water pipeline and the water lines under Wright Road.

4.4 Relocations

This section of the Community Impact Assessment is based on the Draft Relocation Impact Report (November 2008), discussions with the project design team, and field survey or site visits.

The Draft Relocation Impact Report identified a "core" corridor common to all alternatives (where all the alternatives align with the existing State Route 25) but focused on potential impacts from the build portion of the project within San Benito County because the route adoption does not propose construction in the near future. Detailed analysis and mitigation measures (Tier II analysis) would be done in the future for the portion(s) of the route adoption alternatives not constructed when funding becomes available.

4.4.3 Affected Environment

Both route adoption alternatives begin at U.S. 101, south of the City of Gilroy in Santa Clara County. The land use is still primarily in large-scale agriculture and as State Route 25 traverses to the southeast, the surrounding land varies from prime (Class "A" fertile soils) to rolling hill pastureland to swamp and overflow creek/river floodplain, and ends in a diversified fringe area of Hollister, San Benito County. There are no subdivisions or apartments in the project area, and the quality and size of the houses varies greatly from small ranchettes (ranches less than 5 acres) to less dense farmsteads on agricultural lands. In some cases, the farmsteads also provide housing for their field workers on a seasonal basis. An estimated 50 percent of residents in each alternative are renters, and 50 percent own their own home.

Agribusiness operations along State Route 25 include produce packing, storage, and trucking facilities, seasonal fruit stands, a commercial composting operation, and an

agricultural chemical supplier. Nearer Hollister, single-family homes and agri-businesses are scattered along the State Route 25, and on Wright Road, Briggs Road, Flynn Road, and McConnell Road. Retail/service businesses include an auto body shop, trailer sales, a mini storage facility, a chocolate factory, farm equipment sales, a plumbing supply, a fruit/vegetable stand, and a private day-care facility. A non-profit church facility is located on State Route 25 near Wright Road.

4.4.4 Environmental Consequences

All alternatives propose to acquire linear strips, or small segments, of land from property parcels along the length of the project. These partial acquisitions would have an effect on agricultural operations, residences, and businesses. Sometimes these partial acquisitions evolve into full acquisitions of the property parcel, or structures on the parcel, because the remaining land or structures would not be functional after the construction of the proposed project. When a full acquisition of a structure occurs, it is called relocation. Table 4.8 provides the relocations estimated for route adoption alternatives based on the data from the Draft Relocation Impact Report.

Table 4.7 Relocations Alternatives 1 and 2

Type of Structure	Alternative 1	Alternative 2
Owner Occupants of Single-family Residences	14	5
Tenant Occupants of Single Family Residences	2	4
Tenant Occupants Multiple-Unit Residences	2	2
Owner Occupants of Mobile homes	3	3
Tenant Occupants of Mobile Homes	0	
Total Residential Units	21	14
Commercial Businesses	5	1
Industrial/Manufacturing Businesses	2	1
Non-Profit Organizations	1	0
Agricultural/Farms	2	2
Total Non-Residential	10	4
Total Relocations	**31**	**18**

Source: Draft Relocation Impact Report

Route adoption Alternative 1 would need right of way from 78 property parcels along State Route 25. Approximately 60 percent of the right of way needed would require linear slivers, or small segments, of the property parcels (partial acquisition) and

would not result in the relocation of the residential unit or business operations on the parcel (31 relocations / 78 property parcels = full parcel acquisition percentage).

According to the Draft Relocation Impact Report, route adoption Alternative 1 would displace approximately 21 residential units, which includes mobiles homes, multiple unit residences, and single-family residences. The acquisition of residences would displace an estimated 70 people. This alternative would also displace approximately 10 non-residential units, which includes the non-profit church, commercial businesses, industrial/manufacturing businesses, and agricultural/farms.

The route adoption Alternative 2 would need right of way from 52 property parcels along State Route 25. Approximately 65 percent of the acquisition would require slivers or small segments of the property parcels (partial acquisition) and would not result in the relocation of the residential unit or business operations on the parcel (18 relocations / 52 property parcels = full parcel acquisition percentage).

The route adoption Alternative 2 would displace approximately 14 residential units, which includes mobiles homes, multiple unit residences, and single-family residences. The acquisition of residences would displace an estimated 46 people. The alternative would also displace approximately 4 non-residential units, which includes industrial/manufacturing businesses, commercial businesses, and agricultural/farms.

Table 4.9 provides the relocations estimated for the build alternatives.

Table 4.8 Relocations Alternatives A and B

Type of Structure	Alternative A	Alternative B
Owner Occupants of Single-family Residences	12	3
Tenant Occupants of Single Family Residences	0	4
Tenant Occupants Multiple-Unit Residences	2	2
Owner Occupants of Mobile homes	0	0
Tenant Occupants of Mobile Homes	0	0
Total Residential Units	14	9
Commercial Businesses	3	1
Industrial/Manufacturing Businesses	2	1
Non-Profit Organizations	1	0
Agricultural/Farms	2	2
Total Non-Residential	8	4
Total Relocations	**22**	**13**

Source: Draft Relocation Impact Report

Build Alternative A would need right of way from 45 property parcels along State Route 25. Approximately 60 percent of the acquisition would require slivers or small segments of the property parcels (partial acquisition) and would not result in an effect to the residential unit or business operations on the parcel.

According to the Draft Relocation Impact Report, the build Alternative A would displace approximately 14 residential units, which includes mobiles homes, multiple unit residences, and single-family residences. The acquisition of residences would displace an estimated 53 people. This alternative would also displace eight (8) non-residential units, which includes the non-profit church, commercial businesses, industrial/manufacturing businesses, and agricultural/farms.

Build Alternative B would need right of way from 24 property parcels along State Route 25. Approximately 46 percent of the right of way acquisition would require slivers or small segments of the property parcels (partial acquisition) and would not result in an effect to the residential unit or business operations on the parcel.

The build Alternative B would displace 9 residential units, which includes multiple unit residences and single-family residences. The acquisition of residences would displace an estimated 30 people. This alternative would also displace four (4) non-

residential units, which includes commercial businesses, industrial/manufacturing businesses, and agricultural/farms.

According to the Draft Relocation Impact Report, adequate homes exist in the area for displaced homeowners to purchase, or they may be able rebuild on the remainder of their parcel. Adequate, comparable replacement housing exists for the residential owners that may be affected.

Renters do not appear to have adequate replacement rental properties available to them within the project area, and would have to look in the city of Hollister and more distant rural areas of San Benito County for rental housing. Rental housing may be less available depending upon seasonal labor occupancy.

Adequate, comparable replacement housing exists for the businesses that may be affected. The ability of any business affected by the project to rebuild on the remaining parcels (after right of way acquisition) would have to be considered on a case-to-case basis.

4.4.5 Avoidance, Minimization, and Mitigation Measures

The number of relocations reported in this draft environmental document could be reduced. During a field survey conducted for the Community Impact Assessment completed in January 2009, it was discovered that several homes identified for relocation in the Draft Relocation Impact Report were already demolished. In addition, Caltrans has discussed moving the frontage road proposed by Alternative 2 and B south of Hudner Lane to avoid or minimize relocation impacts. After a preferred alternative is chosen, Caltrans would complete a Final Relocation Impact Report and the findings would be incorporated into the final environmental document.

At the time of acquisition, when relocation would become necessary, all activities would then be conduced in accordance with the Uniform Relocation Assistance and real Property Acquisition Act of 1970, as amended.

The ability of any business affected by the project to rebuild on the remaining parcels (after right of way acquisition) would have to be considered on a case-to-case basis during appraisal with appropriate severance damages or Relocation Assistance, or in some instances, both provided to the owner and/or tenants.

Relocation assistance payments and counseling would be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real

Properties Acquisition Policies Act, as Amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees would be entitled to moving expenses. All benefits and services would be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins and disability as specified under Title VI of the Civil Rights Act of 1964.

4.5 Environmental Justice

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964, as amended, and Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." *Title VI* states that "No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address "disproportionately high and adverse" effects of federal or federally funded projects on minority and low-income populations.

4.5.1 Affected Environment

The surrounding landscape is primarily dominated by agriculture for all alternatives. However, there are residences scattered along the length of the study area and on the outskirts of Hollister and south of Gilroy. At either end of the proposed route adoption, there are a few retail businesses and agriculture-related commercial operations. For this section of the Community Impact Assessment, only potential impacts from the Build Alternatives A and B were considered.

Build Alternatives A and B begins at San Felipe Road, where a few commercial operations and retail businesses are located. As State Route 25 travels north to Hudner Lane, the area becomes less dense with population.

Data from the 2000 U.S. Census was used to complete demographic research of the build portion of the project area (Alternatives A and B). The 2000 U.S. Census provides demographic data by Census Tract, Block Groups, and Blocks. *Census Tracts* are very large areas with populations ranging from 1,000 to 8,000 people that are further broken down into *Block Groups* containing multiple *Block* units. Blocks

are the smallest areas and may correspond to individual city blocks bounded by streets (see Figure 4.1).

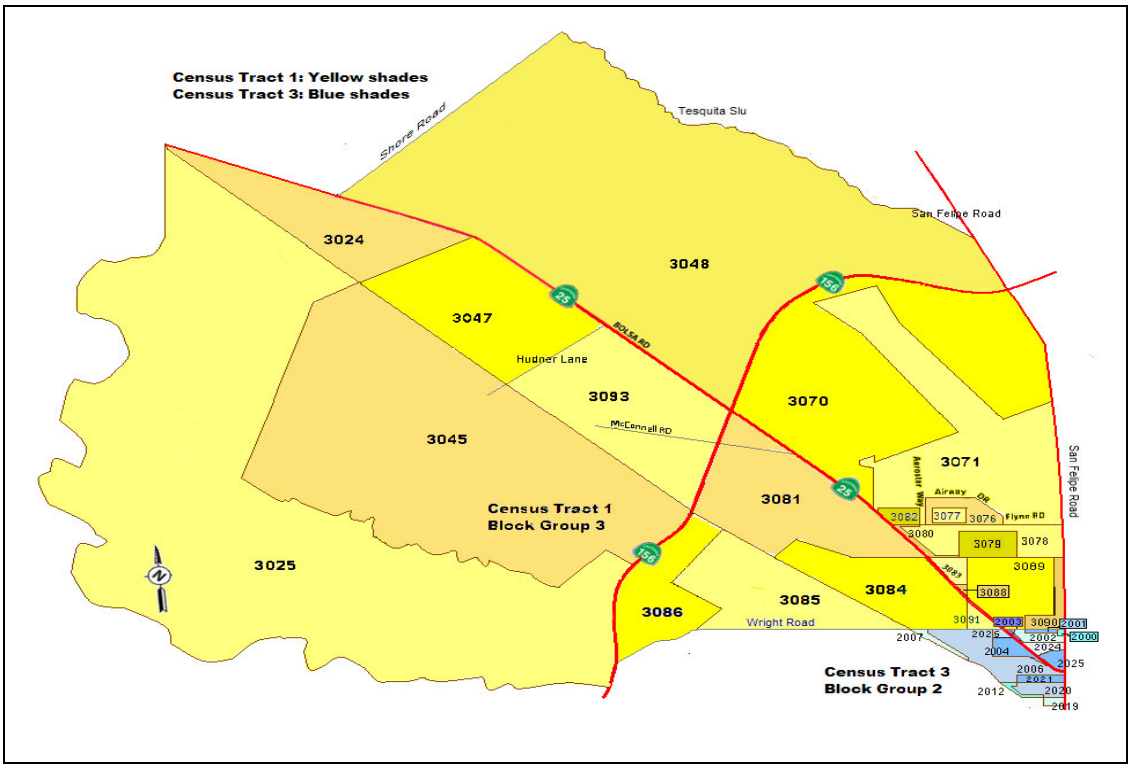


Figure 4-1 2000 U.S. Census Tract Map

Alternatives A and B pass through Census Tract 1-Block Group 3 and Census Tract 3-Block Group 2. Census Tract 1-Block Group 3 covers a vast rural area, and is bordered by Wright Road on the south, San Felipe Road on the east and extends to U.S. 101 on the west and State Route 152 on the north. Sixteen (16) Census Blocks are affected by Alternatives A and B: Blocks 3047, 3048, 3070, 3071, 3078-84, 3088-3093; however, five (5) Blocks report zero populations: 3079, 3080, 3082, 3091 and 3092. The Blocks used to determine ethnic populations in Census Tract 1-Block Group 3 are:

- Block 3047 is bordered on the south by Hudner Lane, on the east by State Route 25, and Blocks 3024, 3025, and 3045 surround it on the north and west. The area is rural farmland and open space. There appears to be three farmsteads located on this Block, one on State Route 25 and two along Hudner Lane. This Block has a total population of eighteen (18) people.
- Block 3048 is directly across from Block 3047 but is much larger and irregular in shape. State Route 25 borders Block 3048 on the west, State Route 156 on the

south, Shore Road on the north, and San Felipe Road and the Tequisquita Slough on the east. This Block is rural farmland or open space with about 7-10 farmsteads. Farmstead are scattered within this Block but only one farmstead is located along State Route 25. This Block has a total population of thirty-five (35) people.

- Block 3070 is directly south of Block 3048 and surrounds the landing strip of the Hollister Municipal Airport. This Block is bordered by State Route 156 on the north, State Route 25 on the west, and extends east to San Felipe Road. The southern border wraps around the airport landing strip but does not extend far enough to reach Flynn Road on the south. This Block appears to have two residents along State Route 25 south of McConnell Road, and has a total population of thirteen (13) people.
- Block 3071 is shaped very irregularly because it takes on the boundaries of the Hollister Municipal Airport. Block 3070 borders it on the north and west, surrounds Block 3082 on the south to Flynn Road, and extends to Aerostar Way on the east. It appears any residential structures are located on the east side along San Felipe Road. This Block has a total population of nine (9) people.
- Block 3078 is bordered by State Route 25 on the west, Flynn Road on the north, and extends south to Briggs Road on the south, and extends to San Felipe Road on the east. Block 3078 actually surrounds Bloc 3079 on the north side. Along Flynn Road and State Route 25 is a commercial trailer sales yard and further east is a commercial mini-storage business. The remainder of the Block is used for farmland or agribusiness. This Block has a total population of three (3) people.
- Block 3081 is directly across from Hollister Municipal Airport on the west side of State Route 25. This Block is bordered by State Route 25 on the east, State Route 156 and McConnell Road on the north, and extends south to Briggs Road. Block 3081 is primarily farmland except along State Route 25 where farmsteads or agri-businesses are located. This Block has a total population of fifty-eight (58) people. The area is
- Block 3083 is triangular in shape and is bordered by State Route 25 on the west, Briggs Road on the north, Block 3089 on the east, and Block 3088 on the south. About half of Block 3083 is orchard but along Briggs Road is located a commercial auto body repair and several residences. This Block has a total population of twenty-three (23) people.

- Block 3084 is bordered on the south by Wright Road and juts out toward the northwest where Blocks 3085 and 3081 border it on the west. State Route 25 and Block 3091 borders the Block on the east. The majority of area is farmland except along State Route 25 and Wright Road where there are several homes, a farmstead, and several commercial businesses. This Block has a total population of thirty-nine (39) people.
- Block 3088 is very small and triangular in shape. This Block is bordered by State Route 25 on the west, Block 3083 on the north, and Block 3089 on the east. Block 3088 has one residence with an orchard. This Block has a total population of two (2) people.
- Block 3089 is large block bordered by Blocks 3078 and 3079 to the north, Blocks 3083 and 3088 and State Route 25 on the west, and Wright Road on the south. Only a small portion of this Block is located along State Route 25 with one residence. All other residences are located away from the project area. This Block has a total population of seventeen (17) people.
- Block 3090 is bordered by Wright Road to the south and runs along San Felipe Road on the east side. Block 3089 borders this Block on the west and 3078 borders it on the north. There is a commercial business at Wright and San Felipe Road and some residential structures farther north on San Felipe, but all structures are outside of the project area. This Block has a total population of seventeen (17) people.
- Block 3093 is bordered by State Route 156 on the south, State Route 25 on the east, Hudner Lane on the north, and Block 3045 on the west. There are three (3) large farms on this Block, one located on State Route 25, one almost in the middle of the Block but closer to State Route 25, and one closer to State Route 156. Two of these farm, the one in the middle and the one closer to State Route 156, have what appears to be multi-plex housing for laborers. This Block has a total population of thirty-seven (37) people.

Census Tract 3, Block Group 2 covers a large rural area between Wright Road and Buena Vista Road/North Street to the south. The western border of this Block Group extends almost to State Route 156 and San Felipe Road borders it on the east. Nine (9) Census Blocks are affected by the project: 2002-2006 and 2023-2025. However, seven (7) Blocks report zero population: 2001-2003, 2005, 2006, 2023, and 2025. Most of this area is primarily commercial property. Blocks 2004 and 2025 report a total of five (5) people:

- Block 2004 is triangular in shape and its eastern border is State Route 25, Block 2005 forms its northern border, and Block 2006 wraps around the Block and forms the western and southern borders. This Block has one (1) residential unit and one commercial structure on it, and has a population of four (4) people.
- Block 2025 is triangular in shape and is bordered by State Route 25 on the west, San Felipe Road on the east, and Block 2024 on the north. This Block is at the beginning of the project and includes the motel facing San Felipe Road. This Block has a population of one (1) person.

Data on ethnic or racial makeup of the project area were based on Census Blocks into which the project would encroach, whether the project would affect only a small percentage of the total area of the Census Block or the entire block. In addition, field reviews were completed in and around the project area to help identify residential development not readily apparent in the census data. Table 4.9 compares the ethnic or racial makeup of the project area, the City of Hollister, and San Benito County.

Based on the 2000 U.S. Census Bureau data provided for *Race Alone or in Combination and Hispanic or Latino*, there are approximately 263 people living within the determined study boundaries of the project area (Census Tract Block data). Over half of the population is White and the percentage of minorities within the project limits are below the averages of the County of San Benito. Hispanic or Latino (of any race) population within the study area represents approximately 39 percent (rounded up) of the total population on an average, which is lower than the average in San Benito County (48 percent) and the City of Hollister (55 percent).

Table 4.9 Ethnicity Data

2000 U.S. Census Bureau State and County *Quick Facts*	County of San Benito	City of Hollister	Census Tract 1 Block Group 3		Census Tract 3 - Block Group 2													
			Blocks		Blocks													
			2004	2025	3047	3048	3070	3071	3078	3081	3083	3084	3088	3089	3090	3093	Total	%
Population, 2000	146,345	43,207	4	1	18	35	13	9	3	58	23	39	2	17	4	37	**263**	**100.0**
One race	140,586	40,763	4	1	18	35	13	9	3	47	23	39	2	17	4	37	**252**	**95.8**
White	112,675	20,804	4	1	10	27	12	9	3	24	13	9	2	10	0	12	**136**	**51.7**
Black or African American	5,231	1,665	0	0	0	0	0	0	0	2	0	0	0	0	0	0	**2**	**.8**
American Indian or Native American	1,755	1,207	0	0	0	0	0	0	0	1	3	0	0	0	0	0	**4**	**1.5**
Asian	2,991	618	0	0	0	3	0	0	0	0	5	0	0	0	0	0	**8**	**3.0**
Native Hawaiian or Other Pacific Islander	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**
Some Other Race	17,934	16,425	0	0	8	5	1	0	0	20	2	30	0	7	4	25	**102**	**38.8**
1 - Total of one race	140,586	40,763	4	1	18	35	13	9	3	47	23	9	2	10	4	12	**190**	**72.2**
2 - Two or more races	5,759	2,444	0	0	0	0	0	0	0	11	0	30	0	7	0	25	**73**	**27.8**
Total Population (1 + 2 =)	146,345	43,207	4	1	18	35	13	9	3	58	23	39	2	17	4	37	**263**	**100**
Hispanic or Latino (of any race)			0	0	8	5	1	0	0	20	20	30	0	7	4	25	**102**	**38.8**
Other races			4	1	10	30	12	9	3	38	3	9	2	10	0	12	**161**	**61.2**
Total			4	1	18	35	13	9	3	58	23	39	2	17	4	37	**263**	**100.0**

Two Blocks (3084 and 3093) have a higher percentage of Hispanic/Latino population than the San Benito County average (over 60 percent in each Block). The Blocks are not located near each other, however. Block 3084 is near the beginning of the project, west of State Route 25 and bordered by Wright Road, and Block 3093 is north of State Route 156, west of State Route 25 and bordered by the extension of McConnell Road. According to available aerial photos, Blocks 3084 and 3093 are both primarily farmland with scattered farmhouses and homes scattered throughout.

In January 2009, Caltrans completed a field review to determine whether the project would cause a disproportionately high and adverse effect on the Hispanic/Latino population identified in these two Blocks as per Executive Order 12898 regarding environmental justice.

Block 3084 has a large farmstead in the center of the Block with several small homes within its complex, presumably for laborers. Two more small homes are located in the northeast corner of the Block along State Route 25 near Flynn Road, and there are multiple homes along Wright and Briggs Roads.

Block 3093 has a large farmstead and two tri-plexes, presumably for laborers, in the middle of the Block. There is one home along State Route 25 and a couple more along the extension of McConnell Road north of State Route 156.

As a result of the field survey, it was discovered that one single-family residence in Block 3084, which would have been affected by improvements to Wright Road, was vacant or abandoned based on its condition.

Also, in Block 3093, one farmstead complex and several small homes were demolished and no longer exist. These structures would have been affected by the frontage road proposed in Alternative B.

The median income for the project area can only be determined at the Census Tract Block Group level. Table 4.10 shows the comparison of median incomes for the Census Tract Block Groups in the project area in comparison to the median incomes of the State of California, the County of San Benito, and the City of Hollister.

Table 4.10 Comparison of Median Household Incomes

	State of California	County of San Benito	City of Hollister	Census Tract 1 Block Group 3	Census Tract 3 Block Group 2
Median Household Income	$47,493	$57,469	$56,104	$56,042	$38,750

2002 U.S. Census Bureau

The median income for Census Tract 1, Block Group 3 is $56,042, which is comparable to the median incomes of the County of San Benito and the City of Hollister and above the median income of California. Although the median income for Census Tract 3, Block Group 2 is $38,750 and below the other median household incomes listed, the project only includes a population of five (5) people from this Census Tract Block Group which represents less than two (2) percent of the project study area's population.

Environmental Consequences

Based on the field survey, it was determined that (1) relocations would be reduced and, (2) the large number of Hispanic/Latino citizens living within Blocks 3084 and 3093 do not reside within the projects' proposed right-of-way.

Based on the Environmental Justice analysis and subsequent field survey, Alternatives A and B would not cause disproportionately high and adverse effects on any minority or low-income populations as per Executive Order 12898 regarding environmental justice.

4.5.2 Avoidance, Minimization, and Mitigation Measures

No minority or low-income populations have been identified that would be adversely affected by the proposed project as determined above. Therefore, this project is not subject to the provisions of Executive Order 12898.

Chapter 5 Traffic and Transportation/ Pedestrian and Bicycle Facilities

This section of the Community Impact Summary discusses the project's potential effect, if any, on public transportation, sidewalks or trails, bike paths or lanes, equestrian trails, circulation and parking, access, choice of travel modes, and effects on the competitiveness of businesses.

5.1 Affected Environment

Within the route adoption project limits, State Route 25 is classified by Caltrans as a "urban principal arterial" between San Felipe and Wright Roads only. Caltrans classifies the remainder of State Route 25 between Wright Road and U.S. 101 as a "minor rural arterial." Intersections along the route adoption include:

- U.S. Highway 101, which is connected with an interchange
- State Route 156, a two-lane highway classified by the City of Hollister as a "major thoroughfare," which is signalized at its intersection with State Route 25
- San Felipe Road, a four-lane arterial classified by the City of Hollister as a "major thoroughfare," which is signalized at its intersection with State Route 25
- 9 local roads or "collectors"
- 66 private driveways

The proposed build project, between San Felipe Road and Hudner Lane, includes only the two signalized intersections at San Felipe Road/State Route 25 and at State Route 156/State Route 25, 7 local road intersections, and approximately 32 driveways that directly access the highway.

State Route 25 is the primary commuter route between Hollister and Gilroy. This segment of State Route 25 is a conventional highway, which does not limit access to driveways. The majority of the at-grade intersections or driveways do not have left-turn lanes. During peak commute periods, State Route 25 experiences high levels of traffic congestion. Traffic lines up behind slower vehicles, especially during the morning and evening commute hours.

During the peak morning and evening commute hours vehicles travel in lines behind slower moving vehicles due to their inability to pass more than 80 percent of the time, and average speeds are less than 50 miles per hour.

Table 5.1 shows the existing and the future predicted traffic volumes (without the project) for various sections of State Route 25 within the study area from San Felipe Road to the U.S. 101 in Santa Clara County.

Table 5.1 Existing and Predicted Annual Average Daily Traffic

Alternatives		Segment on State Route 25	Daily traffic and % Increase		
			2006 (Existing)	2015	2035
Route Adoption	Build	San Felipe Road to State Route 156	14,700	20,100 (37%)	23,700 (61%)
		State Route 156 to Hudner Lane	21,300	22,900(7.5%)	28,900 (36%)
		Hudner Lane to U.S.101	22,500	22,700 (0.9%)	32,200 (43%)

Source: Caltrans Traffic Operations, 2009

The current Level of Service for the existing two-lane highway within the study area is Level of Service E. Level of Service is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. A Level of Service C is the minimum Level of Service acceptable to Caltrans and local agencies for this type of highway. Although the General Plans of the City of Hollister and San Benito County stipulate Level of Service C as adequate for these roads and intersections, they currently operate below the acceptable Level of Service and are expected to continue to do so through 2035. Table 5.2 shows the existing Level of Service including average travel time and percent of time spent following another vehicle.

Table 5.2 Existing and Predicted Level of Service Without Project AM and PM Peak Hour Traffic

Alternatives		Segment on State Route 25	Peak Hour	% Time Spent Following Another Vehicle			Average Travel Speed (miles per hour)			Level of Service		
				2006 /2007	2015	2035	2006 /2007	2015	2035	2006 /2007	2015	2035
Route Adoption	Build	San Felipe Road to State Route 156	AM	83.1	83.9	90.9	44.9	44.5	38.8	E	E	E
			PM	82.3	84.5	89.3	45.0	45.2	40.4	E	E	E
		State Route 156 to Hudner Lane	AM	82.0	87.9	92.4	43.7	40.8	37.4	E	E	E
			PM	84.6	89.6	91.2	42.4	41.5	38.8	E	E	E
		Hudner Lane to U.S. 101	AM	82.0	87.9	92.4	43.7	40.8	37.4	E	E	E
			PM	84.6	89.6	91.2	42.4	41.5	38.8	E	E	E

Source: Caltrans Traffic Operations, 2009

Access, Circulation and Parking

Properties that may become restricted in access include a large agri-business north of State Route 25 near U.S. 101, a large farm operation split by State Route 25 east of Canadero Creek, and a mine/quarry east of State Route 25 and south of State Route 156. All of these businesses have parking areas.

A Park-and-Ride lot is located across from Briggs Road in front of the Sheriffs' Training Center (shooting range), but has been closed for approximately three years because it was not being used for its intended purpose.

There appears to be very little bicycle or pedestrian traffic within the largely agricultural setting of the route adoption study area, and no specific facilities for bicyclists or pedestrians currently exist.

Public Transportation

The San Benito County Express Transit System provides public transit service within San Benito County and provides limited weekday bus service via State Route 25 to three locations in Gilroy: Gavilan College; the Caltrain station; and the Greyhound station. The system also provides "on demand" ADA (Americans with Disabilities Act) eligible paratransit and general public Dial-a-Ride services.

Transportation for the San Benito County Senior Nutrition and Out-of-County Medical programs is provided under a contract between San Benito County and Jovenes de Antano, a private provider.

Several different school districts transport school children within the project area in San Benito County: North County School District, San Benito County High School District, San Benito County Office of Education (Special Needs), and Tiffany Transportation (city schools). Currently, only the San Benito County High School has one bus stop on State Route 25, and this bus stop is used only in the morning schedule.

5.2 Environmental Consequences

No Route Adoption Alternative

If neither Alternative 1 or Alternative 2 is selected and its proposed alignment adopted by San Benito County and Santa Clara County, the opportunity would be lost to reserve an alignment for a future expressway with the least environmental impacts. Without a designated corridor, future development between Hollister and U.S. 101 along or near the existing highway would make highway construction projects more expensive and more disruptive to local residents and businesses.

Route Adoption Alternatives

Traffic was analyzed for the route adoption alternatives as if they were completely constructed expressways. However, this would not actually occur all at once. Portions of the proposed route adoption would be constructed, following a Tier II environmental document analysis, as funding becomes available.

The criteria used to evaluate operations for a future four-lane expressway for the route adoption alternatives were based on density (passenger cars per mile per lane) and the typical flow rate (passenger cars per hour per lane) of the roadway segment.

Alternative 1, if built as a four-lane expressway, would operate with a Level of Service B or better during peak hours of operation up to the year 2035. Alternative 2 would achieve Level of Service B or better during peak hours of operation up to the year 2035, except that the segment between Hudner Lane and U.S. 101 would fall to Level of Service C during the evening peak hour in the year 2035, which is an acceptable Level of Service for an expressway.

Table 5.3 shows the predicted Level of Service for the Route Adoption Alternatives for the years 2015 (construction year) and 2035 (design year).

Table 5.3 Existing and Predicted Level of Service for Route Adoption Alternatives

Existing (2006/2007) *Level of Service = E*			San Felipe Road to State Route 156	State Route 156 to Hudner Lane	Hudner Lane to U.S. 101
Alternative	**Year**	**Time of Day**	Level of Service	Level of Service	Level of Service
No-Build	2015	AM	E	E	E
		PM	E	E	E
	2035	AM	E	E	E
		PM	E	E	E
Alternative 1	2015	AM	B	B	B
		PM	A	A	A
	2035	AM	B	B	B
		PM	B	B	B
Alternative 2	2015	AM	B	B	B
		PM	A	A	A
	2035	AM	B	C	C
		PM	B	B	B

Source: Caltrans Traffic Operations, 2009

Either of the route adoption alternatives, Alternatives 1 or 2, if fully built, would maintain a total average travel time of 10.8 minutes for both the morning and evening peak hours between 2015 and 2035, even though the traffic volume on State Route 25 is predicted to increase during the same period. Estimated travel times do not include time spent stopped at intersections with traffic signals or at the two railroad line crossings. The four-lane expressway would provide sufficient capacity at least through 2035 and would still be able to maintain a Level of Service C or better.

No-Build Alternative

If neither Build Alternative A nor Alternative B is selected and constructed, average travel speeds on the existing highway would not decrease significantly by 2015 but congestion would increase within the proposed build project limits.

Average travel speeds on the existing two-lane highway between San Felipe Road and Hudner Lane are predicted to deteriorate to 37.4-38.8 miles per hour during the morning peak hour in the year 2035, and the percentage of time spent following another vehicle would increase to 90.9-92.4%. During the evening peak hour average traffic speed would be 38.8-40.4 miles per hour, and the percent-time-spent-following another vehicle is projected to increase to 89.3-91.2%.

By the year 2035 the existing San Felipe Road signalized intersection would drop to Level of Service D during the evening peak traffic hour. At the State Route 156 signal, morning peak hour Level of Service for the existing intersection would have declined to Level of Service E, with Level of Service D during the evening peak traffic hour. Vehicles crossing State Route 25 or turning on to it in either direction from Wright Road, the southern Briggs Road intersection, and from Flynn Road would experience Level of Service F during both the morning and the evening peak hours.

Build Alternatives

The analysis of future traffic for the build alternatives was modeled using two scenarios:

1. Scenario 1 assumed that the traffic volume on State Route 25 between San Felipe Road and the Union Pacific Railroad main line tracks would remain the same as if the project were not built (a two-lane highway).
2. Scenario 2 assumed that the traffic volumes for Alternative A would be the same as those forecast for Alternative 1 (a four-lane expressway), and that traffic volumes for Alternative B would be the same as the traffic numbers forecast for Alternative 2 (also a four-lane expressway).

The criteria used to evaluate operations for a future four-lane expressway for the build alternatives were based on density (passenger cars per mile per lane) and the typical flow rate (passenger cars per hour per lane) of the roadway segment.

According to the traffic studies conducted for the project, the existing average travel speeds are 44.9 miles per hour between San Felipe Road and State Route 156 during the morning peak hour, and 45.0 miles per hour during the evening peak traffic hour. For the segment between State Route 156 and Hudner Lane, average travel speeds are currently 43.7 miles per hour during the morning peak hour, and 42.4 miles per hour during the evening peak traffic hour. Table 5.4 shows the existing and predicted Levels of Service for Build Alternatives A and B.

Table 5.4 Existing and Predicted Level of Service for Build Alternatives

Existing (2006/2007) *Level of Service = E*			San Felipe Road to State Route 156	State Route 156 to Hudner Lane
Alternative	**Year**	Time of Day	Level of Service	Level of Service
No-Build	2015	AM	E	E
		PM	E	E
	2035	AM	E	E
		PM	E	E
Alternative A or Alternative B (Scenario 1)	2015	AM	A	B
		PM	A	A
	2035	AM	B	B
		PM	A	B
Alternative A (Scenario 2)	2015	AM	B	B
		PM	A	A
	2035	AM	B	B
		PM	B	B
Alternative B (Scenario 2)	2015	AM	B	B
		PM	A	A
	2035	AM	B	C
		PM	B	B

Source: Caltrans Traffic Operations, 2009

A four-lane expressway between San Felipe Road and Hudner Lane would operate at Level of Service B or better during the peak traffic hours, except that, in Scenario 2, the Level of Service for Alternative B would drop to Level of Service C by 2035 during the morning peak traffic (still an acceptable Level of Service). Although the vehicle density (passenger car per mile per lane) would increase, the average travel speed would remain constant at 59-60 miles per hour during the morning peak hour and at about 59.5 miles per hour during the evening peak hour between 2015 and 2035.

The segment of State Route 25 that would remain two lanes, between Hudner Lane and U.S. 101, would not see improved traffic conditions but would continue at Level of Service E. Under Scenario 2 the Level of Service is predicted to deteriorate to Level of Service F by 2035 during the peak traffic hours in both the morning and evening. The traffic volume would be greater than the roadway capacity, with the average travel speed falling below 30 miles per hour. Traffic flow would be stop-and-go. If traffic volumes actually increase to the level forecast, with the segment between Hudner Lane and the U.S. 101 junction remaining as a two-lane highway, congestion would be extreme. However, this situation is not likely to occur, as additional construction phases are planned.

Access, Circulation, and Parking

Intersections

No-Build Alternative - If neither Alternative A nor Alternative B is selected and constructed, congestion would increase. Average travel speeds on the existing two-lane highway between San Felipe Road and Hudner Lane are predicted to deteriorate to 37.4-38.8 miles per hour during the morning peak hour in the year 2035, and the percentage of time spent following another vehicle would increase to 90.9-92.4%. During the evening peak hour average traffic speed would be 38.8-40.4 miles per hour, and the percent-time-spent-following another vehicle is projected to increase to 89.3-91.2%.

By the year 2035, the existing San Felipe Road signalized intersection would drop to Level of Service D during the evening peak traffic hour. At the State Route 156 signal, morning peak hour Level of Service for the existing intersection would have declined to Level of Service E, with Level of Service D during the evening peak traffic hour. Vehicles crossing State Route 25 or turning on to it in either direction from Wright Road, the southern Briggs Road intersection, and from Flynn Road would experience Level of Service F during both the morning and the evening peak hours.

Route Adoption - The intersections analyzed in the traffic studies for route adoption Alternative 1 were San Felipe Road, Wright Road, Flynn Road, Shore Road, and Bolsa Road. For Alternative 2, San Felipe Road, Wright Road, Briggs Road (northern intersection), Shore Road, and Bolsa Road intersections were studied. The northbound and southbound ramps of the interchange proposed at State Route 156 for both alternatives were analyzed, as well.

McConnell Road and Hudner Lane were not analyzed in the traffic study because they are dead-end roads that serve only a few properties, and these roads have so few vehicles using them during peak traffic hours that their impact on the highway is insignificant. The study also assumed that there would be little or no growth on these roads in the future. The new frontage road intersections with the proposed expressway were not analyzed in the traffic study because they would provide access to farm fields and only a few rural homes.

Build Alternatives- The intersection analysis for Alternative A and Alternative B traffic was prepared using Scenario 2 data. For Alternative A, San Felipe Road, Wright Road, Flynn Road, and State Route 156 would all cross the proposed

expressway (State Route 25). For Alternative B, San Felipe Road, Wright Road, Briggs Road (northern intersection), and State Route 156 would cross the proposed expressway. McConnell Road and Hudner Lane were not analyzed in the traffic study because they are dead-end roads that serve only a few properties, and these roads have so few vehicles using them during peak traffic hours that their impact on the highway is insignificant. The study also assumed that there would be little or no growth on these roads in the future. For the same reasons, the new frontage road intersections with the proposed expressway were not analyzed by the traffic study. For more details on the locations of all the proposed future intersections please refer to Section 2.1.1.2 in the draft environmental document..

If either build alternative were constructed, the Level of Service of State Route 25 through the intersections discussed below would be able to be maintained at Level of Service A or B through the year 2035, except at the signalized intersections which would be at Level of Service C or above.

The proposed conversion of State Route 25 from a two-lane highway to a four-lane expressway, would eliminate or modify the existing at-grade accesses from driveways and local roads. The proposed route adoption alternatives would:

- Realign State Route 25 and construct a new four-lane expressway, using some of the existing roadway as frontage road.
- Use frontage roads to reduce the overall local road and driveway connections with State Route 25.
- Construct a new interchange to replace the State Routes 25 and 156 at-grade intersection.
- Reconstruct the interchange at State Route 25 and U.S. 101

The route adoption alternatives would have an affect on the access of several businesses:

- The large agri-business near U.S. 101 north of State Route 25 would lose direct access to State Route 25 in two locations, a truck delivery lane and Bloomfield Avenue. With construction of the route adoption alternatives, the intersection at Bloomfield Avenue would be closed and access to State Route 25 from Bloomfield Avenue would be provided via the proposed intersection at Bolsa Road to the east.

- The large farm operation split by State Route 25 east of Carnadero Creek would lose direct access to State Route 25. Access would be provided via a proposed frontage road and proposed intersection at Bolsa Road.
- The mine/quarry east of State Route 25 and south of State Route 156 would lose direct access onto State Route 25. Access would be provided via a proposed frontage road and overcrossing but the mine property would be landlocked by construction of the new interchange at State Routes 25 and 156.

Build Alternatives A and B would provide frontage roads to provide access to all the existing roads and driveways except the mine/quarry. Alternative B would retain the existing driveway but access to State Route 25 would be provided via a frontage road (the existing State Route 25). With Alternative A, access would be provided via an undercrossing on the existing driveway.

Alternative B would affect the existing Park-and-Ride lot, which lies within the Caltrans proposed right-of-way. No other public or business parking would be affected by this project.

This project would not build bike lanes, however the 10-foot paved shoulders would be open to bicyclists. The local frontage roads would also be available for bicycle riders. Sidewalks are not planned at the proposed future State Route 25/State Route 156 interchange.

Public Transportation

The San Benito County Express Transit System provides public transit service within the county and provides limited weekday bus service via State Route 25 to three locations in Gilroy: Gavilan College, the Caltrain station, and the Greyhound station.

During construction, public transportation may experience temporary delays and may have limited access, which would require adjustments. The project would alter traffic patterns by directing traffic to frontage roads or easements to proposed intersections. However, this change in traffic patterns is expected to bring safer access on and off of State Route 25. The project would provide safer passing opportunities for traffic and reduce the conflict between slower-moving traffic and commuters.

5.3 Avoidance, Minimization, and Mitigation Measures

Access, Circulation and Parking

According to the Caltrans District 5 Park-and-Ride Coordinator, no request has been made for an additional Park-and-Ride in Hollister. The need to reopen or relocate the Park-and-Ride would be determined in coordination with the Council of San Benito County Governments and the City of Hollister.

A Transportation Management Plan has been prepared for this project. Prior to construction, Caltrans would meet with local public officials to review the plan as well as publicize plan details. Construction may be scheduled to avoid areas that need access during certain seasons. During construction this plan would be implemented to accommodate local traffic and reduce delay, congestion, and accidents. Standard Caltrans construction practices include information on roadway conditions, portable changeable message signs, lane and road closures, advance warning signs, alternate routes, reverse and alternate traffic control, and a traffic contingency plan for unforeseen circumstances and emergencies.

As a part of incident management for this project, Construction Zone Enhanced Enforcement Program (COZEEP) would be required. This policy mandates a close collaboration between Caltrans and the California Highway Patrol on specific construction projects to increase safety for workers and the traveling public in highway work zones. Nighttime work may be utilized to limit traffic disruptions. The majority of the construction work proposed could be done outside of the existing alignment or behind temporary barriers, minimizing the amount of time that lane closures would be necessary.

Public Transportation

Prior to construction, Caltrans will meet with local public officials to review the Transportation Management Plan as well as publicize plan details.

Chapter 6 Public Involvement

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements.

Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and public contact. This chapter summarizes the efforts of Caltrans to fully identify, address, and resolve project-related issues through early and continuing coordination.

6.1 Community Based Organizations

According to the National Community-Based Organization Network, the definition of a community-based organization is an organization that is driven by community residents in all aspects of its existence. That usually means that the governing body and staff are made up of residents, the office is in the community, and priority issues and solutions are identified and defined by residents. The community-based organization, Stay Alive on 25, meets that definition.

Stay Alive on 25 was organized in an effort to address the increase in accidents that occurred along State Route 25. During the three-year period from 1997 through 1999, the accident rate on State Route 25 within the project area was above the statewide average in both San Benito and Santa Clara counties. The accident rate increased drastically during the six-month period from January to June 2000, when three head-on collisions occurred resulting in twelve (12) fatalities.

Caltrans, along with the California Highway Patrol (CHP), the Council of San Benito County Governments, and others started working with this community-based organization to improve the safety of this segment of State Route 25. In August 2000, these groups formed the Highway 25 Safety Corridor Task Force. The California Highway Patrol headed the task force, which addressed various types of safety concerns, including the investigation of accident sites and causes, as well as the consideration of safety improvement that could be implemented in the short term.

6.2 Stakeholders

Stakeholders include individuals, community-based organizations, as well as governmental agencies whose influence can significantly affect the efforts of the proposed project.

Federal, state, and local agencies involved with the project include the following:

- California Highway Patrol
- Council of San Benito County Governments
- San Benito County
- Santa Clara Valley Transportation Authority
- Santa Clara County
- City of Hollister
- City of Gilroy
- Environmental Protection Agency
- Federal Highway Administration
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture, Natural Resource Conservation Service
- U.S. Fish and Wildlife Service
- Central Coast Regional Water Quality Control Board
- Pajaro River Watershed Flood Prevention Authority
- National Marine Fisheries Service
- State Office of Historic Preservation
- Native American Heritage Commission
- Amah Mutsun Band of Ohlone/Costanoan Indians
- Land Trust for Santa Clara County
- Nature Conservancy
- Santa Clara County Open Space Authority
- Santa Clara County Water District
- San Benito County Farm Bureau
- Santa Clara County Farm Bureau
- Hollister Municipal Airport

The project also included participation of business owners and residents within and adjacent to the project area.

6.3 Outreach to Minority and Low-Income Communities

During the 2003 Public Meeting/Open House for the project, advertisement for the meeting was published in English and Spanish, and the supporting documents for the meeting were also made in English and Spanish. Caltrans arranged for a Spanish-

speaking interpreter to be available at the meeting; however, no Spanish-speaking only attendees participated.

Due to the lack of Spanish-speaking only participation, the subsequent meeting was advertised in English only, but all supporting documents in Spanish were available upon request.

6.4 Community Participation Program

Prior to the 2003 Public Meeting/Open House for the project, the Project Development Team initially created an overall strategy to target and track the effectiveness of public outreach, but additional strategies used for public outreach were added over time and include:

- Identifying stakeholders and community-based organizations
- Formulating a mailing list of stakeholders, community-based organization, property owners within and adjacent to the project, and businesses nearby
- Advertising Public Meetings/Open House via local newspapers and public service announcement on television and radio
- Circulating information handouts to the public with the cooperation of local businesses, such as grocery stores, restaurants, and Starbucks.
- Posting flyers at local libraries, bulletin boards, and cooperating local businesses
- Mailing notices of the public meetings to stakeholders, including local businesses, property owners, and federal, state, and local agencies
- Developing a Caltrans District 05 website to provide updates on the State Route 25 project and other improvements nearby

6.5 Results

Approximately 79 people attended the first Public Meeting/Open House held in September 2003. The majority of the attendees were from Hollister and Gilroy but there were also attendees who resided in Los Gatos, Carmel, Watsonville, and San Jose. Many contributed ideas to the project development team regarding their needs and the new alignments.

The Public Meeting/Open House held in March 2008 was attended by only 42 residents but the decline in attendance may be a result of the Caltrans District 05 website developed for the project, which provides updates on the progress of the project and improvements nearby.

Consultation has been initiated with the following stakeholders:

- California Highway Patrol
- Council of San Benito County Governments
- San Benito County
- Santa Clara Valley Transportation Authority
- Santa Clara County
- City of Hollister
- City of Gilroy
- Environmental Protection Agency
- Federal Highway Administration
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture, Natural Resource Conservation Service
- U.S. Fish and Wildlife Service
- Central Coast Regional Water Quality Control Board
- Pajaro River Watershed Flood Prevention Authority
- National Marine Fisheries Service
- State Office of Historic Preservation
- Native American Heritage Commission
- Amah Mutsun Band of Ohlone/Costanoan Indians
- Land Trust for Santa Clara County
- Nature Conservancy
- Santa Clara County Open Space Authority
- Santa Clara County Water District
- San Benito County Farm Bureau
- Santa Clara County Farm Bureau
- Hollister Municipal Airport

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Appendix A Forms NRCS-CPA-106 and AD1006

Below is the NRCS form CPA-106 used for corridor studies and to determine the impact rating for the portion of the route adoption Alternatives 1 and 2 within San Benito County.

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*		3. Date of Land Evaluation Request 3/3/08	4. Sheet 1 of 1
1. Name of Project State Route 25 Hollister to Gilroy		5. Federal Agency Involved CA Dept of Transportation/FHWA	
2. Type of Project Transportation		6. County and State San Benito, CA	
PART II *(To be completed by NRCS)*		1. Date Request Received by NRCS 3/3/08	2. Person Completing Form L. Replogle
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐			4. Acres Irrigated 86,937 / Average Farm Size 892 acres
5. Major Crop(s) small vegt/row crops, orchards	6. Farmable Land in Government Jurisdiction Acres: 86,937 % 3		7. Amount of Farmland As Defined in FPPA Acres: 86,937 % 3
8. Name Of Land Evaluation System Used Storrie Index	9. Name of Local Site Assessment System Soil Survey of San Benito County		10. Date Land Evaluation Returned by NRCS 3/19/08

PART III *(To be completed by Federal Agency)*		Alternative Corridor For Segment _____			
		Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly		523	526		
B. Total Acres To Be Converted Indirectly, Or To Receive Services		2	2		
C. Total Acres In Corridor		525	528	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland		323	326		
B. Total Acres Statewide And Local Important Farmland		200	200		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		100	100		
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*		100	100		
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	15	15		
2. Perimeter in Nonurban Use	10	10	10		
3. Percent Of Corridor Being Farmed	20	20	20		
4. Protection Provided By State And Local Government	20	20	20		
5. Size of Present Farm Unit Compared To Average	10	0	0		
6. Creation Of Nonfarmable Farmland	25	15	15		
7. Availablility Of Farm Support Services	5	1	1		
8. On-Farm Investments	20	17	17		
9. Effects Of Conversion On Farm Support Services	25	0	0		
10. Compatibility With Existing Agricultural Use	10	0	0		
TOTAL CORRIDOR ASSESSMENT POINTS	160	98	98		0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	100	100		
Total Corridor Assessment (From Part VI above or a local site assessment)	160	98	98		0
TOTAL POINTS *(Total of above 2 lines)*	260	198	198		0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
N/A	523-526 acres	9/16/08	YES ☐ NO ☑

5. Reason For Selection:

A preferred alternative selection will take place after the draft environmental document is circulated

Signature of Person Completing this Part: Wendy Kronman DATE 9/16/08

NOTE: Complete a form for each segment with more than one Alternate Corridor

Below is the NRCS form CPA-106 used for corridor studies and to determine the impact rating for the portion of the route adoption Alternatives 1 and 2 within Santa Clara County.

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 9/3/08	4. Sheet 1 of 1
1. Name of Project State Route 25 Hollister to Gilroy	5. Federal Agency Involved CA Dept of Transportation/FHWA	
2. Type of Project Transportation	6. County and State Santa Clara, CA	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9/3/08	2. Person Completing Form L. Replogle
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated 38,779 / Average Farm Size 331.0 acres
5. Major Crop(s) Orchards & Small Vegetables	6. Farmable Land in Government Jurisdiction Acres: 38,779 acres % 0	7. Amount of Farmland As Defined in FPPA Acres: 38,779 % 0
8. Name Of Land Evaluation System Used Storrie Index	9. Name of Local Site Assessment System Soil Survey of Santa Clara County	10. Date Land Evaluation Returned by NRCS 9/8/08

PART III *(To be completed by Federal Agency)*		Alternative Corridor For Segment			
		Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly		132	132		
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		132	132	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland		85	85		
B. Total Acres Statewide And Local Important Farmland		47	47		
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted		0	0		
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		95	95		
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*		95	95		
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	13	13		
2. Perimeter in Nonurban Use	10	0	0		
3. Percent Of Corridor Being Farmed	20	20	20		
4. Protection Provided By State And Local Government	20	20	20		
5. Size of Present Farm Unit Compared To Average	10	10	10		
6. Creation Of Nonfarmable Farmland	25	10	10		
7. Availablility Of Farm Support Services	5	2	2		
8. On-Farm Investments	20	14	14		
9. Effects Of Conversion On Farm Support Services	25	0	0		
10. Compatibility With Existing Agricultural Use	10	0	0		
TOTAL CORRIDOR ASSESSMENT POINTS	160	89	89	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	95	95		
Total Corridor Assessment (From Part VI above or a local site assessment)	160	89	89	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	184	184	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
N/A	131.5 (132)	9/16/08	YES ☐ NO ☑

5. Reason For Selection:

Corridor A (Alternative 1) and B (Alternative 2) are on the same alignment; therefore, no selection of a preferred corridor is necessary.

Signature of Person Completing this Part: Wendy Ronman — DATE 9/16/08

NOTE: Complete a form for each segment with more than one Alternate Corridor

Below is the NRCS form AD-1006 used for construction projects and to determine the impact rating for the Build Alternatives A and B in San Benito County.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 3/3/08
Name Of Project State Route 25 Hollister to Gilroy	Federal Agency Involved CA Dept of Transportation/FHWA
Proposed Land Use Transportation	County And State San Benito, CA
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☑	No ☐	Acres Irrigated 86,937 / Average Farm Size 892
Major Crop(s) Irrigated small vegts/row crops	Farmable Land In Govt. Jurisdiction Acres: 86,937 % 3		Amount Of Farmland As Defined in FPPA Acres: 86,937 % 3
Name Of Land Evaluation System Used Storrie Index	Name Of Local Site Assessment System Soil Survey of San Benito County		Date Land Evaluation Returned By NRCS 3/19/08

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	179.9	188.8		
B. Total Acres To Be Converted Indirectly	0.5	0.0		
C. Total Acres In Site	180.4	188.8	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	180.0	188.0		
B. Total Acres Statewide And Local Important Farmland	0.0	0.0		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.5	0.5		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	100.0	97.0		
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	92	93	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Nonurban Use	15	13	13		
2. Perimeter In Nonurban Use	10	10	10		
3. Percent Of Site Being Farmed	20	20	20		
4. Protection Provided By State And Local Government	20	20	20		
5. Distance From Urban Builtup Area	15	5	5		
6. Distance To Urban Support Services	15	10	10		
7. Size Of Present Farm Unit Compared To Average	10	0	0		
8. Creation Of Nonfarmable Farmland	10	0	0		
9. Availability Of Farm Support Services	5	1	1		
10. On-Farm Investments	20	15	17		
11. Effects Of Conversion On Farm Support Services	10	0	0		
12. Compatibility With Existing Agricultural Use	10	0	0		
TOTAL SITE ASSESSMENT POINTS	160	94	96	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	92	93	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	94	96	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	186	189	0	0

Site Selected: N/A	Date Of Selection 9/16/08	Was A Local Site Assessment Used? Yes ☐ No ☒

Reason For Selection:

Peferred alternative selection will take place after DED circulation.

(See Instructions on reverse side) **Form AD-1006 (10-83)**

This form was electronically produced by National Production Services Staff

Appendix B References Used and Contacts

County of San Benito General Plan Land Use Element

San Benito Planning Commission

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http://www.surveymonkey.com/s.aspx?sm=R8pPB1RWOVMbBGjMAbuqtg_3d_3d
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adds Land Use Policies; Part 4 – Urban Unincorporated Area, Issues & Policies, General Land Use Management, and Stanford University; Part 5 – South County Joint Area Plan; Part 6 – Appendices)
http://www.sccplanning.org/portal/site/planning/planningchp?path=/v7/Planning,%20Office%20of%20(DEP)/Plans%20%26%20Programs/General%20Plan

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http://www.vta.org/studies/vtp2035/highways/highways_sc.html

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http://www.vta.org/news/vtatac/South%20Gateway%20Study/1.%20Southern%20Gateway%20Study%20FINAL%20REPORT%20Aug%202006.pdf

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http://www.tamcmonterey.org/

U.S. Census 2000 Bureau. http://factfinder.census.gov

Personal Contacts

Green, Doyle. Lieutenant for California Highway Patrol. Phone contact.

1400-1415: Thu 02Oct08, I called 831-637-5313 and spoke to Michael Kelly mkelly@planning.co.san-benito.ca.us of the San Benito County Planning Department who suggested he could indeed get me the zoning for the areas of San Benito along State Route 25 between the cities of Hollister and Gilroy.

Natural Resources Conservation Service, Hollister, California. Lloyd Replogle,

Rockberg, Karla, resident contact person. Phone contact various times 2007 and 2008

Appendix C Summary of Relocation Benefits

California Dept. of Transportation Relocation Assistance Program

Relocation Assistance Advisory Services

The California Department of Transportation (Caltrans) would provide relocation advisory assistance to any person, business, farm, or non-profit organization displaced as a result of Caltrans' acquisition of real property for public use. Caltrans would assist residential displacees in obtaining comparable decent, safe, and sanitary replacement housing by providing current and continuing information on sales prices and rental rates of available housing. Non-residential displacees would receive information on comparable properties for lease or purchase.

Residential replacement dwellings would be in equal or better neighborhoods, at prices within the financial means of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, displacees would be offered comparable replacement dwellings that are open to all persons regardless of race, color, religion, sex, or national origin, and are consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance would also include supplying information concerning federal- and state-assisted housing programs, and any other known services being offered by public and private agencies in the area.

Residential Relocation Payments Program

For more information or a brochure on the residential relocation program, please contact Wendy Kronman by e-mail at wendy_kronman@dot.ca.gov, by telephone at (559) 243-8280, or by mail at 2015 E.Shields Ave., Suite 100, Fresno, CA 93726.

The brochure on the residential relocation program is also available in English at http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf.

If you own or rent a mobile home that may be moved or acquired by Caltrans, a relocation brochure is available in English at http://www.dot.ca.gov/hq/row/pubs/mobile_eng.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/mobile_sp.pdf.

The Business and Farm Relocation Assistance Program

For more information or a brochure on the relocation of a business or farm, please contact Wendy Kronman by e-mail at wendy_kronman@dot.ca.gov, by telephone at (559) 243-8280, or by mail at 2015 E.Shields Ave., Suite 100, Fresno, CA 93726.

The brochure on the business relocation program is also available in English at http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf and in Spanish at http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf.

Additional Information

No relocation payment received would be considered as income for the purpose of the Internal Revenue Code of 1954 or for the purposes of determining eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other federal law (except for any federal law providing low-income housing assistance).

Persons who are eligible for relocation payments and who are legally occupying the property required for the project would not be asked to move without being given at least 90 days advance notice, in writing. Occupants of any type of dwelling eligible for relocation payments would not be required to move unless at least one comparable "decent, safe, and sanitary" replacement residence, open to all persons regardless of race, color, religion, sex, or national origin, is available or has been made available to them by the state.

Any person, business, farm, or non-profit organization, which has been refused a relocation payment by Caltrans, or believes that the payments are inadequate, may appeal for a hearing before a hearing officer or the Caltrans' Relocation Assistance Appeals Board. No legal assistance is required; however, the displacee may choose to obtain legal council at his/her expense. Information about the appeal procedure is available from Caltrans' Relocation Advisors.

The information above is not intended to be a complete statement of all of Caltrans' laws and regulations. At the time of the first written offer to purchase, owner-occupants are given a more detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted immediately after the first written offer to purchase, and also given a more detailed explanation of Caltrans' relocation programs.

Important Notice

To avoid loss of possible benefits, no individual, family, business, farm, or non-profit organization should commit to purchase or rent a replacement property without first contacting a Department of Transportation relocation advisor at:

State of California
Department of Transportation, District #05
50 Higuera Street
San Luis Obispo, CA 93701

Appendix D List of Preparers

This document was prepared by the following Caltrans Central Region staff:

Michael Crisco, Associate Environmental Planner. Master of Community & Regional Planning, University of Nebraska – Lincoln; B.S. Ecology, California State University – Fresno; 3 years environmental planning experience. Contribution: Community Impact Assessment.

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Natural Environment Study

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Reagen O'Leary
Associate Environmental Planner (Natural Sciences)
Biology Branch, Central Region Environmental

Date: April 8, 2010

File: 05-48540
05-SBt-25 (PM 51.5/60.1)
04-SCl-25 (PM 0.0/2.6)
and 05-SBt-156 (PM R10.5/R12.2)

From: G. William 'Trais' Norris III
Branch Chief
Sierra Pacific Environmental Analysis Branch

Subject: Change to Purpose Statement

The Purpose statement for the SR25 Widening and Route Adoption project has changed. The new wording is

The purpose of the proposed route adoption project is to:

- Select a corridor for State Route 25 between Hollister and Gilroy that will accommodate existing and future travel demand.
- Facilitate local and regional land use planning by identifying future right-of-way needed for the State Route 25 corridor.

The purpose of the proposed build project is to:

- Improve traffic flow and reduce delays on State Route 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.
- Increase capacity along State Route 25 between San Felipe Road in Hollister and Hudner Lane in rural San Benito County.

The new purpose does not affect the conclusions of the Natural Environment Study completed for this project in December 2008 or the Addendum dated April 1, 2010.

c: Project file

State of California
DEPARTMENT OF TRANSPORTATION

Business Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Wendy Kronman
Associate Environmental Planner
Environmental, District 06

Date: April 1, 2010

File: 05-SBt-25 PM 51 5/60.1
and 04-SCl-25 PM 0.0/2.6
and 05-SBt-156 PM
R10.5/R12 2
EA 05-485400

From: REAGEN O'LEARY
Associate Environmental Planner / Natural Science
Environmental, District 06

Subject: **Memorandum to the Natural Environment Study**

Natural Communities, Habitat Types, and Wetlands and Waters
In January 2010 Reagen O'Leary recalculated using GIS software, the impacts to habitat types within the project area in order to clarify potential wetlands and waters impacts. Estimates were rounded to the nearest acre. This was done for both the route adoption alternatives (Alternative 1 and Alternative 2) and for the proposed construction alternatives (Alternative A and Alternative B). See Table 1 for the updated summary of potential habitat impacts.

Table 1 Summary of Potential Habitat Impacts

Habitat Type	Impact Area (acres)			
	Alternative 1	Alternative 2	Alternative A	Alternative B
Non-native grassland	142	65	67	6
Agricultural	553	617	142	188
Developed	24	8	18	4
Waters and wetlands	4	4	0 02	0
Roadways	59	35	38	13
Total Project Impact Area	784	730	265 02	211

As shown in the above table, impacts to jurisdictional waters and wetlands would be less than 5 acres for all alternatives Therefore the NEPA/404 process was not required for this project.

State Listing of CA Tiger Salamander as Threatened

On March 3, 2010, the California Fish and Game Commission designated the California tiger salamander as threatened under the California Endangered Species Act. The California tiger salamander central population was federally listed as threatened on August 4, 2004 (69 FR 47211-47248). If Alternative A is selected for construction, Caltrans would request a 2080.1 Consistency Determination from the California Department of Fish and Game following receipt of a Biological Opinion from the U.S. Fish and Wildlife Service.

If you have any questions please contact me by phone at (559) 243-8290 or by email, reagen_oleary@dot.ca.gov

Reagen O'Leary

State Route 25 Widening and Route Adoption Project, Hollister to Gilroy *NES*

Natural Environment Study

San Benito and Santa Clara Counties, California

05-SBt-25 PM 51.5/60.1 and 04-SCl-25 PM 0.0/2.6 and 05-SBt-156 PM R10.5/R12.2

05-485400

December 2008

Caltrans

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: *Zachary Parker*, *Central Region Biology Branch*, *2015 E. Shields Avenue, Suite 100, Fresno, CA 93726*; *559.243.8196* Voice, or use the California Relay Service TTY number, *800.735.2929*.

Natural Environment Study

San Benito and Santa Clara Counties, California

05-SBt-25 PM 51.5/60.1 and 04-SCl-25 PM 0.0/2.6 and 05-SBt-156 PM R10.5/R12.2

05-485400

December 2008

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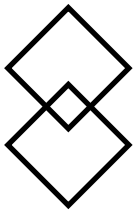

Summary of Findings, Conclusions and Determinations

Introduction

The California Department of Transportation (Caltrans), in cooperation with San Benito Council of Governments and Santa Clara Valley Transportation Authority, is evaluating the conversion of 11.2 miles of the existing State Route (SR) 25 two-lane conventional highway to a four-lane expressway in San Benito and Santa Clara counties. This Natural Environment Study includes two proposed projects: (1) a Tier I Route Adoption Alignment and (2) a Proposed Construction Project within the limits of the Proposed Route Adoption Alignment.

To simplify the discussion, this NES describes two biological study areas: one for the Route Adoption Alignment Project alternatives and one for the Proposed Construction Project alternatives. The Route Adoption Alignment biological study area was defined as the project impact area (area to be directly affected) for Alternatives 1 and 2 plus adjacent areas that may be indirectly affected by the Route Adoption Alignment. The Construction Project biological study area was defined as the project impact area for Alternatives A and B plus adjacent areas that may be indirectly affected by the Construction Project.

See Figure 2 on page 5 for the project location map that displays each alternative.

Habitat Impacts

The Route Adoption Alignment and the Proposed Construction Project are located along SR 25 through the highly productive agricultural regions of the Hollister and Santa Clara Valleys. A few parcels within the biological study area have not been converted into agricultural lands and have retained their value to local wildlife and native plants as annual grassland with intermittent wetlands. Within the Route Adoption Alignment biological study area, aquatic and riparian habitat exists within the Pajaro River and Carnadero Creek.

Special-Status Species Impacts

The following table lists the federal and state special-status species that may be affected by each project alternative.

Common Name	Scientific Name	Listing
Route Adoption Alignment Alternative 1		
California Tiger Salamander	*Ambystoma californiense*	FT, SSC
South-Central California Steelhead	*Oncorhynchus mykiss*	FE, SSC
Route Adoption Alignment Alternative 2		
South-Central California Steelhead	*Oncorhynchus mykiss*	FE, SSC
Construction Project Alternative A		
California Tiger Salamander	*Ambystoma californiense*	FT, SSC

FT = Federally Threatened, FE = Federally Endangered, SSC = State Species of Concern

Critical Habitat

Both alternatives for the Route Adoption Alignment could have impacts to critical habitat for the South-Central California Steelhead evolutionary significant unit (ESU), which exists in the Pajaro River and Carnadero Creek. Formal consultation with the National Marine Fisheries Service would be required for either Route Adoption Alignment Alternative.

Neither of the Proposed Construction Project alternatives would affect critical habitat.

Permits and Agreements

Potential Effect	Permit Required	Issuing Agency
Route Adoption Alignment Alternative 1		
Wetlands and Waters of the United States	Clean Water Act Section 404	ACOE
Water Quality	Clean Water Act Section 401	RWQCB
Streambed Alteration	1602 Streambed Alteration Agreement	CDFG
Impacts to California Tiger Salamander	Biological Opinion	USFWS
Impacts to South-Central California Steelhead ESU Critical Habitat	Biological Opinion	NMFS
Route Adoption Alignment Alternative 2		
Wetlands and Waters of the United States	Clean Water Act Section 404	ACOE
Water Quality	Clean Water Act Section 401	RWQCB
Streambed Alteration	1602 Streambed Alteration Agreement	CDFG
Impacts to South-Central California Steelhead ESU Critical Habitat	Biological Opinion	NMFS
Construction Project Alternative A		
Impacts to California Tiger Salamander	Biological Opinion	USFWS

ACOE – U.S. Army Corps of Engineers
RWQCB – Regional Water Quality Control Board
CDFG – California Department of Fish and Game
NMFS – National marine Fisheries Service
USFWS – U.S. Fish and Wildlife Service

Invasive Species

Five plants from the State Noxious Weed List—yellow starthistle, white-top, Russian thistle, Bermuda grass, and puncture vine—were identified within both biological study areas; however, a revegetation program would be in place to prevent further spread of these species.

Compensatory Mitigation Measures

Should the Route Adoption Alignment Alternative 1 and the Proposed Construction Project Alternative A be selected as the chosen alternatives, Caltrans would need to mitigate for impacts to upland habitat for the California tiger salamander.

Both Route Adoption Alignment alternatives would require mitigation for riparian habitat lost due to work within the riparian zone of the Pajaro River and Carnadero Creek.

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List of Abbreviated Terms

ACOE	Army Corps of Engineers
BSA	Biological Study Area
CDFG	California Department of Fish and Game
CESA	California Endangered Species Act
CH	Critical Habitat
CNPS	California Native Plant Society
CWA	Clean Water Act
ESA	Environmental Sensitive Area
FHWA	Federal Highway Administration
GPS	Global Positioning System
NMFS	National Marine Fisheries Service
PM	Post Mile
Project	State Route 25 Widening Project
RWQCB	Regional Water Quality Control Board
SCS	Soil Conservation Service
SR	State Route
US	United States
USFWS	United States Fish and Wildlife Service

Chapter 1. Introduction

Caltrans, in cooperation with San Benito Council of Governments and Santa Clara Valley Transportation Authority, is evaluating the conversion of 11.2 miles of the existing State Route (SR) 25 two-lane conventional highway to a four-lane expressway in San Benito and Santa Clara counties. See Figure 1 for the project vicinity map. This NES includes two proposed projects: (1) a Tier I Route Adoption Alignment and (2) a Proposed Construction Project within the limits of the Proposed Route Adoption Alignment.

The Route Adoption Alignment study extends from San Felipe Road in the City of Hollister (post mile (PM) 51.5) to the San Benito/Santa Clara County line (PM 60.1) and on to the end of SR 25 at US 101 south of the city of Gilroy (PM 0.0 to 2.6 in Santa Clara County).

The Proposed Construction Project limits extend 3.8 miles in San Benito County, from San Felipe Road in Hollister to just west of Hudner Lane (PM 51.5 to 55.3). A 4-lane expressway would replace the existing 2-lane conventional highway.

The purpose of this NES is to review the Proposed Route Adoption Alignment Study to give an overview of the surrounding natural environment. This NES will also review the Proposed Construction Project in sufficient detail to determine to what extent it may affect threatened, endangered, or proposed species as well as other natural resources. It is also intended to provide technical information for the environmental document.

1.1. Project History

1.1.1. Existing Facilities

SR 25 begins in Monterey County at the junction with SR 198. It goes north through San Benito and Santa Clara counties, ending at the junction with US 101, south of the City of Gilroy. The route totals 74.6 miles and passes mainly through rolling terrain and agricultural rangeland. For 42 miles of its length, the roadway is classified as a minor arterial; for 19 miles, as a collector (varies between rural and urban); and for 15 miles, as a principal arterial.

Figure 1: Project Vicinity Map

SR 156 begins in Santa Clara County at the junction with SR 152 and continues west to SR 1 in Monterey County. The route merges with US 101 west of San Juan Bautista and separates from US 101 at Prunedale and heads west to Castroville. SR 156 is 25 miles of scenic byway passing through rolling terrain, agricultural rangeland, coastal live oak woodland, and rural residential. It is a principal arterial for 18 miles and minor arterial for 7 miles.

Below are descriptions of the facilities within the project area.

State Route 25

SR 25 is a two-lane undivided conventional highway with uncontrolled access (approximately 50 driveways). There are two railroad crossings and two creek crossings in the project area. The travel lanes are each 3.6 meters, separated by a 0.6-meter paved median (soft barrier), with 3.0-meter paved shoulders. In the vicinity of the project area, SR 25 has become the main route for commuters between the increasing job market in the Silicon Valley and more affordable and available residential housing in San Benito County.

State Route 156

SR 156 is a two-lane expressway that transitions into a conventional highway in the project area. In the vicinity of its intersection with SR 25, this highway serves as a rural minor arterial that carries local, regional, and interregional traffic. SR 156 is also a route for interregional travelers between Monterey Bay and the Central Valley by connecting with SR 152.

1.1.2. Project Purpose

The purpose of the proposed Route Adoption Alignment Study and Proposed Construction Project is to:

- Select a route adoption corridor for SR 25 between Hollister and Gilroy for planning purposes.
- Improve traffic flow, reduce delays, and enhance the movement of goods on SR 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.
- Increase capacity along SR 25 between San Felipe Road in Hollister and Hudner Lane in San Benito County.

1.1.3. Project Need

Slow-moving farm equipment, trucks, and local and commuter traffic share this two-lane roadway. An increasing number of vehicles travel this stretch of SR 25 and, during peak commute hours, the roadway is congested. Traffic flow is delayed by vehicles turning onto and/or out of the many driveways and local roads, affecting the flow of the faster moving vehicles.

Many commuters whose destination is beyond the local area take local roads (Bloomfield Road, Frazier Lake Road, and Shore Road) as shortcuts between SR 25 and SR 156 and also SR 152. Significant commercial truck traffic travels through the area on SR 25 and is subject to delays as well.

A new route alignment should be adopted so that the appropriate area for a future expressway can be incorporated into the San Benito and Santa Clara County general plans now before future development occurs along this stretch of highway.

1.2. Project Description

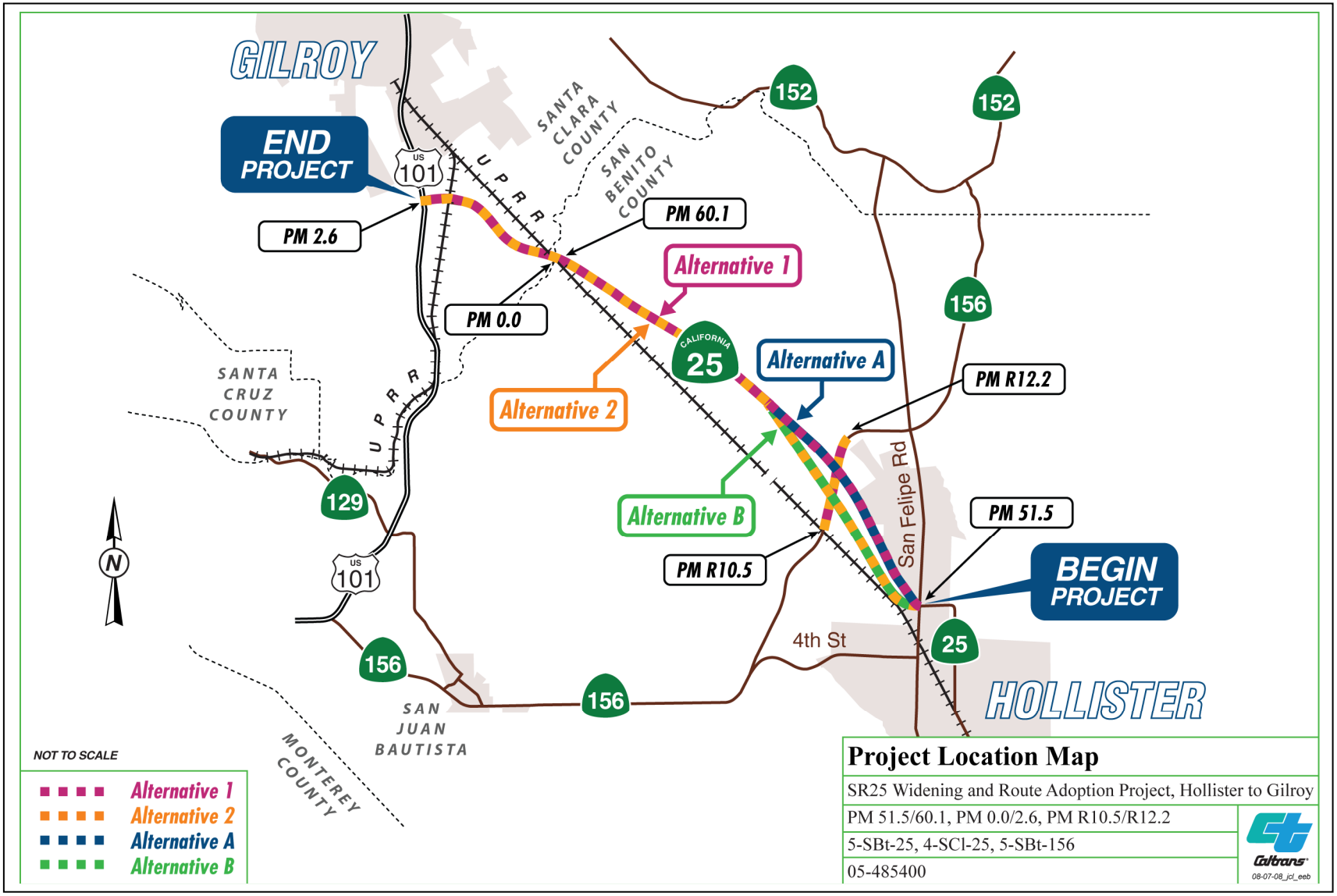
Below is a summary of the five alternatives under evaluation. See Figure 2 for the project location map; see Appendix A for more detailed project mapping.

- Alternative 1: An 11.2-mile Route Adoption Alignment to the northeast.
- Alternative 2: An 11.2-mile Route Adoption Alignment to the southwest.
- Alternative A: A 3.8-mile Proposed Construction Project that lies within the limits of the Alternative 1 Route Adoption Alignment.
- Alternative B: A 3.8-mile Proposed Construction Project that lies within the limits of the Alternative 2 Route Adoption Alignment.
- No Action: No action would be taken and no further improvements would be made to SR 25 within these limits other than those already funded or under construction.

1.2.1. Route Adoption Alignment Alternatives 1 and 2

Both of the Route Adoption Alignment alternatives are 11.2 miles long and share the same alignment from approximately 0.5 mile south of Shore Road (PM 56.1) in San Benito County to US 101 in Santa Clara County.

Figure 2: Project Location Map



Between PM 56.1 in San Benito County and the southern end of the proposed project at San Felipe Road, the two alignment alternatives separate: Alternative 1 proposes to align the future four-lane expressway generally to the east (or north) of the existing two-lane north/south highway, while Alternative 2 would align mostly to the west (or south) of the existing two-lane highway.

Both Route Adoption Alignment alternatives would be wide enough to accommodate a future 342-foot-wide 4-lane expressway, including a 62-foot median, and frontage roads on either one or both sides. The alignments would also be wide enough to accommodate a future interchange near the existing intersection of SR 25 and SR 156 and a future SR 25/US 101 interchange north of the existing interchange. Other improvements include new bridges over Carnadero Creek and the Pajaro River, and over-crossings of the Union Pacific Railroad Hollister branch line and the Union Pacific main line just east of US 101.

The future SR 25/US 101 interchange overlaps with both Route Adoption Alignment alternatives discussed in this document. The US 101 Widening Project State Route 129 to Monterey Road team is preparing an environmental document at the same time that this document is being written. The US 101 Widening Project State Route 129 to Monterey Road Environmental Impact Report will be the equivalent of a Tier II environmental report, examining in more detail impacts and mitigation measures of the specific design of the SR 25/US 101 interchange. This NES has been prepared for a Tier I Environmental Impact Statement and Environmental Impact Report, which will present a broad view of the environmental issues for the SR 25/US 101 interchange. The SR 25/US 101 interchange would be constructed as part of the US 101 Widening Project State Route 129 to Monterey Road.

1.2.2. Proposed Construction Project Alternatives A and B

Both build alternatives, Alternative A and Alternative B, would extend 3.8 miles in San Benito County, from San Felipe Road (PM 51.5) to just west of Hudner Lane (PM 55.3). Unlike the Route Adoption Alignment alternatives, the build alternatives propose a realigned and widened at-grade intersection at SR 25 and SR 156 instead of an interchange. Both construction alternatives would transition back to the existing 2-lane highway just west of Hudner Lane.

Direct access to the expressway would be available from San Felipe Road, Wright Road, Briggs Road, a westside frontage road, SR 156, an eastside frontage road, and Hudner Lane. The second westside frontage road would connect to Hudner Lane. For

Alternative A, an undercrossing would be built at the gravel quarry driveway to provide access to this parcel.

1.2.3. No Action Alternative

The No-Action Alternative would result in no action being taken, and no further improvements would be made to SR 25 within the Route Adoption Alignment limits other than the SR 25 Safety and Operations Enhancement Project.

It is anticipated that work would begin early in 2009 on the SR 25 Safety and Operations Enhancement project and be completed by early 2010. Work would begin just south of Hudner Lane (PM 55.1) and end just south of the Union Pacific Railroad Hollister line crossing (PM 60.1). Roadway widening would consist of two 10-foot outside shoulders, two 12-foot travel lanes, two 5-foot inside shoulders, and placement of a temporary concrete median barrier. Rumble strips would be installed on all inside and outside shoulders. The Hudner Lane and Shore Road intersections would also be improved.

1.3. Construction Guidelines

The contractor would follow best management practices during construction. Parking of equipment, project access, supplies logistics, equipment maintenance, and other project-related activities would occur within the project impact area. Designated staging areas for equipment storage, vehicle parking, and other project-related activities would be pre-approved by a Caltrans Regional Biologist. Dust control measures would be implemented as part of this project. For import of fill material from a borrow site, the contractor is responsible solely for the selection and environmental compliance of the selected site before construction activities.

Table 1 provides a description of the type of equipment likely to be used during construction of the proposed projects.

Table 1: Construction Equipment

Equipment	Construction Purpose
Asphalt paver/roller	Asphalt-concrete delivery/placement
Backhoe	Soil manipulation and drainage work
Bidwell and roller screeds	Bridge structure construction
Bobcat	Pavement construction
Bulldozer/loader	Earthwork construction, clearing and grubbing
Chainsaw	Vegetation clearing
Compressor	Bridge structure construction
Concrete pump	Pavement construction
Concrete truck mixers	Pavement construction
Crane	Drainage work
Dump truck	Asphalt-concrete delivery
Excavator	Soil manipulation
Flatbed truck	Drainage work
Fork lift	Drainage work
Front-end loader	Dirt or gravel manipulation
Genie man lift	Bridge structure construction
Grader	Ground leveling
Haul truck	Earthwork construction, clearing and grubbing
Motor grader	Earthwork construction
Paint/striping truck	Pavement stripping/delineation
Pavement roller	Pavement construction
Pile driver/drill rig	Bridge structure construction
Pump truck	Bridge structure construction
Redi-mix truck	Concrete delivery
Roller/compactor	Earthwork construction
Roller screeds	Pavement construction
Saw cutting/striping equipment	Pavement construction
Scraper	Earthwork construction, clearing and grubbing
Shoulder paver	Shoulder paving
Truck with seed sprayer	Landscaping
Water truck	Earthwork construction and dust control

Chapter 2. Study Methods

This chapter discusses the survey methods used to determine the potential for special-status species or their habitats to occur within or adjacent to the biological study area.

2.1. Regulatory Requirements

State and federal laws exist to protect the natural environment in all phases of development, construction, permitting, and maintenance. The biological studies discussed in this chapter were used to determine which of these laws would be applicable to the construction of this project. Environmental laws and acts that must be considered are the Federal and California Endangered Species Acts, Magnuson-Stevens Fishery Conservation and Management Act, Clean Water Act, Migratory Bird Treaty Act, Native Plant Protection Act, California Environmental Quality Act, Rivers and Harbors Act, Federal Highway Administration executive orders, California State Senate bills, county ordinances, and the California Fish and Game Code.

The following agencies have jurisdiction within the project area:

The U.S. Fish and Wildlife Service is responsible for all federal listed plants and animal species that may occur in the project area under the Federal Endangered Species Act of 1973 (16 U.S.C. 1531-1543). In addition, U.S. Fish and Wildlife Service enforces the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711), which is responsible for the protection of migratory birds.

The California Department of Fish and Game is responsible for all state listed plant and animal species that may occur within the project area under the California Endangered Species Act (Fish and Game Code §Sections 2050-2116). The California Department of Fish and Game also acts as a trustee agency under the California Environmental Quality Act process. In addition, the California Department of Fish and Game is responsible for determining impacts to native plants and lake or streambeds and issuance of Streambed Alteration Agreements (Fish and Game Code §Section 1600).

The National Marine Fisheries Service is the federal agency that oversees critical habitat for endangered and threatened fishes and anadromous fisheries by regulating the Magnuson-Stevens Fishery Conservation and Management Act.

The U.S. Army Corps of Engineers is the federal agency that oversees Section 404 of the Clean Water Act, which regulates activities that result in the discharge of dredged or fill material into waters of the U.S. and wetlands. In addition, the U.S. Army Corps of Engineers oversees Section 10 of the Rivers and Harbors Act that regulates the building of structures and excavation or fill within navigable or tidal waters.

The Regional Water Quality Control Board is the designated state agency overseeing Section 401 and 402 of the Clean Water Act.

Santa Clara and San Benito counties have established native tree ordinances, which require replacement of trees of a particular size.

Additional laws that apply to the project area:

The Federal Highway Administration Executive Order 13112 requires the Federal Highway Administration to not authorize, fund or carry out any action that can likely cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

California State Senate Bill 857 amends Article 3.5 of the Streets and Highways Code, detailing requirements for assessing and remediating barriers to fish passage at stream crossings along the state highway system.

2.2. Studies Required

To simplify the discussion, this NES describes two biological study areas: one for the Route Adoption Alignment alternatives and one for the Construction Project alternatives. The Route Adoption Alignment biological study area was defined as the project impact area (area to be directly affected) for Alternatives 1 and 2 plus adjacent areas that may be indirectly affected by the Route Adoption Alignment. The Construction Project biological study area was defined as the project impact area for Alternatives A and B plus adjacent areas that may be indirectly affected by the Construction Project. Adjacent study areas within the biological study areas that may be indirectly affected by the proposed projects include an approximately 7-mile radius around each of the project impact areas.

Based on the habitats found within the biological study area and in-office research, it was determined that focused surveys should be conducted for rare plants,

jurisdictional wetlands and waters, migratory and special-status birds, San Joaquin kit fox, special-status amphibians, aquatic reptiles, and fresh water shrimp species. During surveys, all vertebrate species and plants encountered were documented. See Appendix B for the complete species list.

California State University, Sacramento and California State University, Stanislaus were contracted to conduct most of the biological surveys. Dr. Michael F. Baad of California State University, Sacramento led most of the surveys; the Endangered Species Recovery Program at California State University, Stanislaus led one. In addition, Denise Duffy and Associates, Inc. conducted a supplemental wetland delineation survey for the Route 25 Safety and Operations Enhancement project, which used the same studies to evaluate that project's environmental impacts. The sections below describe the survey methods used and provide the specific survey dates and personnel. Reports and documents generated for specialized surveys are available by request.

Global positioning system (GPS) technology with sub-meter accuracy was used for all field surveys to record locations of special-status species, to delineate vernal pools, wetlands and water of the U.S., and to record locations of other natural resources. The data collected was used to create maps to aid in evaluating the impact that the project might have on the natural environment.

The Department of Water Resources collected reconnaissance fish passage data, also known as First Pass Data Collection, within Santa Clara County that included the Pajaro River Bridge and the Carnadero Bridge on SR 25.

2.2.1. In-office Research

Agency databases were queried by Caltrans and contract biologists to research potential occurrences of special-status species within the biological study area by targeting San Benito and Santa Clara counties as well as the following U.S. Geological Survey 7.5-minute quadrangles: Hollister, San Felipe, Chittenden, San Juan Bautista, Three Sisters, Tres Pinos, Pacheco Peak, and Gilroy Hot Springs.

The following databases were used: Sacramento U.S. Fish and Wildlife Service on-line official species list, California Department of Fish and Game *California Natural Diversity Database*, and the California Native Plant Society *Electronic Inventory of Rare and Endangered Plants, 7th Edition*. Caltrans also received an official species

list from the Ventura Fish and Wildlife Service office. See Appendix C for all database results.

This research resulted in a list of special-status species that could potentially be present within the biological study areas. Plants listed by California Native Plant Society are considered special-status; though not formally listed as rare or endangered under the California Endangered Species Act, meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) of the California Fish and Game Code, and are eligible for state listing. In addition, the California Natural Diversity Database tracks all "special animals," which refers to all taxa that California is interested in tracking, regardless of their legal status. These species were given equal consideration during project assessment.

To provide a general visual overview of the project site, the Caltrans Photolog and Digital Highway Inventory Photography Program were used to observe color videos and high-resolution aerial photographs of the project area from the office.

2.2.2. Reconnaissance-level Surveys

Caltrans biologists as well as California State University staff visited the project site to look for the presence of potential habitat for special-status species to decide what further in-depth studies needed to be conducted. Reconnaissance surveys consisted of driving the length of the project site, recording general habitat features, and identifying specific areas that would require further study.

2.2.3. Botanical Surveys

Dr. Baad conducted the botanical surveys in spring and summer of 2002 and 2003. Within the Route Adoption Alignment biological study area, a total of 14 monitoring sites were designated according to the potential habitat for target special-status plant species. Target species included alkali milk vetch (*Astragulus tener* var. *tener*), San Joaquin saltbush (*Atriplex joaquiniana*), Hoover's button celery (*Eryngium aristulatum* var. *hooveri*), Contra Costa goldfields (*Lasthenia conjugens*), hairless popcorn flower (*Plagiobothrys glaber*), most beautiful jewel flower (*Streptanthus albidus* ssp. *peramoenus*), and alkali dwarf clover (*Trifolium depauperatum* var. *hydrophilum*).

The monitoring sites were designated as follows:

- 1,000 feet southwest and 1,000 feet northeast of the existing SR 25 edge of pavement from San Felipe Road north to the SR 25/US 101 connection.
- 1,000 feet downstream and approximately one mile upstream of the SR 25 crossing of the Pajaro River.
- The floodplain of Carnadero Creek from 1,000 feet downstream of SR 25 to 1,000 feet upstream of US 101.
- A 1-mile radius area, centered on the SR 25/SR 156 connection.
- The area between US 101 and Santa Teresa Boulevard northwest of the SR 25/US 101 connection.
- The area of farmland west of the Pajaro River and north of SR 25, encompassing the path of the proposed alignment.

Each site was surveyed 20 times over a two-year period by using 10-foot-wide corridors; all plant species encountered were documented. Multiple visits allowed for comprehensive coverage of the complete flowering and fruiting periods of each of the target species.

Generated document:

Botanical Survey Report for the Route 25 Widening and Rerouting Project from San Felipe Road to US Route 101 in San Benito and Santa Clara Counties, California. California State University, Sacramento. August 1, 2003.

2.2.4. Fish Passage Assessment

Fish passage involves the evaluation of stream crossings at roadways that frequently present barriers to the migration of the state's salmon and steelhead populations. The Department of Water Resources collected reconnaissance fish passage data on the Pajaro River bridge and the Carnadero bridge on SR 25 as a part of a district wide contract with Caltrans in 2007.

The fish passage assessment consisted of identification, survey, and assessment of potential fish passage culvert and bridge locations. This preliminary first pass fish passage information was done to identify culverts and bridges where further fish passage assessments are needed.

Caltrans is required to comply with regulations to protect sensitive and listed species by identifying sites that are an impediment to passage and to clearly identify corrective solutions to remedy the problem and ultimately include these in the project design.

2.2.5. Wetland Delineation

Dr. Baad conducted a wetland survey within the Route Adoption Alignment biological study area between July 1, 2002 and June 30, 2003. The wetland survey was performed following guidelines presented in the U.S. Army Corps of Engineers *1987 Wetlands Delineation Manual*. Wetland boundaries were delineated using the criterion of the presence of wetland hydrology, hydric soils and a dominance of hydrophytic vegetation.

Wetland data was collected on vernal pools, wetland swales, floodplain and riparian areas, pastures, intermittent streams, drainage ditches, and agricultural ditches. A *Wetlands Verification Report* was prepared by California State University, Sacramento to be submitted to the U.S. Army Corps of Engineers for verification.

The Army Corps requested that additional studies be conducted within two areas of the Route Adoption Alignment biological study area after submission of the *Wetlands Verification Report* for the SR 25 Safety and Operational Enhancement Project. This additional study included Area 3, on the northwest side of SR 25 just north of Hudner Lane, and Area 4, across from the Shore Road intersection with SR 25.

Generated documents:

Jurisdictional Wetland Survey Report for the SR 25 Highway Project from San Felipe Road to US 101 in San Benito and Santa Clara Counties, California. California State University, Sacramento, Department of Biological Sciences. July 1, 2003

Wetlands Verification Report. SR-25 Hollister to Gilroy Widening Project. Caltrans. March 2004

Wetland Delineation Report Highway 25 Safety and Operational Enhancements Project Areas 3 and 4. Denise Duffy & Associates, Inc., Monterey, California. September 2006.

2.2.6. Bird Surveys

Dr. Baad conducted the avian surveys in spring and summer of 2002 and 2003. Within the Route Adoption Alignment biological study area, a total of 4 monitoring "sites" were designated as potential habitat for one or more special-status bird species. At each site, auditory and visual surveys of all birds were conducted between dawn and 11:00 a.m. for a period of 60-90 minutes. The bird surveys followed the *Least Bell's Vireo Survey Guidelines*, (USFWS, 2001), except for Sites 3 and 4 because these areas were added after the initiation of the original study and time did not allow for the appropriate number of site visits.

Survey methodology for site 4 consisted of a series of slow, 90-minute, one-kilometer linear-transect censuses down the centerline of the Carnadero Creek bed. These transects were followed by an additional 60 minutes of quiet observation.

The following monitoring sites were surveyed:

- **Site 1:** 100 meters downstream and 300 meters upstream of the Carnadero Creek bridge at SR 25
- **Site 2:** 100 meters downstream and 100 meters upstream of the SR 25 crossing of the Pajaro River bridge
- **Site 3:** 200 meters downstream of the Carnadero Creek bridge at US 101
- **Site 4:** One kilometer linear transect along Carnadero Creek east of US 101 and site 3, ending at the railroad trestle over Carnadero Creek

Besides the target species, least Bell's vireo (*Vireo bellii pusillus*), observers maintained a watch for other bird taxa of interest—specifically bank swallow, tricolored blackbird, burrowing owl—and recorded all species observed.

Generated document:

Bird Survey Report for the SR 25 Widening and Rerouting Project from San Felipe Road to US Route 101 in San Benito and Santa Clara Counties, California. California State University, Sacramento, Department of Biological Sciences. August 15, 2003.

2.2.7. San Joaquin Kit Fox Surveys

In April 2003, the Endangered Species Recovery Program conducted surveys for the endangered San Joaquin kit fox (*Vulpes macrotis mutica*). A professionally trained scat detection dog was used to locate scats of three fox species: San Joaquin kit fox, red fox (*V. vulpes*), and gray fox (*Urocyon cinereoargenteus*).

The detection dog was trained with standard narcotic, cadaver, and search-and-rescue detection techniques, and had four years of experience in identifying scats of fox species prior to the start of the project. Although not part of any agency survey protocol, the U.S. Fish and Wildlife Service has approved the use of scat detection dogs for the presence San Joaquin kit fox in non-Caltrans projects.

The survey team consisted of the detection dog and two biologists (a dog handler and orienteer). Eight parcels adjacent to SR 25 with semi-natural habitat consisting of non-native grassland were surveyed. GPS was used to record survey times, routes, and activities. The dog was allowed to run ahead of the handler, off the leash, usually meandering along game trails, fence lines, or roads. This technique allowed for an approximately 25-meter-wide transect. All fox scats found were sent to the Genetics Laboratory at the Smithsonian Institution National Zoo in Washington, D.C., for DNA extraction and analysis to identify species.

In addition to the detection dog surveys, Caltrans biologists conducted San Joaquin kit fox night spotlight surveys in September and October 2001. Six nights of spotlighting were performed following methodologies according to the *CDFG Region 4 Approved Survey Methodologies for Sensitive Species* (Rempel and Presley, 1990). The spotlighting route included side roads adjacent to SR 25 and encompassed a minimum distance of 2 miles outside the Route Adoption Alignment biological study area. All species observed were recorded.

Generated document:

Detection Dog Surveys for the San Joaquin Kit Fox along SR 25, San Benito County, California. California State University, Stanislaus, Endangered Species Recovery Program. June 19, 2003.

2.2.8. Amphibians and Aquatic Reptile Surveys

Dr. Baad conducted the herpetological surveys in spring 2002 and from January to July in 2003. Surveys were conducted according to the *Survey Protocol for California Tiger Salamander* (*Ambystoma californiense*) (CDFG, 1997) and the *Guidance on Site Assessment and Field Surveys for California Red-legged Frogs* (*Rana aurora draytonii*) (USFWS, 1997). Western pond turtle (*Clemmys marmorata*) was also a target species during these surveys.

Careful visual surveys for egg masses and dip-netting with D-frame seines for amphibian larvae was conducted on April 20, 2002, in ditches and other small bodies

of water on either side of SR 25 within the Route Adoption Alignment biological study area. The permanent irrigation ditch located 0.8 mile south of Shore Road on Frazer Lake Road was also surveyed by seine.

On January 13, 2003, the entire length of SR 25 from Hollister to Gilroy was assessed for potential seasonal breeding ponds for California tiger salamander; that night, a noctural survey was conducted. Nocturnal spotlighting surveys were conducted by visiting each site (Table 2) with potential habitat for target species after dark; the surveyor walked the length of each pond or pool and carefully inspected each area and any associated upland holes or burrows with a headlamp.

On the evening of May 1, 2003, an auditory frog-call survey was conducted along SR 25 north of the intersection with SR 156 and south of US 101. The survey consisted of listening for 30 minutes at each irrigation ditch and at two sites on Carnadero Creek (50 meters upstream and 50 meters downstream of the SR 25 bridge) and on the Southern Pacific Railroad trestle over the river. All frog species audibly detected were recorded.

Table 2: California Tiger Salamander survey sites

Site #	Miles North from Southern End of SR 25	Description of Survey Point
1	1.7	Vernal pool on west side of SR 25
2	2.1	Small vernal pool on west side of SR 25
3	2.65	Intersection of SR 25 and 156
4	6.1-6.8	Deep irrigation ditch on west side of SR 25
5	6.8	Vernal pool on west side of SR 25
6	7.3-8.1	Small pools on east side between SR 25 and fence
7	7.4	Small vernal pool on west side of SR 25
8	8.8	Pajaro River
9	10.3	Carnadero Creek

On the mornings of June 15, June 23 and July 23, 2003, standing water bodies within the Carnadero Creek bed between SR 25 and US 101 were surveyed visually for amphibians and amphibian larvae following bird surveys conducted at the same sites.

In addition biologists Zachary Parker (Caltrans) and Erin Harwayne (Denise Duffy and Associates, Inc.) conducted a California tiger salamander upland and breeding

habitat evaluation within a 2-kilometer radius on August 4, 2004 for the SR 25 Safety and Operational Enhancement Project.

Generated document:

Herpetological Survey Report for the SR 25 Widening and Rerouting Project from San Felipe Road to US Route 101 in San Benito and Santa Clara Counties, California. California State University, Sacramento, Department of Biological Sciences. August 15, 2003.

2.2.9. Vernal Pool Branchiopod Surveys

One dry-season survey and one wet-season survey were conducted for vernal pool branchiopods generally following the Interim Survey Guidelines to Permittees for Recovery Permits under Section 10 (a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (USFWS, 1996).

Dry-season Sampling

Helm Biological Consulting conducted dry-season sampling in the summer of 2002. The dry-season survey consisted of collecting soil from the basins of suitable depressions that could support large branchiopod species. A minimum of 10 soil sub-samples was collected from the lower topographic portion of each suitable basin using a hand trowel. These sub-samples were approximately 5 centimeters square by 1 centimeter deep. In the laboratory, the following methods were used to process and analyze:

- Soil material was placed in a large container and filled with water.
- Soil material was gently worked by hand to break down persistent soil structure.
- Table salt was added to form a brine solution.
- Organic material that rose to the top was skimmed off and placed in a 900 micron pore-size sieve stacked atop a 75 micron pore-size sieve.
- Soil material in the top sieve was flushed with lukewarm water while gently being rubbed with a soft-bristle brush.
- Soil material retained from the bottom sieve was removed and thinly spread into Petri dishes.
- Petri dish contents were examined under a 10- to 240-power zoom binocular microscope for a minimum of 30 minutes each for identification.

Wet-season Surveys

Wet-season sampling was conducted in the winter of 2002/2003. The surveys consisted of dip netting all suitable depressions with ponded water 1 inch or greater. Sampling occurred at approximately 2-week intervals from the time the habitats first ponded water until they dried. All organisms collected were identified, and the non-branchiopod species were released back into their habitat. The branchiopod specimens were preserved in 80% ethyl alcohol and later examined in the laboratory. All branchiopods specimens were identified to species level in the laboratory.

Generated documents:

Large Branchiopod (Fairy Shrimp) Survey Report for the SR 25 Widening Project from San Felipe Road to US Route 101 in San Benito and Santa Clara Counties, California. California State University, Sacramento, Department of Biological Sciences. June 15, 2003.

2.3. Personnel and Survey Dates

Table 3 lists all biological surveys conducted for the SR 25 Widening Project and the SR 25 Safety and Operational Enhancement Project. Surveys were conducted by specialists or qualified biologists employed by Caltrans, California State University, Sacramento, the Endangered Species Recover Program, Helm Biological Consulting, and Denise Duffy and Associates, Inc.

Table 3: Personnel and Survey Dates

Survey Description	Date	Personnel
San Joaquin kit fox spotlighting	26 September 2001 01 October 2001 02 October 2001 03 October 2001 09 October 2001 10 October 2001	Caltrans biologists and assistant personnel
Botanical reconnaissance	25 March 2002	California State University, Sacramento
Habitat assessment for California tiger salamander, and California red-legged frog	28 March 2002	California State University, Sacramento
Habitat assessment for target bird species	28 March 2002 7 June 2002	California State University, Sacramento
Botanical surveys	28 March 2002 13 April 2002 3, 12, 30 May 2002 12, 30 June 2002 10, 18, 25 July 2002 30 March 2003 10, 30 April 2003 2, 14, 28 May 2003 12, 24 June 2003 2, 20 July 2003	California State University, Sacramento
Amphibian and aquatic reptile seine survey	20 April 2002	California State University, Sacramento
Bird surveys	20 April 2002 19, 28 May 2002 7, 19, 29 June 2002 9, 19 July 2002 15, 23 June 2003 23 July 2003	California State University, Sacramento
Vernal pool branchiopod dry-season survey	August 2002	Helm Biological Consulting
Vernal pool branchiopod wet-season surveys	13, 28 December 2002 12, 26 January 2003 8 February 2003	California State University, Sacramento, Helm Biological Consulting
California tiger salamander habitat evaluation and spotlight survey	13 January 2003	California State University, Sacramento
San Joaquin kit fox detection dog surveys	14-18 April 2003	Endangered Species Recovery Program
Amphibian auditory survey	1 May 2003	California State University, Sacramento
Wetland delineation	15 May 2003 15, 17, 18 June 2003	California State University, Sacramento
Amphibian and aquatic reptile visual survey	15, 23 June 2003 23 July 2003	California State University, Sacramento
California tiger salamander upland and breeding habitat evaluation	4 August 2004	Caltrans, Denise Duffy and Associates, Inc.
Wetland delineation	23 March 2006 25 April 2006 23 May 2006	Denise Duffy and Associates, Inc.

2.3.1. Biological Survey Personnel

Below are the individuals who conducted the surveys listed in Table 3.

Caltrans

Carrie Blickenstaff
Jo Dankosky
David Hyatt
Cheryl Johnson
Kristen Merriman
Zachary Parker
Nancy Siepel

California State University, Sacramento

William Avery
Michael Baad
Dianna Beck
Kristi Lazar
Steven Stringer

Endangered Species Recovery Program

Howard Clark
Brian Cypher
Deborah Smith
Patrick Kelly

Denise Duffy and Associates, Inc.

Erin Harwayne
Josh Harwayne
Matt Johnson

Helm Biological Consulting

Brent Helm

2.4. Agency Coordination and Professional Contacts

A record of agency coordination and professional contacts during the course of the environmental studies for the proposed project is presented below in chronological order.

17 July 2001. Caltrans received the species list for San Benito County from the Ventura U.S. Fish and Wildlife Service.

08 August 2001. Caltrans biologist ran a search query from the Sacramento U.S. Fish and Wildlife Service species list database for the Chittenden and San Felipe U.S. Geological Survey 7.5-minute quads.

20 September 2001. Caltrans biologist David Hyatt informed U.S. Fish and Wildlife Service representative Ivana Noell by email that Caltrans staff would be conducting a preliminary survey within the SR 25 project and invited her to join them.

24 September 2001. Ms. Noell informed Mr. Hyatt that she would not be able to join them, but would like to go out on future field visits.

18 October 2001. Mr. Hyatt sent Ms. Noell an email with the raw data results of the kit fox spotlighting surveys.

08 January 2002. Caltrans received the species list for San Benito County from the Ventura U.S. Fish and Wildlife Service.

Unknown Date. Mr. Hyatt called Brian Mulvey of the National Marine Fisheries Service to discuss potential impacts to anadromous fish species; also discussed conclusion research and Essential Fish Habitat in the Biological Assessment report.

24 January 2002. Telephone conversation with Ms. Noell to discuss that California red-legged frog habitat assessment may increase to a 2-mile radius and that surveys may be a tiered approach or associated with species density. She also mentioned that there was an observation of California tiger salamander at the SR 129 and US 101 interchange.

27 January 2002. Telephone conversation with Ventura U.S. Fish and Wildlife Service representative Douglas Threloff and Mr. Hyatt noting that the two vernal pools that Caltrans intends to survey were filled with water sometime in mid-January.

07 February 2002. Mr. Hyatt received the species list for the Chittenden and San Felipe U.S. Geological Survey 7.5-minute quad and Santa Cruz, Santa Clara, and San Benito counties from the Ventura U.S. Fish and Wildlife Service.

09 February 2002. Mr. Hyatt requested authorization from the U.S. Fish and Wildlife Service to begin wet-season surveys for federally listed vernal pool branchiopods.

27 February 2002. Mr. Threloff sent a fax to Mr. Hyatt commenting on the attached map to the authorization request. The fax informed him that the polygon was delineated by Bob Holland and he mapped only vernal pools that collectively measured at least 10 acres in size. And it is therefore possible that several smaller pools exist in the project area and should also be surveyed to determine presence/absence of fairy shrimp.

05 March 2002. Mr. Hyatt received a letter from Mr. Threloff authorizing the collection of listed branchiopods along SR 25 after March 4, 2002. The letter noted that the U.S. Fish and Wildlife Service cannot recognize the 2002 wet-season surveys because pools were inundated 4-6 weeks prior to initiation of surveys and that Caltrans should initiate efforts to completely identify and map all vernal pool habitats that may be affected by the project.

14 March 2002. Mr. Hyatt requested authorization from the U.S. Fish and Wildlife Service to begin dry-season sampling for federally listed vernal pool branchiopods immediately upon receipt of U.S. Fish and Wildlife Service permission.

07 May 2002. Left message with Mr. Threloff to ascertain when the dry-season sampling for fairy shrimp would occur; Brent Helm needs the information.

08 May 2002. Mr. Threloff called back and stated that he received the task order study, but he wanted more information on the location of vernal pools.

28 May 2002. Telephone conversation with Mr. Threloff. He stated that the fairy shrimp dry sampling letter would be sent out at the close of business that day. He also requested that Caltrans fax him possible locations of vernal pool placement along SR 25. Fax was completed.

U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service Coordination for the SR 25 Safety and Operational Enhancement Project (within the study area of the Route Adoption Alignment)

19 September 2005. Consultation letter set to the U.S. Fish and Wildlife Service for the SR 25 Safety and Operational Enhancement Project by the U.S. Army Corps of Engineers (lead agency). Consultation was for a review of the following species: California red-legged frog, California tiger salamander, San Joaquin kit fox, least bell's vireo, and listed vernal pool branchiopods.

28 July 2006. Hal Durio of the U.S. Army Corps of Engineers sent Julie Niceswanger of U.S. Fish and Wildlife Service an email inquiring on the progress on the Section 7 consultation for the SR 25 Safety and Operational Enhancement Project. Mr. Durio stated in the email that based on an evaluation of the information provided by Caltrans, the U.S. Army Corps of Engineers concluded that the project may affect but is not likely to adversely affect the species listed above.

08 August 2006. Ms. Niceswanger responded to Mr. Durio and stated that she was working on a letter for the phase 1 portion of the project. She is working on a concurrence letter for only phase 1 and will subsequently need to complete a Biological Opinion for phases 2 and 3. Phase 4 is in Santa Clara County and falls within the Sacramento office jurisdiction. She planned to have the concurrence letter completed for review that day.

05 September 2006. Letter from U.S. Fish and Wildlife Service regarding the SR 25 Safety and Operational Enhancement Project. The U.S. Fish and Wildlife Service was able to concur only with phase 1 of the proposed project. The U.S. Fish and Wildlife Service was not able to concur with phases 2 or 3 because the California tiger salamander was found within dispersal distance of those phases.

20 September 2006. Caltrans submitted a request for U.S. Army Corps of Engineers permit authorization and wetland verification for the SR 25 Safety and Operational Enhancement Project.

30 November 2006. Mr. Durio provided Caltrans biologist Carrie Blickenstaff the concurrence letter from U.S. Fish and Wildlife Service for phase 1 of the SR 25 Safety and Operational Enhancement Project. Mr. Durio provided a list of native grass species that should be added to the erosion control seed mix upon completion of construction.

06 December 2006. Caltrans received Nationwide Permit authorization and Wetland Verification for the SR 25 Safety and Operational Enhancement Project.

2.5. Limitations That May Influence Results

Caltrans originally initiated this project in 2001, and biological studies began in the fall of that year. Since then, the project has undergone multiple design changes. These changes have led to the postponement of the environmental document to a draft target date of January 2009. Since the initiation of biological studies, a species has been listed as threatened by the U.S. Fish and Wildlife Service and presence/absence protocols have been updated. By the time portions of the Route Adoption Alignment become a funded project, many of the biological studies may need to be redone.

The herpetological surveys were conducted in 2002 and 2003, before the federal listing of California tiger salamander as threatened and before the release of the *Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (USFWS, 2003). Therefore, surveys were conducted using the California Department of Fish and Game *Survey Protocol for California Tiger Salamander (Ambystoma californiense), Inland Fisheries – Information Leaflet No. 44* (not dated). The new guideline outlines survey protocol required to determine the presence or absence of California tiger salamander, which allows the U.S. Fish and Wildlife Service to concur with negative findings. California tiger salamander surveys should be redone for future Tier II environmental documents for the projects within the footprint of the Route Adoption Alternative selected.

In addition, the U.S. Fish and Wildlife Service released revised guidance for assessing the presence or absence of California red-legged frog in August 2005. The U.S. Fish and Wildlife Service has determined that the survey portion of the 1997 guidance is less likely to accurately detect the California red-legged frog than previously thought. As a result, the conclusions of the Herpetological Report may not be considered valid by the U.S. Fish and Wildlife Service. California red-legged frog surveys should be redone for the future construction projects within the Route Adoption Alignment.

The Wetland Verification received on December 6, 2006 from the U.S. Army Corps of Engineers would most likely be expired and need renewal by the time a segment of the Route Adoption Alignment is funded. This could require that additional wetlands

be delineated or additional data be collected under the new Arid West manual for the Route Adoption Alignment.

The bird surveys followed the *Least Bell's Vireo Survey Guidelines*, (USFWS, 2001), except for at Sites 3 and 4 because these areas were added after the initiation of the original study and time did not allow for the appropriate number of site visits. The U.S. Fish and Wildlife Service has asked Caltrans to resurvey for least bell's vireo for projects in Monterey County due to an increase in the species population. Least bell's vireo surveys may need to be redone for the Route Adoption Alignment at least at Sites 3 and 4.

The survey report for vernal pool branchiopod surveys states "methods generally followed" U.S. Fish and Wildlife Service Interim Survey Guidelines to Permittees for Recovery Permits under Section 10 (a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods (USFWS, 1996). This is because wet-season surveys revealed an additional five basins as suitable potential habitat for vernal pool branchiopods that were not identified during the dry-season sampling efforts (which occurred first). Also, dry-season sampling, which includes the identification of branchiopod cysts, cannot be used to determine presence/absence of *Branchinecta lynchi* when *B. lindahli* is present since their cysts cannot be distinguished from one another. The proposed Construction Project alternatives would not affect the potential habitat for vernal pool branchiopods, but the Route Adoption Alignment alternatives could. Vernal pool branchiopod surveys should be redone for the Route Adoption Alignment future construction projects.

Chapter 3. Results: Environmental Setting

This chapter provides an evaluation of the environment where the proposed project occurs. This evaluation describes the project setting, including the study area, topographical features, soil types, water features, biological resources, and levels of human and/or natural disturbance.

3.1. Description of the Existing Biological and Physical Conditions

3.1.1. Study Area

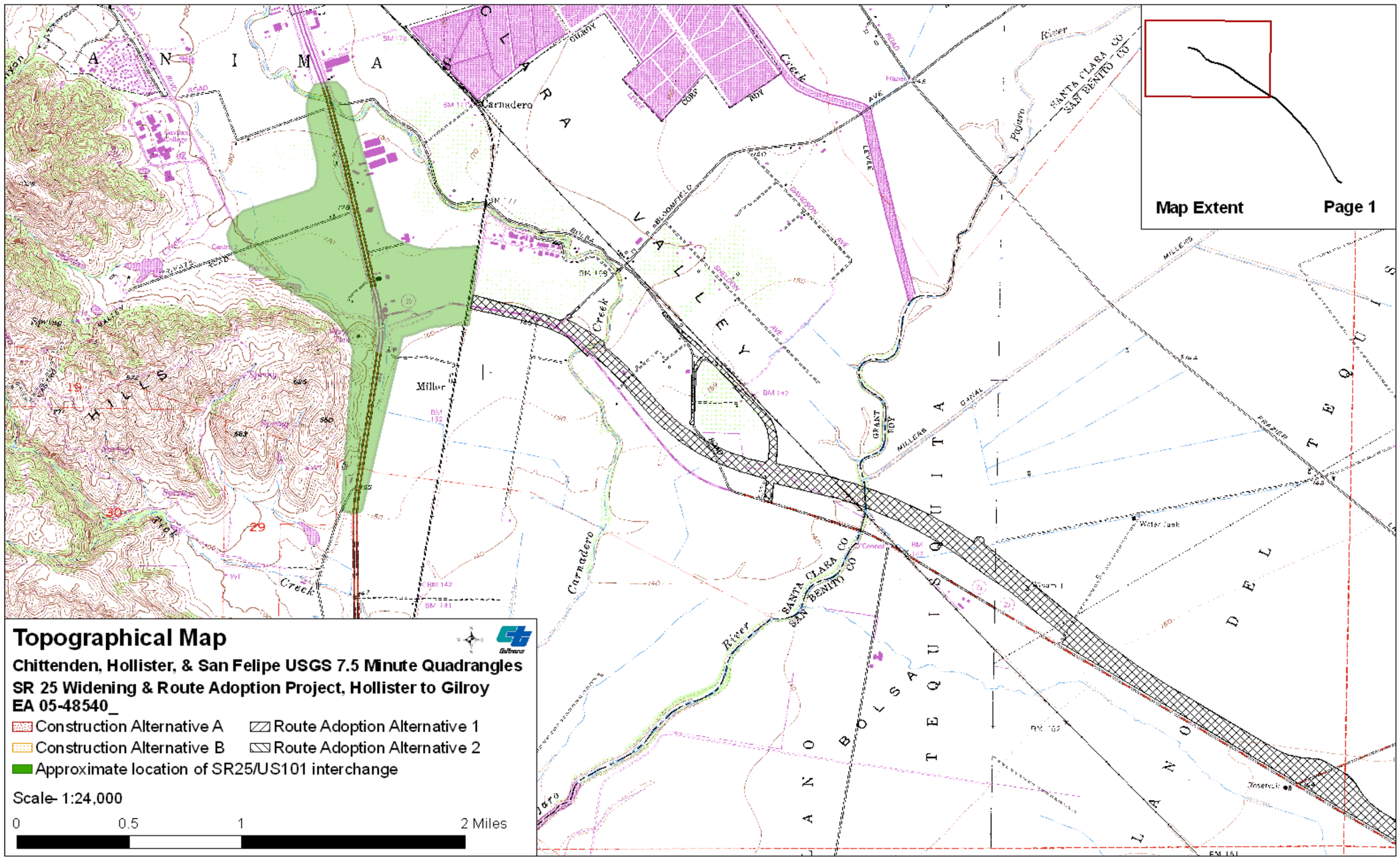
As stated in Chapter 2, this NES describes two biological study areas: one for the Route Adoption Alignment alternatives and one for the Construction Project alternatives. The Route Adoption Alignment biological study area was defined as the project impact area (area to be directly affected) for Alternatives 1 and 2 plus adjacent areas that may be indirectly affected by the Route Adoption Alignment. The Construction Project biological study area was defined as the project impact area for Alternatives A and B plus adjacent areas that may be indirectly affected by the Construction Project. Adjacent study areas within the biological study areas that may be indirectly affected by the proposed projects include an approximate 7-mile radius around each of the project impact areas.

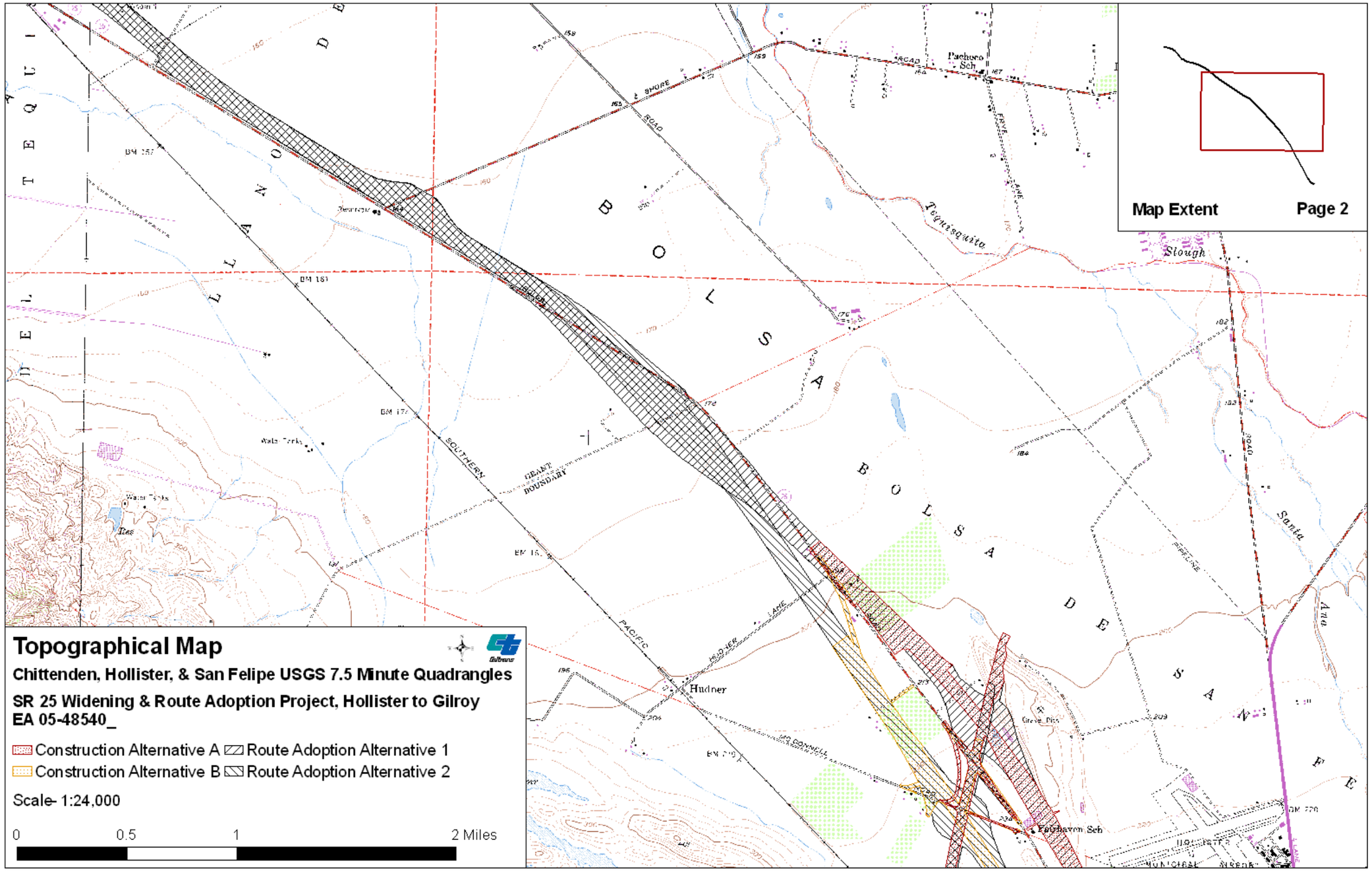
3.1.2. Physical Conditions

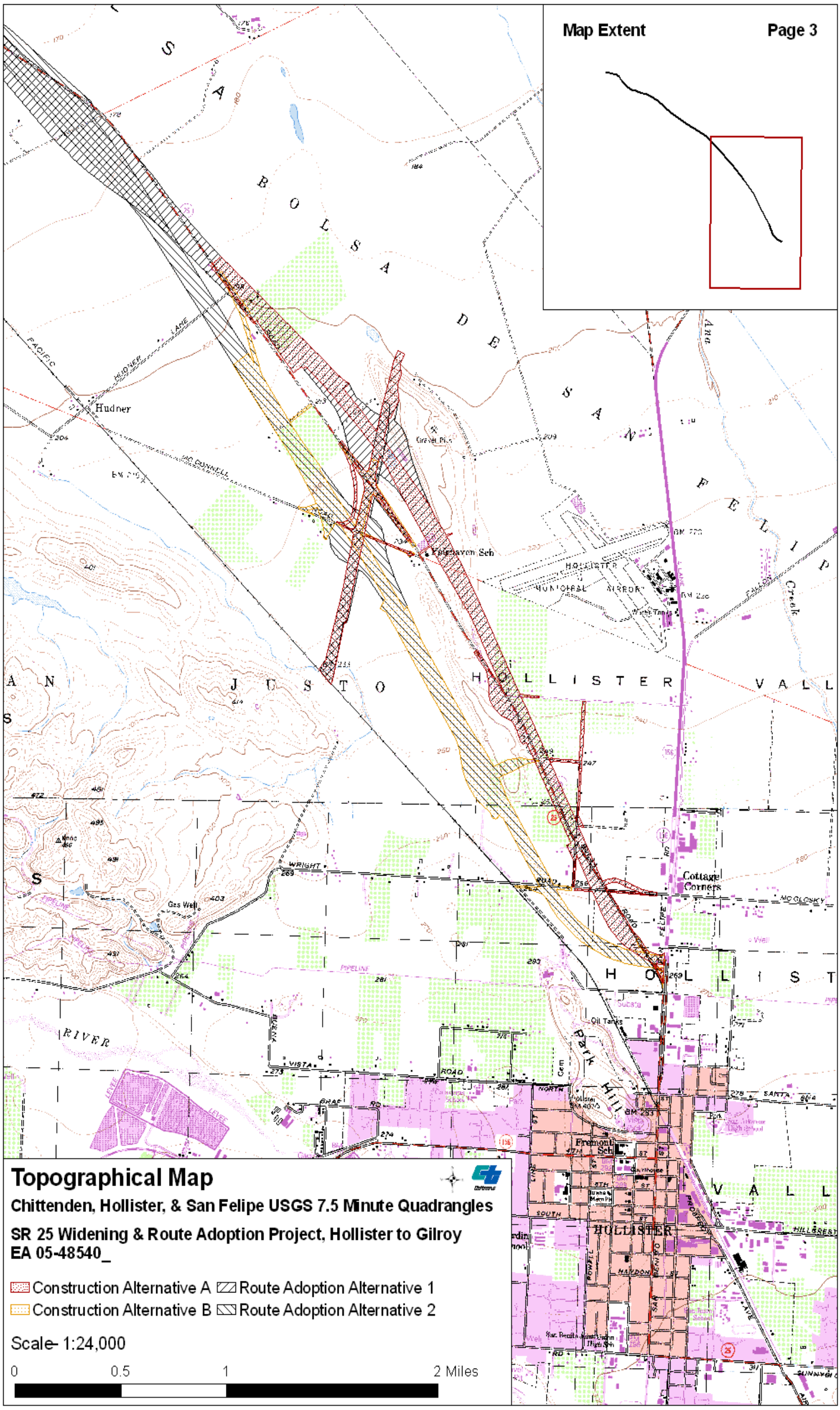
The Route Adoption Alignment and the Proposed Construction Project are located along SR 25 through the virtually level Hollister and Santa Clara valleys. The Route Adoption Alignment alternatives are 11.2 miles long, extending through the Hollister, San Felipe, and Chittenden U.S. Geological Survey 7.5-minute quadrangles. The Proposed Construction Project alternatives are 3.8 miles long and extend through the San Felipe and Chittenden U.S. Geological Survey 7.5-minute quadrangles. The elevation ranges from 140-270 feet above mean sea level. Figure 3 includes the topographical maps of the study area with the project site shown.

The Santa Cruz Mountains, the Gabilan Mountain Range, and the Diablo Mountain Range surround the area. Residences, retail businesses, and agriculture-related commercial operations are more concentrated on the outskirts of the cities of Gilroy and Hollister. This is a highly productive region of row crops and orchards, including strawberries, lettuce, onions, and garlic. Aerial photographs of the study area with photo point locations are included in Appendix D, and photographs are included in Appendix E.

Figure 3: Topographical Maps




Map Extent
Page 2
Topographical Map
Chittenden, Hollister, & San Felipe USGS 7.5 Minute Quadrangles
SR 25 Widening & Route Adoption Project, Hollister to Gilroy
EA 05-48540_
Construction Alternative A
Route Adoption Alternative 1
Construction Alternative B
Route Adoption Alternative 2
Scale- 1:24,000
0
0.5
1
2 Miles
Hudner
Pacheco Sch
Tequisquite
Slough
Santa
Ana
BOLSA DE SAN FELIPE
BOLSA DE LAS TEQUILLAS
SOUTHERN
PACIFIC
GREAT BOUNDARY
SHORE
ROAD
HOLLISTER
LANE
McCONNELL
SPRING
Water Tanks
Tres


Map Extent
Page 3
Hudner
Cottage Corners
HOLLISTER
Fremont Sch
Topographical Map
Chittenden, Hollister, & San Felipe USGS 7.5 Minute Quadrangles
SR 25 Widening & Route Adoption Project, Hollister to Gilroy
EA 05-48540_
Construction Alternative A
Route Adoption Alternative 1
Construction Alternative B
Route Adoption Alternative 2
Scale- 1:24,000
0
0.5
1
2 Miles

3.1.2.1. CLIMATE

San Benito County has a moderate and relatively dry climate. Temperatures are occasionally high (maximum 105° Fahrenheit), but high temperatures are infrequent in the project area. The average maximum temperature is 71° Fahrenheit, and the average minimum is 46° Fahrenheit; extremely low temperatures are rare. Precipitation is generally light; the average annual precipitation is 13.6 inches, which comes in the form of winter rain (Soil Conservation Service (SCS) 1969).

3.1.2.2. SOILS

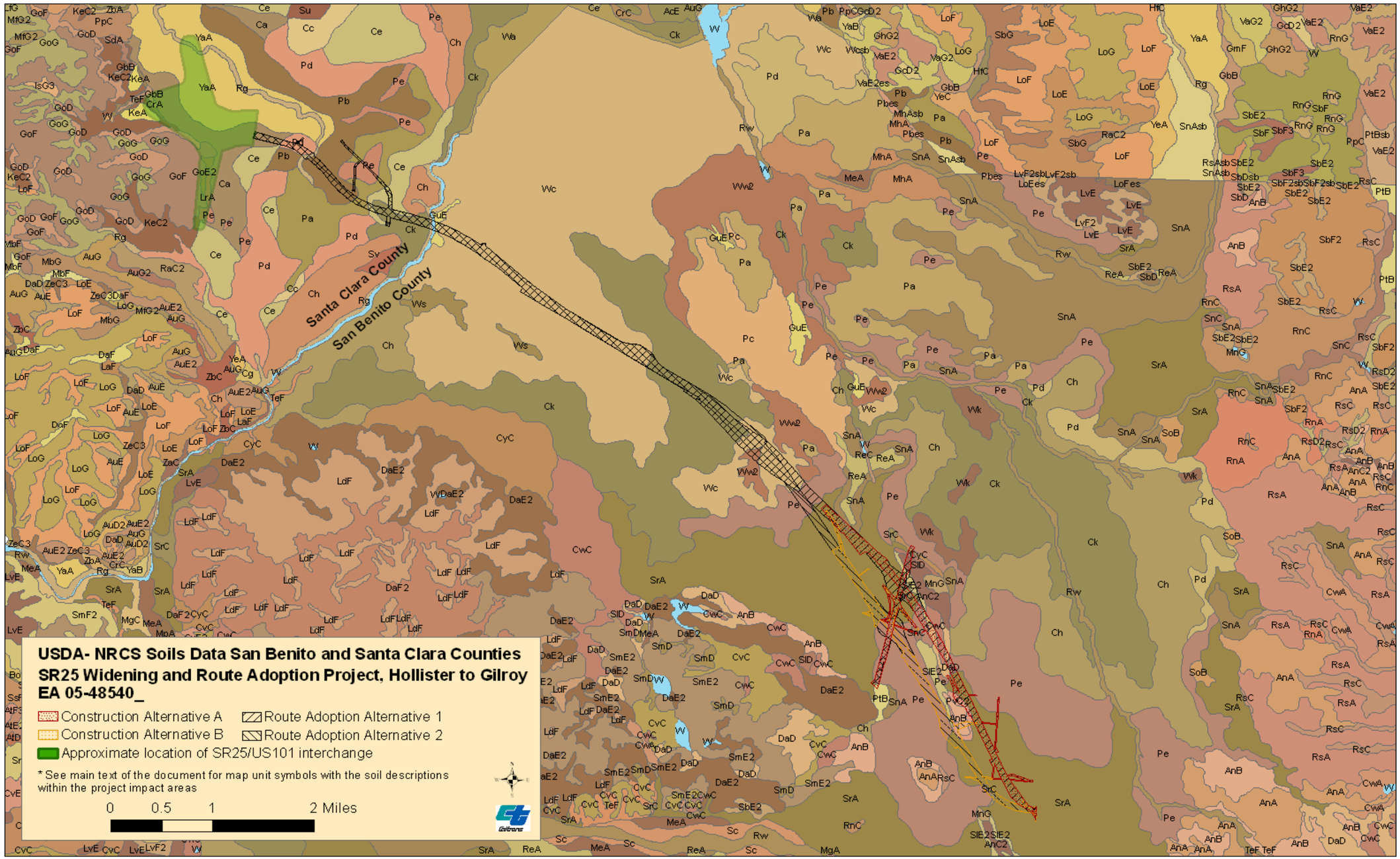
Soil associations in the biological study areas include the well-drained Sorrento-Yolo-Macho association and the poorly drained Clear Lake-Pacheco-Willows association in San Benito County, as well as the poorly drained Clear Lake-Pacheco-Sunnyvale association in Santa Clara County (SCS 1969). Soil associations in the study area were formed on floodplains, on alluvial fans, and in basins.

Following are lists of the soils that occur in the project impact areas (Santa Clara Country and San Benito County); the list includes each soil's Map Unit Symbol and a notation of whether they are listed as hydric soils by the Natural Resources Conservation Service. See Figure 4 for a soils map of the study area.

Santa Clara County

Ca-Campbell silty clay loam, hydric
Ce-Campbell silty clay, muck substratum, hydric
Ck-Clear Lake clay, saline, not listed as hydric in Santa Clara County, but is hydric in San Benito County
Pa-Pacheco fine sandy loam, hydric
Pb-Pacheco silt loam, drained, hydric
Pd-Pacheco clay loam, hydric
Pe-Pacheco clay loam, gravelly substratum, hydric
Rg-Riverwash, hydric

Figure 4: Soils of the Study Area



San Benito County

AnB-Antioch loam, 2 to 5 percent slopes
AnC2-Antioch loam, 5 to 9 percent slopes, eroded
Ck-Clear Lake clay, saline, hydric
CwC-Cropley clay, 2 to 9 percent slopes, hydric
CyC-Cropley silty clay loam, 2 to 9 percent slopes
DaD-Diablo clay, 9 to 15 percent slopes
GuE-Gullied land
Pe-Pacheco silty clay
PtB-Pleasanton loam, 2 to 5 percent slopes
PvC2-Pleasanton gravelly loam, 5 to 9 percent slopes, eroded
SlD-Soper gravelly loam, 9 to 15 percent slopes
SlE2-Soper gravelly loam, 15 to 30 percent slopes, eroded
SnA-Sorrento silt loam, 0 to 2 percent slopes
SnC-Sorrento silt loam, 2 to 9 percent slopes, hydric
SrA-Sorrento silty clay loam, 0 to 2 percent slopes, hydric
SrC-Sorrento silty clay loam, 2 to 9 percent slopes, hydric
Wc-Willows clay, hydric
Ww2-Willows soil, eroded, hydric

The Campbell and Clear Lake series found in Santa Clara County consist of soils that have developed in alluvium from material derived from sedimentary rock, The Campbell series consists of somewhat poorly drained silty clay loams. The Clear Lake series consists of poorly drained clays.

The Pacheco series also found in Santa Clara County consists of poorly drained clay loams that are underlain by sedimentary alluvium. Riverwash is a mixture of sand, gravel, and cobblestones that contain little or no silt and clay (SCS 1974).

The project impacts areas include various soil series that have a wide range of drainage types, with the majority of them occurring in San Benito County (SCS 1969):

- The Antioch series has moderately well-drained soils formed in alluvium derived from a wide range of sedimentary rocks.
- The Clear Lake series has poorly drained soils that are clayey and formed in alluvium washed from sedimentary rocks.
- The Cropley series consists of well-drained clayey soils underlain by a coarser textured material at depths greater than 40 inches.

- The Diablo series consists of well-drained clayey soils that are underlain by calcareous soft sandstone and shale at depths greater than 30 inches.
- Gullied land consists of alluvial areas that have been very severely damaged by natural erosion and gullying.
- The Pacheco series consists of somewhat poorly drained loamy soils that are underlain by stratified alluvium at depths greater than 50 inches.
- The Pleasanton series has well-drained loamy and gravelly loamy soils that are underlain by stratified alluvium at a depth of more than 48 inches.
- The Soper series consists of well-drained loamy soils that are underlain by stratified, semiconsolidated sand and gravel at a depth of 30 to 48 inches.
- The Sorrento series consists of well-drained, loamy soils that formed in alluvium derived from calcareous sandstone and shale.
- The Willows series consists of poorly drained, generally clayey, nearly level soils that formed on floodplains in alluvium derived from sandstone and shale.

3.1.2.3. WATERSHED

The Pajaro River and the Carnadero Creek cross SR 25 near the northwestern end of the Route Adoption Alignment biological study area.

The Pajaro River is the largest coastal stream between San Francisco Bay and the Salinas watershed. The Pajaro River watershed is approximately 1,300 square miles with multiple tributaries that comprise its water source (RMC 2002). Pacheco Creek, Tequisquita Slough, and Ortega Creek from the Diablo Mountain Range join at San Felipe Lake before flowing downstream and becoming the Pajaro River. The Llagas Creek, from Gilroy, enters the Pajaro River just north of the study area. The Pajaro River travels southwesterly from the study area and is joined by additional tributaries such as the Carnadero Creek, Coward Creek and Pescadero Creek from the Santa Cruz Mountains, before entering the Pacific Ocean. The mouth of Pajaro River is in the Monterey Bay at the Zmudowski Beach State Park, about 3 miles north of Moss Landing.

The Carnadero Creek is labeled Uvas Creek upstream of the US 101 crossing, which originates on the east side of the Santa Cruz Mountains. Before Carnadero Creek enters the Pajaro River, it is joined by Tar Creek, Tick Creek and Gavilan Creek, which also originate in the east side of the Santa Cruz Mountains.

3.1.3. Biological Conditions in the Biological Study Area

The landscape throughout the Route Adoption Alignment biological study area and the Proposed Construction Project biological study area have been converted to agriculture with light development near Hollister. A few parcels within the agricultural lands have not been converted and have retained their value to local wildlife and native plants as annual grassland with intermittent wetlands. Within the Route Adoption Alignment biological study area, aquatic and riparian habitat exists within the Pajaro River and Carnadero Creek.

3.1.3.1. DEVELOPED

The developed areas within the biological study areas are defined as residential and commercial structures, paved and dirt roadways, and some associated urban disturbance. Some disturbed but vegetated areas were seen to support plant species such as wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*) or other ornamental plants. Common and abundant wildlife that readily use developed areas include rock dove (*Columba livia*), mourning dove (*Zenida macroura*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), and Virginia opossum (*Didelphis virginiana*).

3.1.3.2. AGRICULTURAL

Most of the biological study areas are composed of highly productive row crops. These include strawberries, lettuce, onions, and garlic as well as orchards of walnut and stone fruits. These areas are highly maintained and likely receive regular rodenticide, herbicide, insecticide and/or fertilizer treatments significantly reducing the natural resource values. Some weedy plant species are able to persist along the access roads: tumbleweed (*Amaranthus albus*), rayless pineapple weed (*Chamomilla suaveolens*), cudweed (*Gnaphalium canescens* ssp. *beneolens*), and English plantain (*Plantago lanceolata).* Despite the regular agricultural disturbances, the following wildlife species can use these lands: American crow, western scrub jay (*Aphelocoma californica*), killdeer (*Charadrius vociferous*), house finch (*Carpodacus mexicanus*), and skunk (*Mephitis mephitis*).

3.1.3.3. NON-NATIVE GRASSLANDS

Some isolated areas within the biological study areas have not yet been converted to orchards or row crops and remain grasslands used as pasture. There are also areas that appear to have been cultivated, but have been allowed to lay fallow where grassland species now dominate. These grassland and pasture vegetative communities have

vernal pools or other seasonal wetlands associated with them (see Section 3.1.3.4 below).

Dominant grass species found in this habitat type include soft chess, ripgut brome, wild oat, and Italian ryegrass (*Lolium multiflorum*). Non-native forbs associated with this community include field mustard (*Brassica rapa*), red-stemmed filaree (*Erodium cicutarium*), cutleaf geranium (*Geranium dissectum*), and star thistle (*Centaurea solstitialis*). The native forbs or wildflowers seen in colorful displays in spring include owl's clover (*Castilleja exerta*), fiddleneck (*Amsinckia menziesii*), and California poppy (*Eschscholzia californica*).

Annual grasslands offer wildlife species wide-open habitat for foraging, burrowing or grazing. This habitat is valuable within the agricultural community as a food source for domestic livestock. Many avian species use grasslands for foraging on small mammals, insects and vegetation. Bird species seen onsite include mourning dove, western scrub jay, red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*). Common mammals known to use grasslands for burrowing and feeding on vegetation include California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus aubudonii*), American badger (*Taxidea taxus*), and mule deer (*Odocoileus hemionus*). Amphibians use small mammal burrows as refuge sites; such species can include California tiger salamander, western toad (*Bufo boreas*), and western spadefoot (*Spea hammondii*). Predatory species such as coyote (*Canus latrans*), gopher snake (*Pituophis catenifer*) and western rattlesnake (*Crotalus viridis*) regularly prey upon burrowing small mammals in grassland habitats.

3.1.3.4. WETLANDS

Various types of wetlands were found in the biological study areas' isolated grasslands, including floodplain, ephemeral pools adjacent to the highway, bermed pasture, intermittent streams, saline pools, and drainage ditches.

One pasture has been graded and sloped to accelerate drainage toward one end of the field where a berm holds the water longer into the growing season and vernal pool vegetation such as goldfields (*Lasthenia fremontii*), brassbuttons (*Cotula coronopifolia*), and popcorn flower (*Plagiobothrys stipitatus*) are present.

Another wetland area consists of alkaline pools scattered throughout grasslands dominated by wetland plants such as salt grass (*Distichlis spicata*), alkali heath (*Frankenia grandiflora*), rabbitsfoot grass (*Polypogon monspeliensis*), and dwarf barley (*Hordeum depressum*). The drainage ditches that are not sprayed or dredged

receive enough irrigated flow to support wetland vegetation such as glaucous willow herb (*Epilobium glaberrimum*), poison hemlock (*Conium maculatum*), and cattails (*Typha latifolia*).

Seasonal wetlands in the biological study area provide habitat for vernal pool branchiopods such as versatile fairy shrimp (*Branchinecta lindahli*), and alkali fairy shrimp (*Branchinecta mackini*). A seasonal pool was found to be potential breeding habitat for California tiger salamander, along SR 25 between Hollister and SR 156. Pacific treefrogs were found using most of the seasonal wetlands in the biological study areas.

3.1.3.5. RIPARIAN

The Pajaro River and Carnadero Creek support narrowly confined corridors of southern cottonwood-willow riparian forest (Holland, 1986). Riparian vegetation within these drainages includes white alder (*Alnus rhombifolia*), Oregon ash (*Fraxinus latifolia*), California walnut (*Juglans californica*), sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), and Arroyo willow (*S. lasiolepis*). The understory is characterized by California wild grape (*Vitis californica*), stinging nettle (*Urtica holosericea*), poison oak (*Toxicodendron diversilobum*), and Himalayan blackberry (*Rubus discolor*).

These areas have significant biological habitat value, providing essential breeding and nesting sites, pathways for species movement, as well as potential foraging opportunities for wildlife. Songbirds found associated with this community include Pacific-slope flycatcher (*Empidonax difficilis*), brown-headed cowbird (*Motothrus ater*), western tanager (*Pranga ludoviciana*), and black phoebe (*Sayorni nigricans*). Other avian species that regularly use riparian habitat that were identified onsite include red-shouldered hawk (*Buteo lineatus*), great blue heron (*Ardea herodias*), mallard (*Anas platyrhynchos*), and great egret (*Ardea alba*).

3.1.3.6. AQUATIC

Aquatic habitat includes water within the bed of the Pajaro River, Carnadero Creek, and irrigation ditches within the Route Adoption Alignment biological study area. These waterways support freshwater fish, anadromous fish, aquatic insects, crustaceans, and aquatic plants.

The Pajaro River and Carnadero Creek have been designated by National Marine Fisheries Service, as critical habitat for the South-Central California steelhead

(*Oncorhynchus mykiss*) Evolutionary Significant Unit. Other native fish species occurring in these waters can include Pacific lamprey (*Lampertra tridentata*), Monterey roach (*Lavinia symmetricus subditus*), and threespine stickleback (*Gasterosteus aculeatus*). Non-native fishes can also inhabit the rivers and creeks such as mosquito fish (*Gambusia affinis*), blue gill (*Lepomis macrochirus*), and inland silverside (*Menidia beyllina*).

Amphibians are likely to occur in or adjacent to waterways, which may include western toad, Pacific treefrog (*Hyla regilla*), and non-native bullfrog (*Rana catesbeiana*). In addition, bats and birds will secondarily use aquatic habitat for foraging on flying insects attracted to open water.

Western pond turtles were seen basking along the water margins in a large deep irrigation ditch near SR 25 near Frazier Lake Road.

3.1.4. Summary of Potential Habitat Impacts

Table 4 summarizes potential impacts within the alternative project impacts areas to the existing biological conditions discussed above. Habitats include non-native grassland, agricultural, developed, wetland, riparian, and aquatic. Wetland, riparian, and aquatic habitats are combined in the table under "waters." Existing roads and their associated shoulders offer little to no habitat value for wildlife, but make up the remaining acres within the alternative project impact areas.

Table 4: Summary of Potential Habitat Impacts

Habitat Type	Impact Area (acres)			
	Alternative 1	Alternative 2	Alternative A	Alternative B
Non-native grassland	141.74	64.75	66.88	6.13
Agricultural	553.33	616.59	142.13	186.78
Developed	23.9	7.45	17.73	4.23
Waters	5.76	5.74	0.02	0
Roadways	58.84	34.56	38.01	12.91
Total Project Impact Area	783.57	729.09	264.77	210.05

3.1.5. Migration Corridors

The Pajaro River and Carnadero Creek have dense riparian cover that offers wildlife a corridor for movement between the Santa Cruz Mountains and the Diablo Mountain Range. This river and creek offer the only areas for wildlife to safely migrate though open agricultural land that receives constant human disturbance.

Information from the 101 Widening Project team noted that motion-sensor cameras were used at potential wildlife undercrossings for wildlife movement studies by biologists for the US 101 Widening Project in San Benito County. Images captured at the Pajaro River under US 101 bridges indicated heavy movement by bobcats (*Lynx rufus*), black-tailed deer (*Odocoileus hemionus*), feral cats (*Felis catus*), brush rabbits (*Sylvilagus bachmani*), cottontails (*Sylvilagus aubudonii*), coyotes (*Canis latrans*), and striped skunks (*Mephitis mephitis*) (Caltrans, 2008). With this information, it can be inferred that the Pajaro River and Carnadero Creek make up a migration corridor for the same species within the Route Adoption Alignment biological study area.

3.1.6. Invasive Species

Many non-native species were identified in the biological study areas. Of those, five plant species are considered invasive. The official definition provided by Executive Order 13112 signed by President Bill Clinton (1999) states, "invasive species means an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health."

The biological study areas were evaluated for presence of invasive plant species based on the California Department of Food and Agriculture Noxious Weed List and the Federal Weed List. The following invasive plant species identified on the Noxious Weed List occur within the existing right-of-way: yellow starthistle (*Centaurea solstitialis*), white-top (*Cardaria pubescens*), Russian thistle (*Salsola tragus*), Bermuda grass (*Cynodon dactylon*), and puncture vine (*Tribulus terrestris*).

The project site does not contain any plant species listed on the Federal Weed List (updated June 30, 2006).

3.2. Regional Species of Concern

Table 5 lists species that were identified by in-office research (discussed in Section 2.2.1 of the previous chapter) as being potentially present in the Route Adoption Alignment biological study area and the Proposed Construction Project biological study area. It also discusses the species habitat requirements and whether or not those requirements are met within the biological study areas. Those species with potential habitat present within the biological study areas are discussed further in Chapter 4.

Table 5: Listed, Proposed, and Special-Status Species Potentially Occurring or Known to Occur in each of the Biological Study Areas

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Plants:							
Santa Cruz manzanita	*Arctostaphylos andersonii*	1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest openings, edges Blooming Period: Nov to April	A	Neither forest nor chaparral are present in the biological study area (BSA)	A	Neither forest nor chaparral are present in the BSA
Pajaro manzanita	*Arctostaphylos pajaroensis*	1B.1	Chaparral with sandy substrate Blooming Period: Dec-March	A	Chaparral is not present in the BSA	A	Chaparral is not present in the BSA
Alkali milk-vetch	*Astragalus tener* var. *tener*	1B.2	Playas, valley and foothill grasslands with adobe clay, vernal pools/alkaline Blooming Period: March-June	P	Although vernal pool grasslands are present in the BSA, the species was not observed during protocol-level surveys	P	Although vernal pool grasslands are present in the BSA, the species was not observed during protocol-level surveys
San Joaquin spearscale	*Atriplex joaquiniana*	1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland/alkaline Blooming Period: April-October	P	This species was observed during surveys	P	This species was observed during surveys
Big-scale balsamroot	*Balsamorhiza macrolepis* var. *macrolepis*	1B.2, HCP	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentinite Blooming Period: March-June	A	Chaparral and woodlands are not present in the BSA	A	Chaparral and woodlands are not present in the BSA
Round-leaved filaree	*California macrophyllum*	1B.1	Cismontane woodland, valley and foothill grassland/clay Blooming Period: March-May	A	Suitable woodlands and grasslands are not present in the BSA	A	Suitable woodlands and grasslands are not present in the BSA
San Benito evening primrose	*Camissonia benitensis*	FT, 1B.1	Serpentine-derived alluvial terraces Blooming Period: April-June	A	The BSA is outside of the known range of the species	A	The BSA is outside of the known range of the species
Tiburon Indian paintbrush	*Castilleja affinis* ssp. *neglecta*	ST, FE, 1B.2, HCP	Valley and foothill grasslands on serpentinite Blooming Period: April-June	A	Serpentinite soils not present in the BSA	A	Serpentinite soils not present in the BSA

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Pink creamsacs	*Castilleja rubicundula* ssp. *rubicundula*	1B.2	Chaparral, meadows and seeps, valley and foothill grassland/openings on serpentinite Blooming Period: April-June	A	Serpentinite soils not present in the BSA	A	Serpentinite soils not present in the BSA
Coyote ceanothus	*Ceanothus ferrisae*	FE, 1B.1, HCP	Chaparral, coastal scrub, valley and foothill grassland/openings on serpentinite Blooming Period: January-May	A	Serpentinite soils not present in the BSA	A	Serpentinite soils not present in the BSA
San Benito spineflower	*Chorizanthe biloba* var. *immemora*	1B.2, HCP	Chaparral, cismontane woodland Blooming Period: May-August	A	Habitat not present in the BSA	A	Habitat not present in the BSA
Santa Clara Valley dudleya	*Dudleya setchellii*	FE, 1B.1	Cismontane woodland, valley and serpentine foothill grassland in rocky outcrops Blooming Period: April-October	A	Although grasslands are present in the BSA, suitable serpentine rocky outcrops are not	A	Although grasslands are present in the BSA, suitable serpentine rocky outcrops are not
Pinnacles buckwheat	*Eriogonum nortonii*	1B.3	Chaparral, valley and foothill grassland/sandy, often on recent burns Blooming Period: May-August	A	Suitable grassland is not present in the BSA	A	Suitable grassland is not present in the BSA
Hoover's button-celery	*Eryngium aristulatum* var. *hooveri*	1B.1	Vernal pools, almost always occurs under natural conditions in wetlands Blooming Period: July	P	Although vernal pools are present in the BSA, the species was not observed during protocol-level surveys	P	Although vernal pools are present in the BSA, the species was not observed during protocol-level surveys
Fragrant fritillary	*Fritillaria liliacea*	1B.2, HCP	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland/often serpentinite Blooming Period: February-April	A	Suitable woodlands, coastal habitats, and grasslands are not present in the BSA	A	Suitable woodlands, coastal habitats, and grasslands are not present in the BSA
Loma Prieta hoita	*Hoita strobilina*	1B.1, HCP	Chaparral, cismontane woodland, riparian woodland/usually serpentinite; mesic. Santa Clara Valley Blooming Period: May-July	A	The BSA is outside of the current known distribution of the species	A	The BSA is outside of the current known distribution of the species

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Vernal barley	*Hordeum intercedens*	3.2	Coastal dunes, coastal scrub, valley and foothill grasslands with saline flats and depressions, vernal pools Blooming Period: March-June	P	Although habitat is present in the BSA, the species was not observed during surveys	P	Although habitat is present in the BSA, the species was not observed during surveys
Contra Costa goldfields	*Lasthenia conjugens*	FE, 1B.1	Cismontane woodland, alkaline playas, valley and foothill grasslands, vernal pools Blooming Period: March-June	P	Although habitat is present in the BSA, the species was not observed during surveys	P	Although habitat is present in the BSA, the species was not observed during surveys
Legenere	*Legenere limosa*	1B.1	Vernal pools, vernal marshes, artificial ponds, and floodplains of intermittent streams Blooming Period: April-June	P	Although vernal pools are present in the BSA, the species was not observed during surveys	P	Although vernal pools are present in the BSA, the species was not observed during surveys
Smooth lessingia	*Lessingia micradenia* var. *glabrata*	1B.2, HCP	Chaparral, cismontane woodland/serpentinite Blooming Period: July-November	A	Chaparral and woodlands are not present in the BSA	A	Chaparral and woodlands are not present in the BSA
Indian Valley bush mallow	*Malacothamnus aboriginum*	1B.2	Chaparral, cismontane woodland/rocky, often in burned areas Blooming Period: April-October	A	Chaparral and woodlands are not present in the BSA	A	Chaparral and woodlands are not present in the BSA
Hall's bush mallow	*Malacothamnus hallii*	1B.2, HCP	Chaparral, coastal scrub Blooming Period: May-September	A	Chaparral and coastal scrub are not present in the BSA	A	Chaparral and coastal scrub are not present in the BSA
San Antonio Hills monardella	*Monardella antonina* ssp. *antonia*	3	Chaparral; cismontane woodland Blooming Period: June-August	A	Chaparral and woodlands are not present in the BSA	A	Chaparral and woodlands are not present in the BSA
San Joaquin wooly-threads	*Monolopia congdonii*	FE, 1B.2	Chenopod scrub; valley and foothill grassland Blooming Period: February-May	A	The project is outside of the current known distribution of the species. Species was not observed during surveys	A	The project is outside of the current known distribution of the species. Species was not observed during surveys

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Prostrate vernal pool navarretia	*Navarretia prostrata*	1B.1	Coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, vernal pools/mesic Blooming Period: April-July	P	Although habitat is present in the BSA, the species was not observed during surveys	P	Although habitat is present in the BSA, the species was not observed during surveys
Santa Cruz Mountains beardtongue	*Penstemon rattanii* var. *kleei*	1B.2	Chaparral, lower montane coniferous forest, North Coast coniferous forest Blooming Period: May-June	A	Chaparral and coniferous forest are not present in the BSA	A	Chaparral and coniferous forest are not present in the BSA
Hairless popcorn-flower	*Plagiobothrys glaber*	1A	Alkaline meadows and seeps, marshes and swamps with coastal salts Blooming Period: March-May	P	Habitat is present although species is not likely to occur; was not observed during surveys	P	Habitat is present although species is not likely to occur; was not observed during surveys
Metcalf Canyon jewel-flower	*Streptanthus albidus* ssp. *albidus*	FE, 1B.1, HCP	Valley and foothill grassland/serpentinite Blooming Period: April-July	A	The BSA is outside of the known range of the species; serpentinite not present in the BSA	A	The BSA is outside of the known range of the species; serpentinite not present in the BSA
Most beautiful jewel-flower	*Streptanthus albidus* ssp. *peramoenus*	1B.2, HCP	Chaparral, cismontane woodland, valley and foothill grassland/serpentinite Blooming Period: April-September	A	Serpentinite grasslands not present in the BSA, species was not observed during surveys	A	Serpentinite grasslands not present in the BSA, species was not observed during surveys
Showy Indian clover	*Trifolium amoenum*	FE, 1B.1	Coastal bluff scrub, valley and foothill grassland/sometimes serpentinite Blooming Period: April-June	A	Serpentinite grasslands not present in the BSA	A	Serpentinite grasslands not present in the BSA
Saline clover	*Trifolium depauperatum* var. *hydrophilum*	1B.2	Marshes and swamps, valley and foothill grassland/mesic, alkaline, vernal pools Blooming Period: June-April	P	Habitat is present although species is not likely to occur; was not observed during surveys	P	Habitat is present although species is not likely to occur; was not observed during surveys

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Invertebrates:							
Conservancy fairy shrimp	*Branchinecta conservatio*	FE	Vernal pools or other seasonally wet areas	P	Seasonally wet areas are present in the BSA	P	Seasonally wet areas are present in the BSA
Longhorn fairy shrimp	*Branchinecta longiantenna*	FE	Vernal pools or other seasonally wet areas	P	Seasonally wet areas are present in the BSA	P	Seasonally wet areas are present in the BSA
Vernal pool fairy shrimp	*Branchinecta lynchi*	FT	Vernal pools or other seasonally wet areas	P	Seasonally wet areas are present in the BSA	P	Seasonally wet areas are present in the BSA
Bay checkerspot butterfly	*Euphydryas editha bayensis*	FT, HCP	Serpentine-derived or similarly drought or infertile soils, which support the butterfly's larval food plants and also includes nectar sources for adults that may also occur on other adjacent soil types. Usually found in grassland that contain primary larval host plant *Plantago erecta*	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Redwood shoulderband	*Helminthoglypta sequoicola consors*	R	Endemic to the Central Coast Region	U***	Not enough information on the species available	U***	Not enough information on the species available
Vernal pool tadpole shrimp	*Lepidurus packardi*	FE	Vernal pools or other seasonally wet areas associated with varying geologic formations and soil types	A	Although seasonally wet areas are present, the BSA is outside of the current known distribution of this species	A	Although seasonally wet areas are present, the BSA is outside of the current known distribution of this species
California fairy shrimp	*Linderiella occidentalis*	R	Most landforms, geologic formations and soil types that support vernal pools of any size	P	Seasonally wet areas are present in the BSA	P	Seasonally wet areas are present in the BSA

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Fish:							
Tidewater goby	*Eucyclogobius newberryi*	SSC, FE	Lagoons, estuaries, or stream mouths separated by mostly marine conditions.	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Pacific lamprey	*Lampetra tridentata*	FP, HCP	Anadromous, spawn in coastal streams and rivers with gravel and sandy bottoms	P	The Pajaro River and Carnadero Creek may provide habitat	A	There are no suitable waterways at or adjacent to the construction alternatives
Coho salmon, Central California Coast ESU	*Oncorhynchus kisutch*	SSC, FE	First half of their life cycle rearing and feeding in streams and small freshwater tributaries. Spawning habitat is small streams with stable gravel substrates	A	The BSA is outside of the known range of the species	A	The BSA is outside of the known range of the species
Steelhead, Central California Coast ESU	*Oncorhynchus mykiss*	SSC, FT, HCP	Shaded pools of small, cool, low-flow upstream reaches the Russian River south to Soquel Creek in Santa Cruz County	A	The BSA is outside of the known range of the species	A	The BSA is outside of the known range of the species
Steelhead, South-Central California Coast ESU	*Oncorhynchus mykiss*	SSC, FE, HCP	Winter steelhead found in three tributaries to Monterey Bay: the Pajaro, Salinas, and Carmel Rivers. Which include cold headwaters, creeks, and small to large rivers and lakes	P, CH	The Pajaro River and Carnadero Creek may provide habitat	A	There are no suitable waterways at or adjacent to the construction alternatives
Chinook salmon, Central Valley fall/late fall-run ESU	*Oncorhynchus tshawytscha*	SSC, HCP	Anadromous species requiring clean rivers with gravely substrates for spawning. Found in the Sacramento and San Joaquin Rivers and their tributaries	A	The BSA is outside of the known range of the species	A	The BSA is outside of the known range of the species
Chinook salmon, Central Valley Spring-run ESU	*Oncorhynchus tshawytscha*	ST, FT	Anadromous species requiring clean rivers with gravely substrates for spawning. Presently found only in the Sacramento River drainage	A	The BSA is outside of the known range of the species	A	The BSA is outside of the known range of the species

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Chinook salmon, Winter-run ESU	*Oncorhynchus tshawytscha*	SE, FE	Anadromous species requiring clean rivers with gravely substrates for spawning. Presently found only in the mainstream Sacramento River below Keswick Dam	A	The BSA is outside of the known range of the species	A	The BSA is outside of the known range of the species
Amphibians:							
California tiger salamander	*Ambystoma californiense*	SSC, FT, HCP	Areas of arid sagebrush plains and rolling grasslands with seasonal pools or ponds	P	Adults observed in burrows in the BSA	P	Adults observed in burrows in the BSA
California red-legged frog	*Rana aurora draytonii*	SSC, FT, HCP	Lowlands and foothills near marshes, streams, lakes, and other permanent water sources	P	Not observed during surveys, however suitable habitat is present adjacent to the BSA	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Foothill yellow-legged frog	*Rana boylii*	SSC, HCP	Prefers gravelly or sandy streams with sunny banks and open woodlands	P	Not observed during surveys, however suitable habitat is present adjacent to the BSA	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Western spadefoot	*Spea* (=*Scaphiopus*) *hammondii*	SSC	Lowland washes, floodplains, alluvial fans, playas, and alkali flats; breeds in quiet streams or seasonal pools	P	Not observed during surveys, however suitable habitat is present within the BSA	P	Not observed during surveys, however suitable habitat is present within the BSA
Coast Range newt	*Taricha torosa torosa*	SSC	Breeds in ponds, reservoirs, and slow-moving streams	P	Not observed during surveys, however suitable habitat is present adjacent to the BSA	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Reptiles:							
Western pond turtle	*Clemmys marmorata*	SSC, HCP	Permanent or nearly permanent bodies of water with basking sites such as partially submerged vegetation mats, or open mud banks	P	Observed within the BSA during surveys	A	The construction alternatives do not cross or lie adjacent to suitable habitat

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Blunt-nosed leopard lizard	*Gambelia silus*	SE, FP, FE	Sparsely vegetated plains, lower canyon slopes, valley floors, and in washes	A	The BSA is outside of the current and historic range of the species	A	The BSA is outside of the current and historic range of the species
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	SSC	Open, dry, vegetative associations with little or no tree cover and mammal burrows for refuge	P	The grassland areas within the BSA could provide suitable habitat	P	The grassland areas within the BSA could provide suitable habitat
Alameda whipsnake	*Masticophis lateralis euryxanthus*	ST, FT	Chaparral shrub communities' including-northern coastal sage scrub and coastal sage	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Coast (California) horned lizard	*Phrynosoma coronatum frontale*	SSC	Clearings or exposed areas within riparian, chaparral, shrubby, or grassland habitats	P	The grassland areas within the BSA could provide suitable habitat	P	The grassland areas within the BSA could provide suitable habitat
San Francisco garter snake	*Thamnophis sirtalis tetrataenia*	SE, FE	Ponds, lakes marshes and sloughs with emergent and bankside vegetation	A	The BSA is outside of the current and historic range of the species	A	The BSA is outside of the current and historic range of the species
Birds:							
Tricolored blackbird	*Agelaius tricolor*	SSC nesting colony, HCP	Nests near permanent water where dense stands of cattails or tules exist, occasionally uses riparian habitats	P	Not observed during surveys however suitable habitat exists along Pajaro River and Carnadero Creek	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Golden eagle	*Aquila chrysaetos*	FP, HCP	Nests in tall trees or on cliffs, forages in grasslands and other open habitats	P	Suitable foraging habitat exists	P	Suitable foraging habitat exists
Long-eared owl	*Asio otus*	SSC nesting	Nests in dense woodland, including riparian woodland, forages in open habitats	P	Not observed during surveys however suitable habitat exists along Pajaro River and Carnadero Creek	A	The construction alternatives do not cross or lie adjacent to suitable habitat

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Burrowing owl	*Athene cunicularia*	SSC, HCP	Nests and winters in grassland and shrubland; uses abandoned burrows for shelter and nest site	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA
Marbled murrelet	*Brachyramphus marmoratus*	SE, FT	Nest in old-growth forests, forage in near-shore marine waters	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Northern Harrier	*Cicrus cyaneus*	SSC nesting	Forages over marshes, farmland and grasslands. Nests on the ground, typically in grasslands near marshes.	P	Observed during surveys, suitable nesting habitat is available within existing grassland habitats	P	Observed during surveys, suitable nesting habitat is available within existing grassland habitats
Vaux's swift	*Chaetura vauxi*	SSC nesting	Nests in chimneys and in hollow snags in redwood forests	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Western snowy plover	*Charadrius alexandrinus nivosus*	SSC, FT	Nests on sand spits, dune-backed beaches, beaches at creek and river mouths, and at lagoons and estuaries. Forage within intertidal zones in dry sand areas above the high tide.	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Western yellow-billed cuckoo	*Coccyzus americanus*	ST, FC	Nests in riparian woodlands	P	Not observed during surveys however suitable habitat exists adjacent to the Pajaro River	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Olive-sided flycatcher	*Contopus cooperi*	SSC nesting	Nests in montane forests	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Yellow warbler	*Dendroica petechia*	SSC nesting	Nests in dense stands of willow and other riparian habitat	P	Observed during surveys, suitable habitat exists adjacent to the Pajaro River and Carnadero Creek	A	Suitable habitat is not present in the BSA
White-tailed kite	*Elanus leucurus*	FP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats	P	Observed during surveys, suitable foraging habitat exists	P	Observed during surveys, suitable foraging habitat exists
California horned lark	*Eremophilia alpestris actia*	SSC	Variety of open habitats, usually where large trees and shrubs are absent	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA
Prairie falcon	*Falco mexicanus*	SSC nesting	Sheltered cliff ledges for cover; perennial grasslands, savannahs, rangeland, some agricultural fields and desert scrub	P	Not observed during surveys however suitable habitat exists within the annual grasslands in the BSA	A	Some grassland areas are present adjacent to the construction alternatives however this species is unlikely to forage these small areas
American peregrine falcon	*Falco peregrinus anatum*	SE, FD, FP	Nests on cliffs and occasionally on buildings or bridges. Forages for birds over many habitats	P	Suitable foraging habitat is present in the BSA	P	Suitable foraging habitat is present in the BSA
California condor	*Gymnogyps californianus*	SE, FP, FE	Mountains, gorges, hillsides	A	Suitable mountain and cliff sides are not present in the BSA	A	Suitable mountain and cliff sides are not present in the BSA

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Bald eagle	*Haliaeetus leucocephalus*	SE, FP, FT, PD	Lakes, reservoirs, river systems, and some rangelands	A	The waterways within the BSA would not likely provide suitable wintering or foraging habitat	A	There are no suitable waterways at or adjacent to the construction alternatives
Yellow-breasted chat	*Icteria virens*	SSC nesting	Nests in dense stands of willows and other riparian habitat	P	Not observed during surveys however suitable habitat exists along Pajaro River and Carnadero Creek	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Loggerhead shrike	*Lanius ludovicianus*	SSC nesting	Nests in tall shrubs and dense trees, forages in grasslands, marshes and ruderal habitats	P	Not observed during surveys however suitable habitat exists along Pajaro River and Carnadero Creek	A	The construction alternatives do not cross or lie adjacent to suitable habitat
Osprey	*Pandion haliaetus*	SSC nesting	Clear, open waters for foraging, uses large trees in open forest for nesting	A	Although the species was seen during surveys, suitable nesting habitat is not present	A	Although the species was seen during surveys, suitable nesting habitat is not present
California brown pelican	*Pelecanus occidentalis californicus*	SE, FE, FP	Coastal areas such as estuarine, marine subtidal, and marine pelagic waters along the California coast with nesting occurring on islands.	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
California clapper rail	*Rallus longirostris obsoletus*	SE, FE, FP	Restricted to the marshes of San Francisco estuary. Requires shallow water and mudflats for foraging, with adjacent higher vegetation for cover during high water	A	Suitable habitat is not present in the BSA and is outside of the current and historic range of the species	A	Suitable habitat is not present in the BSA and is outside of the current and historic range of the species

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Bank swallow	*Riparia riparia*	ST	Nest colonially in sand banks, found near water, fields, streams, marshes, and lakes	P	Not observed during surveys however suitable habitat exists along the Pajaro River and Carnadero Creek in the BSA	A	There are no suitable waterways at or adjacent to the construction alternatives
California least tern	*Sternula antillarum (=Sterna, =albifrons) browni*	SE, FE, FP	Forage in shallow estuaries or lagoons where small fish are abundant. Nests on barren to sparsely vegetated sites near water, usually on sandy or gravelly substrate.	A	Suitable habitat is not present in the BSA	A	Suitable habitat is not present in the BSA
Least bell's vireo	*Vireo bellii pusillus*	FE, HCP	Cottonwood-willow forest, oak woodland, shrubby thickets, and dry washes with willow thickets at the edges	P	Not observed during surveys however suitable habitat exists along the Pajaro River and Carnadero Creek within the BSA	A	Suitable riparian forest habitat is not present at or adjacent to the construction alternatives
Mammals:							
Pallid bat	*Antrozous pallidus*	SSC	Rock crevices, hollow trees, mines, caves, buildings	P	The Pajaro River and Carnadero Creek and bridges provide suitable roosting and foraging habitat	A	Suitable roosting or foraging habitat is not present at or adjacent to the construction alternatives
Ring-tailed cat	*Bassariscus astutus*	FP	Occurs in riparian and heavily wooded habitats near water and on rocky talus slopes	P	The Pajaro River and Carnadero Creek provide marginal habitat	A	There is no suitable habitat within or adjacent to the construction alternatives

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Pale Townsend's big-eared bat	*Corynorhinus townsendii pallescens*	SSC	Coniferous and broad-leaved forests, oak woodlands, grasslands and deserts	P	Oak woodlands to the west of the BSA might provide suitable roosting habitat	A	Suitable roosting or foraging habitat is not present at or adjacent to the construction alternatives
Townsend's Western big-eared bat	*Corynorhinus townsendii townsendii*	SSC, HCP	Forests, woodlands, grasslands, deserts; roosts in caves, tunnels, and other man-made structures	P	The Pajaro River and Carnadero Creek and bridges provide suitable roosting and foraging habitat	A	Suitable roosting or foraging habitat is not present at or adjacent to the construction alternatives
Spotted bat	*Euderma maculatum*	SSC	Rough, rocky, semi-arid terrain; roosts on high cliffs	A	Suitable habitat not present in the BSA	A	Suitable habitat not present in the BSA
Greater western mastiff bat	*Eumops perotis californicus*	SSC	Found in central and south coastal California. Roosts in high rugged, rocky canyons and cliffs	A	Suitable habitat not present in the BSA	A	Suitable habitat not present in the BSA
Hoary bat	*Lasiurus cinereus*	R	Roosts in dense foliage of medium to large trees.	P	The Pajaro River and Carnadero Creek and bridges provide suitable roosting and foraging habitat	A	Suitable roosting or foraging habitat is not present at or adjacent to the construction alternatives
Western red bat	*Lasiurus blossevillii*	R	Roosts primarily in trees, less often in shrubs. Roost sites often adjacent to streams, fields, or urban areas.	P	The Pajaro River and Carnadero Creek and bridges provide suitable roosting and foraging habitat	A	Suitable roosting or foraging habitat is not present at or adjacent to the construction alternatives
Yuma myotis	*Myotis yumanensis*	SSC	Many habitat types, but need open water nearby; nursery colonies form in buildings, caves, and mines, and bridges	P	The Pajaro River and Carnadero Creek and bridges provide suitable roosting and foraging habitat	A	Suitable roosting or foraging habitat is not present at or adjacent to the construction alternatives

Common Name	Scientific Name	Status*	General Habitat Description	Route Adoption Alignment Alternatives 1 & 2		Construction Alternatives A & B	
				Habitat P/A**	Comments	Habitat P/A**	Comments
Giant kangaroo rat	*Dipodomys ingens*	SE, FE	Native annual grassland and shrub land with sparse vegetative cover and well drained soils	A	Suitable grassland is not present and the BSA is outside of the known range of the species	A	Suitable grassland is not present and the BSA is outside of the known range of the species
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	SSC	Builds large stick nests in a variety of habitats, including riparian areas, oak woodlands, and scrub	P	The Pajaro River and Carnadero Creek and bridges provide suitable habitat	A	Suitable habitat is not present at or adjacent to the construction alternatives
Riparian woodrat	*Neotoma fuscipes riparia*	SSC, FE	Builds large stick nests in riparian areas within the Central Valley	A	The BSA is outside of the known range of this species	A	The BSA is outside of the known range of this species
Salt-marsh harvest mouse	*Reithrodontomys raviventris*	SE, FE, FP	Found only in saline emergent wetlands of San Francisco Bay and its tributaries	A	The BSA is outside of the known range of this species	A	The BSA is outside of the known range of this species
American badger	*Taxidea taxus*	SSC	Resident throughout most the state, most abundant in drier open stages of shrub, forest and grassland habitats with friable soils	P	Suitable habitat is present within isolated grasslands, potential burrow found during surveys	P	Suitable habitat is present within isolated grasslands, potential burrow found during surveys
San Joaquin kit fox	*Vulpes macrotis mutica*	ST, FE, HCP	Open, level areas with loose-textured soils supporting scattered, shrubby vegetation with little human disturbance	P	Within historic range of species. This species was not observed during protocol surveys	P	This species was not observed during protocol level surveys

*** Status**
California Native Plant Society, Inventory of Rare and Endangered Plants:
(1A) Presumed extinct in California
(1B) Rare, threatened, or endangered in California and elsewhere
(2) Rare, threatened, or endangered in California but common elsewhere
(3) More information is needed
.1 - Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

United States Fish and Wildlife Service:
Federal Endangered (FE)
Federal Threatened (FT)
Federal Proposed (FPE, FPT)
Federal Candidate (FC)
Federal Delisted (FD)
Federal Proposed for Delisting (PD)
California Department of Fish and Game:
State Endangered (SE)
State Threatened (ST)
State Fully Protected (FP)
CNDDB Rare (R)
State Species of Special Concern (SSC). For birds that are only considered SSC when breeding and nesting, the "Habitat P/A" designation is for nesting habitat.
Santa Clara Valley Habitat Conservation Plan:
Habitat Conservation Plan (HCP): species proposed for coverage under the Santa Clara Valley HCP currently in development.
****Habitat P/A**
Present [P] - habitat is present. Absent [A] - no habitat present and no further work needed. Critical Habitat [CH]
***Unknown [U] - not enough information on the species available

Chapter 4. Results: Biological Resources, Discussion of Impacts and Mitigation

Anticipated impacts that could occur due to the Route Adoption Alignment are briefly discussed in this chapter. Discussion of the Route Adoption Alignment shall serve as a guide for an addendum to this Natural Environment Study that would need to be prepared to address the affect determinations at the time of funding. Funding for segments of the Route Adoption Alignment could be in 10 to 20 or more years; therefore, biological conditions and species listings would need to be updated.

Most of this chapter focuses on the proposed Construction Project to identify sensitive biological resources that would potentially be affected by proposed project activities or that would need additional discussion. If impacts are anticipated, mitigation measures are proposed.

4.1. Study Results for Route Adoption Alignment Alternatives 1 and 2

The Route Adoption Alignment alternatives may affect special-status species or their associated habitat. Affect determinations would be made for these biological resources when a project becomes funded and buildable. The Route Adoption Alignment alternatives have been designed to include the smallest footprint practicable to minimize temporary, indirect, and permanent impacts to biological resources.

4.1.1. Santa Clara Valley Habitat Conservation Plan

Santa Clara County is currently developing the Santa Clara Valley Habitat Conservation Plan. A portion of the Route Adoption Alignment alternatives would be within the Santa Clara Valley Habitat Conservation Plan boundaries.

Currently, the SR 25 Widening and Route Adoption Project is not considered a “covered project” by the habitat conservation plan, although it could be added with the approval of the Santa Clara Valley Habitat Conservation Plan Partners, U.S. Fish and Wildlife Service, California Department of Fish and Game and National Marine Fisheries Service.

There is also the chance that the San Benito County portion of the project could be covered by the Santa Clara Valley Habitat Conservation Plan. This would require approval of the above agencies including San Benito County. If the Santa Clara Valley Habitat Conservation Plan is approved and this project is incorporated into it, the project's avoidance, minimization, and compensatory mitigation measures would have to conform to the requirements of the Santa Clara Valley Habitat Conservation Plan.

4.1.2. Natural Communities of Special Concern

This section discusses natural communities, including an area with federal designation and natural resources within the Route Adoption Alignment alternatives.

4.1.2.1. Discussion of South-Central California steelhead Critical Habitat

The proposed Route Adoption Alignment falls within critical habitat for the South-Central California steelhead Evolutionary Significant Unit within the Pajaro River Hydrologic Unit (3305) where the project crosses the Pajaro River and Carnadero Creek. Final ruling on critical habitat for the South-Central California steelhead was established on August 12, 2005 (50 CFR Part 226).

Within the Route Adoption Alignment biological study area, the Pajaro River provides suitable passage for fish migration to and from spawning habitats within the upper watershed. Project-related impacts to aquatic habitats would be avoided to the maximum extent feasible. Additional data collection (second pass survey) may be required for fish passage before the design or modification of bridge structures. Should the proposed project Route Adoption Alignment impact or modify the Pajaro River or Carnadero Creek, the National Marine Fisheries Service would be consulted.

4.1.2.2. Discussion of Jurisdictional Waters of the U.S. and Wetlands

Jurisdictional waters of the U.S. and wetlands have been identified within the Route Adoption Alignment biological study area. Wetland and aquatic habitats present include riverine, floodplain, agricultural drainage ditches, intermittent streams, bermed pasture, saline and ephemeral pools.

Since the current wetland verification from the U.S. Army Corps of Engineers would most likely be expired and need renewal by the time the Route Adoption Alignment is funded, wetlands may need to be re-delineated and additional data be collected under the new Arid West manual to update the wetland and waters data. Mitigation would

be required by the U.S. Army Corps of Engineers to receive a Clean Water Act Section 404 permit to discharge fill material into waters of the U.S. and wetlands.

4.1.2.3. DISCUSSION OF RIPARIAN HABITAT

Riparian habitat within the Route Adoption Alignment exists within narrowly confined corridors along the Pajaro River and Carnadero Creek. This habitat provides high quality habitat to wildlife and offers a migration corridor to and from the Santa Cruz Mountains and Diablo Mountain Range. Mitigation would be required by the California Department of Fish and Game to receive a Streambed Alteration Agreement for work in and around the streambeds of the Pajaro River and Carnadero Creek.

4.1.3. Special-Status Species

Table 6 presents a list of species, plants and wildlife, designated in Table 5 as having potential habitat present in the Route Adoption Alignment biological study area. It is noted if the species was found during biological surveys. All species in the table would be discussed further in the addendum NES for the Route Adoption Alignment.

4.2. Study Results for Construction Alternatives A and B

The Proposed Construction Project alternatives may affect the following sensitive biological resources, which required discussion of the potential impacts and mitigation measures in sufficient detail.

4.2.1. Discussion of Jurisdictional Waters of the U.S. and Wetlands

Aquatic, wetland, and riparian habitats are generally considered sensitive by local, state and federal agencies and are afforded protection through a variety of regulatory programs including the federal Clean Water Act, State Fish and Game Code, and the State Porter-Cologne Water Quality Control Act. Several wetland and riparian types are considered sensitive communities in the California Natural Diversity Database.

The term “jurisdictional wetlands” refers to areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional wetlands generally include swamps, marshes, bogs, natural drainage channels, and seasonal wetlands.

Jurisdictional waters of the U.S. are defined as those waters that are currently used or were used in the past or may be susceptible to use in the interstate or foreign commerce, including all waters subject to the ebb and flow of the tide and all interstate waters including interstate wetlands. This definition also includes intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation or destruction of which could affect interstate or foreign commerce.

4.2.1.1. SURVEY RESULTS

Construction Project Alternative A

An ephemeral wetland has been identified within and adjacent to Alternative A. See Appendix D, page 140 for the location shown on the aerial maps.

Construction Project Alternative B

Alternative B avoids all wetlands within the Construction Project biological study area.

4.2.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

Before construction, Caltrans would establish an environmentally sensitive area (ESA), consisting of orange mesh fencing, within the Caltrans right-of-way to avoid accidental construction-related impacts to the ephemeral wetland caused by Construction Project Alternative A. In addition, the project would incorporate standard Caltrans best management practices to prevent impacts related to degradation of water quality.

4.2.1.3. PROJECT IMPACTS

No impacts are anticipated to wetlands or waters of the U.S. from proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.2.1.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed.

Table 6: Special-Status Species Requiring Further Study when Route Adoption Alignment Alternatives Become Buildable

Common Name	Scientific Name
Plants:	
Alkali milk-vetch	*Astragalus tener* var. *tener*
San Joaquin spearscale (found during surveys)	*Atriplex joaquiniana*
Hoover's button-celery	*Eryngium aristulatum* var. *hooveri*
Vernal barley	*Hordeum intercedens*
Contra Costa goldfields	*Lasthenia conjugens*
Legenere	*Legenere limosa*
Prostrate vernal pool navarretia	*Navarretia prostrata*
Hairless popcorn-flower	*Plagiobothrys glaber*
Saline clover	*Trifolium depauperatum* var. *hydrophilum*
Invertebrates:	
Conservancy fairy shrimp	*Branchinecta conservatio*
Longhorn fairy shrimp	*Branchinecta longiantenna*
Vernal pool fairy shrimp	*Branchinecta lynchi*
California fairy shrimp	*Linderiella occidentalis*
Fishes:	
Pacific lamprey	*Lampetra tridentata*
South-Central California steelhead	*Oncorhynchus mykiss*
Amphibians:	
California tiger salamander (found during surveys)	*Ambystoma californiense*
California red-legged frog	*Rana aurora draytonii*
Foothill yellow-legged frog	*Rana boylii*
Western spadefoot	*Spea* (=*Scaphiopus*) *hammondii*
Coast range newt	*Taricha torosa torosa*
Reptiles:	
Western pond turtle (found during surveys)	*Clemmys marmorata*
San Joaquin coachwhip	*Masticophis flagellum ruddocki*
Coast (California) horned lizard	*Phrynosoma coronatum frontale*
Birds:	
Tricolored blackbird	*Agelaius tricolor*
Golden eagle	*Aquila chrysaetos*
Long-eared owl	*Asio otus*
Burrowing owl	*Athene cunicularia*
Northern Harrier	*Circus cyaneus*
Western yellow-billed cuckoo	*Coccyzus americanus*
Yellow warbler (found during surveys)	*Dendroica petechia*
White-tailed kite (found during surveys)	*Elanus leucurus*
California horned lark	*Eremophilia alpestris sctia*
Prairie falcon	*Falco mexicanus*
American peregrine falcon	*Falco peregrinus anatum*
Yellow-breasted chat	*Icteria virens*
Bank swallow	*Riparia riparia*
Loggerhead shrike	*Lanius ludovicianus*
Bank swallow	*Riparia riparia*
Least Bell's vireo	*Vireo bellii pusillus*
Mammals:	
Pallid bat	*Antrozous pallidus*
Ring-tailed cat	*Bassariscus astutus*
Pale Townsend's big-eared bat	*Corynorhinus townsendii pallescens*
Pacific Western big-eared bat	*Corynorhinus townsendii townsendii*
Hoary bat	*Lasiurus cinereus*
Western red bat	*Lasiurus blossevillii*
Yuma myotis	*Myotis yumanensis*
San Francisco dusky-footed woodrat	*Neotoma fuscipes*
American badger	*Taxidea taxus*
San Joaquin kit fox	*Vulpes macrotis mutica*

4.3. Special-Status Plant Species

This section provides a description of special-status plants that are likely to occur in the Proposed Construction Project biological study area: alkali milk-vetch, San Joaquin spearscale, Hoover's button-celery, vernal barley, Contra Costa goldfields, legenere, prostrate vernal pool navarretia, hairless popcorn-flower, and saline clover. Of these nine special-status plant species, San Joaquin spearscale was found during botanical surveys in the Construction Project biological study area.

4.3.1. Discussion of Alkali milk-vetch

Alkali milk-vetch (*Astragalus tener* var. *tener*) is a member of the pea family and is an endemic native to California. It is an inhabitant of playas, valley and foothill grasslands with adobe clay soils, and alkaline vernal pools (CNPS 2006, Calflora 2008). Alkali milk-vetch is a delicate annual herb with an erect stem that can be from 2 to 30 centimeters long. The flower petals are generally pink-purple and bloom from March to June. There are three variations within the *A. tener* species, and all are rare (Hickman 1993). It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.2.

4.3.1.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs within 1 mile of the project area. Although suitable habitat is present, the species was not found during botanical surveys of the study area. In addition, the California Natural Diversity Database occurrence, dated 1897, of alkali milk-vetch has been extirpated; the location is within the City of Hollister. The next closest occurrence, 17 miles away, has also been extirpated; it is located within the City of Salinas.

4.3.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established in suitable habitat in the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact

area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.1.3. PROJECT IMPACTS

No impacts are anticipated to alkali milk-vetch as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.1.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for alkali milk-vetch; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit alkali milk-vetch.

4.3.2. Discussion of San Joaquin spearscale

The San Joaquin spearscale (*Atriplex joaquiniana*) is a member of the goosefoot family and is an endemic native to California. It is an inhabitant of alkaline soils within habitats such as chenopod scrub, meadows and seeps, playas, valley and foothill grasslands (CNPS 2006, Calflora 2008). The San Joaquin spearscale is an annual herb with gray-green inconspicuous flowers and triangular leaves that blooms from April to October (Hickman, 1993). It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.2 (1B means rare, threatened or endangered in California and .2 signifies that it is fairly endangered in California).

4.3.2.1. SURVEY RESULTS

This species was found adjacent to the proposed Construction Project Alternative A during botanical studies, within the ephemeral wetland discussed in Section 4.2.1.1. See Appendix D, page 140 for the location shown on the aerial maps.

4.3.2.2. AVOIDANCE AND MINIMIZATION EFFORTS

Before construction, Caltrans would establish an orange mesh ESA fence within the Caltrans right-of-way to avoid accidental construction-related impacts to the San Joaquin spearscale habitat within the ephemeral wetland.

4.3.2.3. PROJECT IMPACTS

No impacts are anticipated to the San Joaquin spearscale as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.2.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for the San Joaquin spearscale; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit the San Joaquin spearscale.

4.3.3. Discussion of Hoover's Button-celery

Hoover's button-celery (*Eryngium aristulatum* var. *hooveri*) is a member of the carrot family and is an endemic native to California. It is an inhabitant of vernal pools and lagunas where it almost always occurs under natural conditions in wetlands (CNPS 2006, Calflora 2008).

Certain features are common to species within this genus, such as biennial or perennial, plant parts are spiny, and tiny flowers are clustered into spiny heads. Hoover's button-celery blooms in July and can be from 10 to 90 centimeters tall and has a stout stem that branches loosely from the main stem (Hickman, 1993).

There are three variations within the *E. aristulatum* species, and two are rare. Hoover's button-celery is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.1 (1B means rare, threatened or endangered in California and .1 signifies that it is seriously endangered in California).

4.3.3.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 3 miles away from the project area, northeast of San Felipe Lake. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

4.3.3.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat in the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.3.3. PROJECT IMPACTS

No impacts are anticipated to Hoover's button-celery as a cause of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.3.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for Hoover's button-celery; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit the Hoover's button-celery.

4.3.4. Discussion of Vernal Barley

Vernal barley (*Hordeum intercedens*) is a member of the grass family. It is an annual native monocot to California and is also found elsewhere in North America to Baja California. It is an inhabitant of vernal pools within coastal dune, coastal scrub, and valley and foothill grassland habitats (CNPS 2006, Calflora 2008). Vernal barley blooms from March to June. It is included in the California Native Plant Society inventory of rare and endangered plants on list 3.2 (3 means more information is needed and .2 signifies that it is fairly endangered in California).

4.3.4.1. SURVEY RESULTS

Even though suitable habitat is present, the species was not found during botanical surveys of the study area. Currently, there are no recorded locations for vernal barley in California Natural Diversity Database.

4.3.4.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat located within the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.4.3. PROJECT IMPACTS

No impacts are anticipated to vernal barley as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.4.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for vernal barley; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit vernal barley.

4.3.5. Discussion of Contra Costa Goldfields

Contra Costa goldfields (*Lasthenia conjugens*) is a member of the sunflower family and is an endemic native to California. It is an inhabitant of cismontane woodland, alkaline playas, valley and foothill grasslands, and vernal pools (CNPS 2006, Calflora 2008). Contra Costa goldfields is an annual herb that blooms from March to June and has yellow flowers that have partly fused phyllaries lacking pappus (Hickman, 1993). It is federally listed as endangered, and although the species has not been officially listed by the State of California, the California Department of Fish and Game considers it to be very threatened. It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.1.

4.3.5.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 25 miles away from the project area within the Fort Ord Military Reservation east of Seaside. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

4.3.5.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat in the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.5.3. PROJECT IMPACTS

No impacts are anticipated to Contra Costa goldfields as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.5.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for Contra Costa goldfields; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit Contra Costa goldfields.

4.3.6. Discussion of Legenere

Legenere (*Legenere limosa*) is a member of the bellflower family and is an endemic native to California. It is an inhabitant of vernal pools, vernal marshes, artificial ponds, and floodplains of intermittent streams associated with shallow acidic clays within annual grassland and oak woodlands (CNPS 2006, Calflora 2008). Legenere has a blooming period from April to June and has white inconspicuous flowers on stems that recline and are from 10 to 30 centimeters tall (Hickman, 1993). It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.1.

4.3.6.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 14 miles away from the project area in Coyote Lake County Park southeast of Morgan Hill. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

4.3.6.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat located within the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.6.3. PROJECT IMPACTS

No impacts are anticipated to legenere as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.6.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for legenere; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit legenere.

4.3.7. Discussion of Prostrate Vernal Pool Navarretia

Prostrate vernal pool navarretia (*Navarretia prostrata*) is a member of the phlox family and is an endemic annual native to California. It is an inhabitant of coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, and vernal pools where it almost always occurs under natural conditions (CNPS 2006, Calflora 2008). Prostrate vernal pool navarretia has a blooming period of April to July and has blue to white flowers on a central head with radiating leaves (Hickman, 1993). It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.1.

4.3.7.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 38 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

4.3.7.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat located within the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.7.3. PROJECT IMPACTS

No impacts are anticipated to prostrate vernal pool navarretia as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.7.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for prostrate vernal pool navarretia; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit prostrate vernal pool navarretia.

4.3.8. Discussion of Hairless Popcorn-flower

The hairless popcorn-flower (*Plagiobothrys glaber*) is a member of the borage family and is an endemic annual native to California and is believed to be extinct. It is an inhabitant of alkaline meadows and seeps, marshes, and swamps with coastal salts where it almost always occurs under natural wetland conditions (CNPS 2006, Calflora 2008). The hairless popcorn-flower is a small fleshy herb that has a blooming period of March to May (Hickman, 1993). It is included in the California Native Plant Society inventory of rare and endangered plants on list 1A, which means presumed extinct in California.

4.3.8.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs within 0.5 mile of the project area, near the Hollister Municipal Airport. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

4.3.8.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat located within the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.8.3. PROJECT IMPACTS

No impacts are anticipated to the hairless popcorn-flower as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.8.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for the hairless popcorn-flower; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit hairless popcorn-flower.

4.3.9. Discussion of Saline Clover

Saline clover (*Trifolium depauperatum* var. *hydrophilum*) is a member of the pea family and is an endemic annual native to California. It is an inhabitant of marshes and swamps, valley and foothill grasslands, and alkaline vernal pools (CNPS 2006, Calflora 2008). Saline clover is a very small herb that blooms from April to June with flowers that are pink-purple with white tips and an inflated banner (Hickman, 1993). There are four variations within the *T. depauperatum* species, and only variation *hydrophilum* is considered rare. It is included in the California Native Plant Society inventory of rare and endangered plants on list 1B.2.

4.3.9.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 5 miles away from the project area, between Millers Canal and the Pajaro River north of SR 25. Although suitable habitat is present, the species was not found during botanical surveys of the study area.

4.3.9.2. AVOIDANCE AND MINIMIZATION EFFORTS

Due to the number of years between construction and botanical surveys as well as the possibility that the species could become established within suitable habitat located within the Construction Project project impact area, preconstruction surveys would be conducted. The preconstruction surveys would be conducted within appropriate habitat for the species during its blooming period.

If any of the rare plant species were discovered within the project impact area, the appropriate regulatory agencies would be consulted. If it were discovered that any of the rare plant species have become established relatively close to the project impact area but take would not result, Caltrans would establish an ESA to prevent potential disturbance.

4.3.9.3. PROJECT IMPACTS

No impacts are anticipated to saline clover as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.3.9.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for saline clover; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit saline clover.

4.4. Special-Status Animal Species Occurrences

This section describes special-status animal species that are likely to occur in the Proposed Construction Project biological study area. Species discussed include conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, California fairy shrimp, California tiger salamander, western spadefoot, San Joaquin whipsnake, coast horned lizard, golden eagle, burrowing owl, white-tailed kite, California horned lark, American peregrine falcon, American badger, and San Joaquin kit fox. Of these 15 special-status animal species, the California tiger salamander and the white-tailed kite were found during biological surveys within the Construction Project biological study area.

4.4.1. Discussion of Conservancy Fairy Shrimp

The conservancy fairy shrimp (*Branchinecta conservatio*) is a federally endangered crustacean found in rather large, cool-water vernal pools with turbid water. Like all fairy shrimp, the species has delicate elongate bodies, large stalked compound eyes, and 11 pairs of swimming legs. Fairy shrimp species glide gracefully upside down, swimming by beating their legs in a complex front to back wavelike movement. The species is found in grasslands of the northern two-thirds of the Central Valley, spanning a north-south distance of about 186 miles at elevations of 5 to 145 meters. Within this limited range, its populations are even more restricted occupying only a few distinct localities in Tehama, Glenn, Solano, Stanislaus, and Merced counties (Eriksen and Belk 1999).

4.4.1.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 38 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal

pool branchiopod surveys of the study area. Suitable habitat was found within the ephemeral wetland discussed in Section 4.2.1.1.

4.4.1.2. AVOIDANCE AND MINIMIZATION EFFORTS

Where construction work would occur in vernal pool branchiopod habitat (the ephemeral wetland), the following measures would be followed:

- Implementation of best management practices during construction. Equipment maintenance, project access, supply logistics, and other project-related activities would occur at a designated staging area. Before starting construction activities, the contractor would determine construction vehicle parking sites and all access routes.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions shall be used. If any spills occur, cleanup shall take place immediately.
- Any sensitive sites adjacent to the construction activities within the Caltrans right-of-way would be designated as ESAs to prevent accidental and indirect construction-related impacts.

4.4.1.3. PROJECT IMPACTS

No impacts are anticipated to conservancy fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.4.1.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for conservancy fairy shrimp; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit the conservancy fairy shrimp.

4.4.2. Discussion of Longhorn Fairy Shrimp

The longhorn fairy shrimp (*Branchinecta longiantenna*) is a federally endangered crustacean found in small clear-water depression pools. The distribution is quite restricted; the few known sites occur near the eastern edge of the Central Coastal Mountains, with the northern end of its range in the foothill grasslands of Tracy. The species gets its name because the species' antennae are far longer that any other North American species. The longhorn fairy shrimp has appeared from late December to mid-May in basins filled by winter and spring rains and temperatures from 10-18 degrees Celsius. However, these shrimp species need temperatures of 15-20 degrees

Celsius to attain maturity, which is typically reached in 43 days. They can live for up to 147 days if their pools remain for an extended period of time (Eriksen and Belk 1999).

4.4.2.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 38 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal pool branchiopod surveys of the study area. Suitable habitat was found within the ephemeral wetland discussed in Section 4.2.1.1.

4.4.2.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for conservancy fairy shrimp (Section 4.4.1.2.) would also benefit longhorn fairy shrimp.

4.4.2.3. PROJECT IMPACTS

No impacts are anticipated to longhorn fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.4.2.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for longhorn fairy shrimp; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit longhorn fairy shrimp.

4.4.3. Discussion of Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally threatened crustacean found in vernal pools or vernal pool-like habitats. Vernal pool fairy shrimp are widely distributed in grassland habitats throughout California, but are not abundant in any one location. Two major habitat types are characteristic for this species: small, clear, sandstone rock pools or swales surrounded by foothill grasslands, and basalt flow depression pools.

Vernal pool fairy shrimp have been collected from early December to early May. They are differentiated from other fairy shrimp by the presence and size of several mounds on the male's second antennae, and by the female's short pear-shaped brood pouch. They are capable of resisting desiccation, freezing, or the digestive system of animals, and can remain dormant for several years. The cysts are known to hatch in

water of 10 degrees Celsius (50 degrees Fahrenheit) or less and reach maturity in 41 days (in warmer pools, it can be as little as 18 days). Vernal pool fairy shrimp have a short lifespan of about 139 days (USFWS 2003).

4.4.3.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 33 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal pool branchiopod surveys of the study area. Suitable habitat was found within the ephemeral wetland discussed in Section 4.2.1.1.

4.4.3.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for conservancy fairy shrimp would also benefit vernal pool fairy shrimp.

4.4.3.3. PROJECT IMPACTS

No impacts are anticipated to vernal pool fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.4.3.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for vernal pool fairy shrimp; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit vernal pool fairy shrimp.

4.4.4. Discussion of California Fairy Shrimp

The California fairy shrimp (*Linderiella occidentialis*) is a small freshwater crustacean that inhabits seasonal pools in unplowed grasslands. This species has no federal or state listed status, although conservation groups are watching its population where it is considered a sensitive species. The California fairy shrimp is the most widely distributed fairy shrimp in California and can be found in pools ranging in size from 10 feet squared to 13 acres. It is smaller than other fairy shrimp in the *Branchinecta* genus and has red eyes with horn-like antennae appendages. This species generally lives longer than other fairy shrimp and has been found to live as long as 168 days (USFWS 2003).

4.4.4.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 33 miles away from the project area in the San Luis National Wildlife Refuge north of Los Banos. Although suitable habitat is present, the species was not found during vernal pool branchiopod surveys of the study area. Suitable habitat was found within the ephemeral wetland discussed in Section 4.2.1.1.

4.4.4.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for conservancy fairy shrimp would also benefit California fairy shrimp.

4.4.4.3. PROJECT IMPACTS

No impacts are anticipated to California fairy shrimp as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.4.4.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for California fairy shrimp; however, compensatory mitigation measures for indirect impacts to California tiger salamander breeding habitat (discussed in Section 4.4.5.4.) could also benefit California fairy shrimp.

4.4.5. Discussion of California Tiger Salamander

The California tiger salamander central population was federally listed as threatened on August 4, 2004 (69 FR 47211-47248). This species is native to grasslands and oak savannah in the Sierra Nevada foothills, Central Valley, Bay Area, and the Coast Ranges in Central California. Two distinct populations (Santa Barbara County Distinct Population Segment and the Sonoma County Distinct Population Segment) were listed as endangered prior to the central population.

The California tiger salamander is a large terrestrial salamander measuring 3-5 inches long, with black eyes, black irises, and a fairly flat head profile. The body is black with large pale yellow to white spots often scarce or absent along the middle of the back; the underside is predominately pale yellow or white.

The species is commonly found in annual grassland habitat at elevations up to 3,200 feet. The species can also occur in valley-foothill hardwood habitats and along streams in valley-foothill riparian habitats. For most of the year, this species aestivates by occupying underground refuge sites, which include burrows of

California ground squirrel (*Spermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*), and certain man-made structures (e.g., wet basements, underground pipes, and septic tank drains). During relatively warm winter and spring rains (November and February), they emerge at night and can migrate more than a mile to breeding sites (seasonal pools). Pools must hold water for a minimum of 10 weeks, which is required for this species to complete development through metamorphosis (Jennings and Hayes 1994).

Main threats to the California tiger salamander include the degradation, fragmentation, and loss of breeding habitat. Other concerns include the introduction of exotic and transplanted predatory fishes to pools, loss of refuge habitat adjacent to breeding sites, and poisoning of burrowing mammals (Jennings and Hayes 1994).

4.4.5.1. SURVEY RESULTS

This species was found in the proposed Construction Project biological study area during herpetological surveys. Five adult California tiger salamanders were found in various ground squirrel burrows near the ephemeral wetland discussed in Section 4.2.1.1. This wetland occurs within remnant grasslands and is bisected by the existing SR 25.

In addition to the herpetological survey results, a biologist reported to California Natural Diversity Database a recent sighting (May 2007) of the California tiger salamander along the western edge of the Hollister Municipal Airport on the east side of SR 25. This species occurrence is north of the ephemeral wetland. Due to the lack of a breeding pool for the California tiger salamander on the airport side of this remnant grassland, it can be inferred that California tiger salamanders occur on both sides of SR 25 and are using this ephemeral pool to breed and sustain their disjunct population.

See Appendix D, pages 139-141 for the location of California tiger salamander habitat within the Proposed Construction Project biological study area shown on the aerial maps.

4.4.5.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization efforts for both Construction Project alternatives would include:

- Special Provisions that spell out the avoidance and minimization efforts described below would be included in the solicitation for bid information.

- Implementation of best management practices during construction. Equipment maintenance, project access, supply logistics, and other project-related activities would occur at a designated staging area. Before starting construction activities, the contractor would determine construction vehicle parking sites and all access routes.
- The limits of the construction area would be flagged, if not already marked by right-of-way or other fencing, and all activity would be confined within the marked area.
- Before construction, orange mesh fencing would be installed within the Caltrans right-of-way to avoid accidental construction-related impacts to California tiger salamander habitats. Such habitats would be designated as ESAs.
- A worker educational training would be conducted, consisting of a brief presentation by persons knowledgeable in California tiger salamander biology, and legislative protection. Endangered species concerns would be explained to contractors and their employees, and any other personnel involved in the project.
- To the extent possible, nighttime construction would be minimized within or near California tiger salamander habitats.
- Travel would be restricted to established roadbeds within the marked project site. Project employees would be directed to exercise caution when commuting within or adjacent to the California tiger salamander habitats. A 20 mile-per-hour speed limit would be strongly encouraged on unpaved roads within listed species habitats.
- To prevent inadvertent entrapment of California tiger salamander during construction, all excavated, steep-walled holes or trenches would be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions shall be used. If any spills occur, cleanup shall take place immediately.

Construction Project Alternative A

- Special Provisions that spell out the avoidance and minimization efforts described above and below would be included in the solicitation for bid information.

- Construction would be timed to occur during the dry season (June to October) within 0.6 mile of the ephemeral wetland used by California tiger salamander as a breeding pool.
- A qualified U.S. Fish and Wildlife Service-approved biologist would be onsite or on-call during all activities that could result in the take of listed species.
- A U.S. Fish and Wildlife Service-approved biologist would conduct pre-construction surveys to identify potential California tiger salamander aestivation sites and breeding pools within designated construction areas that would not be subject to excavation or filling. Identified areas would be enclosed with ESA fencing.

4.4.5.3. PROJECT IMPACTS

Potential Direct Impacts

Direct impacts are those caused by project activities during the time of construction.

Construction Project Alternative A

Direct impacts to California tiger salamander aestivation habitat would occur as a result of Construction Project Alternative A. The total acreage of direct impacts to upland habitat is estimated to be 21 acres.

No direct impacts to breeding habitat are expected to occur as a result of the proposed project Alternative A.

Construction Project Alternative B

No direct impacts to aestivation habitat are expected to occur as a result of the proposed project Alternative B.

No direct impacts to breeding habitat are expected to occur as a result of the proposed project Alternative B.

Potential Indirect Impacts

Indirect impacts are those caused by the proposed project, occur later in time, and are reasonably certain to occur.

Construction Project Alternative A

Indirect impacts to California tiger salamander aestivation habitat would occur as a result of Construction Project Alternative A. The total acreage of indirect impacts to upland habitat is estimated to be 82 acres.

Indirect impacts to California tiger salamander breeding habitat would occur as a result of Construction Project Alternative A. The total acreage of indirect impacts to breeding habitat is estimated to be 3.7 acres.

Construction Project Alternative B

No indirect impacts to aestivation habitat are expected to occur as a result of the proposed project Alternative B.

No indirect impacts to breeding habitat are expected to occur as a result of the proposed project Alternative B.

4.4.5.4. COMPENSATORY MITIGATION

Upland Aestivation Habitat

Construction Project Alternative A

Caltrans proposes to reduce impacts to upland habitat by the purchase of credits at an approved U.S. Fish and Wildlife Service mitigation bank. A 3:1 ratio has been determined for direct impacts (21 acres x 3 = 63 acres). A 1:1.1 ratio has been determined for indirect impacts (82 acres x 1.1 = 90.2 acres). The total required mitigation required is estimated to be 153.2 acres.

Construction Project Alternative B

No compensatory mitigation is proposed.

Breeding Habitat

Construction Project Alternative A

Caltrans proposes to reduce impacts to breeding habitat by the purchase of mitigation credits at an approved U.S. Fish and Wildlife Service bank. A 1:1.1 ratio has been determined for indirect impacts (3.7 acres x 1.1:1 = 4.1 acres), which totals 4.1 acres.

Construction Project Alternative B

No compensatory mitigation is proposed.

4.4.6. Discussion of Western Spadefoot

Western spadefoot (*Spea (=Scaphiopus) hammondii*) is a California Department of Fish and Game species of concern. It is a relatively smooth-skinned toad that varies in color from green, gray, or brown with faint stripes on the back. The underside is a light cream or dirty white color. There is a distinctive black tear-shaped spade on each short hindfoot. They have vertically elliptical pupils with pale gold irises. Adults range in size from 1.5-2.5 inches (Jennings and Hayes 1994) snout-vent length.

The range of this toad occurs from near the city of Redding in Shasta County, southward into northwestern Baja California, Mexico (Jennings and Hayes 1994). It also occurs throughout the Central Valley and adjacent foothills from sea level to 4,500 feet. Common habitat where this species occurs includes annual grassland, however, the western spadefoot can also occur in valley-foothill hardwood woodlands.

The western spadefoot spends most of the year in underground burrows up to 36 inches deep. These burrows are usually self-constructed, however, some individuals occupy small mammal burrows. They emerge from their burrows at night following relatively warm late winter-spring and fall rains. Numerous eggs (10-42) are deposited in small cylindrical clusters attached to plant stems or loose material in a pool. In one season, a female can lay more than 500 eggs. Eggs can hatch in as little as 1 to 6 days depending on temperature. Larval development can be completed in 3-11 weeks depending on food resources and water temperature, but must be completed before pools dry (USFWS 2005).

The main threat to the western spadefoot is the loss of breeding habitat due to land use conversion. Other concerns include the placement of mosquitofish (*Gambusia affinis*) and presence of juvenile and adult bullfrogs (*Rana catesbiana*) in vernal pools (Jennings and Hayes 1994).

4.4.6.1. SURVEY RESULTS

Although the California Natural Diversity Database indicates this species occurs 3 miles away from the project area (southwest of Hollister in the San Justo Hills) and suitable habitat is present, the species was not found during herpetological surveys of the study area.

4.4.6.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for the California tiger salamander would also benefit the western spadefoot. In addition, the worker educational training would cover western spadefoot natural history and legal protections and the biologist would be onsite or on-call for potential discovery of the western spadefoot during construction.

4.4.6.3. PROJECT IMPACTS

Project impacts for the California tiger salamander could also affect the western spadefoot.

4.4.6.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to the western spadefoot; however, mitigation measures for California tiger salamander would also benefit the western spadefoot.

4.4.7. Discussion of San Joaquin coachwhip

The San Joaquin coachwhip (*Masticophis flagellum ruddocki*) is a California Department of Fish and Game species of concern. Coachwhips are a common to uncommon snake species found in arid regions below 6,000 feet in California.

The known range of this California endemic species extends from Colusa County in the Sacramento Valley southward to the Grapevine in the Kern County portion of the San Joaquin Valley and westward into the inner South Coast Ranges. This species occurs in open, dry, vegetative associations with little or no tree cover. In the western San Joaquin Valley, the San Joaquin coachwhip occurs in valley grassland and saltbush scrub associations and is known to climb bushes such as *Atriplex* for viewing prey and potential predators. It uses mammal burrows for refuge and possibly for oviposition sites.

Coachwhips occur in open terrain and are most abundant in grass, desert scrub, chaparral, and pasture habitats. Coachwhips seek cover in rodent burrows, bushes, trees, and rock piles. They hibernate in soil or sand approximately 1 foot below the surface, sometimes at the base of plants.

Their diet consists of rodents, lizards and lizard eggs, snakes (including rattlesnakes), birds and bird eggs, young turtles, insects, and carrion. Coachwhips search actively for prey with their heads elevated. They poke their heads in burrows or climb trees using both vision and olfaction to detect prey, which is consumed alive and whole (CaliforniaHerps 2008).

San Joaquin coachwhips mate in April and May. They lay their eggs in June and July, and the first young appear in late August or early September. Their clutch size ranges from 4 to 16 eggs with a mean of 8 to 10 eggs (CaliforniaHerps 2008).

4.4.7.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 2 miles away from the project area, west of Hollister, within the riparian habitat of the San Benito River. Although suitable habitat is present, the species was not found during herpetological surveys of the study area.

4.4.7.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for the California tiger salamander would also benefit the San Joaquin coachwhip.

4.4.7.3. PROJECT IMPACTS

Project impacts to California tiger salamander upland habitat could also affect the San Joaquin coachwhip.

4.4.7.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to the San Joaquin coachwhip; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the San Joaquin coachwhip.

4.4.8. Discussion of Coast Horned Lizard

The California horned lizard (*Phrynosoma coronatum frontale*) is a California Department of Fish and Game species of concern. This large California endemic lizard is known from a wide variety of habitats, but may be most successful in sandy loam areas and on alkali flats.

Historically, this species was abundant in the San Joaquin Valley and most abundant at relict lake sand dunes and old alluvial fans bordering the San Joaquin Valley. Today, the California horned lizard is abundant only in localized regions of the Coastal Ranges and in isolated sections of natural habitat in the Central Valley. Habitat conversion from sand dunes and alluvial fans for agricultural purposes has had the greatest impact on horned lizard habitat. Blunt-nosed leopard lizards and domestic cats prey on California horned lizards (CDFG 2008).

Typical prey items include beetles and native ants, and may include other seasonally abundant insects. Horned lizards forage on the ground in open areas, usually between shrubs and often near an ant nest. The California horned lizard is typically active between April and October, with a peak in activity between April and May when breeding takes place. Hatchlings appear in July and August. Horned lizards may use small mammal burrows or burrow under surface objects during periods of extended inactivity or hibernation (CDFG 2008).

4.4.8.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 13 miles away from the project area, north of the project site on Wilson Peak, east of Gilroy

Hot Springs. Although suitable habitat is present, the species was not found during herpetological surveys of the study area.

4.4.8.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for the California tiger salamander would also benefit the California horned lizard.

4.4.8.3. PROJECT IMPACTS

Project impacts to California tiger salamander upland habitat could also affect the California horned lizard.

4.4.8.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to California horned lizard; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the California horned lizard.

4.4.9. Discussion of Golden Eagle

The golden eagle (*Aquila chrysaetos*) is an uncommon permanent resident and migrant throughout California and is a state fully protected species. They forage widely over grasslands, shrublands, and other open habitats feeding primarily on small and medium-sized mammals but also occasionally on other vertebrates. Golden eagles nest in large sturdy trees and on cliffs in open areas. They build large nests of sticks, and nest from early spring through summer (CDFG 2008). In addition to their fully protected status, golden eagles are protected under the federal Bald Eagle Protection Act and the Migratory Bird Treaty Act.

4.4.9.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 29 miles away from the project area within the City of Los Banos. Although suitable foraging habitat is present, the species was not found during bird surveys of the study area.

4.4.9.2. AVOIDANCE AND MINIMIZATION EFFORTS

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest were detected, the California Department of Fish and Game would be consulted and an ESA around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

4.4.9.3. PROJECT IMPACTS

With implementation of avoidance and minimization measures, impacts to golden eagle are not expected.

4.4.9.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to golden eagle; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the golden eagle.

4.4.10. Discussion of Burrowing Owl

The western burrowing owl (*Athene cunicularia*) is a state species of special concern and a yearlong resident of open, dry grassland, desert habitats, and of open shrub stages of pinyon-juniper and ponderosa pine habitats. Numbers have been markedly reduced in recent decades (CDFG 2008).

Owls are active throughout the year and hunt by day or night. They eat mostly insects, but they also eat small mammals, reptiles, birds, and carrion. They hunt from a perch, hover, dive, or hop after prey on the ground. To maintain their body temperature, owls move to perches in open sunlight in the early morning hours and then retire into shady areas or burrows when it is hot. Burrowing owls find temporary shelter or build nests in old burrows of ground squirrels and other small mammals. Owls may also dig their own burrow in soft soil. The nest chamber is lined with excrement, pellets, debris, grass, and feathers. These items are often visible near the burrow entrance as well. Pipes, culverts, and nest boxes have been used where burrows are scarce (CDFG 2008).

Male owls give courtship displays and notes in front of the burrow. Breeding occurs from March through August, with a peak in April and May. Clutch size is 2 to 10 eggs, averaging 5 to 6 eggs. Young emerge from the burrow at about 14 days and can fly by 4 weeks old (CDFG 2008).

In recent decades, conversion of grassland to agriculture, other habitat destruction, and poisoning of ground squirrels have contributed to the reduction in owl numbers. Predators include prairie falcons, red-tailed hawks, Swainson's hawks, ferruginous hawks, northern harriers, golden eagles, foxes, coyotes, domestic cats, and domestic dogs (*Canis familiaris*) (CDFG 2008).

4.4.10.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 2 miles away from the project area east of Hollister near the Santa Ana Creek. Although suitable habitat is present, the species was not found during bird surveys of the study area.

4.4.10.2. AVOIDANCE AND MINIMIZATION EFFORTS

Construction Project Alternative A

Caltrans would conduct preconstruction surveys before ground disturbance to search for western burrowing owl burrows within and adjacent to the project impact area. No disturbance should occur within 50 meters (164 feet) of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (246 feet) during the breeding season (February 1 through August 31) unless a qualified biologist approved by California Department of Fish and Game verifies that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival (BOC 1993).

If western burrowing owls were seen before construction, mitigation guidelines would include onsite passive relocation and installation of exclusionary devices. Onsite passive relocation involves encouraging western burrowing owls to move from occupied burrows to alternate natural or artificial burrows at least 50 meters (150feet) from the impact zone. A minimum of 6.5 acres of foraging habitat adjacent or connected to the relocated area is required for each pair of western burrowing owls relocated. To exclude western burrowing owls from burrows, installation of one-way doors in burrow entrances may also be necessary. One alternate natural or artificial burrow should be provided for each burrow that would be excavated during construction (BOC 1993).

Construction Project Alternative B

No avoidance and minimization efforts are proposed for Construction Project Alternative B.

4.4.10.3. PROJECT IMPACTS

With implementation of avoidance and minimization measures, impacts to western burrowing owl are not expected.

4.4.10.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to western burrowing owl; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the western burrowing owl.

4.4.11. Discussion of Northern Harrier

The northern harrier (*Circus cyaneus*) is a state species of special concern that occurs in a variety of habitats including meadows, grasslands, open range-lands, desert sinks, and fresh and saltwater emergent wetlands. It is considered a medium-sized raptor that averages 18 inches long with a wingspan of 43 inches. Northern harriers are slender with long wings and a long white upper-tail. These birds are often seen flying low over marshes, farmland, and grasslands. Harriers are found from annual grasslands in the Central Valley to lodgepole pine and alpine meadow habitats up to 10,000 feet in the Sierra Nevada.

Northern harriers feed mainly on voles and other small mammals, but can also feed on a variety of prey including birds, frogs, small reptiles, crustaceans, insects, and occasionally on fish.

These raptors are ground nesters that typically build their nests in shrubby vegetation at the edge of marshes, but may also nest in grasslands, grain fields, or on sagebrush flats several miles from water. Breeding season ranges from April to September with the peak activity occurring in June and July. Harriers have only one brood per season with clutch size ranging from 3 to 12 eggs. Breeding pairs and juveniles typically roost communally in late autumn and winter.

4.4.11.1. SURVEY RESULTS

This species was found foraging within the proposed Construction Project biological study area during bird surveys and suitable nesting habitat is present.

4.4.11.2. AVOIDANCE AND MINIMIZATION EFFORTS

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project would begin. If an active nest were detected, the California Department of Fish and Game would be consulted and an ESA around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

4.4.11.3. PROJECT IMPACTS

With implementation of avoidance and minimization measures, impacts to the northern harrier are not expected.

4.4.11.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to northern harrier; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the northern harrier.

4.4.12. Discussion of White-tailed Kite

The white-tailed kite (*Elanus leucurus*) is fully protected under Section 3511 of the California Fish and Game Code. This species is a yearlong resident in coastal and valley lowlands and are rarely found away from agricultural areas. White-tailed kites forage in grasslands and other open habitats and nest in isolated trees or small woodland patches, including riparian areas.

The white-tailed kite is monogamous and breeds during spring and summer with a peak from May to August. Kite nests are usually built near the tops of small to large trees or large shrubs adjacent to open habitats such as fallow or cultivated fields, ruderal areas, grasslands, and oak woodlands (CDFG 2008).

In addition to their fully protected status, white-tailed kites are protected under the Migratory Bird Treaty Act.

4.4.12.1. SURVEY RESULTS

This species is fairly common in the project area throughout the year as it uses the area as foraging grounds. The California Natural Diversity Database indicates this species was/is nesting 14 miles away from the project area west of Gilroy and north of SR 152 where the Santa Cruz Mountains begin.

4.4.12.2. AVOIDANCE AND MINIMIZATION EFFORTS

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest were detected, the California Department of Fish and Game would be consulted and an ESA around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

4.4.12.3. PROJECT IMPACTS

With implementation of avoidance and minimization measures, impacts to the white-tailed kite are not expected.

4.4.12.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to the white-tailed kite; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the white-tailed kite.

4.4.13. Discussion of California Horned Lark

The California horned lark (*Eremophilia alpestris actia*) is a state species of special concern generally associated with coastal regions, chiefly from Sonoma County to San Diego County and also the San Joaquin Valley east to the foothills. It prefers short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats, usually where trees and large shrubs are absent. It feeds mostly on insects, snails, and spiders during breeding season and will add grass, forb seeds, and other plant matter to their diet during other seasons.

This lark breeds from March through July, with peak activity in May and builds grass-lined nests that are cup-shaped in depressions on open ground. In addition to its state species of special concern status, the California horned lark is protected under the Migratory Bird Treaty Act.

4.4.13.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species occurs 2 miles away from the project area east of Hollister. Although suitable habitat is present, the species was not found during bird surveys of the study area.

4.4.13.2. AVOIDANCE AND MINIMIZATION EFFORTS

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest were detected, the California Department of Fish and Game would be consulted and an ESA around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

4.4.13.3. PROJECT IMPACTS

With implementation of avoidance and minimization measures, impacts to the California horned lark are not expected.

4.4.13.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to the California horned lark; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the California horned lark.

4.4.14. Discussion of American Peregrine Falcon

The American peregrine falcon (*Falco peregrinus anatum*) is state endangered and fully protected and was recently federally delisted. This peregrine falcon subspecies is one of three subspecies that inhabit North America. It nests from central Alaska to north-central Canada, south to central Arizona and Baja California, and winters within its breeding range. Individuals live along mountain ranges, river valleys, and coastlines and frequent bodies of water in open areas with cliffs and canyons nearby for cover and nesting.

This falcon eats a variety of birds, capturing them in flight, and occasionally eats mammals, insects, and fish. Breeding occurs from early March to late August near wetlands, lakes, rivers, or other water bodies on high cliffs, banks, and dunes (CDFG 2008). In addition to its state status, the American peregrine falcon is protected under the Migratory Bird Treaty Act.

4.4.14.1. SURVEY RESULTS

The California Natural Diversity Database indicates this species was/is 40 miles away from the project area within the City of San Jose. Although suitable foraging habitat is present, the species was not found during bird surveys of the study area.

4.4.14.2. AVOIDANCE AND MINIMIZATION EFFORTS

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest were detected, the California Department of Fish and Game would be consulted and an ESA around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

4.4.14.3. PROJECT IMPACTS

With implementation of avoidance and minimization measures, impacts to the American peregrine falcon are not expected.

4.4.14.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to the American peregrine falcon; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the American peregrine falcon.

4.4.15. Discussion of American Badger

The American badger (*Taxidea taxus*) is a state species of special concern that is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast area. They are stocky, burrowing mammals that occur in grassland habitats throughout the western U.S. Badgers can have large territories, up to 21,000 acres in size, but territory size varies by sex and season.

Badgers are strong diggers, and feed mainly on other burrowing mammals, such as ground squirrels. Burrows are used for dens, escape, and predation. Badgers are mainly nocturnal, but are often active during the day. They breed during late summer to early autumn, and females give birth to a litter of young the following spring in March to early April. Coyotes and golden eagles have been known to prey upon badgers, but the main known sources of mortality are automobiles and hunting (CDFG 2008).

4.4.15.1. SURVEY RESULTS

Although the California Natural Diversity Database indicates this species occurs within 1 mile of the project area (in Hollister) and suitable habitat is present, the species was not found during detection dog surveys and spotlight surveys for San Joaquin kit fox within the study area.

4.4.15.2. AVOIDANCE AND MINIMIZATION EFFORTS

Avoidance and minimization measures implemented for California tiger salamander would also benefit the American badger.

4.4.15.3. PROJECT IMPACTS

Project impacts to California tiger salamander upland habitat could also affect the American badger.

4.4.15.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to the American badger; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit the American badger.

4.4.16. Discussion of San Joaquin Kit Fox

The San Joaquin kit fox is state listed as threatened and federally listed as endangered. Conversion of suitable kit fox habitat to intensive agriculture, oil production, and urban land uses has contributed to the decline of this species.

The San Joaquin kit fox occurs mainly in the San Joaquin Valley, with satellite populations occurring in the southern Salinas Valley and possibly the eastern Pajaro River Valley. This kit fox inhabits valley and foothill grasslands, sparsely vegetated shrubby habitats, and some agricultural and urban areas (USFWS 1998).

Adult foxes are usually solitary during the late summer and fall. By September and October, adult females have begun to excavate and enlarge natal dens. Adult males join the vixens in October or November, and mating probably occurs near the first of the year (USFWS 1998). Pups typically are born in late February or early March, begin foraging for themselves at about 4 to 5 months, and disperse shortly thereafter (USFWS 1998).

The San Joaquin kit fox uses complex dens for shelter and protection (CDFG 2008). Most kit fox dens are located in flat terrain or the lower slopes of hills. Common locations for dens include washes, drainages, and roadside berms. Kit foxes are reputed to be poor diggers and are usually found in areas with loose-textured, friable soils. Some studies have suggested that where hardpan layers predominate, kit foxes create dens by enlarging the burrows of California ground squirrel or American badger (USFWS 1998). They also commonly den in human-made structures such as small-diameter culverts. A diet of small rodents, such as kangaroo rats (*Dipodomys* sp.) and California ground squirrels, is common for the kit fox.

4.4.16.1. SURVEY RESULTS

Although the California Natural Diversity Database indicates this species occurs within 2.3 miles of the project area (west of Hollister on 156) and suitable habitat is present, the species was not found during detection dog surveys and spotlight surveys in the study area.

4.4.16.2. AVOIDANCE AND MINIMIZATION EFFORTS

Construction Project Alternative A

The *USFWS Standard Measures for Protection of the San Joaquin Kit Fox for Prior to or During Ground Disturbance* (Appendix F) would be implemented as follows:

- Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox.
- The configuration of exclusion zones around the kit fox dens should have a 50-foot radius around potential dens and a 100-foot radius around known dens measured outward from the entrance or cluster of entrances.
- Disturbance to all San Joaquin kit fox dens would be avoided to the maximum extent possible.
- Permanent and temporary construction disturbances and other types of project-related disturbance would be minimized.
- A qualified biologist should be present on construction sites during all critical construction activities within endangered species habitat to monitor activities. Activities for which a biologist should be present include all ground-disturbing activities; den and burrow excavations, if necessary; and other activities as determined by the qualified biologist. To the extent possible, a biologist will be available on call during all construction periods when not actually present on the construction site.
- A San Joaquin kit fox special provision will be included in the bid package to ensure protection of this species during construction.

Construction Project Alternative B

No avoidance and minimization efforts are proposed for Construction Project Alternative B.

4.4.16.3. PROJECT IMPACTS

No impacts are anticipated to San Joaquin kit fox as a result of proposed project activities. Implementation of the avoidance and minimization measures listed above would offset unexpected impacts.

4.4.16.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for San Joaquin kit fox.

4.4.17. Discussion of Migratory and State Protected Birds

Bird species protected by the Migratory Bird Treaty Act of 1918 and California Department of Fish and Game Code Section 3511 use the study area for roosting, nesting, and foraging year-round. Birds covered by the Migratory Bird Treaty Act are protected from hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any bird, or any part, nest or egg. State fully protected species (including their parts) may not be taken or possessed at any time. Birds within California have an approximate breeding and nesting season from February 15 to September 1.

4.4.17.1. Survey Results

Foraging and nesting habitat is present throughout the Construction Project biological study area for various migratory birds. Migratory birds not already discussed that could nest within this biological study area include the western scrub jay, house finch, killdeer, American robin (*Turdus migratorius*), and loggerhead shrike (*Lanius ludovicianus*). Migratory birds not already discussed that could use the Construction Project biological study area for roosting and foraging include the red-tailed hawk, western bluebird (*Sialia mexicana*), yellow-rumped warbler (*Dendroica coronata*), Brewer's blackbird (*Euphagus cyanocephalus*), and Bullock's oriole (*Ictuerus bullockii*).

4.4.17.2. Avoidance and Minimization Efforts

Trees, shrubs and other vegetation shall be removed prior to the nesting season of migratory birds. If removal of nests is deemed necessary, the removal would occur during the time of year when the nests are not used (approximately September 2 to February 14).

A preconstruction survey for migratory birds within the biological study area and adjacent habitat would be conducted no less than 14 days and no more than 30 days before the project starts. If an active nest were detected, the California Department of Fish and Game would be consulted and an ESA around the nest site may be established to prevent nesting disturbance. Work may be temporarily suspended if nesting activity cannot be prevented. Construction Contract Special Provisions would be included in the construction bid package to avoid impacts to migratory birds.

4.4.17.3. Project Impacts

With implementation of avoidance and minimization measures, impacts to migratory birds are not expected.

4.4.17.4. COMPENSATORY MITIGATION

No compensatory mitigation is proposed for potential impacts to protected bird species; however, compensatory mitigation measures for impacts to California tiger salamander upland habitat could also benefit protected bird species.

4.5. Cumulative Effects

Cumulative effects include the effects of future state, tribal, local, or private actions that are certain to occur within and around the study area of the proposed projects. Cumulative effects to biological resources could result from past, current, and reasonably foreseeable future projects within the region. Road construction and roadway improvement projects are usually a result of development, and, conversely, development is usually fueled by the construction or improvement of roadways (Forman 2003).

San Benito County has faced tremendous growth pressures emerging as a bedroom community for the Silicon Valley. Urban development is reducing (and will continue to reduce) connectivity for wildlife and their habitats in the Santa Clara and Hollister Valleys. Residents participating in the San Benito County General Plan have expressed the importance in limiting population growth in San Benito County and confining, if possible, growth to existing population centers (San Benito County 2008).

The Draft San Benito County General Plan and the Draft Santa Clara Valley Habitat Conservation Plan are being developed in response to the high demand for development within these areas. Currently, most property in the vicinity of the study area is zoned for agriculture and is not in a high-growth area (although there are some residences and businesses at the southern end of the proposed project area, which ends on the north side of Hollister).

The Caltrans project database was searched to determine if Caltrans is planning any state or federally funded projects within the project area. To date, Caltrans has multiple projects planned, projects currently in construction, and inactive delayed projects within San Benito County. Within the vicinity of the study area, a few minor projects are under construction to improve safety. Also within the study area is the proposed U.S. Highway 101 Widening Project State Route 129 to Monterey Road in San Benito and Santa Clara counties.

The proposed projects (Route Adoption Alignment and Proposed Construction Project) are expected to have a measurable contribution to cumulative impacts on natural resources in the study area, except for Proposed Construction Project Alternative B. The Proposed Construction Project Alternative B would not have a measurable contribution to cumulative impacts to natural resources because this alternative would not result in the take of listed species or their habitats, or other resources considered sensitive by regulatory agencies. Route Adoption Alignment Alternatives 1 and 2 and Proposed Construction Project Alternative A would result in impacts to natural resources. Proper mitigation for effects would minimize these impacts.

Chapter 5. Results: Permits and Technical Studies for Special Laws or Conditions

Appendix G provides a detailed list of federal and state environmental laws and regulations, Executive Orders, and applicable memoranda of understandings related to Caltrans projects. The Route Adoption Alignment and the Construction Project alternatives' regulatory requirements are different based on their individual impacts. Table 7 lists the permits required for alternatives before construction can proceed. Construction Project Alternative B would not require regulatory permits.

Table 7: Regulatory Permits Required

Potential Effect	Permit Required	Issuing Agency
Route Adoption Alignment Alternative 1		
Wetlands and Waters of the U.S.	Clean Water Act Section 404	ACOE
Water Quality	Clean Water Act Section 401	RWQCB
Streambed Alteration	1602 Streambed Alteration Agreement	CDFG
Impacts to California tiger salamander	Biological Opinion	USFWS
Impacts to South-Central California Steelhead ESU critical habitat	Biological Opinion	NMFS
Route Adoption Alignment Alternative 2		
Wetlands and Waters of the U.S.	Clean Water Act Section 404	ACOE
Water Quality	Clean Water Act Section 401	RWQCB
Streambed Alteration	1602 Streambed Alteration Agreement	CDFG
Impacts to South-Central California Steelhead ESU critical habitat	Biological Opinion	NMFS
Construction Project Alternative A		
Impacts to California tiger salamander	Biological Opinion	USFWS
Construction Project Alternative B		
No regulatory permits needed		

ACOE – U.S. Army Corps of Engineers
RWQCB – Regional Water Quality Control Board
CDFG – California Department of Fish and Game
NMFS – National marine Fisheries Service
USFWS – U.S. Fish and Wildlife Service

5.1. Federal Endangered Species Act Consultation Summary

Provisions of the Federal Endangered Species Act, as amended (16 USC 1531), protect federally listed threatened and endangered species and their habitats from unlawful take. "Take" under the Federal Endangered Species Act includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." U.S. Fish and Wildlife Service regulations define harm to include some types of "significant habitat modification or degradation." The U.S. Supreme Court ruled on 29 June 1995, that "harm" may include habitat modification "...where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."

A Biological Assessment document, which presents an evaluation of potential effects to federally listed species, would be required for impacts to the California tiger salamander if Route Adoption Alignment Alternative 1 and Construction Project Alternative A were chosen. This document would be submitted to the U.S. Fish and Wildlife Service for initiation of formal Section 7 consultation between Caltrans and the U.S. Fish and Wildlife Service. The product of formal consultation is a Biological Opinion issued by the U.S. Fish and Wildlife Service outlining approved mitigation measures.

5.2. Federal Fisheries and Essential Fish Habitat Consultation Summary

The Federal Endangered Species Act requires the federal government to designate critical habitat for any species it lists under the Federal Endangered Species Act. Critical habitat is defined as: (1) specific areas within the geographical area occupied by the species at the time of listing, if they contain physical or biological features essential to conservation, and those features may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species if the agency determines that the area itself is essential for conservation (NMFS 2008).

Under Section 7, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat. These

requirements apply only to federal agency actions, and the latter only to habitat that has been designated (NMFS 2008).

The Magnuson-Stevens Fishery Conservation and Management Act governs all fishery management activities that occur in federal waters of the U.S. 200-nautical-mile limit. The act establishes eight Regional Fishery Management Councils responsible for the preparation of fishery management plans to achieve the optimum yield from U.S. fisheries in their regions. These councils, with assistance from the National Marine Fisheries Service, establish Essential Fish Habitat in fishery management plans for all managed species. Federal agencies that fund, permit, or implement activities that may adversely affect Essential Fish Habitat are required to consult with the National Marine Fisheries Service regarding potential adverse effects of their actions on Essential Fish Habitat, and respond in writing to the National Marine Fisheries Service recommendations (NMFS 1996).

Additional protections to fisheries include the requirement of providing unimpeded fish passage in waterways for compliance with state and federal environmental laws and regulations including: California Fish and Game Code 5948; Fish and Game Code 1600; Lake and Streambed Alteration Agreement; CEQA; NEPA; Federal Endangered Species Act; and, California Endangered Species Act. Also the SB 857 amends Article 3.5 of the Streets and Highways Code, detailing requirements for assessing and remediating barriers to fish passage at stream crossings along the State Highway System.

Formal consultation with the National Marine Fisheries Service would be required for potential impacts to critical habitat for South-Central California Steelhead Evolutionary Significant Unit should an area of the Route Adoption Alignment that includes the Pajaro River and Carnadero Creek be proposed for construction.

5.3. California Endangered Species Act Consultation Summary

Provisions of the California Endangered Species Act (Fish and Game Code of California, Chapter 1.5, Sections 2050-2116) protect state-listed threatened and endangered species. The California Department of Fish and Game regulates activities that may result in “take” of individuals. Take is defined as, “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

Currently, endangered species consultation at the state level is not anticipated. Although a recent court ruling has ordered the Fish and Game Commission to conduct a 12-month review to determine whether to list the California tiger salamander as an endangered or threatened species under the California Endangered Species Act (Chea, 2006). If the California tiger salamander becomes listed before construction, Caltrans would request a 2080.1 permit from California Department of Fish and Game. The 2080.1 permit is a consistency determination with the U.S. Fish and Wildlife Service Biological Opinion, required when a species is both state and federally listed as threatened or endangered.

5.4. Wetlands and Other Waters Coordination Summary

The Clean Water Act (33 U.S.C. 1251-1376) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 of the Clean Water Act requires that an applicant for a federal permit that would allow activities resulting in a discharge into waters of the U.S. must obtain a state certification from the Regional Water Quality Control Board. This certification is to ensure that the discharge complies with other provisions of the Clean Water Act. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers that regulates the discharge of dredged or fill material into waters of the U.S including wetlands. The guidelines followed by the U.S. Army Corps of Engineers that allow the discharge of dredged or fill material into the aquatic system will only allow such activities if there are no practicable alternatives that would have less adverse impacts.

Under Sections 1601-1603 of the Fish and Game Code, Caltrans and other agencies are required to notify the California Department of Fish and Game prior to any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. When an existing fish or wildlife resource may be substantially adversely affected, the California Department of Fish and Game is required to propose reasonable project changes to protect the resource. These changes are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications and bid documents for the project.

Jurisdictional wetlands and waters of the U.S were identified within the project impact area for both Route Adoption Alignment alternatives. Should these waters and/or wetlands be affected by the Route Adoption Alignment, a Section 404 permit from the U.S. Army Corps of Engineers would be necessary as well as a Section 401

certification from the Regional Water Quality Control Board. In addition, a 1602 Streambed Alteration Agreement from the California Department of Fish and Game would be required for work within or adjacent to the Pajaro River and Carnadero Creek.

The California Department of Fish and Game would require avoidance measures for swallows, bats, and fish species as well as mitigation for impacts to riparian habitat impacted by project activities. The California Department of Fish and Game may also include avoidance measures in the Streambed Alteration Agreement for possible migrating species that use the Pajaro River and Carnadero Creek to move through the area.

5.5. Invasive Species

Executive Order 13112 (February 3, 1999) calls for Executive Branch agencies to work on preventing the introduction and control the spread of invasive species and eliminate or minimize their associated economic, ecological, and human health impacts. An "invasive species" is defined as a species that is non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. To prevent the introduction and spread of invasive species, Caltrans has issued policy guidelines, which provide a framework for addressing roadside vegetation management issues for construction activities and maintenance programs.

This project would not include transportation of invasive animals and would not change the surrounding habitat to encourage immigration of invasive animals to the site. The proposed project has an unlikely chance to facilitate the spread of invasive species with implementation of preventative measures addressed below.

Preventative Measures

- All equipment and vehicles shall be properly maintained and cleaned prior to bringing them onsite in order to avoid transporting dirt and seed material to the project site.
- Erosion control free of noxious weed materials should be used.
- Any fill material brought on site must be free of noxious weed materials.
- If there is a need for offsite disposal of excess fill at the end of construction, special considerations would be made to prevent the spread of noxious weeds.

- All equipment and vehicles shall be properly cleaned when leaving the project site to avoid spreading noxious weeds to other sites by transporting dirt and seed material.

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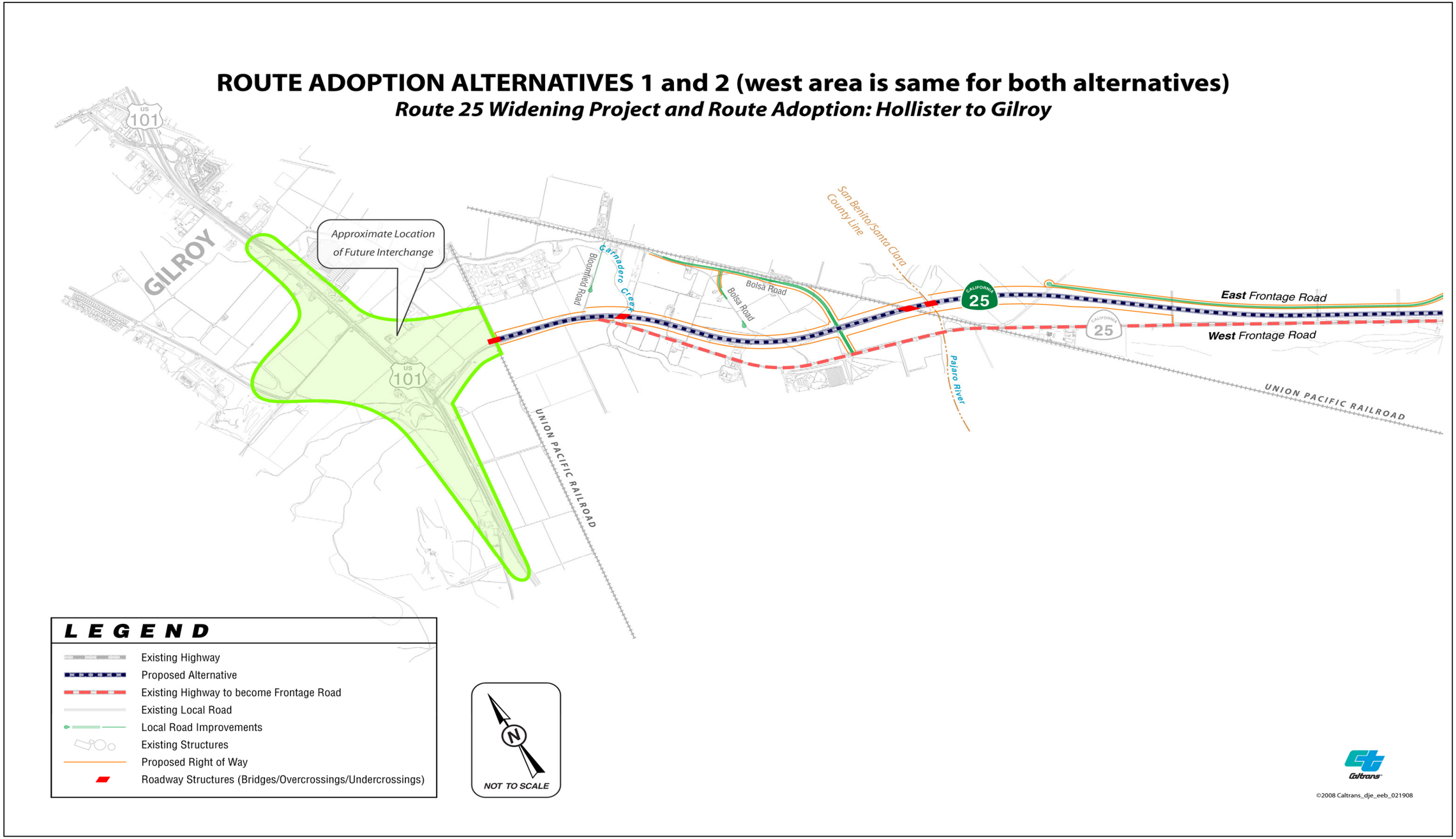
Appendix A Project Mapping

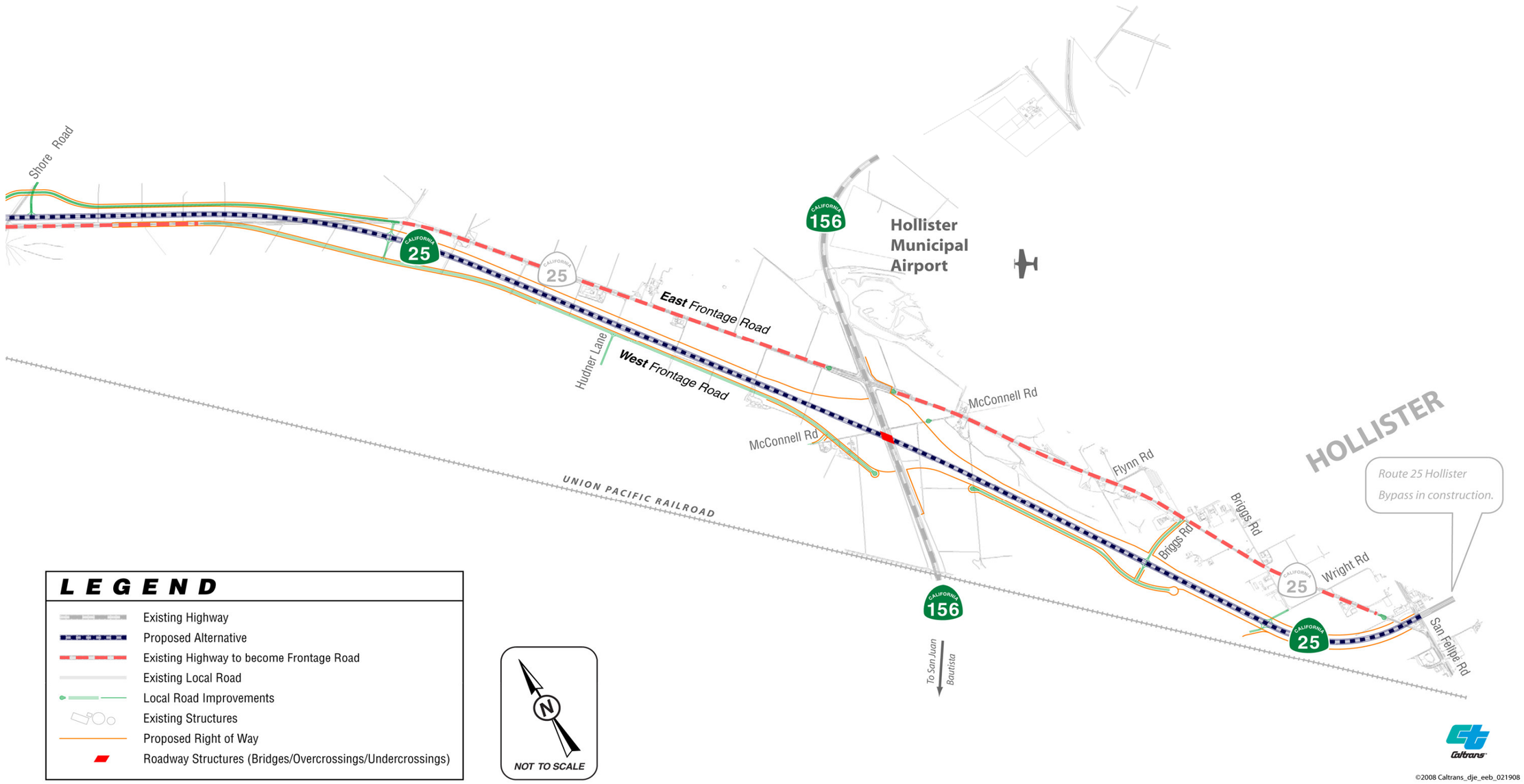


ROUTE ADOPTION ALTERNATIVE 1 (east area)

Route 25 Widening Project and Route Adoption: Hollister to Gilroy

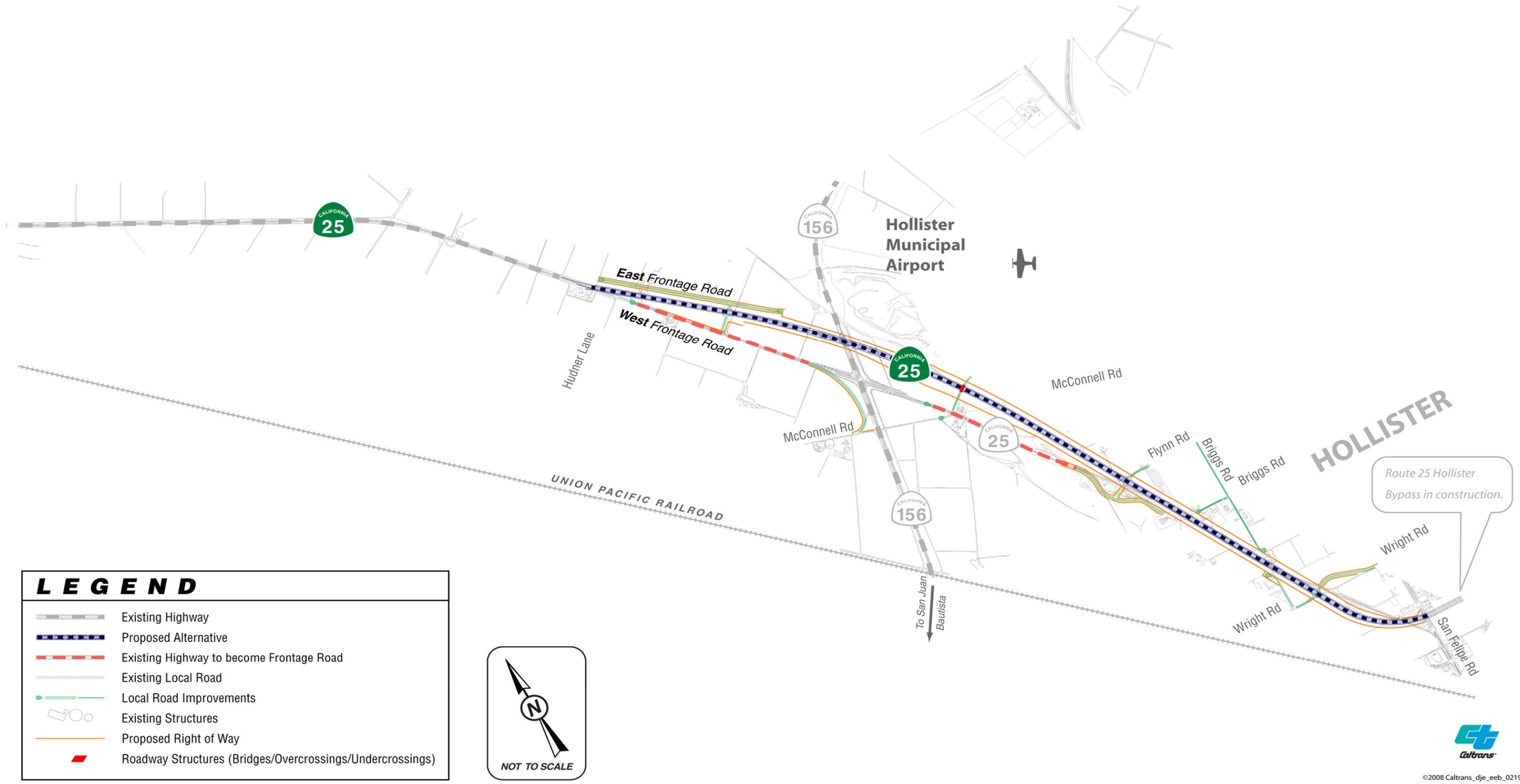
ROUTE ADOPTION ALTERNATIVE 2 (east area)

Route 25 Widening Project and Route Adoption: Hollister to Gilroy



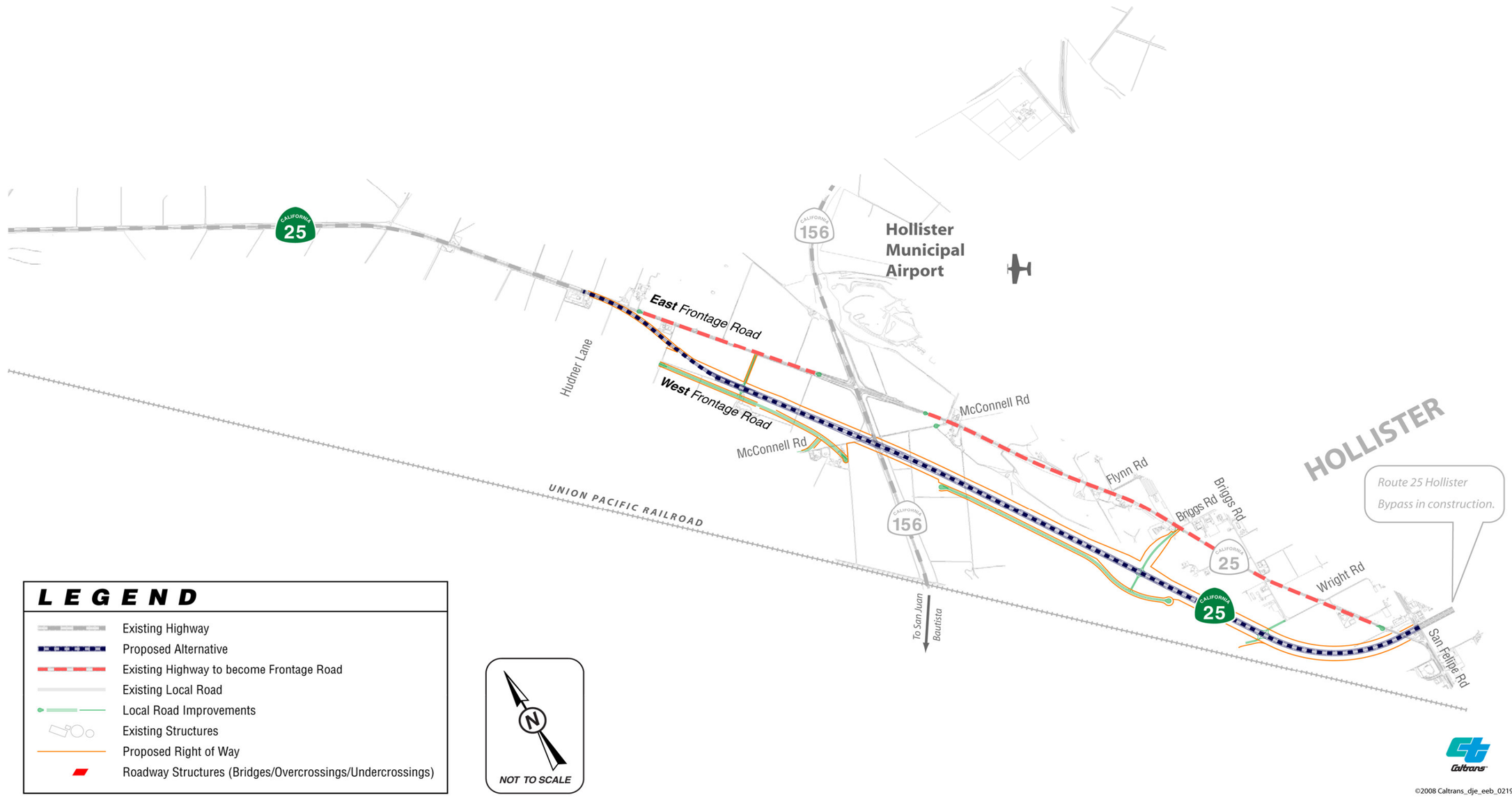
CONSTRUCTION ALTERNATIVE A

Route 25 Widening Project and Route Adoption: Hollister to Gilroy



CONSTRUCTION ALTERNATIVE B

Route 25 Widening Project and Route Adoption: Hollister to Gilroy



Appendix B Species Observed During Biological Surveys

VEGETATION

The plant species listed below have been observed in the study area during surveys conducted during the last 10 years. Common names with * indicate a non-native species to California: with a letter (A, B, C, or Q) indicate the pest rating with the State of California Department of Food and Agriculture. See below for pest rating and wetland indicator definitions.

Scientific Name	Common Name	Wetland Indicator
AMARANTHACEAE- Amaranth Family		
Amaranthus albus	Tumbleweed*	FACU
Amaranthus retroflexus	Red-Root Amaranth	FACU
ANACARDIACEAE- Sumac Family		
Toxicodendron diversilobum	Western Poison Oak	UPL
APIACEAE- Carrot Family		
Conium maculatum	Poison Hemlock*	FACW
Foeniculum vulgare	Sweet Fennel*	FACU
APOCYNACEAE- Dogbane Family		
Apocynum cannabinum	Indian Hemp	FAC
Vinca major	Greater Periwinkle*	UPL
ASTERACEAE- Sunflower Family		
Agoseris sp.	False-Dandelion	-
Artemisia douglasiana	Mugwort	FACW
Baccharis pilularis	Coyote Bush	UPL
Bidens frondosa	Sticktight	FACW
Centaurea maculosa	Spotted Knapweed*	UPL
Centaurea solstitialis	Yellow Star Thistle* C	UPL
Chamomilla suaveolens	Rayless Pineapple Weed*	UPL
Cirsium vulgare	Bull Thistle*	FACU
Conyza canadensis	Canada Horseweed	FAC
Cotula coronopifolia	Brass Buttons*	FACW
Euthamia occidentalis	Western Goldenrod	OBL
Gnaphalium canescens ssp. *beneolens*	Cudweed	UPL
Grindelia camporum	Great Valley Gumplant	FACU
Hemizonia fitchii	Tarweed	UPL
Heterotheca grandiflora	Telegraph Weed	UPL
Lactuca saligna	Willow-leaf Lettuce*	NI
Lactuca serriola	Prickly Lettuce*	FAC
Lasthenia californica	Goldfields	UPL

Scientific Name	Common Name	Wetland Indicator
Lasthenia fremontii	Fremont's Goldfields	OBL
Picris echiodes	Bristly Ox Tongue	FAC
Senecio vulgaris	Common Groundsel*	NI
Silybum marianum	Milk Thistle*	UPL
Sonchus oleraceus	Common Sow Thistle*	NI
Tragopogon porrifolius	Salsify*	UPL
Xanthium strumarium	Cocklebur	FAC
BETULACEAE- Birch Family		
Alnus rhombifolia	White Alder	FACW
BORAGINACEAE- Borage Family		
Amsinckia menziesii var. *intermedia*	Fiddleneck	UPL
Heliotroium curassavicum	Seaside Heliotrope	OBL
Plagiobothrys sp.	Popcornflower	-
Plagiobothrys stipitatus	Slender Popcornflower	OBL
BRASSICACEAE- Mustard Family		
Brassica rapa	Field Mustard*	UPL
Capsella bursa-pastorus	Shepard's Purse	FAC
Cardaria pubescens	White-top* B	UPL
Hirschfeldia incana	Mediterranean Mustard*	UPL
Lepidium latipes var. *latipes*	Dwarf Peppergrass	OBL
Raphanus sativus	Wild Radish*	UPL
Rorippa curvisiliqua	Curve-Pod Yellow Cress	OBL
CACTACEAE- Cactus Family		
Opuntia sp.	Prickly Pear	-
CAMPANULACEAE- Bellflower Family		
Downingia pulchella	Valley Downingia	OBL
CAPRIFOLIACEAE- Honeysuckle Family		
Sambucus mexicana	Blue Elderberry	FAC
Symphoricarpos albus	Snowberry	FACU
CARYOPHYLLACEAE- Pink Family		
Silene gallica	Common Catchfly*	UPL
Spergularia bocconii	Spurry*	UPL
Stellaria media	Common Chickweed*	FACU
CHENOPODIACEAE- Goosefoot Family		
Atriplex coronata	Crown Salt Bush	FACW
Atriplex joaquiniana	San Joaquin Salt Bush (CNPS 1B)	UPL
Atripex triangularis	Spearscale	UPL
Chenopodium ambrosioides	Mexican Tea	FAC
Chenopodium berlandieri	Pitseed Goosefoot	UPL
Chenopodium sp.	Goosefoot	-
Nitrophila occidentalis	Western Borax Weed	FACW

Scientific Name	Common Name	Wetland Indicator
Salicornia subterminalis	Pickleweed	OBL
Salsola tragus	Russian Thistle* C	FACU
Suaeda moquinii	Bush Seepweed	UPL
CONVOLVULACEAE- Morning-glory Family		
Convolvulus arvensis	Field bindweed	UPL
Cressa truxillensis	Alkali Weed	FACW
CUCURBITACEAE- Gourd Family		
Marah fabaceus	Wild Cucumber	UPL
CYPERACEAE- Sedge Family		
Carex barbarae	Santa Barbara Sedge	FACW
Cyperus eragrostis	Tall Flat-Sedge	FACW
Eleocharis macrostachya	Creeping Spikerush	OBL
Scirpus acutus	Tule	OBL
DIPSACACEAE- Teasel Family		
Dipsacus sylvestris	Wild Teasel	NI
FABACEAE- Pea Family		
Lotus corniculatus	Birdfoot Trefoil*	FAC
Lupinus succulentus	Arroyo Lupine	UPL
Medicago polymorpha	Burclover*	UPL
Medicago sativa	Alfalfa	UPL
Melilotus alba	White Sweet Clover*	FACU
Melilotus indica	Indian Sweet Clover*	FAC
Trifolium fucatum	Sour Clover	FAC
Vicia sativa	Spring Vetch*	FACU
Vicia villosa	Winter Vetch*	UPL
FAGACEAE- Oak Family		
Quercus agrifolia	Coastal Live Oak	UPL
Quercus douglasii	Blue Oak	UPL
Quercus lobata	Valley Oak	FAC
FRANKENIACEAE- Frankenia Family		
Frankenia salina	Alkali Heath	FACW
GENTIANACEAE- Gentian Family		
Centaurium muehlenbergii	Monterey Centaury	FAC
GERANIACEAE- Geranium Family		
Erodium cicutarium	Red-stemmed Filaree*	UPL
Erodium moschatum	White-stemmed Filaree*	UPL
Geranium dissectum	Cutleaf Geranium*	UPL
HIPPOCATANACEAE- Buckeye Family		
Aeaculus californica	Buckeye	UPL
HYDROPHYLLACEAE- Waterleaf Family		
Phacelia imbricata	Phacelia	UPL

Scientific Name	Common Name	Wetland Indicator
JUGLANDACEAE- Walnut Family		
Juglans californica ssp. *hindsii*	Northern California Black Walnut	FAC
JUNCAEAE- Rush Family		
Juncus effusus var. *pacificus*	Pacific Rush	OBL
LAMIACEAE- Mint Family		
Mentha arvensis	Mint	FACW
Mentha pulegium	Pennyroyal*	OBL
Mentha spicata	Spearmint*	OBL
LAURACEAE- Laurel Family		
Umbellularia californica	California Laurel	FAC
LINACEAE- Flax Family		
Linum lewisii	Flax	UPL
MALVACEAE- Mallow Family		
Malva nicaeensis	Bull Mallow*	UPL
MYRTACEAE- Myrtle Family		
Eucalyptus globulus.	Blue Gum*	-
OLEACEAE- Olive Family		
Fraxinus latifolia	Oregon Ash	FACW
ONAGRACEAE- Evening Primrose Family		
Epilobium densiflorum	Willow Herb	UPL
Epilobium glaberrimum	Glaucous Willow Herb	OBL
Epilobium sp.	Willow Herb	-
Oenothera elata ssp. *hookeri*	Hooker's Evening Primrose	FACW
PAPAVERACEAE- Poppy Family		
Eschscholzia californica	California Poppy	UPL
PLANTAGINACEAE- Plantain Family		
Plantago coronopis	Cut-leaf Plantain*	FAC
Plantago lanceolata	English Plantain*	FAC
PLATANACEAE- Sycamore Family		
Platanus racemosa	Western Sycamore	FACW
POACEAE- Grass Family		
Arundo donax	Giant Reed*	FACW
Avena fatua	Wild Oat*	UPL
Bromus catharticus	Rescue Grass*	UPL
Bromus diandrus	Ripgut Brome*	UPL
Bromus hordeaceous	Soft Chess*	FACU
Crypsis schoenoides	Swamp Timothy*	OBL
Cynodon dactylon	Bermuda Grass* C	FAC
Distichlis spicata	Saltgrass	FACW

Scientific Name	Common Name	Wetland Indicator
Echinochloa crus-galli	Barnyard Grass*	FACW
Festuca californica	California Fescue	FACU
Hordeum depressum	Dwarf Barley	NI
Hordeum murinum ssp. *leporinum*	Barnyard Barley*	NI
Leymus triticoides	Beardless Wild Rye	UPL
Lolium multiflorum	Italian Ryegrass*	UPL
Lolium perenne	Perennial Ryegrass	FAC
Phalaris arundinacea	Reed Canary Grass	OBL
Phalaris paradoxa	Hood Canary Grass*	UPL
Piptatherium miliaeceum	Smilo Grass*	UPL
Poa annua	Annual Bluegrass*	FACW
Polypogon monspeliensis	Annual Rabbitsfoot Grass*	FACW
Triticum aestivum	Cultivated Wheat*	UPL
Vulpia myuros	Rat-tail Fescue*	FACU
POLYGONACEAE- Buckwheat Family		
Eriogonum fasciculatum	California Buckwheat	UPL
Polygonum aviculare	Prostrate Knotweed*	FAC
Polygonum hydropiperoides	Waterpepper	OBL
Polygonum lapathifolium	Pale Smartweed	OBL
Rumex conglomeratus	Clustered Dock*	FACW
Rumex crispus	Curly Dock*	FACW
Rumex obtusifolius	Bitter Dock*	FACW
Rumes salicioflius	Willow Dock	OBL
PORTULACACEAE- Purslane Family		
Portulaca oleracea	Common Purslane*	FAC
RANUNCULACEAE- Buttercup Family		
Clematis ligusticifolia	Virgin's Bower	FAC
ROSACEAE- Rose Family		
Prunus sp.	Almond or Cherry	-
Rosa californica	California Wild Rose	FAC
Rubus discolor	Himalayan Blackberry*	FACW
Rubus ursinus	California Blackberry	FACW
SALICACEAE- Willow Family		
Populus fremontii	Fremont's Cottonwood	FACW
Populus balsamifera ssp. *trichocarpa*	Balsam Cottonwood	FACW
Salix exigua	Narrow-leafed Willow	OBL
Salix gooddingii	Goodding's Black Willow	OBL
Salix laevigata	Red Willow	-
Salix lasiolepis	Arroyo Willow	FACW
SCROPHULARIACEAE- Figwort Family		
Castilleja exerta	Owl's Clover	UPL

Scientific Name	Common Name	Wetland Indicator
Kickxia spuria	Fluellin*	UPL
Mimulus aurantiacus	Bush Monkeyflower	UPL
Verbascum blattaria	Moth Mullein*	FACW
Veronica catenata	Chain Speedwell*	OBL
SIMAROUBACEAE- Simarouba Family		
Ailanthus altissima	Tree of Heaven*	FACU
SOLANACEAE- Nightshade Family		
Solanum nigrum	Black Nightshade*	FACU
TAMARICACEAE- Tamarisk Family		
Tamarix parviflora	Small Flower Tamarix	FAC
TYPHACEAE- Cattail Family		
Typha latifolia	Broad-leaved Cattail	OBL
URTICACEAE- Nettle Family		
Urtica dioica ssp. *holoserecea*	Stinging Nettle	FACW
VERBENACEAE- Vervain Family		
Phyla nodiflora var. incisa	Turkey Tangle Frogfruit	FACW
VITACEAE- Grape Family		
Vitis californica	California Wild Grape	FACW
ZYGOPHYLACEAE- Caltrop Family		
Tribulus terrestris	Puncture Vine* C	UPL

* Non-native Species to California

Pest Ratings of Noxious Weed Species and Noxious Weed Seed:
'**A**'- Eradication, containment, rejection, or other holding actions at the state-county level. Quarantine interceptions to be rejected or treated at any point in the state.
'**B**'- Eradication, containment, control or other holding action at the discretions of the commissioner.
'**C**'- State endorsed holding action and eradication only when found in a nursery; action to retard spread outside of nurseries at the discretion of the commissioner; reject only when found in a cropseed for planting or at the discretion of the commissioner.
'**Q**'- Temporary 'A' action outside of nurseries at the state-county level pending determination of a permanent rating.

Wetland Indicator Status:
OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
NI - No Investigation
UPL - Upland

CNPS- California Native Plant Society

WILDLIFE

Scientific Name	Common Name
AQUATIC SPECIES	
CAMBARIDAE- Freshwater Crayfish	
Procambarus clarkii	Red Crayfish
POECILIIDAE- Livebearers	
Gambusia afinis	Western Mosquitofish
AMPHIBIANS	
AMBYSTOMATIDAE-Mole Salamanders and Relatives	
Ambystoma californiense	California Tiger Salamander
HYLIDAE- Tree Frogs and Relatives	
Hyla regilla	Pacific Treefrog
REPTILES	
EMYDIDAE- Box and Water Turtles	
Clemmys marmorata	Western Pond Turtle
BIRDS	
ARDEIDAE- Herons and Bitterns	
Ardea herodias	Great Blue Heron
Butorides virescens	Green Heron
Ardea alba	Great Egret
CATHARTIDAE- New World Vultures	
Cathartes aura	Turkey Vulture
ANATIDAE- Swans, Geese, and Ducks	
Anas platyrhynchos	Mallard
ACCIPITRIDAE- Hawks, Old World Vultures and Harriers	
Buteo lineatus	Red-shouldered Hawk
Pandion haliaetus	Osprey
Buteo jamaicensis	Red-tailed Hawk
Elanus leucurus	White-tailed Kite
Circus cyaneus	Northern Harrier
ODONTOPHORIDAE- New World Quail	
Callipepla californica	California Quail
CHARADRIIDAE- Plovers and Relatives	
Charadrius vociferus	Killdeer
COLUMBIDAE- Pigeons and Doves	
Zenaida macroura	Mourning Dove
Columba livia	Rock Pigeon
TYTONIDAE- Barn Owls	
Tyto alba	Barn Owl

Scientific Name	Common Name
STRIGIDAE- Typical Owls	
Athene cunicularia	Burrowing Owl
TROCHILIDAE- Hummingbirds	
Calypte anna	Anna's Hummingbird
ALCEDINIDAE- Kingfishers	
Ceryle alcyon	Belted Kingfisher
PICIDAE- Woodpeckers and Wrynecks	
Colaptes auratus	Northern Flicker
Picoides pubescens	Downy Woodpecker
Picoides nuttallii	Nuttall's Woodpecker
TYRANNIDAE- Tyrant Flycatchers	
Empidonax difficilis	Pacific-slope Flycatcher
Sayornis nigracans	Black Phoebe
LANIIDAE- Shrikes	
Lanius ludovicianus	Loggerhead Shrike
CORVIDAE- Jays, Magpies and Crows	
Aphelocoma californica	Western Scrub Jay
Corvus brachyrhynchos	American Crow
HIRUNDINIDAE- Swallows	
Tachycineta bicolor	Tree Swallow
Petrochelidon pyrrhonota	Cliff Swallow
Hirundo rustica	Barn Swallow
PARIDAE- Titmice and Relatives	
Baeolophus inornatus	Oak Titmouse
Poecile rufescens	Chestnut-backed Chickadee
AEGITHALIDAE- Bushtit	
Psaltriparus minimus	Bushtit
SITTIDAE- Nuthaches	
Sitta carolinensis	White-breasted Nuthatch
TROGLODYTIDAE- Wrens	
Troglodytes aedon	House Wren
Thryomanes dewickii	Bewick's Wren
TURDIDAE- Thrushes	
Sialia mexicana	Western Bluebird
Turdus magratorius	American Robin
Catharus ustulatus	Swainson's Thrush
TIMALIIDAE- Babblers	
Chamaca fasciata	Wrentit
STURNIDAE- Starlings and Allies	
Sturnus vulgaris	European Starling

Scientific Name	Common Name
PARULIDAE- Wood Warblers and Relatives	
Geothlypis trichas	Common Yellowthroat
Wilsonia pusilla	Wilson's Warbler
Dendroica petechia	Yellow Warbler
Dendroica coronata	Yellow-rumped Warbler
THRAUPIDAE- Tanagers	
Piranga ludoviciana	Western Tanager
EMBERIZIDAE- Emberizines	
Melospiza melodia	Song Sparrow
Pipilo maculatus	Spotted Towhee
Pipilo crissalis	California Towhee
CARDINALIDAE- Cardinals, Grosbeaks and Allies	
Pheucticus melanocephalus	Black-headed Grosbeak
ICTERIDAE- Blackbirds, Orioles and Allies	
Icterus bullockii	Bullock's Oriole
Molothrus ater	Brown-headed Cowbird
Agelaius phoeniceus	Red-winged Blackbird
Euphagus cyanocephalus	Brewer's Blackbird
FRINGILLIDAE- Finches	
Carduelis tristis	American Goldfinch
Carduelis psaltria	Lesser Goldfinch
Carpodacus mexicanus	House Finch
PASSERIDAE- Old World Sparrows	
Passer domesticus	House Sparrow
MAMMALS	
DIDELPHIDAE- Marsupials	
Didelphis virginiana	Virginia Opossum
VESPERTILIONIDAE- Evening Bats	
-	Unidentified Bat Species
LEPORIDAE- Rabbits and Hares	
Sylvilagus aubudonii	Desert Cottontail
Sylvilagus bachmani	Brush Rabbit
SCIURIDAE-Squirrels, Chipmunks and Marmots	
Spermophilus beecheyi	California Ground Squirrel
HETEROMYIDAE-Pocket Mice and Kangaroo Rats	
-	Kangaroo Rat?
MURIDAE- Mice, Rats and Voles	
-	Rat?
CANIDAE- Foxes, Wolves and Relatives	
Vulpes vulpes	Red Fox

Scientific Name	Common Name
Canis latrans	Coyote
PROCYONIDAE- Raccoons and Relatives	
Procyon lotor	Raccoon
MUSTIELIDAE- Weasels and Relatives	
Taxidea taxus	American Badger
MEPHITIDAE- Skunks	
Mephitis mephitis	Striped Skunk
FELIDAE- Cats	
Felis catus	Feral Cat
CERVIDAE- Deer, Elk and Relatives	
Odocoileus hemionus	Mule Deer

Appendix C Database Query Results

USFWS Sacramento Office On-line Official Species List

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

July 25, 2008

Document Number: 080725101804

Reagen O'Leary
Caltrans
2015 E. Shields, Suite 100
Fresno, CA 93726-5428

Subject: Species List for State Route 25 Widening

Dear: Interested party

We are sending this official species list in response to your July 25, 2008 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be October 23, 2008.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested

Document Number: 080725101804

Database Last Updated: January 31, 2008

Quad Lists

Listed Species

Invertebrates

Euphydryas editha bayensis

bay checkerspot butterfly (T)

Fish

Oncorhynchus mykiss

South Central California steelhead (T) (NMFS)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Critical habitat, CA tiger salamander, central population (X)

Rana aurora draytonii

California red-legged frog (T)

Birds

Brachyramphus marmoratus

marbled murrelet (T)

Sternula antillarum (=Sterna, =albifrons) browni

California least tern (E)

Vireo bellii pusillus

Least Bell's vireo (E)

Mammals

Vulpes macrotis mutica

San Joaquin kit fox (E)

Quads Containing Listed, Proposed or Candidate Species:

THREE SISTERS (385A)

SAN FELIPE (385B)

CHITTENDEN (386A)

County Lists

Santa Clara County

Listed Species

Invertebrates

Branchinecta lynchi

vernal pool fairy shrimp (T)

Euphydryas editha bayensis
bay checkerspot butterfly (T)
Critical habitat, bay checkerspot butterfly (X)

Fish

Eucyclogobius newberryi
tidewater goby (E)

Oncorhynchus kisutch
coho salmon - central CA coast (E) (NMFS)

Oncorhynchus mykiss
Central California Coastal steelhead (T) (NMFS)
Critical habitat, Central California coastal steelhead (X) (NMFS)
South Central California steelhead (T) (NMFS)

Oncorhynchus tshawytscha
Central Valley spring-run chinook salmon (T) (NMFS)
winter-run chinook salmon, Sacramento River (E) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana aurora draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Masticophis lateralis euryxanthus
Alameda whipsnake [=striped racer] (T)
Critical habitat, Alameda whipsnake (X)

Thamnophis sirtalis tetrataenia
San Francisco garter snake (E)

Birds

Brachyramphus marmoratus
marbled murrelet (T)

Charadrius alexandrinus nivosus

western snowy plover (T)

Pelecanus occidentalis californicus
California brown pelican (E)

Rallus longirostris obsoletus
California clapper rail (E)

Sternula antillarum (=Sterna, =albifrons) browni
California least tern (E)

Vireo bellii pusillus
Least Bell's vireo (E)

Mammals

Reithrodontomys raviventris
salt marsh harvest mouse (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Castilleja affinis ssp. neglecta
Tiburon paintbrush (E)

Ceanothus ferrisae
Coyote ceanothus (E)

Dudleya setchellii
Santa Clara Valley dudleya (E)

Streptanthus albidus ssp. albidus
Metcalf Canyon jewelflower (E)

Proposed Species

Fish

Oncorhynchus mykiss
Critical habitat, South Central California steelhead (PX) (NMFS)

Key:

(E) *Endangered* - Listed as being in danger of extinction

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** proje within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by t list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online Inventory of Rare and Endangered Plants.

Surveying

Some of the species on your list may not be affected by your project. A trained biologist o botanist, familiar with the habitat requirements of the species on your list, should determi whether they or habitats suitable for them may be affected by your project. We recommei that your surveys include any proposed and candidate species on your list.

For plant surveys, we recommend using the Guidelines for Conducting and Reporting Botanical Inventories. The results of your surveys should be published in any environment documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or

injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of twc procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that n result in take, then that agency must engage in a formal consultation with the Service.

  During formal consultation, the Federal agency, the applicant and the Service work together t avoid or minimize the impact on listed species and their habitat. Such consultation would resu in a biological opinion by the Service addressing the anticipated effect of the project on listed proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

  Should your survey determine that federally listed or proposed species occur in the area and a likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct a indirect impacts to listed species and compensates for project-related loss of habitat. You shoı include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essenti to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our critical habitat page for maps.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose th for listing as threatened or endangered. By considering these species early in your plannir process you may be able to avoid the problems that could develop if one of these candida was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts More info

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defir by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, yo will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be Octob 23, 2008.

USFWS Ventura Office Official Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
2008-SL-0513

August 20, 2008

Reagan O'Leary
Associate Environmental Planner / Natural Science
California Department of Transportation, District 6
2015 East Shields Avenue, Suite A-100
Fresno, California 93726-8290

Subject: Species List for State Route 25 Widening, San Benito County, California

Dear Ms. O'Leary:

This letter is in response to your request, dated July 25, 2008, and received in our office on July 28, 2008, for a list of endangered, threatened, and other special status species that may occur in the Hollister, San Juan Bautista, and Tres Pinos U.S. Geological Survey 7.5-minute Quadrangles, San Benito County, California. California Department of Transportation (Caltrans) is requesting this list of sensitive species as part of their State Route 25 Widening Project.

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any federally listed endangered or threatened species. Section 3(18) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. If the subject project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. Once you have determined if the proposed project will have a lead Federal agency, we can provide you with more detailed information regarding the section 7 or 10(a)(1)(B) permitting process.

Reagan O'Leary 2

We recommend that you review information in the California Department of Fish and Game's Natural Diversity Data Base. You can contact the California Department of Fish and Game at (916) 324-3812 for information on other sensitive species that may occur in this area.

If you have any questions, please call Christopher Diel of my staff at (805) 644-1766, extension 305.

Sincerely,

David M. Pereksta
Assistant Field Supervisor

Enclosure

LISTED SPECIES AND CRITICAL HABITAT
THAT MAY OCCUR IN THE
HOLLISTER, SAN JUAN BAUTISTA, AND TRES PINOS
U.S.G.S. 7.5 – MINUTE QUADRANGLES,
SAN BENITO COUNTY, CALIFORNIA

Mammals		
San Joaquin kit fox	*Vulpes macrotis mutica*	E
Amphibians		
California red-legged frog	*Rana aurora draytonii*	T, CH
California tiger salamander	*Ambystoma californiense*	T, CH
Invertebrates		
Conservancy fairy shrimp	*Branchinecta conservatio*	E
Longhorn fairy shrimp	*Branchinecta longiantenna*	E, CH
Vernal pool fairy shrimp	*Branchinecta lynchi*	T, CH
Vernal pool tadpole shrimp	*Lepidurus packardi*	E

Key:

E – Endangered T - Threatened CH - Critical habitat

California Natural Diversity Database

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait
State Route 25 Widening Project- 24K Quad search for Chittenden, San Felipe, Hollister, San Juan Bautista, Tres Pinos and Three Sisters

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	***Actinemys marmorata*** western pond turtle	ARAAD02030			G3G4	S3	SC
2	***Actinemys marmorata marmorata*** northwestern pond turtle	ARAAD02031			G3G4T3	S3	SC
3	***Actinemys marmorata pallida*** southwestern pond turtle	ARAAD02032			G3G4T2T3 Q	S2	SC
4	***Agelaius tricolor*** tricolored blackbird	ABPBXB0020			G2G3	S2	SC
5	***Ambystoma californiense*** California tiger salamander	AAAAA01180	Threatened		G2G3	S2S3	SC
6	***Antrozous pallidus*** pallid bat	AMACC10010			G5	S3	SC
7	***Arctostaphylos pajaroensis*** Pajaro manzanita	PDERI04100			G2	S2 1	1B 1
8	***Astragalus tener var. tener*** alkali milk-vetch	PDFAB0F8R1			G1T1	S1 1	1B 2
9	***Athene cunicularia*** burrowing owl	ABNSB10010			G4	S2	SC
10	***Atriplex joaquiniana*** San Joaquin spearscale	PDCHE041F3			G2	S2 1	1B 2
11	***California macrophylla*** round-leaved filaree	PDGER01070			G3	S3 1	1B 1
12	***Castilleja rubicundula ssp rubicundula*** pink creamsacs	PDSCR0D482			G5T2	S2 2	1B 2
13	***Eremophila alpestris actia*** California horned lark	ABPAT02011			G5T3Q	S3	
14	***Eriogonum nortonii*** Pinnacles buckwheat	PDPGN08470			G2	S2 3	1B 3
15	***Eryngium aristulatum var. hooveri*** Hoover's button-celery	PDAPI0Z043			G5T2	S2 1	1B 1
16	***Eumops perotis californicus*** western mastiff bat	AMACD02011			G5T4	S3?	SC
17	***Falco mexicanus*** prairie falcon	ABNKD06090			G5	S3	
18	***Fritillaria liliacea*** fragrant fritillary	PMLIL0V0C0			G2	S2 2	1B 2
19	***Helminthoglypta sequoicola consors*** redwood shoulderband	IMGASC2421			G1G2T1	S1	
20	***Hoita strobilina*** Loma Prieta hoita	PDFAB5Z030			G2	S2 1	1B 1
21	***Lasiurus blossevillii*** western red bat	AMACC05060			G5	S3?	SC
22	***Lasiurus cinereus*** hoary bat	AMACC05030			G5	S4?	
23	***Linderiella occidentalis*** California linderiella	ICBRA06010			G3	S2S3	

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Report Printed on Thursday July 24 2008

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Information Expires 12/29/2008

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait
State Route 25 Widening Project- 24K Quad search for Chittenden, San Felipe, Hollister, San Juan Bautista, Tres Pinos and Three Sisters

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24	***Malacothamnus aboriginum*** Indian Valley bush-mallow	PDMAL0Q020			G3	S3 2	1B 2
25	***Masticophis flagellum ruddocki*** San Joaquin whipsnake	ARADB21021			G5T2T3	S2?	SC
26	***North Central Coast Drainage Sacramento Sucker/Roach River***	CARA2623CA			G?	SNR	
27	***Oncorhynchus mykiss irideus*** steelhead - south/central California coast ESU	AFCHA0209H	Threatened		G5T2Q	S2	SC
28	***Optioservus canus*** Pinnacles optioservus riffle beetle	IICOL5E020			G1	S1	
29	***Plagiobothrys glaber*** hairless popcorn-flower	PDBOR0V0B0			GH	SH	1A
30	***Rana draytonii*** California red-legged frog	AAABH01022	Threatened		G4T2T3	S2S3	SC
31	***Riparia riparia*** bank swallow	ABPAU08010		Threatened	G5	S2S3	
32	***Spea hammondii*** western spadefoot	AAABF02020			G3	S3	SC
33	***Streptanthus albidus ssp. peramoenus*** most beautiful jewel-flower	PDBRA2G012			G2T2	S2 2	1B 2
34	***Sycamore Alluvial Woodland***	CTT62100CA			G1	S1 1	
35	***Taricha torosa torosa*** Coast Range newt	AAAAF02032			G5T4	S4	SC
36	***Taxidea taxus*** American badger	AMAJF04010			G5	S4	SC
37	***Trifolium amoenum*** two-fork clover	PDFAB40040	Endangered		G1	S1 1	1B 1
38	***Trifolium depauperatum var. hydrophilum*** saline clover	PDFAB400R5			G5T2?	S2 2?	1B 2
39	***Vireo bellii pusillus*** least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
40	***Vulpes macrotis mutica*** San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2T3	S2S3	

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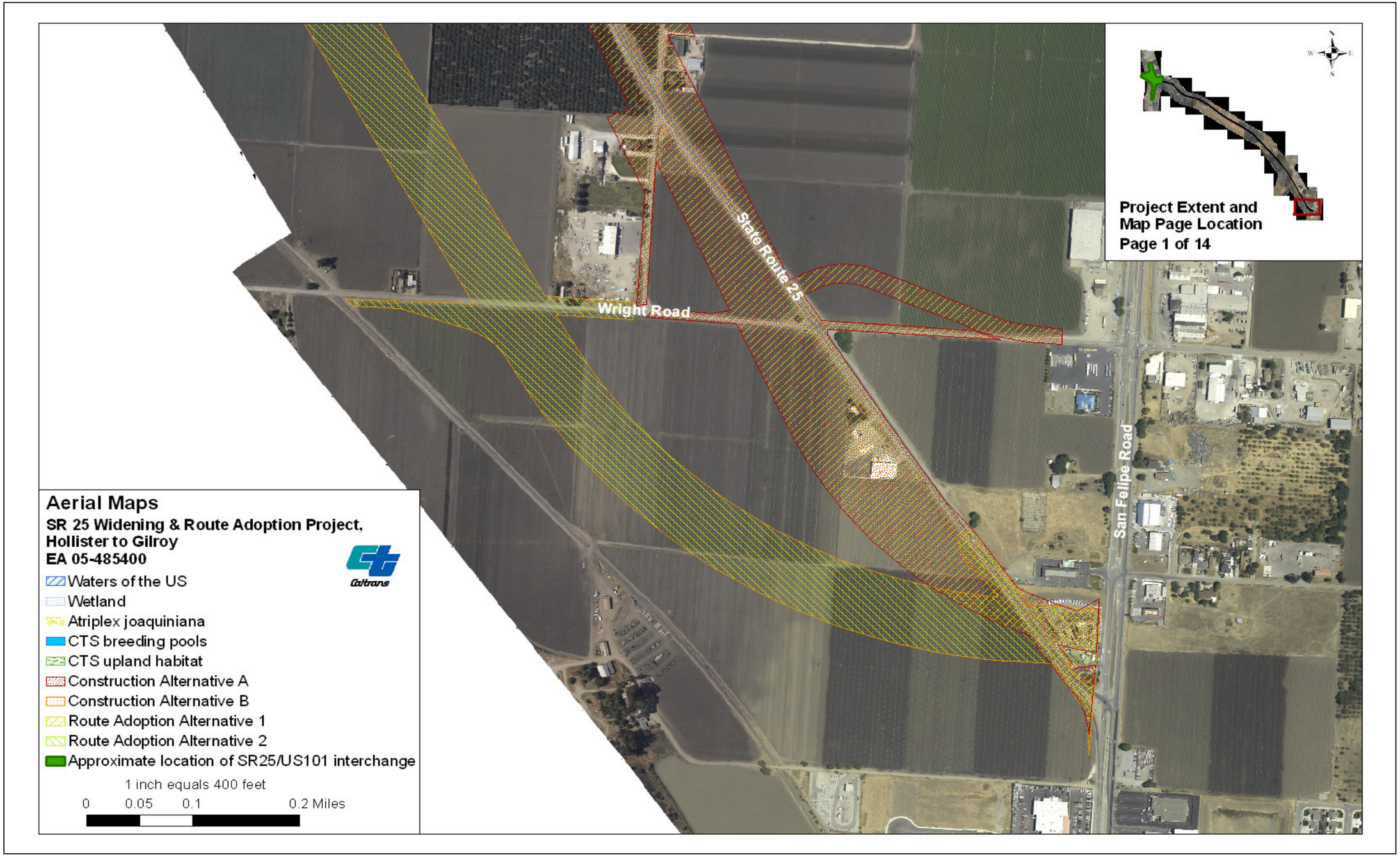
Information Expires 12/29/2008

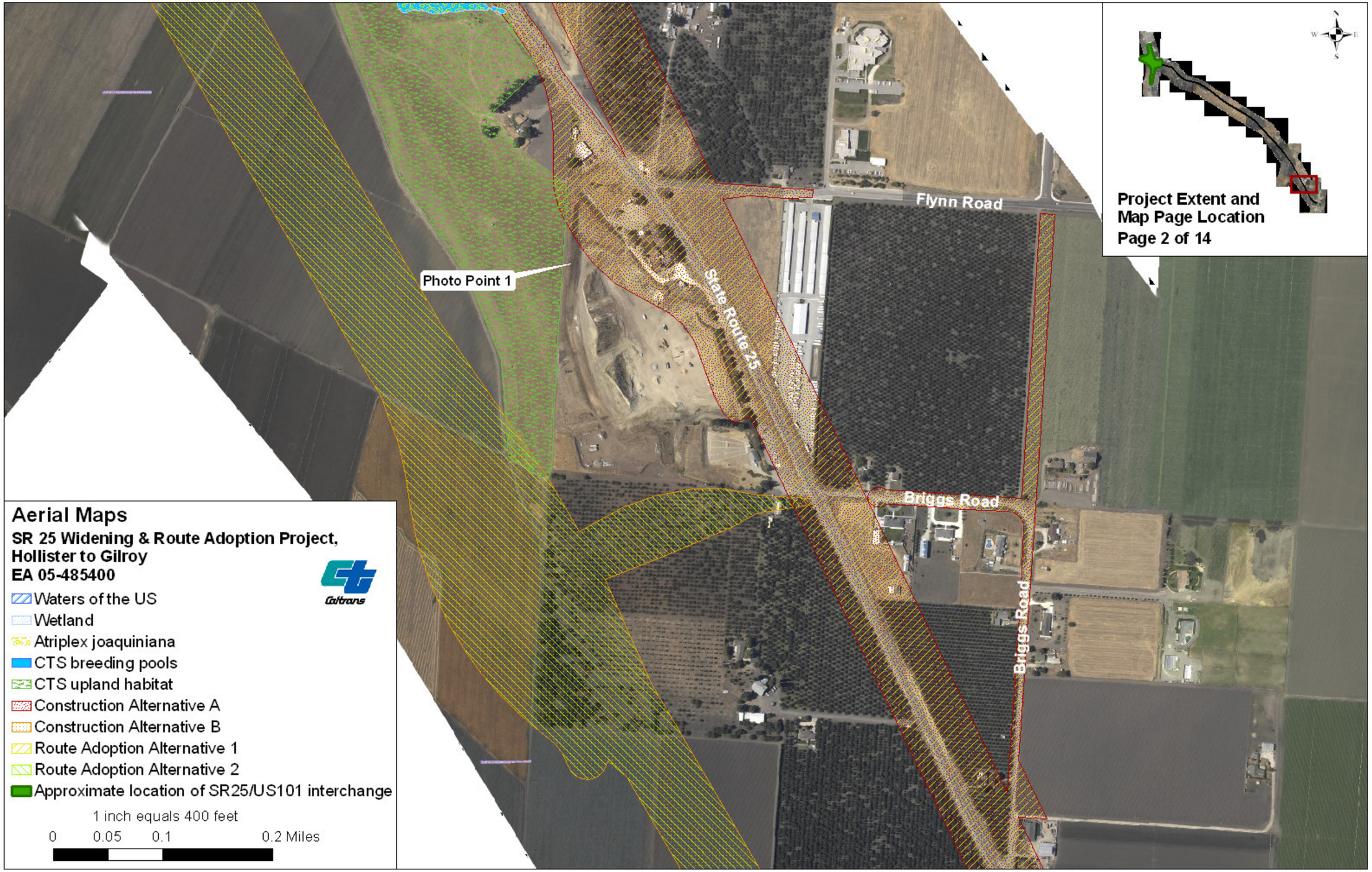
California Native Plant Society *Electronic Inventory of Rare and Endangered Plants, 7th Edition*

The following table includes rare plants from the query results of the *California Native Plant Society Electronic Inventory of Rare and Endangered Plants* that are known to occur within the Chittenden, Hollister, San Felipe, San Juan Bautista, Three Sisters and Tres Pinos United States Geological Survey 7.5-minute quadrangles.

Scientific Name	Common Name	CNPS Listing
Arctostaphylos pajaroensis	Pajaro manzanita	1B.1
Atriplex joaquiniana	San Joaquin spearscale	1B.2
California macrophylla	Round-leaved filaree	1B.1
Castilleja rubicundula ssp. *rubicundula*	Pink creamsacs	1B.2
Chorizanthe biloba var. *immemora*	Hernandez spineflower	1B.2
Eriogonum nortonii	Pinnacles buckwheat	1B.3
Erygium aristulatum var. *hooveri*	Hoover's button-celery	1B.1
Hordeum intercedens	Vernal barley	3.2
Malacothamnus aboriginum	Indian Valley bush-mallow	1B.2
Navarretia prostrata	Prostrate vernal pool navarretia	1B.1
Streptanthus albidus ssp. *peramoenus*	Most beautiful jewel-flower	1B.2
Trifolium depauperatum var. *hydrophilum*	Saline clover	1B.2

Appendix D Aerial Maps of the Study Area

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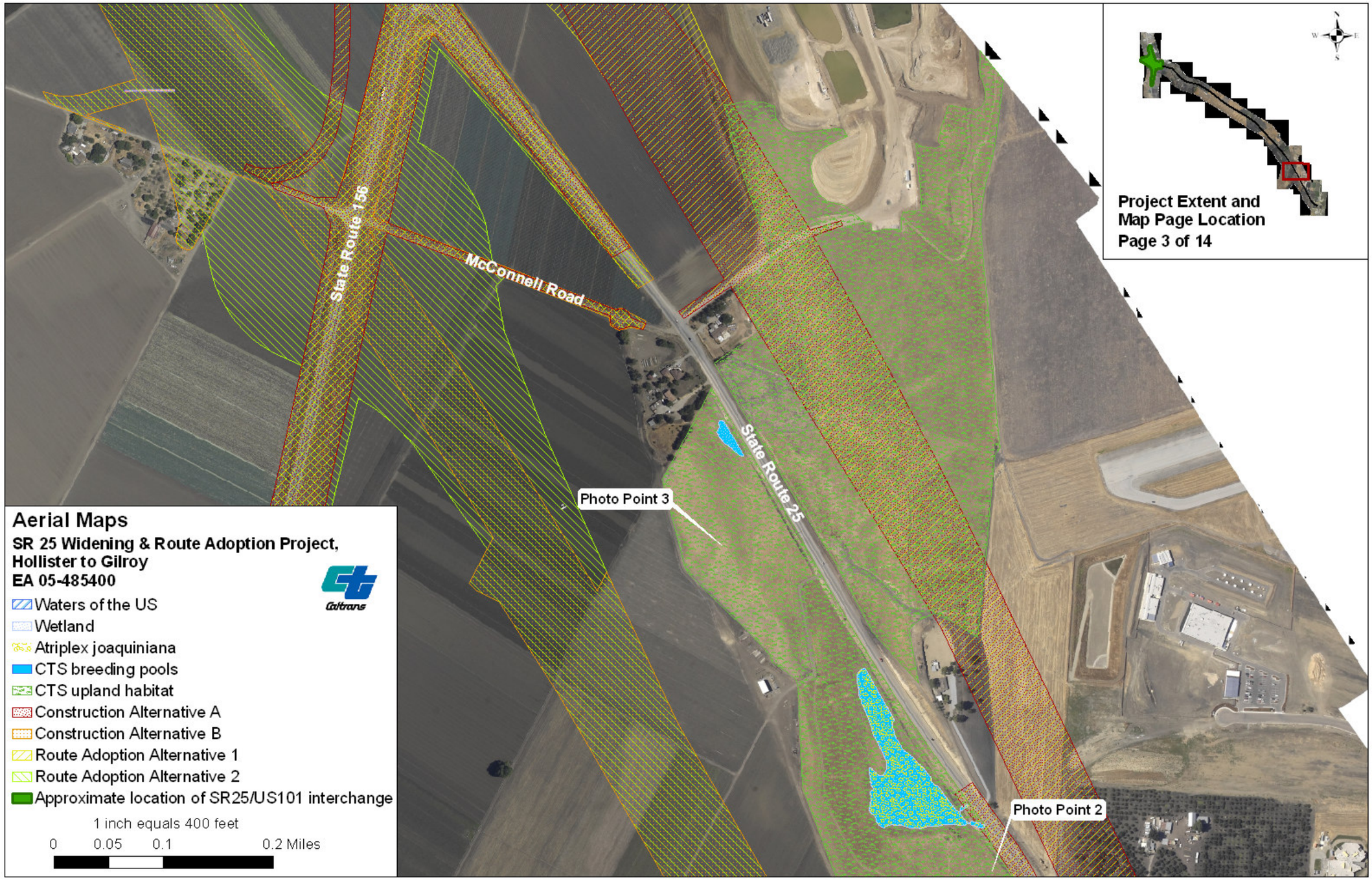
SR 25 Widening & Route Adoption Project, Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles
Photo Point 1
State Route 25
Flynn Road
Briggs Road
Briggs Road
Project Extent and Map Page Location
Page 2 of 14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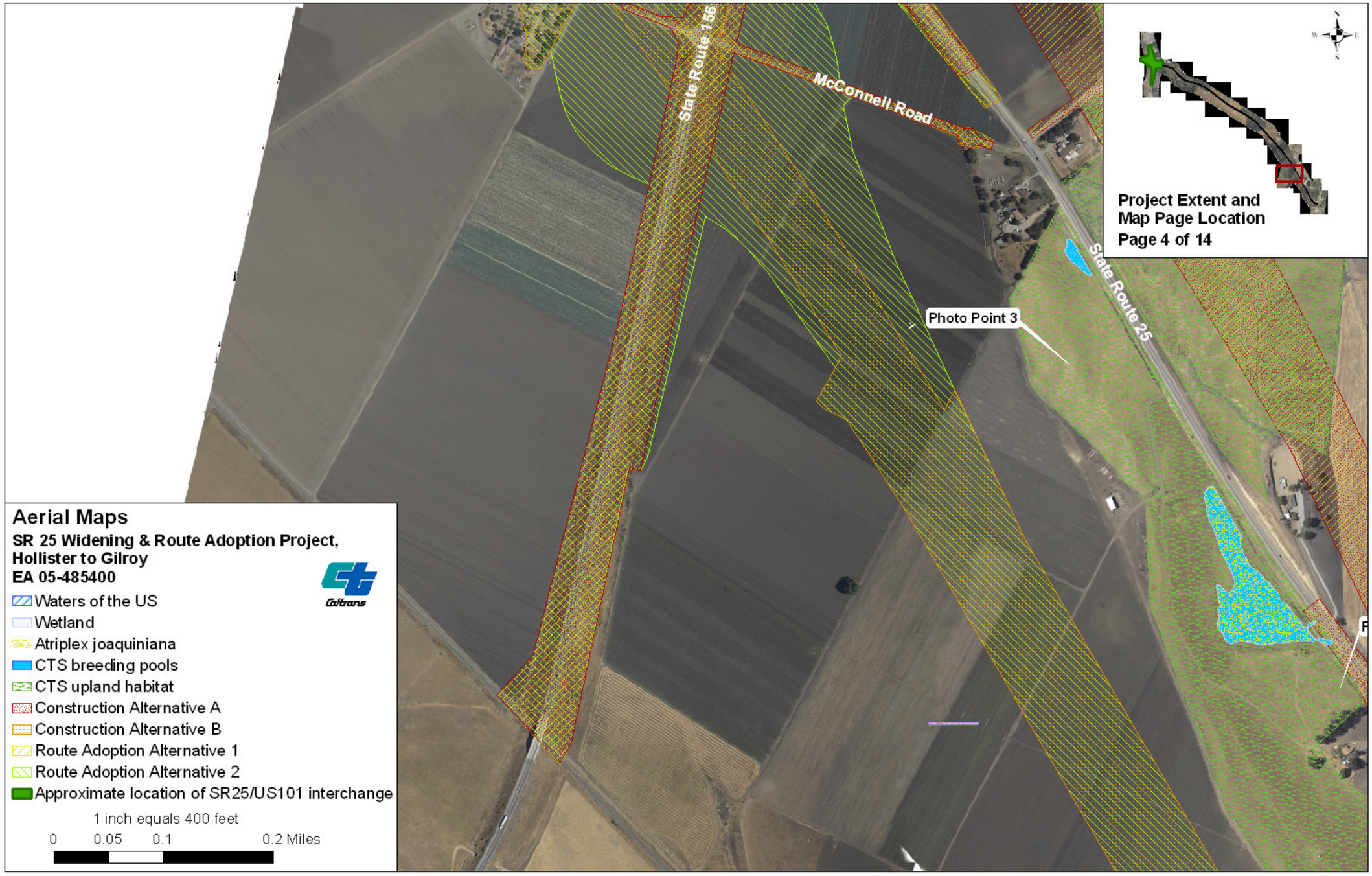
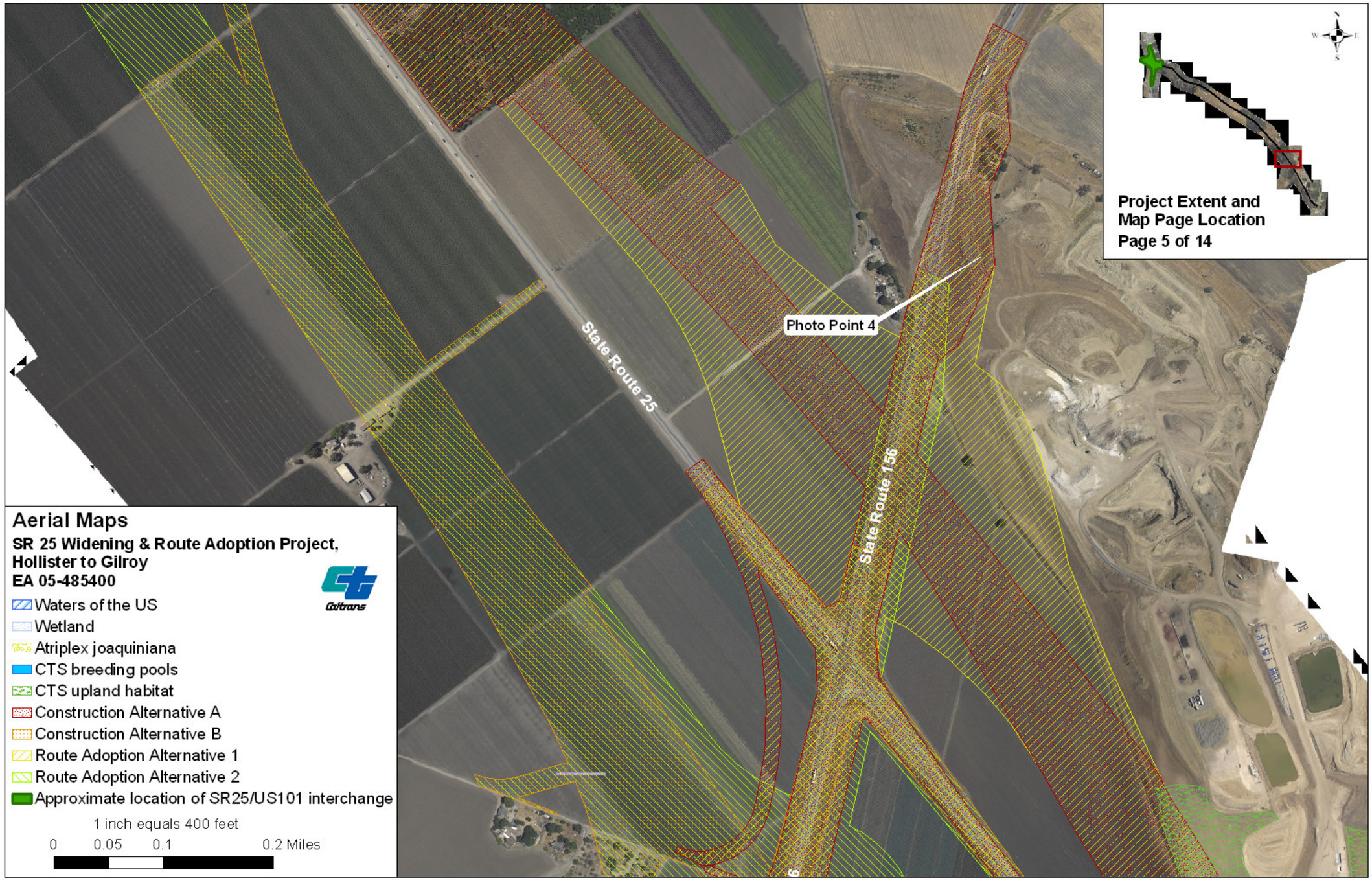
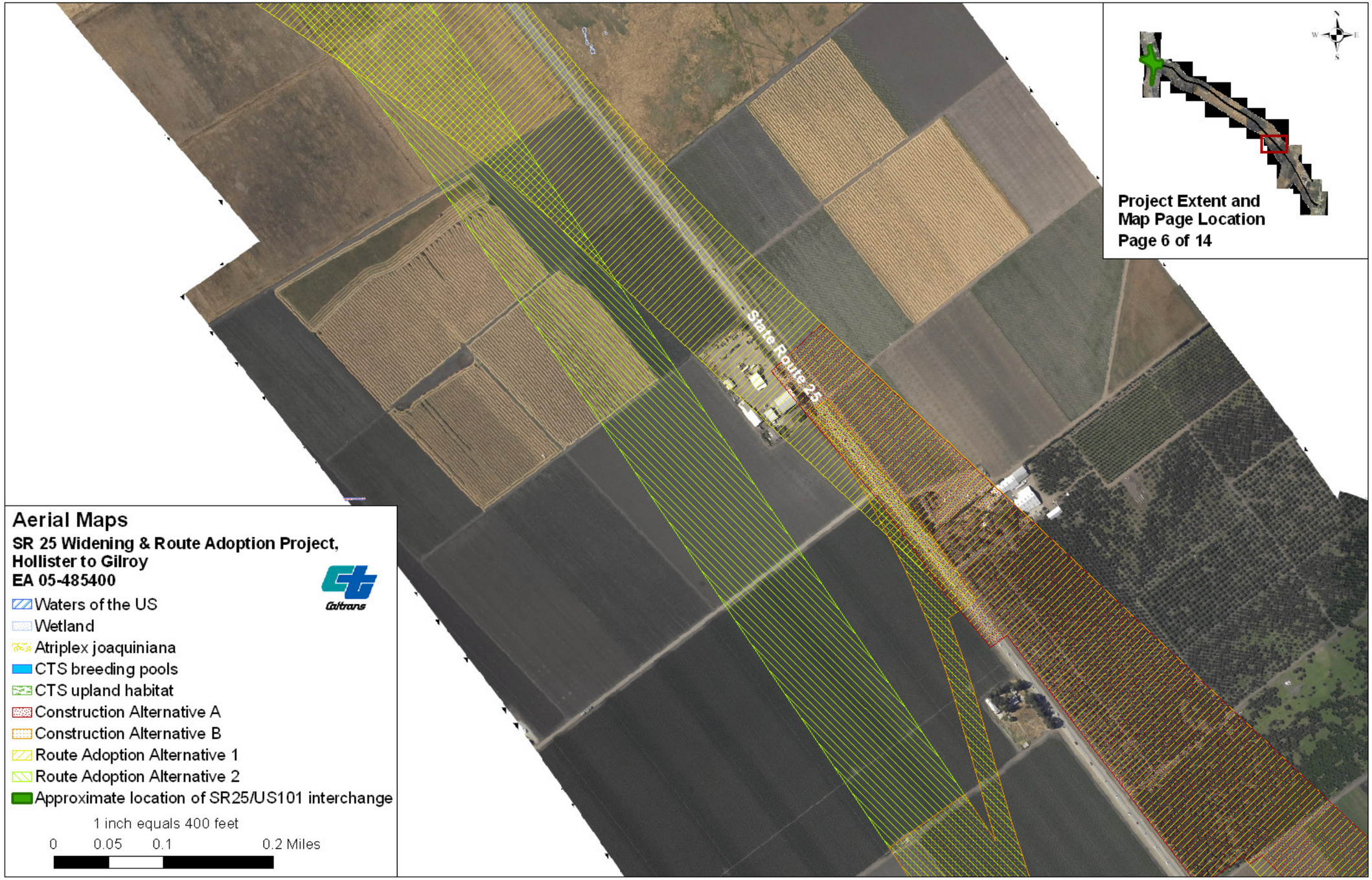
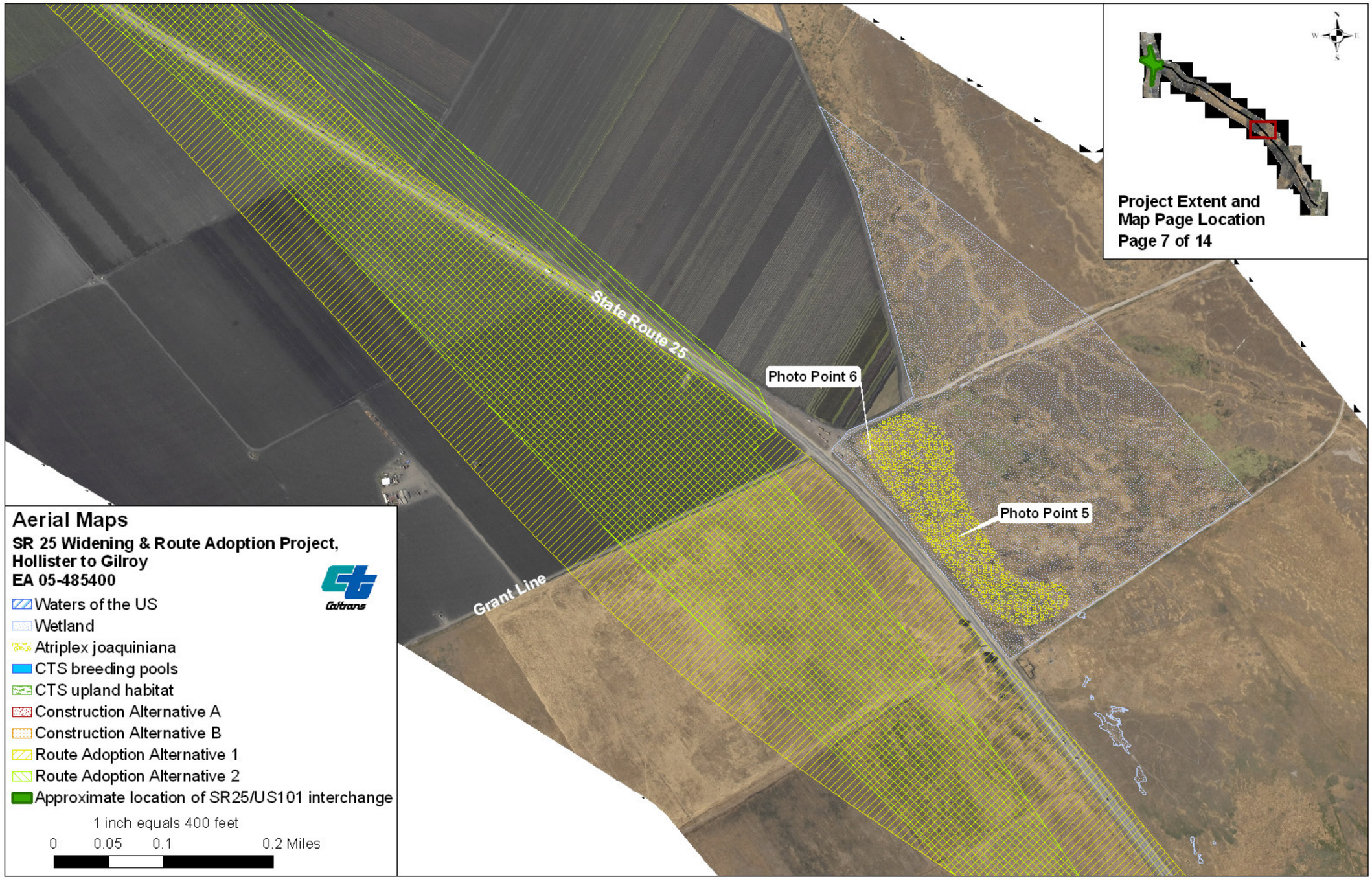
SR 25 Widening & Route Adoption Project, Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles
State Route 156
McConnell Road
State Route 25
Photo Point 3
Photo Point 2
Project Extent and Map Page Location
Page 3 of 14


State Route 156
McConnell Road
State Route 25
Photo Point 3
Project Extent and
Map Page Location
Page 4 of 14
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles


Project Extent and
Map Page Location
Page 5 of 14
Photo Point 4
State Route 25
State Route 156
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles


Project Extent and
Map Page Location
Page 6 of 14
State Route 25
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles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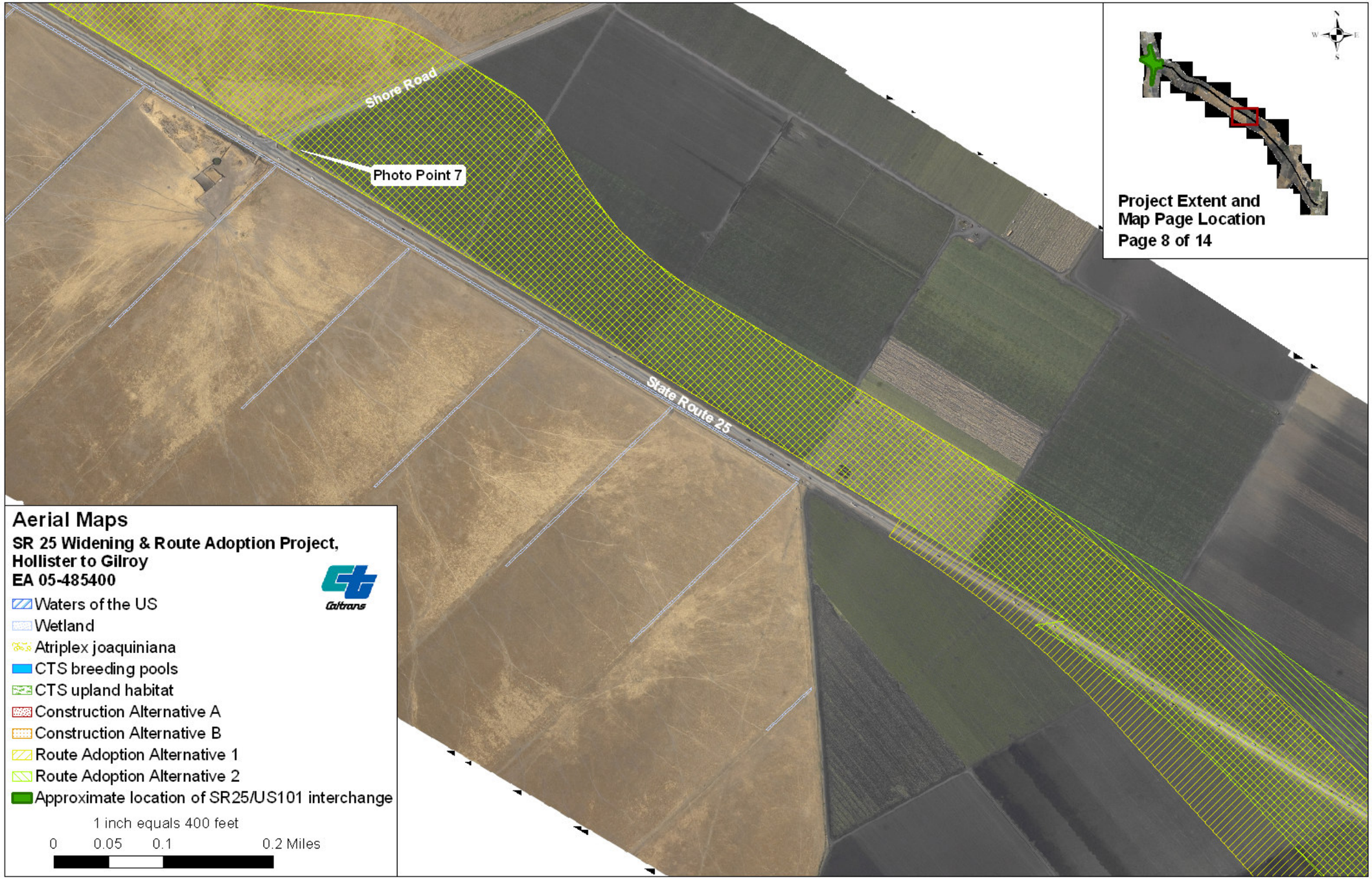
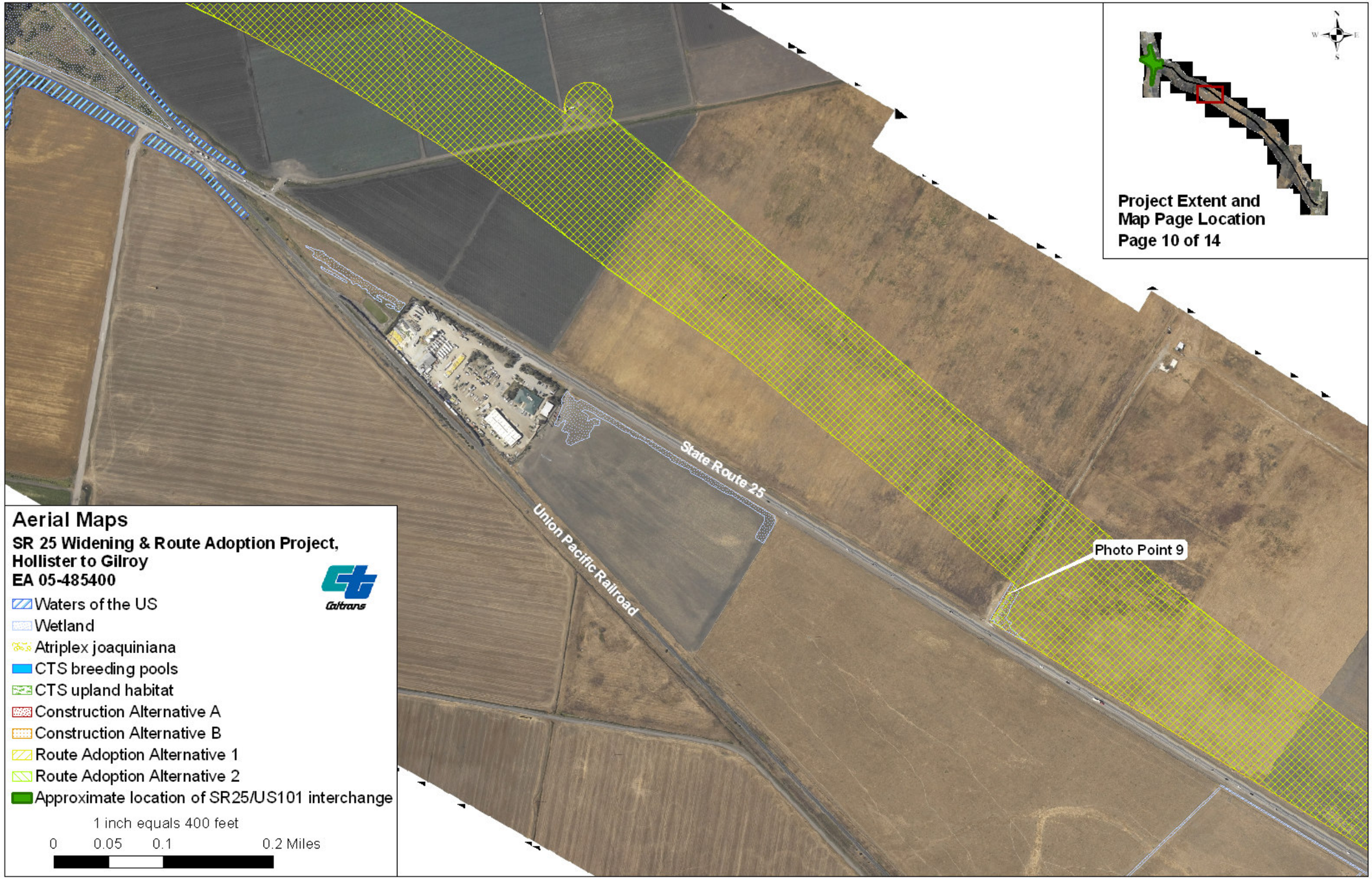
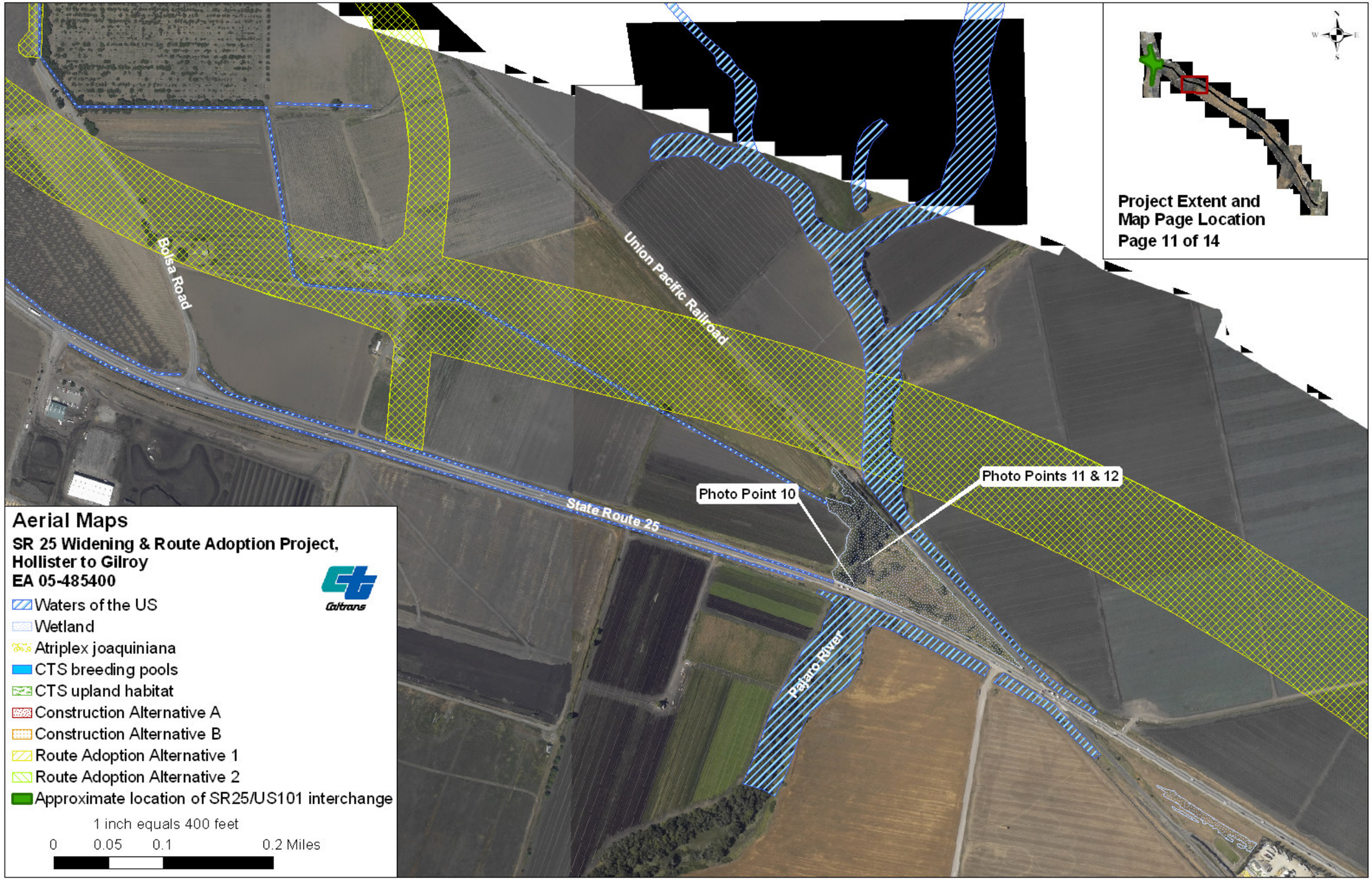
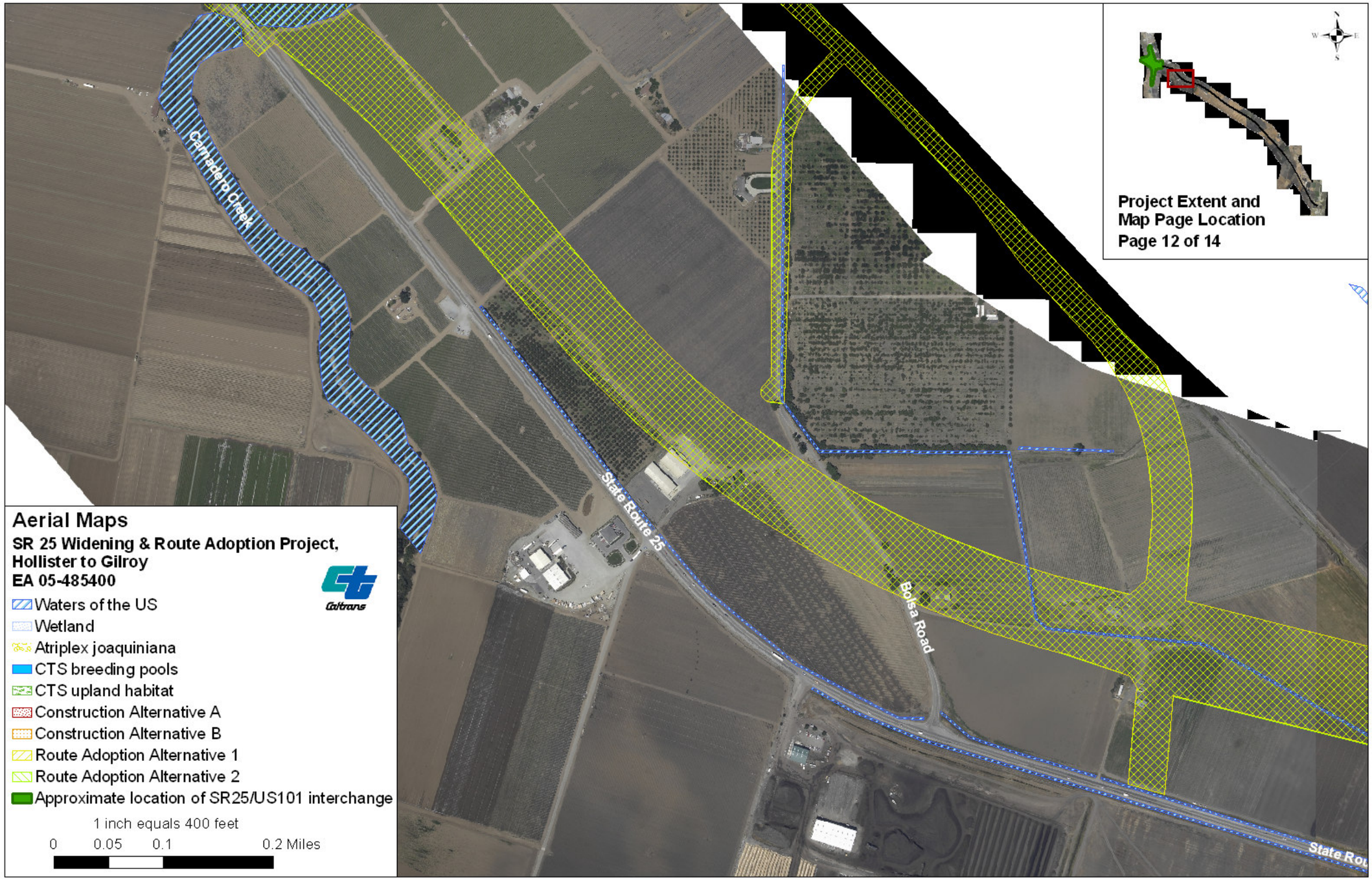
Page 7 of 14
State Route 25
Photo Point 6
Photo Point 5
Grant Line
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles

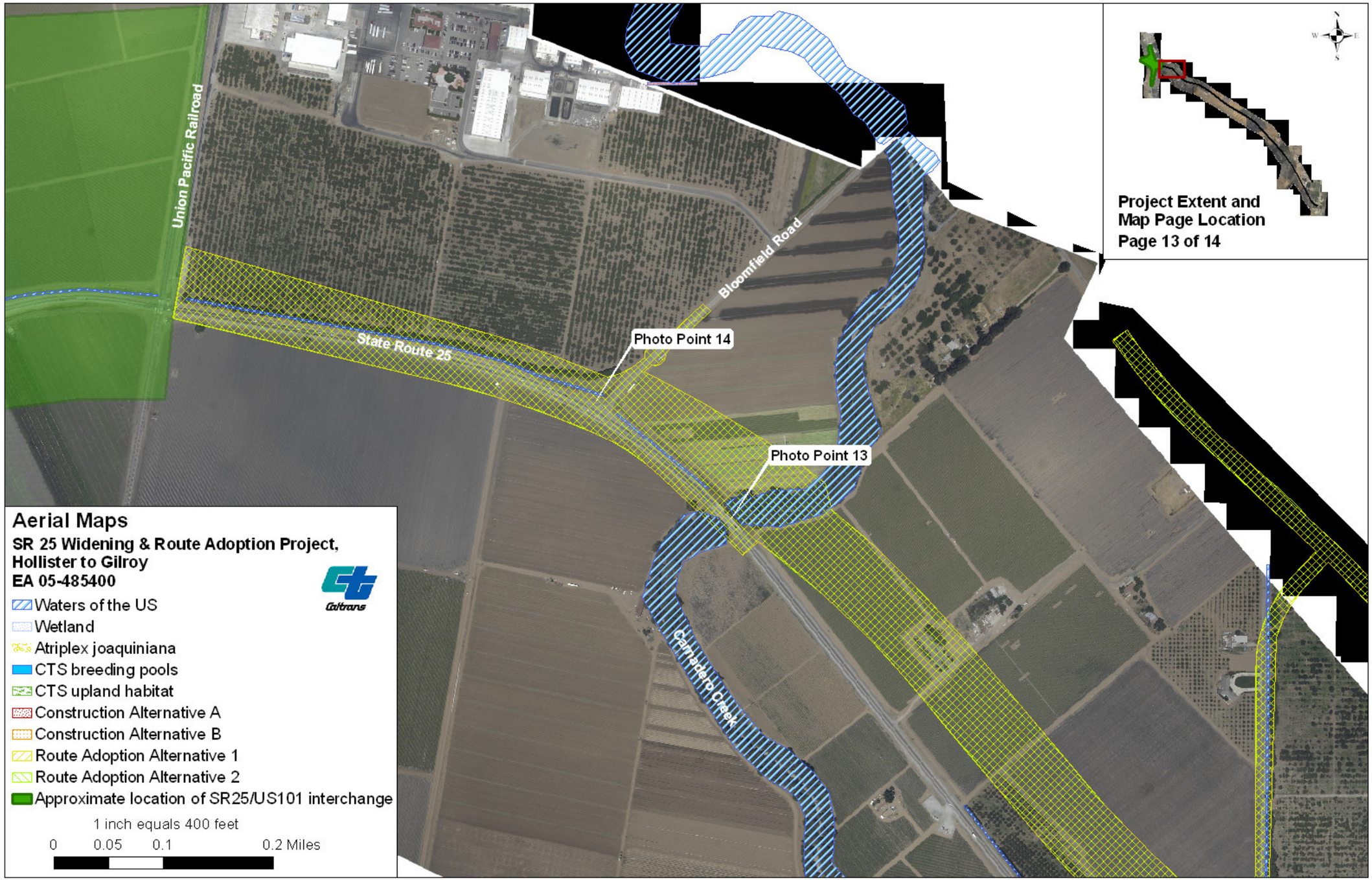

Shore Road
Photo Point 7
State Route 25
Project Extent and
Map Page Location
Page 8 of 14
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles

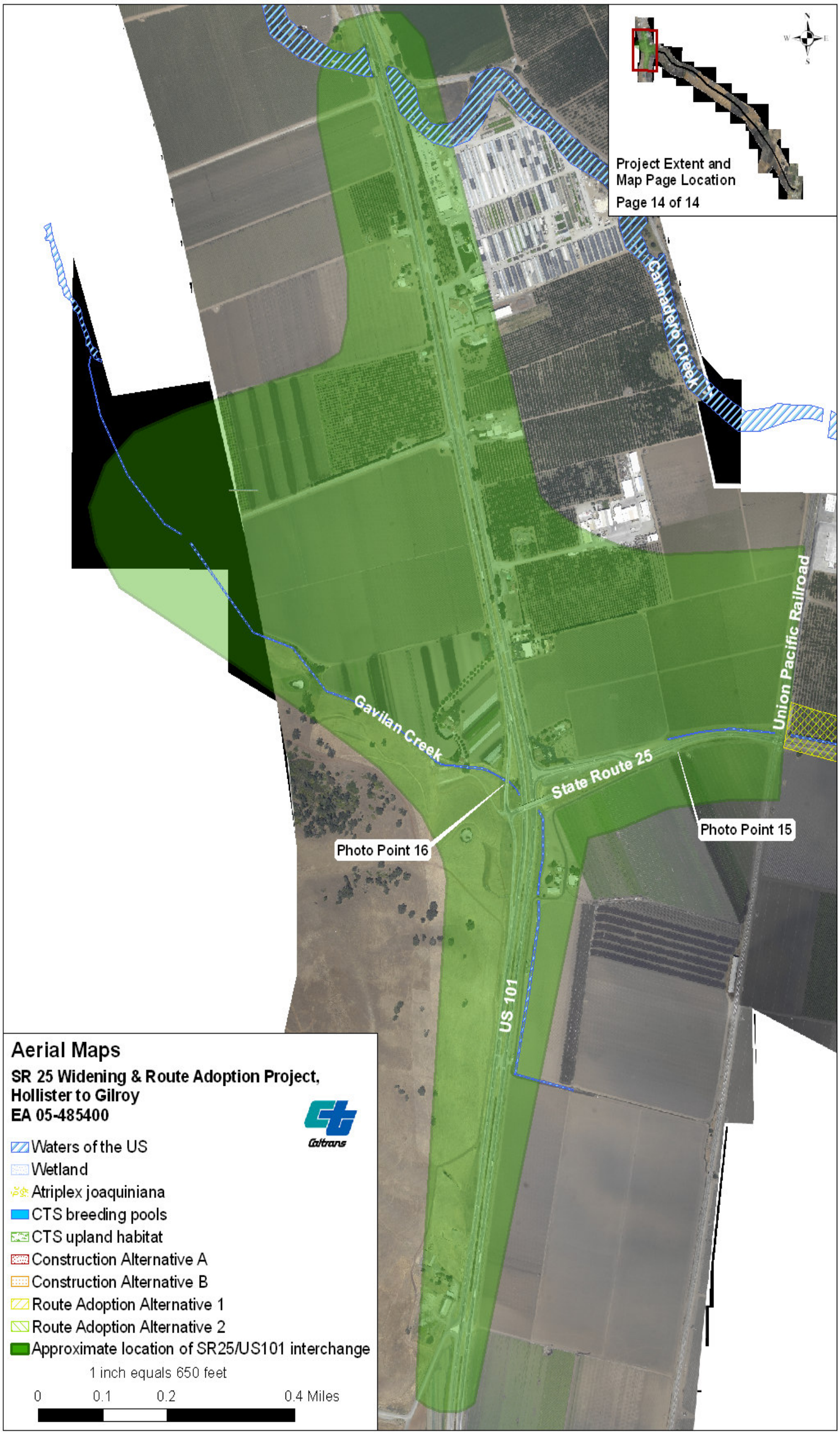
Project Extent and
Map Page Location
Page 9 of 14
Photo Point 8
State Route 25
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles


Project Extent and
Map Page Location
Page 10 of 14
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles
State Route 25
Union Pacific Railroad
Photo Point 9


Project Extent and
Map Page Location
Page 11 of 14
Bolsa Road
Union Pacific Railroad
State Route 25
Photo Point 10
Photo Points 11 & 12
Pajaro River
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles


Aerial Maps
SR 25 Widening & Route Adoption Project, Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles
Project Extent and Map Page Location
Page 12 of 14
Canadero Creek
State Route 25
Bolsa Road


Union Pacific Railroad
State Route 25
Bloomfield Road
Photo Point 14
Photo Point 13
Carnadero Creek
Project Extent and
Map Page Location
Page 13 of 14
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 400 feet
0 0.05 0.1 0.2 Miles


Project Extent and
Map Page Location
Page 14 of 14
Cienega Creek
Union Pacific Railroad
Gavilan Creek
State Route 25
Photo Point 15
Photo Point 16
US 101
Aerial Maps
SR 25 Widening & Route Adoption Project,
Hollister to Gilroy
EA 05-485400
Caltrans
Waters of the US
Wetland
Atriplex joaquiniana
CTS breeding pools
CTS upland habitat
Construction Alternative A
Construction Alternative B
Route Adoption Alternative 1
Route Adoption Alternative 2
Approximate location of SR25/US101 interchange
1 inch equals 650 feet
0
0.1
0.2
0.4 Miles

Appendix E Photographs of the Study Area

Photo Point 1: Open large equipment storage site in foreground, SR 25 behind the line of trees, mini storage and orchard on the other side of SR 25, Diablo Mountain Range in background. October 2001.

Photo Point 2: Ephemeral wetland south west of SR 25 (discussed in Section 4.2.1.1 in this document). Photograph is facing northwest. February 7, 2002.

Photo Point 3: On top of hill with non-native grassland facing north towards gravel mine (behind homestead). Mount Diablo Range in background. October 2001.

Photo Point 4: Looking down on SR 156 facing north. February 2004.

Photo Point 5: Dry seasonal wetland. Arrows are pointing to *Atriplex joaquiniana*. May 12, 2002.

Photo Point 6: North of SR 25 within wetland habitat, facing southeast. Unknown photography date.

Photo Point 7: Cover photograph. At the intersection of SR 25 and Shore Road facing northwest. August 5, 2008.

Photo Point 8: South of SR 25 looking out onto the bermed pasture. Unknown photography date.

Photo Point 9: North of SR 25 facing southwest, seasonal wetland in foreground. Unknown photography date.

Photo Point 10: Looking under the Pajaro River Bridge at SR 25, facing southwest. October 2001.

Photo Point 11: Possible woodrat nest within the Pajaro River riparian corridor. October 2001.

Photo Point 12: Looking north in the Pajaro River riparian habitat. October 2001.

Photo Point 13: Looking north into the Carnadero Creek from SR 25. Unknown photography date.

Photo Point 14: Looking west from Bloomfield Road onto SR 25. Unknown photography date.

Photo Point 15: Looking west towards US 101/SR 25 interchange from southbound SR 25. Foothills to the Santa Cruz Mountains in background. October 2001.

Photo Point 16: Looking north onto US 101 from southbound US 101. Gavilan Creek in foreground, Mount Diablo Range in background. October 2001.

Appendix F San Joaquin Kit Fox Standard Recommendations

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846

IN REPLY REFER TO:
1-1-99-TA-1534

February 15, 2001

Memorandum

To: Distribution

From: Field Supervisor, Sacramento Fish and Wildlife Office, Sacramento, California

Subject: Dissemination of Standard Recommendations for the Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance

The U.S. Fish and Wildlife Service (Service) provides the attached standard recommendations for the protection of the San Joaquin kit fox (*Vulpes macrotis mutica*) prior to or during ground disturbing activities. The attached standard recommendations are subject to revision by the Service at any time. Successful implementation of the standard recommendations will require ongoing contact with the Service before and during the ground disturbance. Questions regarding this guidance may be addressed to Sheila Larsen or Susan Jones of the Sacramento Fish and Wildlife Office at (916) 414-6600.

Wayne S. White

Attachment

U.S. FISH AND WILDLIFE SERVICE
STANDARDIZED RECOMMENDATIONS
FOR PROTECTION OF THE SAN JOAQUIN KIT FOX
PRIOR TO OR DURING GROUND DISTURBANCE

Prepared by the Sacramento Fish and Wildlife Office
June 1999

INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act). Project applicants should contact the Service in Sacramento to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document. Formal authorization for the project may be required under either section 7 or section 10 of the Act. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). Such protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

All surveys, den destructions, and monitoring described in this document must be conducted by a qualified biologist. A qualified biologist (biologist) means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox. In addition, biologist(s) must be able to identify coyote, red fox, gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints such as an individual in-fill oil well, communication tower, or bridge repair. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a

future urban development). The Service recommends that on these small projects, the biologist survey the proposed project boundary and a 200-foot area outside of the project footprint to identify habitat features, and make recommendations on situating the project to minimize or avoid impacts. If habitat features cannot be completely avoided, then preconstruction surveys should be conducted.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Surveys should identify kit fox habitat features on the project site and evaluate use by kit fox and, if possible, and assess the potential impacts to the kit fox by the proposed activity. The status of all dens should be determined and mapped (see Survey Protocol).

Written results of preconstruction/preactivity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities. If a natal/pupping den is discovered within the project area or within 200-feet of the project boundary, the Service shall be immediately notified. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the Service immediately to obtain the necessary take authorization/permit.

If take authorization/permit has already been issued, then the biologist may proceed with den destruction within the project boundary, except natal/pupping dens (active or inactive). Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated, see den destruction section).

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take authorization/permit from the Service. This determination would be made by the Service during the early evaluation process (see Survey Protocol). These other projects would include, but are not limited to: linear projects; projects with large footprints such as urban development; and projects which in themselves may be small but have far reaching impacts (i.e., water storage or conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection measures presented in this document. The take authorization/permit may include measures specific to the needs of the project, and those requirements supersede any requirements found in this document.

EXCLUSION ZONES

The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances. The following radii are minimums, and if they cannot be followed the Service must be contacted:

Potential den	50 feet
Known den	100 feet
Natal/pupping den (occupied and unoccupied)	Service must be contacted
Atypical den	50 feet

Known den: To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

Potential and Atypical dens: Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Construction and other project activities should be prohibited or greatly restricted within these exclusion zones. Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited within the exclusion zones.

DESTRUCTION OF DENS

Disturbance to all San Joaquin kit fox dens should be avoided to the maximum extent possible. Protection provided by kit fox dens for use as shelter, escape, cover, and reproduction is vital to the survival of the species. Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection. **Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the Service.**

Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use. If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities. The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgement of the biologist, the animal has escaped from the partially destroyed den.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then destruction shall cease and the Service shall be notified immediately.

CONSTRUCTION AND OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of project-related disturbance should be minimized. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting project goals to be achieved. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, and other designated areas. These areas should also be

included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a 20-mph speed limit in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. To the extent possible, night-time construction should be minimized. Off-road traffic outside of designated project areas should be prohibited.

2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures under number 13 of this section must be followed.

3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipe becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity, until the fox has escaped.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in closed containers and removed at least once a week from a construction or project site.

5. No firearms shall be allowed on the project site.

6. To prevent harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets should be permitted on project sites.

7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control

must be conducted, zinc phosphide should be used because of proven lower risk to kit fox.

8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped individual. The representative will be identified during the employee education program. The representative's name and telephone number shall be provided to the Service.

9. An employee education program should be conducted for any project that has expected impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and agency personnel involved in the project. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the above-mentioned people and anyone else who may enter the project site.

10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but that after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for advice.

12. Any contractor, employee, or military or agency personnel who inadvertently kills or injures a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916) 445-0045. They will contact the local warden or biologist.

13. The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during

project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers given below. The CDFG contact is Mr. Ron Schlorff at 1416 9th Street, Sacramento, California 95814, (916) 654-4262

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620

"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means " . . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Pupping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

Appendix G Natural Resource Laws and Regulations

Federal Laws and Regulations

National Environmental Policy Act (42 U.S.C. 4321 et seq.). NEPA declares a continuing Federal policy "to use all practicable means and measures...to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations." NEPA directs "a systematic, interdisciplinary approach" to planning and decision making and requires environmental statements for "major Federal actions significantly affecting the quality of the human environment." Implementing regulations by the Council on Environmental Quality (CEQ) (40 CFR Parts 1500-1508) requires Federal agencies to identify and assess reasonable alternatives to proposed actions that will restore and enhance the quality of the human environment and avoid or minimize adverse environmental impacts. Federal agencies are further directed to emphasize significant environmental issues in project planning and to integrate impact studies required by other environmental laws and Executive Orders into the NEPA process. The NEPA process should therefore be seen as an overall framework for the environmental evaluation of Federal actions.

Endangered Species Act of 1973 (16 U.S.C. 1531-1543). This act and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend.

- Section 7 requires Federal agencies, in consultation with, and with the assistance of the Secretary of the Interior or the Secretary of Commerce, as appropriate, to insure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The U. S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) share responsibilities for administering the Act. Regulations governing interagency cooperation under Section 7 are found at 50 CFR Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing take that may occur incidental to an otherwise legal activity.
- Section 9 lists those actions that are prohibited under the Act. Take of a species listed in accordance with the Act is prohibited. There are two processes whereby take is allowed when it is incidental to an otherwise legal activity.

Migratory Bird Treaty Act (16 U.S.C. 703-711). This treaty with Canada, Mexico and Japan makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season.

Clean Water Act (33 U.S.C. 1251-1376). The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

- Section 401 requires that an applicant for a Federal license or permit that allows activities resulting in a discharge to waters of the United States, must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Boards administer the certification program in California.

- Section 402 establishes a permitting system for the discharge of any pollutant (except dredge or fill material) in to waters of the United States.
- Section 404 establishes a permit program administered by ACOE regulating the discharge of dredged or fill material into waters of the United States (including wetlands). Implementing regulations by ACOE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404 (b)(1) Guidelines and were developed by the Environmental Protection Agency (EPA) in conjunction with ACOE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Fish and Wildlife Coordination Act (16 U.S.C. 661-666). This act applies to any Federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with USFWS and the appropriate state wildlife agency. These agencies prepare reports and recommendations that document project effects on wildlife and identify measures that may be adopted to prevent loss or damage to wildlife resources. The term "wildlife" includes both animals and plants. Provisions of the Act are implemented through the NEPA process and Section 404 permit process.

Executive Order 11988 Floodplain Management (May 24, 1977). This order directs all Federal agencies to avoid the long-tern and short-tern adverse impacts associated with floodplain modification and to avoid direct or indirect support of floodplain development whenever there is a practicable alternative.

Executive Order 11990 Protection of Wetlands (May 24, 1977). This order establishes a National policy to avoid adverse impacts on wetlands whenever there is a practicable alternative. The U. S. Department of Transportation (DOT) promulgated DOT Order 5660.1A in 1978 to comply with this direction. On Federally funded projects, impacts on wetlands must be identified in the environmental document. Alternatives that avoid wetlands must be considered. If wetland impacts cannot be avoided, then all practicable measures to minimize harm must be included. This must be documented in a specific Wetlands Only Practicable Alternative Finding in the final environmental document. An additional requirement is to provide early public involvement in projects affecting wetlands. The Federal Highway Administration (FHWA) provides technical assistance in meeting these criteria (FHWA Technical Advisory 6640.8A) and reviews environmental documents for compliance.

Executive Order 13112 Invasive Species February 3, 1999). This order directs all Federal agencies to prevent and control the spread of invasive plants and animals and to avoid direct or indirect impacts whenever there is a practicable alternative.

State Laws and Regulations

California Environmental Quality Act (P.R.C. 21000 et seq.). CEQA establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures. CEQA applies to actions directly undertaken, financed, or permitted by State lead agencies. Regulations for implementation are found in the State CEQA Guidelines published by the Resources Agency. These guidelines establish an overall process for the environmental evaluation of projects that is similar to that promulgated under NEPA. The Guidelines make provisions for joint NEPA/CEQA documents.

California Endangered Species Act (Fish and Game Code 2050 et seq.). This act establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. California Endangered Species Act (CESA) mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. CESA requires State lead agencies to consult with the California Department of Fish and Game (CDFG) during the CEQA process to avoid jeopardy to threatened or endangered species. As an outcome of consultation, CDFG is required to issue a written finding indicating if a project would jeopardize threatened or endangered species and specifying reasonable and prudent alternatives that would avoid jeopardy. The Act provides for joint consultations when species are listed by both the State and Federal governments.

Native Plant Protection Act (Fish and Game Code 1900-1913). California's Native Plant Protection Act (NPPA) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the CDFG at least 10 days in advance of any change in land use. This allows CDFG to salvage listed plant species that would otherwise be destroyed. Caltrans is required to conduct botanical inventories and consult with CDFG during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Sections 1602-1603 of the Fish and Game Code. Under these sections of the Fish and Game Code, Caltrans and other agencies are required to notify CDFG prior to any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFG is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications and bid documents for the project.

Agreements and Understandings

Memorandum of Understanding (MOU) with Fish and Wildlife Service (November 1988). This MOU establishes procedures for the early and continuous coordination of transportation project development activities between Caltrans and USFWS.

MOU with the Department of Fish and Game (December 1990). This MOU ensures that State transportation projects are planned, designed, constructed and maintained to protect fish and wildlife resources in conformance with CEQA and CESA.

Memorandum of Agreement (MOA) between FHWA, ACOE, EPA, USFWS, CDFG, and Caltrans (May 1991), Early Mitigation Planning for Transportation Improvements in California. This MOA establishes a process to identify and evaluate valuable natural resources and habitat at the earliest stages of transportation improvement planning. It provides a framework to implement coordinated mitigation planning at the beginning of the project development process leading to an agreement on mitigation strategy for guidance during project design.

Planning Guidelines for Standard Approaches to Mitigation Site Monitoring and Maintenance- under November 1988 MOU with Sacramento Office of USFWS (November 1991). This MOU provides planning guidelines to improve the success of project mitigation within the jurisdiction of Caltrans and USFWS.

MOU - NEPA and Clean Water Act Section 404 Integration Process (March 3, 1994). This MOU ensures the earliest possible consideration of environmental concerns pertaining to waters of the United States, including wetlands, at the transportation project planning, programming, and project development stages by integrating section 404 into the NEPA process.

Caltrans Policies

Transportation projects are planned and constructed to avoid or minimize impacts to biological resources whenever practicable.

Caltrans evaluates and plans for mitigation of adverse impacts to natural resources during the early stages of transportation planning and decision-making.

Caltrans works closely with resources agencies and FHWA in the development and implementation of mitigation for project impacts necessary to satisfy State and Federal laws while ensuring that mitigation necessitated by impacts to sensitive resources is a reasonable expenditure of highway funds.

If impact avoidance is not possible, the first consideration is to minimize impacts on-site.

If mitigation on-site is not practical, off-site compensation may be required. Off-site mitigation may include land acquisition and habitat improvement.

Federal Highway Administration Policies

Designation of Non-Federal Representative (50 CFR Section 402.08). Allows Federal agencies to delegate Informal Consultation and preparation of biological studies to a non-Federal representative. The Federal Highway Administration by letter to U.S. Fish and Wildlife Service and National Marine Fisheries Service dated August 7, 1986, has previously delegated Informal Consultation for projects funded by the Federal-aid highway program to the California Department of Transportation. This delegation of authority provides for Caltrans to perform certain aspects of consultation, acting on behalf of the FHWA for Endangered Species Act consultation, and cannot be further delegated to local agencies or their consultants.

Stormwater Report

Dist-County-Route: 05-SBt-25, 05-SCl-25
Post Mile Limits: 50.1-60.1,0.0-2.6
Project Type: HIGHWAY WIDENING
Project ID (or EA): 05-485400
Program Identification: 2002 STIP LOCAL
Phase: ☐ PID
☒ PA/ED
☐ PS&E

Regional Water Quality Control Board(s): CENTRAL COAST REGION 3

Is the Project required to consider Treatment BMPs? Yes ☒ No ☐
If yes, can Treatment BMPs be incorporated into the project? Yes ☒ No ☐
If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date:_____

Total Disturbed Soil Area: 544.1 Acres Risk Level: 2
Estimated: Construction Start Date: 4/01/2017 (Phase 1) Construction Completion Date: 10/01/2018 (Phase 1)
Notification of Construction (NOC) Date to be submitted: 01/01/2016

Erosivity Waiver	Yes ☐	Date:_____	No ☒
Notification of ADL reuse (if Yes, provide date)	Yes ☐	Date:_____	No ☒
Separate Dewatering Permit (if yes, permit number)	Yes ☐	Permit #_____	No ☒

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Jose Bautista, Registered Project Engineer Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Richard Rosales, Project Manager *Date*

Jon Wood, Designated Maintenance Representative *Date*

Dennis Reeves, Designated Landscape Architect Representative *Date*

[Stamp Required for PS&E only) *Marissa Nishikawa, Regional Design SW Coordinator* *Date*

STORM WATER DATA INFORMATION

1. Project Description

The following improvements are proposed for an 11.2-mile (mi) segment of State Route 25 (SR 25), located in northern San Benito County and southern Santa Clara County:

1. SR 25 will be converted from a two lane conventional highway to a four lane divided expressway from San Felipe Road, within the City of Hollister, at PM 51.5 in San Benito County to US Route 101 at PM 2.6 in Santa Clara County. Shoulders, medians, sight distances, lighting, etc., will be improved within the Project limits as necessary. Frontage roads and private access easements will be connected to allow access to newly land-locked parcels. The project will be split into fundable phases for PS&E and construction.

2. Wright Road and Briggs Road would connect to the proposed Route 25 facility.

3. The alignment of SR 25 would allow for the construction of a spread diamond (Type L-2) interchange with Route 156. The Route 25/156 interchange would be constructed at the location of the existing Route 25/156 at-grade signalized intersection. Route 156 (PM R10.5 to PM R12.2) would be elevated to span across Route 25 and remain a two-lane facility except for widening at the ramp intersections.

4. Proposed SR 25 alignment is west of the existing highway until just south of Shore Road. The SR alignment then crosses the existing highway and remains east of the existing highway until the end of the project. The shift in alignment is due to the presence of wetlands. Within this segment, an at-grade intersection, labeled Grant Line Road is proposed approximately half the distance from Hudner Lane to Shore Road. Hudner Lane is too close to the proposed Route 25/156 interchange. Therefore, vehicles on Hudner Lane would access Route 25 via a frontage road system on the west side. The frontage road would direct traffic to the Grant Line at-grade intersection. Proposed private access easements along the east side of Route 25 from Grant Line to just south of Pajaro River would provide access to land-locked parcels. The profile for Route 25 varies between 2 to 10 feet from San Felipe Road to Pajaro River.

5. From the Pajaro River northward, the alignment is located within a floodplain. The profile is elevated to a minimum height of seven feet and access is limited to the proposed Bolsa Road intersection. Structures are proposed to span across Pajaro River, Carnadero Creek, and the two UPRR crossings. Existing Bloomfield Avenue and Bolsa Road would no longer be connected to Route 25, but rather terminate as cul-de-sacs.

6. The total disturbed area for this project is 544.1 acres. It was calculated by accounting for the newly paved areas and areas of cut and fill slopes along with offsets for construction activities. A commercial source will provide the borrow material required for the project.

7. The existing impervious surface is 74.7 acres. The impervious surface area after the project is completed is 200.9 acres. The result is an increase of 126.2 acres of impervious surface area within the project limits.

8. The City of Hollister is an Urban MS4 area within the project limits. Their plan is to retain the existing advanced primary treatment facilities and percolation ponds.

2. Site Data and Storm Water Quality Design Issues

- The receiving water bodies are the Pajaro River and Carnadero Creek. These are located within the Pajaro River, South of Santa Clara Valley Hydraulic Area,#305.30.
- The Pajaro River is listed on the 2006 303(d) list. USEPA pollutant/stressor is boron and fecal coliform, nitrate, nutrients and sedimentation/siltation.
- A 401 Water Quality Permit will be required.
- There are no Drinking Water Reservoirs and/or Recharge Facilities within project limits.
- TMDLs for the Pajaro River are sediment, nutrients and nitrate, which are being addressed by the USEPA. Fecal coliforms have TMDL's, which are listed as being currently in progress.
- The general climate is mild during summer when temperatures tend to be in the 60's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is August with an average maximum temperature of 81.80 degrees Fahrenheit, while the coldest month of the year is December with an average minimum temperature of 36.50 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 29 degrees Fahrenheit, and moderate during winter with an average difference of 23 degrees Fahrenheit. The annual average precipitation at Hollister is 13.61 Inches. Rainfall is fairly evenly distributed throughout the year. The wettest month of the year is January with an average rainfall of 2.86 Inches.
- Soil types within the project limits are: Antioch Loam (USC = CL, low plasticity clay, very slow permeability, low erodibility), Cropley Clay (USC = ML, CH, low plasticity silt, fat clay, slow permeability, medium erodibility), Diablo Clay (USC = CH, fat clay, high plasticity, slow permeability, medium erodibility), Pacheco Silty Clay (USC = CH, CL, high and low plasticity clay, slow permeability, low erodibility), Pleasanton Gravelly Loam (USC = SM, SC, and LL, silty sand, clay sand, and liquid limit, slow permeability, medium erodibility), Soper Gravelly Loam (USC = SM, SC, silty sand, clay sand, slow permeability, high erodibility), Sorrento Silty Clay Loam (USC = CL, low plasticity, slow permeability, low erodibility), Willows Clay (USC = CH, fat clay, high plasticity, very slow permeability, low erodibility).

- The new Construction General Permit (CGP) (State Water Board Order 2009-0009-DWQ) took effect on July 1, 2010. The CGP is a risk-based permit that establishes the level of environmental risk possible for a construction site. The Risk Revel calculated for this project is a Risk Level 2.
- The depth to groundwater ranges from 10 ft to approximately 80 ft.
- The surficial deposits within the project area are primarily Quaternary alluvial deposits consisting of silts, clays, sands, and gravels.
- Geocon Consultants, Inc., dated April 2004, prepared an Aerially Deposited Lead Site Investigation Report for this project. It has been determined that additional aerially deposited lead (ADL) studies are not warranted at this time. Furthermore, excavation soil may either be reused on-site without restriction, or exported off-site (after first being analyzed for total and soluble lead and being found to be in compliance with the Department of Toxic Substances Control Variance in place at the time of construction).
- The cost to acquire additional R/W for permanent BMPs is $25,000/acre. See Attached calculations.
- The alignment was chosen to minimize impacts to receiving water bodies by minimizing cut/fill slopes, minimizing disturbance of vegetation, and minimizing disturbance of wetlands. Length of bridges will be designed such that impacts to creeks are minimized. Existing roadway will be used as much as possible and existing slopes will be disturbed only where needed. Cut/fill slopes will be made as flat as flat as possible. Slopes will be rounded to reduce concentration of flows. Concentrated flow will be collected in stabilized drains and channels. Dikes will be provided in high fill areas (greater than 13 feet) to collect roadway water. Utilization of alternative materials/facilities to reduce future maintenance impacts will be analyzed later. Construction of bridges at the creeks will be scheduled as per the requirements of RWQCB to minimize impacts to water quality.
- There are no known existing Treatment BMPs within the project limits.

3. Regional Water Quality Control Board Agreements

- No negotiations or agreements have been made between the CCRWQCB-3 and the Project team. No meetings or communications with the RWQCB have been conducted regarding the issuance of the 401 certification application for this project.

- It is anticipated that the following permits will be necessary for the Project:
    - A CWA Section 401 Water Quality Certification from the CCRWQCB-3
    - A CWA Section 402 NPDES for the CCRWQCB-3
    - A CWA Section 404 from the US Army Corps of Engineers for wetlands
    - A 1602 Agreement from the California Department of Fish and Game

- It is also anticipated that coordination will be necessary with the United States Fish and Wildlife Service, due to necessary permits for aquatic and wildlife habitats within the Projects limits.
- Coordination between the Project team, the Santa Clara Valley Water District and San Benito County for any storm water discharges within their jurisdiction from the Project will be made.

4. Proposed Design Pollution Prevention BMPs to be used on the Project.

Downstream Effects Related to Potentially Increased Flow

- The project will increase the velocity and volume of downstream flow within the project limits.
- The volume will be increased because the impervious area will increase due to the additional two highway lanes.
- The project will discharge into swales shaped as trapezoidal ditches that run parallel to the highway. These swales will allow for 100% infiltration of the water quality volume.
- The new slopes will increase the potential for sediment loading. Although with the designed treatment BMPs 100% of the water quality volume will be treated. This will eliminate the potential for increase sediment loading from the new slopes.
- The proposed new alignment will cross the Pajaro River at a new location.

Slope/Surface Protection Systems

- The existing highway alignment traverses relatively flat terrain, so it is anticipated that the widening will require minimal embankment heights (generally less than 10 ft). The preliminary recommendation is that all embankments are constructed with 4:1 or flatter side slopes except where high fills are proposed. An advisory design exception was requested and approved for embankment slopes between 2:1 and 4:1 where embankments are greater than 13 feet. This request was processed in order to avoid excessive costs due to imported fill material and mitigation for impacts to sensitive environmental resources. There is one existing cut slope on the northbound side of the highway. The cut slope has an inclination of approximately 2:1 and appears to be performing satisfactorily. The slope is well vegetated with grasses and small shrubs.
- All new and disturbed slopes will be vegetated.
- Erosion Control Plans will be provided by Landscape Architecture during the PS&E process.
- Rock Slope Protection (RSP) will be provided at culvert outlets to minimize erosion.

Concentrated Flow Conveyance Systems

- Dikes will be provided throughout the high fill areas greater than 13 feet to collect roadway water. Dikes will discharge to drainage inlets were water will be treated by Biofiltration swales. Flared end sections (FES) and rock slope protection (RSP) will

be provided at culvert outlets. Mitered headwalls will be provided for the culvert inlet.

Preservation of Existing Vegetation

- The goal of the Project is to maximize the protection of desirable existing vegetation used for erosion and sediment control. Maximum preservation of existing vegetation will be proposed. Identification and protection of desirable vegetation will be performed with the use of temporary fencing during construction.

- Existing wetlands will be preserved by surrounding them with Environmentally Sensitive Area (ESA) fencing during construction, which will be delineated in the plans. Existing wetlands that cannot be preserved will be mitigated with appropriate measures during the PS&E Phase of the Project.

- Existing mature vegetation and landscaping will also be protected by ESA fencing, and where possible, these locations will be delineated in the Project Plans.

5. Proposed Permanent Treatment BMPs to be used on the Project

Treatment BMP Strategy, Checklist T-1

- The Targeted Design Constituent (TDC) is sediment.
- The Water Quality Volume (WQV) is 286,100 cubic feet and 100% of the WQV will be treated. Please see attached calculations (Pg 5 "Permanent BMPs").
- The project will include Biofiltration strips/swales to treat the storm water.

Biofiltration Swales/Strips

Biofiltration Swales/Strips will be incorporated into this project. Location and design of biofiltration strips are shown on the attached strip map. The biofiltration swales will be provided through out the length of the project along the Caltrans access control Right of Way in order to provide the second component of the treatment train system of BMPs.

Dry Weather Diversion

- There is no dry weather flow present within the project limits.

Infiltration Devices

- Infiltration Devices will not be incorporated into this project.

Detention Devices

- Detention Devices will not be needed as part of treatment BMPs for this project.

Gross Solids Removal Devices (GSRDs)

- The receiving water bodies within the project limits do not have TMDLs set for trash and litter, therefore, no gross solids removal devices will be installed on this project.

Traction Sand Traps

- Traction Sand Traps are not incorporated into this project because sand traction is not applied to the roadway at this project location.

Media Filters

- Media Filters are not needed for this project.

Multi-Chambered Treatment Trains (MCTTs)

- MCTT's are not incorporated into this project.

Wet Basins

- Wet basins are not needed for this project.

6. Proposed Temporary Construction Site BMPs to be used on Project

- The Project area is within Northern and Central California, which has a rainy season between October 15th and April 15th (Caltrans, 2003). The Project is within Caltrans Districts 4 and 5, and CCRWQCB-3 jurisdiction, with elevations less than 492 ft that corresponds to an Area Number 2. (Table 2-1, Section 2, P. 7 of 11 Construction Site BMPs Manual) (Caltrans, 2003).

- The Temporary Construction Site BMP strategy for this Project may consist of the following practices for soil stabilization: sediment control, non-storm water management, and waste management. The list of Construction Site BMPs that may be considered as separate Bid Line Items during the design phase of this Project is summarized below. Since this Project is expected to span more than one rainy season, disturbed soil area (DSA) may need to be temporarily protected and stabilized during various stages of the Project construction. DSA during the rainy season will be limited to 5 acres. These BMPs include:

- Temporary Mulch

- Temporary Erosion Control Blanket
- Move In/Move Out
- Temporary Fiber Roll
- Sediment control and perimeter control will also be necessary for this Project. These BMPs include:
- Temporary Silt Fence
- Temporary Fiber Roll
- Temporary Drainage Inlet Protection
- Temporary Gravel bags/Berms
- Riparian and wetland areas adjacent to water bodies, as well as vegetation or other ESAs that need to be protected during construction, within the Project limits, should be designated as ESAs. These areas shall be protected with temporary high visibility silt fencing, which should be placed at the toe of all embankment slopes.
- Temporary Fence (Type ESA)
- The Project includes work on bridges over waterways, and the Project Team may propose upsizing or extending cross culverts located within the Project limits. Some of these waterways are perennial and may need dewatering operations or temporary creek diversions during construction to protect water quality.
- Temporary Creek Diversions/Temporary Gravel Bag Berm
- Temporary Construction Entrances and Street Sweeping
- Concrete work is anticipated for this Project and shall be managed through the use of concrete washout facilities.
- Temporary Concrete Washout Facility
- Temporary Concrete Washout (portable)
- It is also anticipated that the following “housekeeping” BMPs will be implemented for this Project, and paid for in the lump sum item, “Construction Site Management”:
- Water Conservation Practices
- Paving & Grinding Operations
- Vehicle & Equipment Cleaning
- Vehicle & Equipment Fueling
- Vehicle & Equipment Maintenance
- Concrete Curing
- Concrete Finishing
- Material Delivery & Storage
- Material Use
- Spill Prevention & Control

- Solid Waste Management
- Sanitary/Septic Waste Management
- The final Construction Site BMPs and associated checklists should be completed and submitted at the design phase. The Project has a disturbed soil area (DSA) of 544.1 ac. Since this Project will be disturbing more than 1 ac of soil, a Storm Water Pollution Prevention Plan (SWPPP) will be required to be submitted for this Project by the Contractor.
- Coordination with the Construction Storm Water Coordinator will be done during PS&E.
- The estimated temporary construction site BMPs are 1.5% of the total project cost.

7. Maintenance BMPs (Drain Inlet Stenciling)

It is anticipated that there will not be inlets that need stenciling within the project limits due to the rural nature of this project.

Required Attachments

- Vicinity Map
- Evaluation Documentation Form (EDF)
- Risk Level Determination Documentation

Supplemental Attachments

Note: Supplement Attachments are to be supplied during the SWDR approval process; where noted, some of these items may only be required on a project-specific basis.

- Storm Water BMP Cost Summary
- BMP cost information from: Project Planning Cost Estimate (PPCE) during PID and PA/ED project phases
- Plans showing biofiltration strip Deployment Pertinent Correspondence with RWQCB (if requested or recommended by District/Regional NPDES Storm Water Coordinator or Designated Reviewer)
- Checklist SW-1, Site Data Sources
- Checklist SW-2, Storm Water Quality Issues Summary
- Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs
- Checklists DPP-1, Parts 1–5 (Design Pollution Prevention BMPs) [only those parts that are applicable]
- Checklists T-1, Parts 1–10 (Treatment BMPs) [only those Parts that are applicable]

- Calculations and cross sections related to BMPs (if requested by District/Regional Design Storm Water Coordinator)

DATE: ___01/26/2011_____

Project ID (or EA): ___05-485400_____

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION FOR EVALUATION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2
2.	Is this an emergency project?		✓	If **Yes**, go to 10. If **No**, continue to 3.
3.	Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits? Information provided in the water quality assessment or equivalent document. The Pajaro River is 303(d) listed for sediment. Go to question 4.	✓		If **Yes**, contact the District/Regional NPDES Coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 9 or 4. _____ *(Dist./Reg. SW Coordinator initials*) If **No**, continue to 4.
4.	Is the project located within an area of a local MS4 Permittee?	✓		If **Yes**. **City of Hollister**, go to 5. If **No**, document in SWDR go to 5.
5.	Is the project directly or indirectly discharging to surface waters?	✓		If **Yes**, continue to 6. If **No**, go to 10.
6.	Is it a new facility or major reconstruction?	✓		If **Yes**, continue to 8. If **No**, go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?	✓		If **Yes**, continue to 8. If **No**, go to 10.
8.	Does the project result in a net increase of one acre or more of new impervious surface?	✓		If **Yes**, continue to 9. If **No**, go to 10. *126.2 Acres (Net Increase New Impervious Surface)*
9.	Project is required to consider approved Treatment BMPs.	✓	See Sections 2.4 and either Section 5.5or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.	
10.	Project is not required to consider Treatment BMPs. _____*(Dist./Reg. Design SW Coord. Initials)* _____*(Project Engineer Initials)* _____ *(Date)*		Document for Project Files by completing this form, and attaching it to the SWDR.	

See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs

DATE: 01/26/2011

Project ID (or EA): 05-485400

Project Evaluation Process for the Consideration of Construction Site BMPs

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION
1.	Will construction of the project result in areas of disturbed soil as defined by the Project Planning and Design Guide (PPDG)?	✓		If Yes, Construction Site BMPs for Soil Stabilization (SS) will be required. Complete CS-1, Part 1. Continue to 2. If No, Continue to 3.
2.	Is there a potential for disturbed soil areas within the project to discharge to storm drain inlets, drainage ditches, areas outside the right-of-way, etc?	✓		If Yes, Construction Site BMPs for Sediment Control (SC) will be required. Complete CS-1, Part 2. Continue to 3.
3.	Is there a potential for sediment or construction related materials and wastes to be tracked offsite and deposited on private or public paved roads by construction vehicles and equipment?	✓		If Yes, Construction Site BMPs for Tracking Control (TC) will be required. Complete CS-1, Part 3. Continue to 4.
4.	Is there a potential for wind to transport soil and dust offsite during the period of construction?	✓		If Yes, Construction Site BMPs for Wind Erosion Control (WE) will be required. Complete CS-1, Part 4. Continue to 5.
5.	Is dewatering anticipated or will construction activities occur within or adjacent to a live channel or stream?		✓	If Yes, Construction Site BMPs for Non-Storm Water Management (NS) will be required. Complete CS-1, Part 5. Continue to 6.
6.	Will construction include saw-cutting, grinding, drilling, concrete or mortar mixing, hydro-demolition, blasting, sandblasting, painting, paving, or other activities that produce residues?	✓		If Yes, Construction Site BMPs for Non-Storm Water Management (NS) will be required. Complete CS-1, Parts 5 & 6. Continue to 7.
7.	Are stockpiles of soil, construction related materials, and/or wastes anticipated?	✓		If Yes, Construction Site BMPs for Waste Management and Materials Pollution Control (WM) will be required. Complete CS-1, Part 6. Continue to 8.
8.	Is there a potential for construction related materials and wastes to have direct contact with precipitation; stormwater run-on, or stormwater runoff; be dispersed by wind; be dumped and/or spilled into storm drain systems?		✓	If Yes, Construction Site BMPs for Waste Management and Materials Pollution Control (WM) will be required. Complete CS-1, Part 6. Continue to 9.
9.	End of checklist.	✓	Document for Project Files by completing this form, and attaching it to the SWDR.	

PE to initialize after concurrence with Construction (PS&E only) *Date*

Checklist SW-1, Site Data Sources

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCI-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Information for the following data categories should be obtained, reviewed and referenced as necessary throughout the project planning phase. Collect any available documents pertaining to the category and list them and reference your data source. For specific examples of documents within these categories, refer to Section 5.5 of this document. Example categories have been listed below; add additional categories, as needed. Summarize pertinent information in Section 2 of the SWDR.

DATA CATEGORY/SOURCES	Date
Topographic	
• Topozone	November 2003
• USGS Topography Maps	February 2011
• Caltrans Provided Surveys	November 2003
Hydraulic	
• FEMA Hazard Maps	September 1991
• Groundwater – Department of Water Resources	September 1991
Soils	
• NRCS Soil Surveys	February 2011
• Geotech Report	January 2003
Climatic	
• National Weather Service	February 2011
Water Quality	
• http://www.waterboards.ca.gov/centralcoast/TMDL/303dandTMDLprojects.htm	Oct 2006
• Water Quality Assessment	March 2007
• Water Quality Planning Tool- Basin Sizer	February 2011
Other Data Categories	
• Project Planning and Design Guide	July 2010
• SWPPP/WPCP Preparation Manual	March 2007

Checklist SW-2, Storm Water Quality Issues Summary

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCl-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

The following questions provide a guide to collecting critical information relevant to project stormwater quality issues. Complete responses to applicable questions, consulting other Caltrans functional units (Environmental, Landscape Architecture, Maintenance, etc.) and the District/Regional Storm Water Coordinator as necessary. Summarize pertinent responses in Section 2 of the SWDR.

1. Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation). **The Pajaro River and Carnadero Creek are the receiving waters that may be affected during the project life cycle.**	☒Complete	☐NA
2. For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern. **The Pajaro River is 303(d) listed for boron, fecal coliform, nitrate, nutrients, and sedimentation/siltation.**	☒Complete	☐NA
3. Determine if there are any municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. Consider appropriate spill contamination and spill prevention control measures for these new areas. **There are no known municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits.**	☒Complete	☐NA
4. Determine the RWQCB special requirements, including TMDLs, effluent limits, etc. **TMDLs for the Pajaro River are set for sediment and nitrate . Another TMDL is fecal coliform, which is listed as being currently in progress.**	☒Complete	☐NA
5. Determine regulatory agencies seasonal construction and construction exclusion dates or restrictions required by federal, state, or local agencies. **Caltrans will limit DSA during the rainy season, and other permits will restrict work in water bodies seasonally- TBD.**	☒Complete	☐NA
6. Determine if a 401 certification will be required. **A 401 certification will be required because of the impact to the Pajaro River.**	☒Complete	☐NA
7. List rainy season dates. **The rainy season is from October 15 through April 15.**	☒Complete	☐NA

8. Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves. **The general climate is mild during summer when temperatures tend to be in the 60's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is August with an average maximum temperature of 81.80 degrees Fahrenheit, while the coldest month of the year is December with an average minimum temperature of 36.50 degrees Fahrenheit. Temperature variations between night and day tend to be moderate during summer with a difference that can reach 29 degrees Fahrenheit, and moderate during winter with an average difference of 23 degrees Fahrenheit. The annual average precipitation at Hollister is 13.61 Inches. Rainfall in is fairly evenly distributed throughout the year. The wettest month of the year is January with an average rainfall of 2.86 Inches.** ☒Complete ☐NA
9. If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater. **Soil types within the project limits are: Antioch Loam (USC = CL, low plasticity clay, very slow permeability, low erodibility), Cropley Clay (USC = ML, CH, low plasticity silt, fat clay, slow permeability, medium erodibility), Diablo Clay (USC = CH, fat clay, high plasticity, slow permeability, medium erodibility), Pacheco Silty Clay (USC = CH, CL, high and low plasticity clay, slow permeability, low erodibility), Pleasanton Gravelly Loam (USC = SM, SC, and LL, silty sand, clay sand, and liquid limit, slow permeability, medium erodibility), Soper Gravelly Loam (USC = SM, SC, silty sand, clay sand, slow permeability, high erodibility), Sorrento Silty Clay Loam (USC = CL, low plasticity, slow permeability, low erodibility), Willows Clay (USC = CH, fat clay, high plasticity, very slow permeability, low erodibility). The depth to groundwater ranges from 10 ft to approximately 80 ft.** ☒Complete ☐NA
10. Determine contaminated soils within the project area. **There is potential for aerially deposited lead to be present in the shoulder areas of SR 25. There are at least three sites adjacent to the highway where Underground Storage Tanks (UST) for diesel and/or gasoline were known to exist and there are a few industrial factories that distribute farm equipment and compost immediately adjacent to the highway.** ☒Complete ☐NA
11. Determine the total disturbed soil area of the project. **The total disturbed soil area for the project is 544.1acres.** ☒Complete ☐NA
12. Describe the topography of the project site. **The topography of the project site is generally flat and mostly used for agricultural purposes.** ☒Complete ☐NA
13. List any areas outside of the Caltrans right-of-way that will be included in the project (e.g. contractor's staging yard, work from barges, easements for staging, etc.). **None.** ☒Complete ☐NA
14. Determine if additional right-of-way acquisition or easements and right-of-entry will be required for design, construction and maintenance of BMPs. If so, how much? **No.** ☒Complete ☐NA
15. Determine if a right-of-way certification is required. **Yes.** ☒Complete ☐NA
16. Determine the estimated unit costs for right-of-way should it be needed for Treatment BMPs, stabilized conveyance systems, lay-back slopes, or interception ditches. . **Approximately $25,000/acre** ☒Complete ☐NA

17. Determine if project area has any slope stabilization concerns.
    The project area has no slope stabilization concerns. ☒Complete ☐NA
18. Describe the local land use within the project area and adjacent areas.
    The local land within the project area is used for agricultural purposes. ☒Complete ☐NA
19. Evaluate the presence of dry weather flow. **There is no presence of dry weather flow within the project limits.** ☒Complete ☐NA

Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water Impacts

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCI-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

The PE must confer with other functional units, such as Landscape Architecture, Hydraulics, Environmental, Materials, Construction and Maintenance, as needed to assess these issues. Summarize pertinent responses in Section 2 of the SWDR.

Options for avoiding or reducing potential impacts during project planning include the following:

1. Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions?	☐Yes	☒No	☐NA
2. Can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts?	☐Yes	☒No	☐NA
3. Can any of the following methods be utilized to minimize erosion from slopes:			
a. Disturbing existing slopes only when necessary?	☒Yes	☐No	☐NA
b. Minimizing cut and fill areas to reduce slope lengths?	☒Yes	☐No	☐NA
c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?	☐Yes	☒No	☐NA
d. Acquiring right-of-way easements (such as grading easements) to reduce steepness of slopes?	☒Yes	☐No	☐NA
e. Avoiding soils or formations that will be particularly difficult to re-stabilize?	☒Yes	☐No	☐NA
f. Providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates?	☒Yes	☐No	☐NA
g. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows?	☒Yes	☐No	☐NA
h. Rounding and shaping slopes to reduce concentrated flow?	☒Yes	☐No	☐NA
i. Collecting concentrated flows in stabilized drains and channels?	☒Yes	☐No	☐NA
4. Does the project design allow for the ease of maintaining all BMPs?	☒Yes	☐No	
5. Can the project be scheduled or phased to minimize soil-disturbing work during the rainy season?	☐Yes	☒No	
6. Can permanent storm water pollution controls such as paved slopes, vegetated slopes, basins, and conveyance systems be installed early in the construction process to provide additional protection and to possibly utilize them in addressing construction storm water impacts?	☒Yes	☐No	☐NA

Design Pollution Prevention BMPs
Checklist DPP-1, Part 1

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCl-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Consideration of Design Pollution Prevention BMPs

Consideration of Downstream Effects Related to Potentially Increased Flow [to streams or channels]

Will project increase velocity or volume of downstream flow?	☒Yes	☐No	☐NA
Will the project discharge to unlined channels?	☒Yes	☐No	☐NA
Will project increase potential sediment load of downstream flow?	☒Yes	☐No	☐NA
Will project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect downstream channel stability?	☒Yes	☐No	☐NA

If Yes was answered to any of the above questions, consider ***Downstream Effects Related to Potentially Increased Flow***, complete the DPP-1, Part 2 checklist.

Slope/Surface Protection Systems

Will project create new slopes or modify existing slopes?	☒Yes	☐No	☐NA

If Yes was answered to the above question, consider ***Slope/Surface Protection Systems***, complete the DPP-1, Part 3 checklist.

Concentrated Flow Conveyance Systems

Will the project create or modify ditches, dikes, berms, or swales?	☒Yes	☐No	☐NA
Will project create new slopes or modify existing slopes?	☒Yes	☐No	☐NA
Will it be necessary to direct or intercept surface runoff?	☒Yes	☐No	☐NA
Will cross drains be modified?	☒Yes	☐No	☐NA

If Yes was answered to any of the above questions, consider ***Concentrated Flow Conveyance Systems***; complete the DPP-1, Part 4 checklist.

Preservation of Existing Vegetation

It is the goal of the Storm Water Program to maximize the protection of desirable existing vegetation to provide erosion and sediment control benefits on all projects. ☒Complete

Consider ***Preservation of Existing Vegetation***, complete the DPP-1, Part 5 checklist.

Design Pollution Prevention BMPs
Checklist DPP-1, Part 2

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCl-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Downstream Effects Related to Potentially Increased Flow

1. Review total paved area and reduce to the maximum extent practicable. ☒Complete
2. Review channel lining materials and design for stream bank erosion control. ☒Complete
   (a) See Chapters 860 and 870 of the HDM. ☒Complete
   (b) Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity. ☒Complete
3. Include, where appropriate, energy dissipation devices at culvert outlets. ☒Complete
4. Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour. ☒Complete
5. Include, if appropriate, peak flow attenuation basins or devices to reduce peak discharges. ☒Complete

Design Pollution Prevention BMPs
Checklist DPP-1, Part 3

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCI-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Slope / Surface Protection Systems

1. What are the proposed areas of cut and fill? (attach plan or map) ☒ Complete
2. Were benches or terraces provided on high cut and fill slopes to reduce concentration of flows? ☐ Yes ☒ No
3. Were slopes rounded and/or shaped to reduce concentrated flow? ☒ Yes ☐ No
4. Were concentrated flows collected in stabilized drains or channels? ☒ Yes ☐ No
5. Are new or disturbed slopes > 4:1 horizontal:vertical (h:v)? ☒ Yes ☐ No

   If Yes, District Landscape Architect must prepare or approve an erosion control plan, at the District's discretion.
6. Are new or disturbed slopes > 2:1 (h:v)? ☐ Yes ☒ No

   If Yes, Geotechnical Services must prepare a Geotechnical Design Report, and the District Landscape Architect should prepare or approve an erosion control plan. Concurrence must be obtained from the District Maintenance Storm Water Coordinator for slopes steeper than 2:1 (h:v).
7. Estimate the net new impervious area that will result from this project. 126.2 acres ☒ Complete

VEGETATED SURFACES

1. Identify existing vegetation. ☒ Complete
2. Evaluate site to determine soil types, appropriate vegetation and planting strategies. ☒ Complete
3. How long will it take for permanent vegetation to establish? ☒ Complete
4. Minimize overland and concentrated flow depths and velocities. ☒ Complete

HARD SURFACES

1. Are hard surfaces required? ☒ Yes ☐ No

   If Yes, document purpose (safety, maintenance, soil stabilization, etc.), types, and general locations of the installations. ☒ Complete

Review appropriate SSPs for Vegetated Surface and Hard Surface Protection Systems. ☒ Complete

Design Pollution Prevention BMPs
Checklist DPP-1, Part 4

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCl-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Concentrated Flow Conveyance Systems

Ditches, Berms, Dikes and Swales

1. Consider Ditches, Berms, Dikes, and Swales as per Topics 813, 834.3, and 835, and Chapter 860 of the HDM. ☒Complete
2. Evaluate risks due to erosion, overtopping, flow backups or washout. ☒Complete
3. Consider outlet protection where localized scour is anticipated. ☒Complete
4. Examine the site for run-on from off-site sources. ☒Complete
5. Consider channel lining when velocities exceed scour velocity for soil. ☒Complete

Overside Drains

1. Consider downdrains, as per Index 834.4 of the HDM. ☒Complete
2. Consider paved spillways for side slopes flatter than 4:1 h:v. ☒Complete

Flared Culvert End Sections

1. Consider flared end sections on culvert inlets and outlets as per Chapter 827 of the HDM. ☒Complete

Outlet Protection/Velocity Dissipation Devices

1. Consider outlet protection/velocity dissipation devices at outlets, including cross drains, as per Chapters 827 and 870 of the HDM. ☒Complete

Review appropriate SSPs for Concentrated Flow Conveyance Systems. ☒Complete

Design Pollution Prevention BMPs
Checklist DPP-1, Part 5

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCI-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Preservation of Existing Vegetation

1. Review Preservation of Property, Standard Specifications 16.1.01 and 16-1.02 (Clearing and Grubbing) to reduce clearing and grubbing and maximize preservation of existing vegetation. ☒Complete
2. Has all vegetation to be retained been coordinated with Environmental, and identified and defined in the contract plans? **To be done in PS&E.** ☐Yes ☐No
3. Have steps been taken to minimize disturbed areas, such as locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling? **To be done in PS&E.** ☐Complete
4. Have impacts to preserved vegetation been considered while work is occurring in disturbed areas? ☒Yes ☐No
5. Are all areas to be preserved delineated on the plans? **To be done in PS&E.** ☐Yes ☐No

Treatment BMPs

Checklist T-1, Part 1

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCl-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Consideration of Treatment BMPs

This checklist is used for projects that require the consideration of Approved Treatment BMPs, as determined from the process described in Section 4 (Project Treatment Consideration) and the Evaluation Documentation Form (EDF). This checklist will be used to determine which Treatment BMPs should be considered for each watershed and sub-watershed within the project. Supplemental data will be needed to verify siting and design applicability for final incorporation into a project.

Complete this checklist for each phase of the project, when considering Treatment BMPs. Use the responses to the questions as the basis when developing the narrative in Section 5 of the Storm Water Data Report to document that Treatment BMPs have been appropriately considered.

Answer all questions, unless otherwise directed. Questions 14 through 16 should be answered after all subwatershed (drainages) are considered using this checklist.

1. Is the project in a watershed with prescriptive TMDL treatment BMP requirements in an adopted TMDL implementation plan? ☐Yes ☒No

   If Yes, consult the District/Regional Storm Water Coordinator to determine whether the T-1 checklist should be used to propose alternative BMPs because the prescribed BMPs may not be feasible or other BMPs may be more cost-effective. Special documentation and regulatory response may be necessary.

2. Dry Weather Flow Diversion

   (a) Are dry weather flows generated by Caltrans anticipated to be persistent? ☐Yes ☒No

   (b) Is a sanitary sewer located on or near the site? ☐Yes ☒No

   If Yes to both 2 (a) and (b), continue to (c). If No to either, skip to question 3.

   (c) Is connection to the sanitary sewer possible without extraordinary plumbing, features or construction practices? ☐Yes ☒No

   (d) Is the domestic wastewater treatment authority willing to accept flow? ☐Yes ☒No

   If Yes was answered to all of these questions consider ***Dry Weather Flow Diversion***, complete and attach **Part 3** of this checklist

3. Is the receiving water on the 303(d) list for litter/trash or has a TMDL been issued for litter/trash? ☐Yes ☒No

If Yes, consider ***Gross Solids Removal Devices (GSRDs)***, complete and attach **Part 6** of this checklist. Note: Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins also can capture litter. Before considering GSRDs for stand-alone installation or in sequence with other BMPs, consult with District/Regional NPDES Storm Water Coordinator to determine whether Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins should be considered instead of GSRDs to meet litter/trash TMDL.

4. Is project located in an area (e.g., mountain regions) where traction sand is applied more than twice a year? ☐Yes ☒No

   If Yes, consider ***Traction Sand Traps***, complete and attach **Part 7** of this checklist.

5. Maximizing Biofiltration Strips and Swales

   Objectives:

   1) Quantify infiltration from biofiltration alone
   2) Identify highly infiltrating biofiltration (i.e. > 90%) and skip further BMP consideration.
   3) Identify whether amendments can substantially improve infiltration.

   (a) Have biofiltration strips and swales been designed for runoff from all project areas, including sheet flow and concentrated flow conveyance? If no, document justification in Section 5 of the SWDR. ☒Yes ☐No

   (b) Based on site conditions, estimate what percentage of the WQV[1] can be infiltrated. When calculating the WQV, use a 12-hour drawdown for Type A and B soils, a 24-hour drawdown for Type C soils, and a 48-hour drawdown for Type D soils. ☒Complete

   ___ < 20%
   ___ 20 % - 50%
   ___ 50% - 90%
   _X_ > 90%

   (c) Is infiltration greater than 90 percent? If Yes, skip to question 13. ☒Yes ☐No

[1] A complete methodology for determining WQV infiltration is available at: http://www.dot.ca.gov/hq/oppd/stormwtr/index.htm

(d) Can the infiltration ranking in question 5(b) above be increased by using soil amendments? Use the 'drain time' associated with the amended soil (the 12-hour WQV for Type A and B soils, the 24-hour WQV for Type C soils[2]). ☐Yes ☐No

If Yes, consider including soil amendments; increasing the infiltration ranking allows more flexibility in the selection of BMPs (strips and swales will show performance comparable to other BMPs). Record the new infiltration estimate below:

___ < 20% (skip to 6)
___ 20 % - 50% (skip to 6)
___ 50% - 90% (skip to 6)
___ >90%

☐Complete

(e) Is infiltration greater than 90 percent? If Yes, skip to question 13. ☐Yes ☐No

6. Biofiltration in Rural Areas

Is the project in a rural area (outside of urban areas that is covered under an NDPES Municipal Stormwater Permit[3]). If Yes proceed to question 13. ☐Yes ☐No

7. Estimating Infiltration for BMP Combinations

Objectives:

1) Identify high-infiltration biofiltration or biofiltration and infiltration BMP combinations and skip further BMP consideration.

2) If high infiltration is infeasible, then identify the infiltration level of all feasible BMP combinations for use in the subsequent BMP selection matrices

(a) Has concentrated infiltration (i.e., via earthen basins or earthen filters) been prohibited? Consult your District/Regional Storm Water Coordinator and/or environmental documents. ☐Yes ☐No

If No proceed to 7 (b); if Yes skip to question 8 and do not consider earthen basin-type BMPs

[2] Type D soils are not expected where amendments are incorporated

[3] See pages 39 and 40 of the Fact Sheets for the CGP.
http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf

(b) Assess infiltration of an infiltration BMP that is used in conjunction with biofiltration. Include infiltration losses from biofiltration, if biofiltration is feasible. ☐Complete

(use 24 hr WQV)
___ < 20% (do not consider this BMP combination)
___ 20% - 50%
___ 50% - 90%
___ >90%

Is at least 90 percent infiltration estimated? If Yes proceed to 13. If No proceed to 7(c). ☐Yes ☐No

(c) Assess infiltration of biofiltration with combinations with remaining approved earthen BMPs using water quality volumes based on the drain time of those BMPs. This assessment will be used in subsequent BMP selection matrices.

Earthen Detention Basin (use 48 hr WQV)	Earthen Austin SF (use 48 hr WQV)
___ < 20%	___ < 20%
___ 20% - 50%	___ 20% - 50%
___ > 50%	___> 50%

☐Complete

Continue to Question 8

8. Identifying BMPs based on the Target Design Constituents

(a) Does the project discharge to a water body that has been placed on the 303-d list or has had a TMDL adopted? If "No," use Matrix A to select BMPs, consider designing to treat 100% of the WQV, then skip to question 12. ☐Yes ☐No

If Yes, is the identified pollutant(s) considered a Targeted Design Constituent (TDC) (check all that apply below)?

☐ sediments
☐ phosphorus
☐ nitrogen
☐ copper (dissolved or total)
☐ lead (dissolved or total)
☐ zinc (dissolved or total)
☐ general metals (dissolved or total)[1]

(b) Treating Sediment. Is sediment a TDC? If Yes, use Matrix A to select BMPs, then skip to question 12. Otherwise, proceed to question 9. ☐Yes ☐No

[1] General metals include cadmium, nickel, chromium, and other trace metals. Note that selenium and arsenic are not metals. Mercury is a metal, but is considered later during BMP selection, under Question 12 below.

BMP Selection Matrix A: General Purpose Pollutant Removal			
Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	Strip: HRT > 5 Austin filter (concrete) Austin filter (earthen) Delaware filter MCTT Wet basin	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* Biofiltration Strip	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* Biofiltration Strip Biofiltration Swale
Tier 2	Strip: HRT < 5 Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Swale MCTT Wet basin	Austin filter (concrete) Delaware filter MCTT Wet basin
HRT = hydraulic residence time (min) *Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			

9. Treating both Metals and Nutrients.

   Is copper, lead, zinc, or general metals *AND* nitrogen or phosphorous a TDC? If Yes use Matrix D to select BMPs, then skip to question 12. Otherwise, proceed to question 10. ☐Yes ☐No

10. Treating Only Metals.

    Are copper, lead, zinc, or general metals listed TDCs? If Yes use Matrix B below to select BMPs, and skip to question 12. Otherwise, proceed to question 11. ☐Yes ☐No

BMP Selection Matrix B: Any metal is the TDC, but not nitrogen or phosphorous			
Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	MCTT Wet basin Austin filter (earthen) Austin filter (concrete) Delaware filter	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* MCTT Wet basin	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* MCTT Biofiltration Strip Biofiltration Swale Wet basin
Tier 2	Strip: HRT > 5 Strip: HRT < 5 Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Strip Biofiltration Swale	Austin filter (concrete) Delaware filter
HRT = hydraulic residence time (min) *Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			

11. Treating Only Nutrients.
    Are nitrogen and/or phosphorus listed TDCs? If "Yes," use Matrix C to select BMPs. If "No", please check your answer to 8(a). At this point one of the matrices should have been used for BMP selection for the TDC in question, unless no BMPs are feasible. ☐Yes ☐No

BMP Selection Matrix C: Phosphorous and / or nitrogen is the TDC, but no metals are the TDC			
Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	Austin filter (earthen) Austin filter (concrete) Delaware filter**	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches*	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* Biofiltration Strip Biofiltration Swale
Tier 2	Wet basin Biofiltration Strip Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Strip Biofiltration Swale Wet basin	Austin filter (concrete) Delaware filter Wet basin
* Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			
** Delaware filters would be ranked in Tier 2 if the TDC is nitrogen only, as opposed to phosphorous only or both nitrogen and phosphorous.			

BMP Selection Matrix D: Any metal, plus phosphorous and / or nitrogen are the TDCs			
Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	Wet basin* Austin filter (earthen) Austin filter (concrete) Delaware filter**	Wet basin* Austin filter (earthen) Detention (unlined) Infiltration basins*** Infiltration trenches***	Wet basin* Austin filter (earthen) Detention (unlined) Infiltration basins*** Infiltration trenches*** Biofiltration Strip Biofiltration Swale
Tier 2	Biofiltration Strip Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Strip Biofiltration Swale	Austin filter (concrete) Delaware filter
* The wet basin should only be considered for phosphorus			
** In cases where earthen BMPs can infiltrate, Delaware filters are ranked in Tier 2 if the TDC is nitrogen only, but they are Tier 1 for phosphorous only or both nitrogen and phosphorous.			
*** Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			

12. Does the project discharge to a waterbody that has been placed on the 303-d list or has had a TMDL adopted for mercury or low dissolved oxygen? ☐Yes ☐No

    If Yes contact the District/Regional NPDES Storm Water Coordinator to determine if standing water in a Delaware filter, wet basin, or MCTT would be a risk to downstream water quality.

13. After completing the above, identify and attach the checklists shown below for every Treatment BMP under consideration. (use one checklist every time the BMP is considered for a different drainage within the project) ☒Complete

    __X__ Biofiltration Strips and Biofiltration Swales: Checklist T-1, Part 2
    _____ Dry Weather Diversion: Checklist T-1, Part 3
    _____ Infiltration Devices: Checklist T-1, Part 4
    _____ Detention Devices: Checklist T-1, Part 5
    _____ GSRDs: Checklist T-1, Part 6
    _____ Traction Sand Traps: Checklist T-1, Part 7
    _____ Media Filter [Austin Sand Filter and Delaware Filter]: Checklist T-1, Part 8
    _____ Multi-Chambered Treatment Train: Checklist T-1, Part 9
    _____ Wet Basins: Checklist T-1, Part 10

14. Estimate what percentage of WQV (or WQF, depending upon the Treatment BMP selected) will be treated by the preferred Treatment BMP(s): __100____% ☒Complete

    (a) Have Treatment BMPs been considered for use in parallel or series to increase this percentage? ☒Yes ☐No

15. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) that will be treated by the preferred treatment BMP(s): __100_____% ☒Complete

16. Prepare cost estimate, including right-of-way, and site specific determination of feasibility (Section 2.4.2.1) for selected Treatment BMPs and include as supplemental information for SWDR approval. ☒Complete

Treatment BMPs

Checklist T-1, Part 2

Prepared by: **Jose Bautista** Date: **1/26/2011** District-Co-Route: **05-SBt-25, 05-SCI-25**

PM : **50.1-60.1/0.0-2.0** Project ID (or EA): **05-485400** RWQCB: **CENTRAL COAST REGION 3**

Biofiltration Swales / Biofiltration Strips

Feasibility

1. Do the climate and site conditions allow vegetation to be established? ☒Yes ☐No
2. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour of the vegetated biofiltration swale as per HDM Table 873.3E)? ☒Yes ☐No

   If "No" to either question above, Biofiltration Swales and Biofiltration Strips are not feasible.

   3. Are Biofiltration Swales proposed at sites where known contaminated soils or groundwater plumes exist? ☐Yes ☒No
   If "Yes", consult with District/Regional NPDES Coordinator about how to proceed.
4. Does adequate area exist within the right-of-way to place Biofiltration device(s)? ☒Yes ☐No
   If "Yes", continue to Design Elements section. If "No", continue to Question 5.
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Biofiltration devices and how much right-of-way would be needed to treat WQF? _____ acres ☐Yes ☐No
   If "Yes", continue to Design Elements section. If "No", continue to Question 6.
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of these Treatment BMPs into the project. ☐Complete

Design Elements

* **Required** Design Element – A "Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a "No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

** **Recommended** Design Element – A "Yes" response is preferred for these questions, but not required for incorporation into a project design.

1. Has the District Landscape Architect provided vegetation mixes appropriate for climate and location? * ☒Yes ☐No
2. Can the biofiltration swale be designed as a conveyance system under any expected flows > the WQF event, as per HDM Chapter 800? * (e.g. freeboard, minimum slope, etc.) ☒Yes ☐No

3. Can the biofiltration swale be designed as a water quality treatment device under the WQF while meeting the required HRT, depth, and velocity criteria? (Reference Appendix B, Section B.2.3.1)* ☒Yes ☐No

4. Is the maximum length of a biofiltration strip ≤ 300 ft? * ☒Yes ☐No

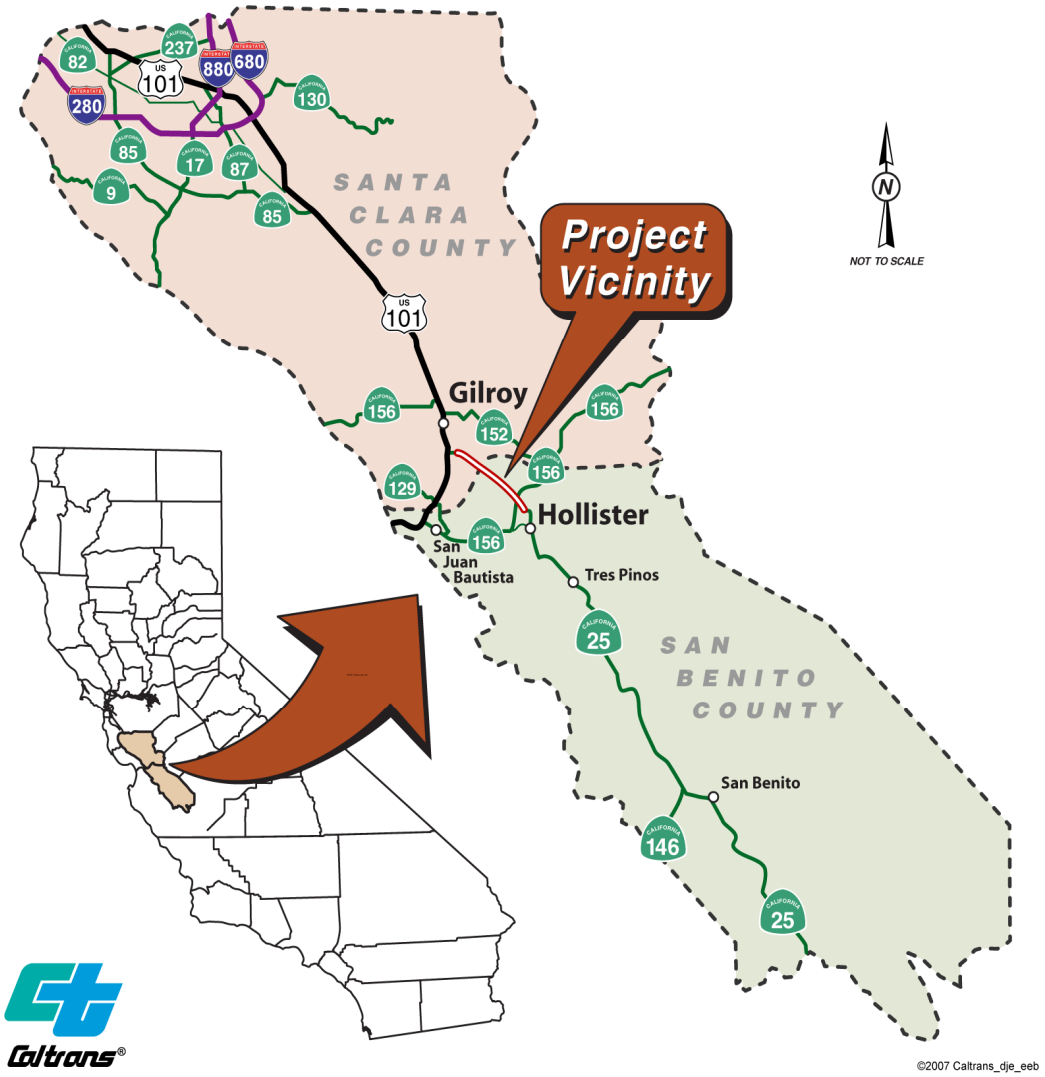
5. Has the minimum width (in the direction of flow) of the invert of the biofiltration swale received the concurrence of Maintenance? * ☒Yes ☐No

6. Can biofiltration swales be located in natural or low cut sections to reduce maintenance problems caused by animals burrowing through the berm of the swale? ** ☒Yes ☐No

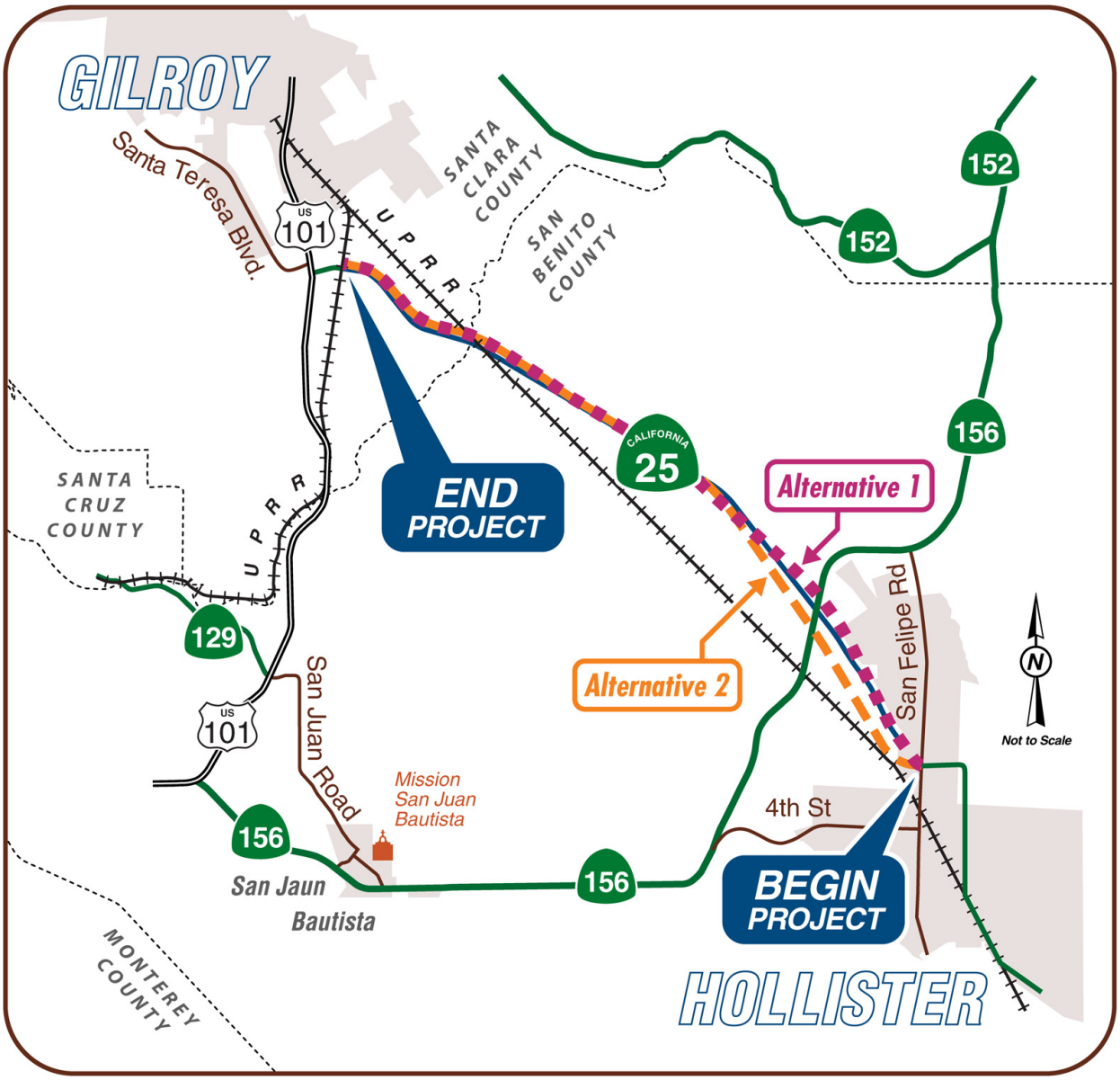
7. Is the biofiltration strip sized as long as possible in the direction of flow? ** ☒Yes ☐No

8. Have Biofiltration Systems been considered for locations upstream of other Treatment BMPs, as part of a treatment train? ** ☒Yes ☐No

PROJECT VICINITY MAP



PROJECT LOCATION MAP



Historic Property Survey Report

Historic Property Survey Report
State Route 25/US Route 101 Hollister-to-Gilroy Widening
San Benito and Santa Clara Counties, California

SBT-025-KP 82.9/96.7 (PM 51.5/60.1)
SCL-025-KP 0.0/4.1 (PM 0.0/2.6)
SCL-101-KP 1.5/8.1 (PM 0.9/5.0)
SBT-156-KP R17.5/18.7 (PM R10.9/11.6)
E.A. 05-485400

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Appendix B Supplemental Archaeological Survey and XP1 Buried Sites Testing (Hildebrandt et al. 2004a)
Appendix C Second Supplemental Archaeological Survey Report (Ryan and Hildebrandt 2005)
Appendix D Geophysical Investigation Survey: Las Animas Geophysical Study (Hildebrand et al. 2003)
Appendix E Geoarchaeological Study and Sensitivity Model (Rosenthal et al. 2003)
Appendix F Extended Phase I Studies at CA-SBN-243 and CA-SCL-495 (Hildebrandt et al. 2004b)

Appendix G Phase II Archaeological Evaluation Report, Asian Ceramic Site (Costello et al. 2004)
Appendix H Historic Architectural Survey Report (Wee et al. 2003)
Appendix I Historical Resources Evaluation Report, Roads (Wee and Rogers 2003a)
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Chapter 1. Summary

The California Department of Transportation (Caltrans)—in coordination with the Council of San Benito County Governments (SBCOG), the Santa Clara Valley Transportation Authority (SCVTA), and the Federal Highway Administration (FHWA)—proposes improvements to segments of State Route 25 (SR 25) and US Route 101 (US 101) in San Benito and Santa Clara counties, California (Figure 1, Figure 2). The SR 25/US 101 Hollister-to-Gilroy Widening project would convert approximately 11.2 miles of two-lane conventional highway to four-lane freeway and improve the interchanges between SR 25 and US 101 and between SR 25 and SR 156 (Figure 3, Figure 4). Due to funding from the FHWA, the undertaking is subject to compliance with Section 106 of the National Historic Preservation Act of 1966.

Cultural resources studies supporting the project were conducted in accordance with the January 1, 2004, *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (the Programmatic Agreement). This report is intended to fulfill three of the FHWA's Section 106 responsibilities under the Programmatic Agreement: to delineate the project's area of potential effects (APE) (Figure 6); to summarize the results of the effort to inventory cultural resources within the APE; and to evaluate those resources for their eligibility for inclusion on the National Register of Historic Places (NRHP). This report also evaluates resources in accordance with Section 15064.5(a)(2)-(3) of the California Environmental Quality Act (CEQA) Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code.

Regarding the first two Section 106 responsibilities, pursuant to Stipulation VI.B of the Programmatic Agreement, Caltrans has documented the project's APE and conducted a reasonable and good faith effort to identify historic properties within that APE. Regarding the third Section 106 responsibility, this report presents Caltrans' determinations of eligibility on behalf of the FHWA and requests concurrence from the California State Historic Preservation Officer (SHPO) with those determinations.

Appendices to this *Historic Property Survey Report* include:

- Appendix A, *Archaeological Survey Report for Proposed Road Upgrade on State Highways 25 and 101* (Psota et al. 2002)
- Appendix B, *First Supplemental Archaeological Survey and Extended Phase-I Buried Sites Testing Report* (Hildebrandt et al. 2004a)
- Appendix C, *Second Supplemental Archaeological Survey Report, State Route 25/US Route 101 Hollister-to-Gilroy Widening* (Ryan and Hildebrandt 2005)
- Appendix D, *Geophysical Investigation Survey Report: Las Animas Geophysical Study* (Hildebrand et al. 2003)
- Appendix E, *A Geoarchaeological Study and Sensitivity Model for the Southern Santa Clara, Hollister, and San Juan Valleys* (Rosenthal et al. 2003)
- Appendix F, *Extended Phase I Studies at CA-SBN-243 and CA-SCL-495* (Hildebrandt et al. 2004b)
- Appendix G, *Phase II Archaeological Evaluation Report, Asian Ceramic Site Near Gilroy* (Costello et al. 2004)
- Appendix H, *Historic Architectural Survey Report* (Wee et al. 2003)
- Appendix I, *Historic Resource Evaluation Report, Roads within the Hollister to Gilroy Four Lane Project* (Wee and Rogers 2003a)
- Appendix J, *Historic Resource Evaluation Report, Railroads within the Hollister to Gilroy Four Lane Project* (Wee and Rogers 2003b)
- Appendix K, *Bridge Evaluation* (Wee and Rogers 2003c)
- Appendix L, *Supplemental Historical Resources Evaluation Report* (Carr 2005)
- Appendix M, Native American Consultation
- Appendix N, Other Correspondence

The archaeological APE contains three prehistoric archaeological sites that required evaluation: one was determined to be eligible for the NRHP prior to this investigation, one was determined to be ineligible prior to this investigation. One site that remains unevaluated is assumed eligible for the purposes of this project only (Table 1-1).

Table 1-1: **NRHP Eligibility Status of Prehistoric Archaeological Sites**

Eligibility Status	Site
Previously Determined Eligible	CA-SCL-698
Previously Determined Ineligible	CA-SCL-699/H
Unevaluated: Assumed Eligible for this Project Only	CA-SBN-243

The archaeological APE also contains two historical archaeological sites. One site was determined ineligible for the NRHP prior to this investigation, and one was determined ineligible during this investigation (Table 1-2).

Table 1-2: NRHP Eligibility Status of Historical Archaeological Components

Eligibility Status	Site
Previously Determined Ineligible	CA-SCL-699/H
Determined Ineligible	CA-SCL-841H

The architectural APE contains 72 built-environment resources. One of these resources was determined eligible for the NRHP prior to this investigation: CA-SCL-697/H, also known as the Bloomfield Ranch Headquarters. However, because the FHWA's statement of eligibility and the SHPO's statement of eligibility do not match, no consensus determination was ever attained. The current investigation provides an updated statement of significance for this resource and requests SHPO concurrence with the updated statement. Of the remaining 71 built-environment resources, 18 were determined to be ineligible for the NRHP prior to this investigation, and 53 resources were determined ineligible during this investigation (Table 1-3).

Table 1-3: NRHP Eligibility Status of Built-Environment Resources

Eligibility Status	Resource
Previously Determined Eligible	CA-SCL-697/H (P-43-11107)
Previously Determined Ineligible (n=18)	CA-SCL-308/H A05* 600-640 Briggs Road E02 1105 Bolsa Road E03 1405 Bolsa Road F02 5590 Monterey Road F11 4790 Monterey Road F17 4310 Monterey Road F18 4310 Monterey Road F20 3201 Monterey Road F21 4355 Monterey Road F23 4775 Monterey Road F24 4395 Monterey Road F26 4965 Monterey Road F28 5365 Monterey Road S12 5590 Monterey Road Bridge 37-0468 Bridge 37-0475F Bridge 43-0001

* Map reference number

Table 1-3, continued: NRHP Eligibility Status of Built-Environment Resources

Eligibility Status	Resource
Determined Ineligible (n=53)	A06 720 Briggs Road
	A08 432 Briggs Road
	A09 312 Briggs Road
	A10 231-233 Briggs Road
	A11 772 San Felipe Road
	A16 132 Briggs Road
	A17 160 Briggs Road
	A18 1444 Bolsa Road
	A19 1448 Bolsa Road
	A21 1940 Bolsa Road
	A23 2130 Bolsa Road
	B01 4211 Bolsa Road
	B02 4153 Bolsa Road
	B03 Bolsa Road
	B04 2731 Bolsa Road
	B05 2730 Bolsa Road
	B06 3616 Bolsa Road
	B07 4020 Bolsa Road
	B08 4362-4364 Bolsa Road
	C01 5100 Bolsa Road
	D01 Bolsa Road
	E04 1505 Bolsa Road
	E06 1100 Bolsa Road
	E07 Bridge Pilings
	E08 Bloomfield Road
	F03 5503 Monterey Road
	F08 5350 Bolsa Road
	F10 4860-4800 Monterey Road
	F12 4590-4680 Monterey Road
	F13 4450 Monterey Road
	F14 4360 Monterey Road
	F16 4260 Monterey Road
	F22 Castro Valley Road
	F25 5055 Santa Teresa Boulevard
	S01 950 San Felipe Road
	S02 431 Briggs Road
	S03 460 Briggs Road
	S04 2017 Bolsa Road
	S05 2735 Bolsa Road
	S06 573 McConnell Road
	S07 593 McConnell Road
	S08 Bolsa Road
	S09 Bolsa Road
	S10 1250 Bolsa Road
	S11 1185 Bolsa Road
	S13 5815 Bolsa Road
	Hollister-Gilroy Road
	Monterey Road
	Tres Pinos Branch, SPRR
	Watsonville Branch, SPRR
	Bridge 37-0008
	Bridge 37C-0103
	Bridge 37-0156

All other archaeological and built-environment resources within the APE qualified as exempt from evaluation in accordance with Attachment 4 of the Programmatic Agreement (Table 1-4). These resources are not shown on the APE map, and no further discussion on these resources is provided within this HPSR.

Table 1-4: Resources Exempt from Evaluation in Accordance with Attachment 4

Category of Exempt Resource	Resource
Refuse Scatters Less Than 50 Years Old	CA-SBN-239H
Refuse Scatters Over 50 Years Old That Lack Specific Associations	CA-SBN-244H
Isolated Prehistoric Artifacts (n=11)	P-35-0297 P-35-0359 P-35-0360 P-35-0361 P-35-0395 P-43-1442 P-43-1443 P-43-1444 P-43-1445 P-43-1590 P-43-1724
Buildings and Structures Less Than 50 Years Old (Property Types 2, 3, 4, and 5) (n=23)	A01* 2533 Bolsa Road A02 Airway Drive A04 741 Flynn Road A07 660 Briggs Road A12 660 San Felipe Road A13 Bolsa Road A14 790 Bolsa Road A15 800 Bolsa Road A20 Bolsa Road A22 1980 Bolsa Road A24 South Bolsa Road D02 8770 Bolsa Road E01 415 Bloomfield Road E05 1020 Bolsa Road F01 Monterey Road F04 5480 Monterey Road F05 5400 Monterey Road F06 Bolsa Road F07 Bolsa Road F09 5020 Bolsa Road F15 4350 Monterey Road F29 5355 Monterey Road F30 5625 Monterey Road

* Map reference numbers in this table correspond with Appendix H, Figure 3.

Other Sites

Additionally, the APE map shows one archaeological site that is immediately adjacent to the archaeological APE (CA-SCL-577/H), and four archaeological sites that are outside the archaeological APE yet within the architectural APE. The Caltrans Project Design Team revised the project design to deliberately avoid these sites. Though shown on the APE map, the archaeological components of these sites are only discussed briefly within this summary but not within the body of this HPSR. Table 1-5 lists each site that was avoided, where it can be found within Figure 6, and which technical appendix it is reported in. Because some work, either Phase-1 archaeological studies or Extended Phase 1 archaeological studies, was conducted at each of the sites listed in Table 1-5 in support of the current proposed undertaking, a brief history of each site is provided below.

Table 1-5: Archaeological Sites Avoided Through Project Design Revision

Site	Map Location	Technical Appendix
CA-SCL-203	Figure 6e	A, B
CA-SCL-308/H	Figure 6g	A, B, D
CA-SCL-495	Figure 6e	B, E
CA-SCL-577/H	Figure 6f	C
CA-SCL-697/H	Figure 6f and 6g	B, D

CA-SCL-203

CA-SCL-203 is an unevaluated site that is not within the archaeological APE, however, the architectural APE overlaps the northern portion of the site. The site is a sparse scatter of isolates in an agricultural field east of Carnadero Creek and south of SR 25 (Figure 6e). In 1975, in support of a proposed expansion of the Gilroy Wastewater Treatment Plant, Winter excavated 23 units at the site and found a sparse, low-density scatter of archaeological remains in five of the units (see site record for CA-SCL-203, in Appendix B). In support of Caltrans' State Route 152 Corridor Relocation Project (Caltrans 1991), Hildebrandt and Mikkelsen (1993) re-surveyed the surface and found three artifacts, and excavated 21 trenches and three units and found no other archaeological remains. Based on that study, the FHWA requested SHPO concurrence that the site was not eligible for the NRHP. The SHPO was unable to determine if the southern portion of the site or the portion along Carnadero Creek had been adequately tested, and thus was unable to concur with the determination that the site is not eligible. However, the SHPO agreed that it was reasonable to re-delineate

the northern boundary of the site southward and away from SR 25 (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N). Given this revised site boundary, CA-SCL-203 is not within the archaeological APE.

Seeking to confirm the absence of archaeological deposits near SR 25 for the current proposed undertaking, Psota et al. (2002, Appendix A) re-surveyed all of CA-SCL-203 and found no surface artifacts within site boundaries. Additionally, Hildebrandt et al. (2004, Appendix B) excavated 13 trenches and three units in and around CA-SCL-203 (Appendix B, pp 53-54). These areas were rated as having a high to very high sensitivity for buried cultural materials. No artifacts were recovered, confirming that CA-SCL-203 is not within the archaeological APE.

CA-SCL-308/H

This resource consists of a prehistoric archaeological component, a historical archaeological component, and a built-environment component (the former Miller family cemetery).

The built-environment component of CA-SCL-308/H is within the architectural APE but outside the archaeological APE (Figure 6g). This component of the resource was determined not eligible for the NRHP in 1994 (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N). Because this component is within the architectural APE, it is addressed within the body of this HPSR in § 5.1 and 5.2.

The prehistoric archaeological component and the historical archaeological component of CA-SCL-308/H are outside the archaeological APE, but within the architectural APE. In support of the State Route 152 Corridor Relocation Project (Caltrans 1991) the site was revisited and, because several prehistoric artifacts were observed, the trinomial was changed to CA-SCL-308/H. Hildebrandt and Mikkelsen (1993) evaluated the prehistoric archaeological deposit at CA-SCL-308/H. The site includes a Middle Period component with a rich midden associated with an intact house floor that overlies an Early Period midden. It also includes a Middle-Late Transition period component and Native American burials. Based on that study, the FHWA determined the prehistoric archaeological component was eligible for the NRHP. The SHPO concurred (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N). Clearly delineated site boundaries allowed the

project design team to avoid the prehistoric archaeological component of CA-SCL-308/H and thus it is not within the archaeological APE.

During evaluation of the prehistoric archaeological component, historical artifacts also were observed. Historic-period materials represent the remains of a Hispanic household dating to between ca. 1800 and 1835. Archival evidence suggested that the remains may be associated with the original rancho headquarters of Jose Mariano and Josefa Castro. Julia Costello evaluated the historical archaeological remains and determined that there was not enough data to make an eligibility recommendation (Milliken et al. 1993). The SHPO agreed there was insufficient data for an eligibility determination (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N). In support of the current proposed undertaking, a ground penetrating radar (GPR) study at this site suggested the presence of buried historic features (Hildebrand et al. 2003, Appendix D). Although full evaluation of the historical archaeological component was not conducted, sufficient information derived from the GPR study, from the prehistoric excavations, and based on topography clearly reveal that the historical archaeological component of CA-SCL-308/H is not within the archaeological APE.

CA-SCL-495

CA-SCL-495 is an unevaluated site outside the archaeological APE but within the architectural APE (Figure 6e). The site was recorded in 1982 after removal of an orchard tree exposed a Native American burial. The burial was re-interred in the location where it was found by the farmer. Other site constituents were described as a "weak" midden deposit with a thin scatter of shell, chert flakes, fire-cracked rock, and possible ground stone fragments.

In support of the current proposed undertaking, Extended Phase I excavations were conducted at the site (Hildebrandt et al. 2004, Appendix F) to define the site boundary and thus help the project design team avoid the site. Surface collections, off-site backhoe trenching, and on-site hand excavations revealed the presence of a small but diverse assemblage of artifacts, shellfish, and mammal bone. The Extended Phase I efforts generated sufficient information to confidently map the site boundary; CA-SCL-495 is outside the archaeological APE.

CA-SCL-577/H

CA-SCL-577/H consists of a prehistoric archaeological component and a historical archaeological component. The prehistoric archaeological component was evaluated

for the State Route 152 Corridor Relocation Project (Caltrans 1991, Hildebrandt and Mikkelsen 1993). Site constituents include a surface and subsurface assemblage of ground stone tools, flaked stone tools and debris, and a moderate amount of vertebrate and invertebrate faunal remains. Human burials also are present. A marine shell concentration reflecting a distinct temporal component produced a radiocarbon date of 4269 BP. Based on that study, the FHWA determined the site was eligible for the NRHP. The SHPO concurred (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N).

During evaluation of the prehistoric archaeological component, historical artifacts also were observed. Historic-period materials represent the remains of a household and ranch complex dating to c. 1834. Archival evidence suggested that the remains may be associated with two brothers, Antonio and Faustino German, and their families, and then, in 1857, Robert Carlisle. Julia Costello evaluated the historical archaeological remains and determined that there was not enough data to make an eligibility recommendation (Milliken et al. 1993). The SHPO agreed there was insufficient data for an eligibility determination (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, see Appendix N). Both components are outside the archaeological and architectural APEs.

During the second supplemental archaeological survey (Ryan and Hildebrandt 2004, Appendix C), CA-SCL-577/H was re-examined to confirm site boundaries. Observations were largely consistent with the previous studies and site record. Close-interval survey of the agricultural field located between SCL-577/H and US 101 resulted in the identification of an estimated 750 to 1,000 fragments of animal bone. Most of the fragments could only be identified as large mammal (e.g., cow), medium mammal (e.g., deer, pig, sheep) or small mammal (e.g., coyote, raccoon, rabbit, and various rodents). No bone fragments of human origin were identified within the agricultural field.

CA-SCL-697/H

This resource consists of a prehistoric archaeological component, a historical archaeological component, and a built-environment component (the former Bloomfield Ranch Headquarters).

The majority of the built-environment component of CA-SCL-697/H is within the architectural APE but outside the archaeological APE (Figure 6f and 6g). This component of the resource was determined eligible for the NRHP in 1994 (OHP

correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N). Because this component is within the architectural APE, it is addressed in great detail within the body of this HPSR (see § 5.1).

The prehistoric archaeological component and the historical archaeological component of CA-SCL-697/H are outside the archaeological APE, but within the architectural APE. In support of the State Route 152 Corridor Relocation Project (Caltrans 1991), Hildebrandt and Mikkelsen (1993) evaluated the prehistoric archaeological deposit at CA-SCL-697/H. They found a “meager sample” of artifacts lacking integrity due to agricultural disturbances and human remains, which also had been disturbed by decades of plowing. Based on that study, the FHWA determined the prehistoric archaeological component was not eligible for the NRHP. The SHPO noted that “the existence of burials in an archaeological context does not necessarily make a site eligible for the National Register” (OHP correspondence, January 28, 1994; OHP File Reference No FHWA931021A, in Appendix N), and that additional work on the prehistoric component was necessary to a determination of eligibility. However, sufficient data was presented to reveal that the prehistoric archaeological component of CA-SCL-697/H is not within the archaeological APE.

During evaluation of the prehistoric archaeological component, Hildebrandt and Mikkelsen (1993) found five historical artifacts and added the "/H" to make it CA-SCL-697/H. Julia Costello examined the historical archaeological remains and determined that there was not enough data to make an eligibility recommendation (Milliken et al. 1993). The SHPO agreed there was insufficient data for an eligibility determination (OHP correspondence, January 28, 1994; OHP File Reference No. FHWA931021A, in Appendix N).

Both the prehistoric archaeological component and the historical archaeological component are outside the archaeological APE and will not be affected by the proposed undertaking.

Chapter 2. Project Description

The SR 25/ US 101 Hollister-to-Gilroy Widening Project (25/101 Widening Project) proposes to widen and improve segments of US 101 and SR 25 in southern Santa Clara County, and SR 25 and SR 156 in northern San Benito County. Three new interchanges would be built at the intersections of SR 25 and US 101, SR 25 and SR 156, and SR 25 and Bolsa Road. Additional project elements include constructing new bridge structures, re-aligning and improving some local roads, re-locating existing utilities, and building access or frontage roads for any parcels that become land-locked as a result of the project. Portions of the existing right-of-way (ROW) would be relinquished, and some new ROW would need to be acquired. The project would run across privately owned residential, commercial, and agricultural land, impacting some residences and businesses. Three project alternatives are considered—two build alternatives (Alternatives 1 and 2) and the no-build alternative.

2.1. Alternative 1

Alternative 1 (Figure 3) proposes to improve US 101 from just south of the Monterey Street overcrossing in southern Gilroy southward for approximately 6.1 km (3.8 miles) to just north of the Union Pacific Railroad overcrossing. The existing four-lane conventional highway would be converted to a six-lane divided freeway with a 26-meter-wide (85-foot) median, with provisions for future expansion to an eight-lane facility. At the southern terminus, US 101 would taper back down into the existing four-lane divided conventional highway. In the vicinity of the US 101/SR 25 interchange, the US 101 alignment would shift west due to design requirements associated with the proposed freeway-to-freeway connector ramps. Upon completion of the new facility the existing highway would be converted to a frontage road and relinquished to the county. Two new bridge structures would be constructed where US 101 crosses Carnadero Creek.

To the west of US 101, Santa Teresa Boulevard would be extended as a four-lane divided county freeway that would connect to the proposed US 101/SR 25 interchange. To the east of US 101, SR 25—currently a two-lane conventional highway—would be converted to a four-lane divided freeway in Santa Clara County and a four-lane divided expressway in San Benito County. These improvements would run along a new alignment parallel to and north of the existing SR 25

alignment. In the vicinity of Grant Line Road, however, in order to avoid impacts to wetlands the new alignment would cross over from the northeast side of the existing facility to the southwest side for approximately 2.7-km (1.7 miles), and then return to the northeast side.

At Flynn Road the new facility would taper back into the existing facility, following it for approximately 2.6 km (1.6 miles) to the southeastern terminus just west of San Felipe Road in northern Hollister. Along this stretch of the project, the existing facility would be converted to southbound lanes. To the northeast, a median and two new northbound lanes would be constructed.

In addition to the SR 25/US 101 interchange, the project would re-align Bolsa Road and construct a diamond interchange. Bolsa Road would remain at grade and undercross SR 25. A segment of the existing SR 25 facility would be re-aligned in this vicinity as well.

At the intersection of SR 25 and SR 156, the project would construct another diamond interchange to the north of the existing at-grade intersection, with SR 25 overcrossing SR 156. In the vicinity of this interchange, SR 156 would be converted from a two-lane conventional highway to a four-lane divided expressway for a distance of 3.5-km (2.2 miles).

Several new bridge structures would be constructed along the new SR 25 facility to overcross US 101, the Union Pacific Railroad line, Carnadero Creek, Bolsa Road, another branch of the Union Pacific Railroad line, the Pajaro River, Farm Road, and SR 156.

2.2. Alternative 2

Alternative 2 (Figure 4) proposes the same improvements to US 101 and SR 25 as Alternative 1 within Santa Clara County. Within San Benito County, Alternative 2 differs from Alternative 1 in that a new four-lane divided expressway would be constructed along a new alignment to the southwest of the existing facility from Grant Line Road to just west of San Felipe Road. The existing facility would be relinquished to the county. Correspondingly, the SR 25/SR 156 interchange would be constructed to the south of the existing at grade intersection.

2.3. No-Build Alternative

The No-Build Alternative would leave the existing facility as is. This alternative does not reduce congestion or improve safety and therefore does not meet the purpose and need for the project.

2.4. The Cultural Resources Survey Area

The cultural resources survey area was delineated to encompass the widest possible range of project alternatives (Figure 2). The areal extent of the study area is approximately 1800 hectares (4,450 acres).

2.5. The Area of Potential Direct Effects

The area of potential direct effects (hereafter, the archaeological APE) was delineated to encompass all foreseeable project-related, ground-disturbing construction activities for all proposed alternatives (Figure 6). The APE was delineated in accordance with Attachment 3 of the Programmatic Agreement and considers areas required for the construction of the new highway; stream culverts, storm water treatments, and other drainage treatments; the installation and relocation of utilities; staging and storage areas, access and haul roads, and temporary construction easements; areas to be relinquished; and mitigation areas. Additionally, where the APE encroached upon an archaeological site only partially it was adjusted to include that site in its entirety.

2.6. The Area of Potential Direct and Indirect Effects

The area of potential direct and indirect effects (hereafter, the architectural APE) includes, in general, all parcels hosting buildings and structures that are encroached upon by or are immediately adjacent to the archaeological APE. However, large agricultural parcels exist in several places within the project area. In these places the architectural APE was delineated to include a portion of the agricultural field surrounding the architectural resource to serve as part of that resource's setting. The entire parcel was not always included.

❖

Summary of Identification Efforts

3.1. Previous Projects and Section 106 Consultation

Portions of the APE for the 25/101 Widening Project were covered by two other transportation projects: the State Route 156 Hollister Bypass Project (156 Bypass Project) (Caltrans 1990), and the State Route 152 Corridor Relocation Project (152 Relocation Project) (Caltrans 1991, Caltrans 1992). The portions of the APE for the 25/101 Widening Project that were covered by the two earlier projects are illustrated in Figure 5.

The APE for the State Route 156 Hollister Bypass Project overlaps a 3.3 km-long (2.1 mile) segment of the APE for the 25/101 Widening Project along SR 156. During Section 106 compliance studies for the 156 Bypass Project, no historic properties were identified within this area of overlap. The SHPO concurred with the findings presented in the HPSR for the 156 Bypass Project (Caltrans 1990) on August 22, 1990 (OHP File Reference # FHWA900726A). Complete Section 106 consultation correspondence is included in Appendix N.

Some of the surveys and Extended Phase 1 archaeological studies conducted for the 25/101 Widening Project overlapped and re-examined the portion of the 156 Bypass Project APE, including Psota et al. 2002 (Appendix A), Hildebrandt et al. 2004a (Appendix B), Ryan and Hildebrandt 2005 (Appendix C), and Hildebrandt et al. 2004b (Appendix F). As such, this area of overlap has been examined on several occasions.

The APE for the State Route 152 Corridor Relocation Project overlaps a 4.9 km-long (3.0 mile) segment of the APE for the 25/101 Widening Project along SR 101, and a 7.6 km-long (4.7 mile) segment along SR 152. During Section 106 compliance studies for the 152 Relocation Project, only two historic properties were identified within this area of overlap: CA-SCL-698, a prehistoric archaeological site, and the built-environment component of CA-SCL-697/H, the former headquarters of Henry Miller's Bloomfield Ranch. All other archaeological and built-environment resources within this area of overlap were found either to be ineligible for the NRHP, or that the SHPO could not concur with the FHWA's eligibility determinations due to insufficient information. The SHPO concurred with these findings on January 28, 1994 (OHP File Reference # FHWA931021A, in Appendix N). In 2005 CA-SCL-698 was re-examined; observations were consistent with previous documentation

(Appendix C, page 8). CA-SCL-697/H also was re-examined; those observations indicated that the significance of some portions of the former ranch required reassessment. The results of that reassessment are presented in detail in §5.1 of this HPSR.

Some of the surveys and Extended Phase 1 archaeological studies conducted for the 25/101 Widening Project overlapped and re-examined the portion of the 152 Relocation Project APE, including Psota et al. 2002 (Appendix A), Hildebrandt et al. 2004a (Appendix B), Ryan and Hildebrandt 2005 (Appendix C), and Hildebrand et al. 2003 (Appendix D). As such, this area of overlap has been examined on several occasions.

3.2. Records Search and Archival Research

Prior to the archaeological survey conducted by the Anthropological Studies Center (ASC) at Sonoma State University, Rohnert Park, staff at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Rohnert Park, completed a cultural resources records search. The records search area included the archaeological survey area plus a 0.8-kilometer (0.5-mile) buffer zone. The search reviewed the Historic Properties Directory, a combined directory that includes listings from the NRHP, California Historical Landmarks, California Points of Historical Interest, and the California Register of Historical Resources. The search also reviewed the California Inventory of Historic Resources, the Caltrans Local Bridge Survey, and *Five Views: An Ethnic and Historic Site Survey for California*. Details of this records search appear in Appendix A, pages 8-10.

In advance of the first supplemental archaeological survey conducted by the Far Western Anthropological Research Group, Inc. (Far Western), of Davis, California, the original records search was updated and expanded by staff at the NWIC. Again, the search area included the entire expanded archaeological survey area plus a 0.8-kilometer (0.5-mile) buffer zone. Details of this records search appear in Appendix B, page 5.

Archival research pertaining to historical archaeological and historical built-environment resources utilized numerous sources and repositories, including:

- California State Archives
- California Room at the California State Library

- Caltrans Transportation Library & History Center
- Santa Clara County Library
- Santa Clara County Historical Archives
- Santa Clara County Assessor's Office
- Santa Clara County Recorder's Office
- California Room at the Dr. Martin Luther King Jr. Library, San Jose
- History San José
- Gilroy Historical Museum
- San Benito County Historical Society
- San Benito County Assessor's Office
- San Benito County Recorder's Office
- Monterey County Historical Society
- Shields Library, University of California, Davis
- Bancroft Library, University of California, Berkeley
- Regional Collections of the National Archives, San Bruno
- Private library of Randy Milliken
- Cultural resources files, Caltrans, San Luis Obispo
- First American Real Estate Solutions (FARES) commercial database
- Census records
- City directories
- Numerous maps.

Lastly, on December 4, 2003, Caltrans archaeologist Tom Wheeler sent a letter to the Native American Heritage Commission requesting a search of their files to determine if any sacred sites, plant gathering locations, or traditional cultural properties were known to exist in the vicinity of the proposed project. Ms. Debbie Pilas-Treadway of the Native American Heritage Commission (NAHC) returned a letter to Caltrans on December 24, 2003, stating their files failed to indicate the presence of Native American cultural resources in the immediate project area (see Appendix M).

3.3. Phase-1 Archaeological Studies

An intensive pedestrian archaeological survey of a 1061-hectare (2622-acre) cultural resources study area was completed by the ASC, and culminated in the report *Archaeological Survey Report for Proposed Road Upgrade on State Highways 25*

and 101 (Appendix A, Psota et al. 2002). This inventory documented four previously recorded sites, three new sites, and seven new isolated artifacts.

Changes in the project design expanded the cultural resources study area into areas that had not been surveyed. Far Western completed a supplemental survey and reported the findings in the *First Supplemental Archaeological Survey and Extended Phase-I Buried Sites Testing Report* (Appendix B, Hildebrandt et al. 2004a). This inventory documented two new sites and three new isolated artifacts.

Another set of changes in the project design again expanded the cultural resources study area into areas that had not been surveyed. Far Western completed a second supplemental survey and reported the findings in the *Second Supplemental Archaeological Survey Report* (Appendix C, Ryan and Hildebrandt 2005). This inventory documented two previously recorded sites and one new isolated artifact.

Historical research suggested that two subsurface historical archaeological features might exist within the cultural resources study area: the foundation of the Mariano Castro adobe, and the foundation of the 1888 mansion of Henry Miller. Because of this, Caltrans commissioned a survey of two areas using ground penetrating radar and electromagnetic induction. This survey was completed by staff from the Scripps Institution of Oceanography of San Diego and Geophysical Investigations, Inc., of Denver, and culminated in the report *Geophysical Investigation Survey Report: Las Animas Geophysical Study* (Appendix D, Hildebrand et al. 2003). Surveys in the vicinity of the remaining Bloomfield Ranch buildings found one possible buried building foundation and two poorly defined possible buried features. Surveys in the vicinity of the former Miller Cemetery found one possible buried building foundation. No excavations were conducted to expose these geophysical anomalies because these areas are outside the archaeological APE.

3.4. Extended Phase-1 Archaeological Studies

In support of the SR 25/US 101 Hollister-to-Gilroy Widening project and two other large-scale transportation projects in northern San Benito County, Caltrans commissioned Far Western to conduct a regional geoarchaeological study and devise an archaeological sensitivity model that could be tested during an Extended Phase-1 investigation. Results from testing the sensitivity model also would be used to develop a plan for any construction monitoring deemed necessary. The study compiled archaeological data and mapping for six 7.5-minute USGS quadrangles that

cover the Southern Santa Clara, Hollister, and San Juan valleys. The database included site type and constituents, as well as all available chronological data and present-day environmental variables. Additionally, Far Western reviewed previous prehistoric settlement pattern models for the region, and critiques thereupon. This study is reported in *A Geoarchaeological Study and Sensitivity Model for the Southern Santa Clara, Hollister, and San Juan Valleys, Santa Clara and San Benito Counties, California* (Appendix E, Rosenthal et al. 2003). It provides a model that ranks the likelihood of the presence of surface archaeological remains and subsurface archaeological remains within the entire six-quadrangle area on a five-tiered scale ranging from very low to very high.

Extended Phase-1 excavations testing the sensitivity model consisted of 43 backhoe trenches in 13 areas that ranked as either having a high or very high potential to host subsurface archaeological remains, including areas where isolated artifacts had been found. None of the 43 backhoe trenches encountered buried archaeological deposits. Detailed findings from that effort are reported in the *First Supplemental Archaeological Survey and Extended Phase-I Buried Sites Testing Report* (Appendix B, Hildebrandt et al. 2004a).

Far Western conducted a second round of Extended Phase-1 investigations intended to define the vertical and horizontal extent of the archaeological deposit at two sites, CA-SBN-243 and CA-SCL-495. Due to the discovery of human bone at CA-SBN-243 and a reported human re-interment at CA-SCL-495, larger scale excavations designed to evaluate each site for the NRHP were not undertaken. Ultimately, the project was re-designed to avoid these sensitive sites. This effort is reported in *Extended Phase I Studies at CA-SBN-243 and CA-SCL-495, Santa Clara and San Benito Counties, California* (Appendix F, Hildebrandt et al. 2004b).

3.5. Phase-2 Archaeological Studies

CA-SCL-841H was recorded as a historic debris scatter with a mixture of early nineteenth century Asian ceramics, other domestic artifacts, structural remains, and recent agricultural debris. Evaluation of CA-SCL-841H included documentary and ethnographic research and excavation of three backhoe trenches by Foothill Resources, Ltd., of Mokelumne Hill, California. Three wood-lined privy features were uncovered. Due to the small number of artifacts and mixed associations, none of the archaeological deposits yielded sufficient data to meet NRHP criteria of significance, nor do they constitute a historical resource for the purposes of CEQA.

Details of the investigation appear in the *Phase II Archaeological Evaluation Report, Asian Ceramic Site Near Gilroy, P-43-1439, CA-SCL-841H* (Appendix G, Costello et al. 2004).

3.6. Evaluation of Built-Environment Resources

Built-environment resources within the architectural APE were evaluated by five studies.

The *Historic Architectural Survey Report* (Appendix H, Wee et al. 2003) documents and evaluates the NRHP eligibility of 49 buildings and structures that were constructed in or before 1959. One of these resources was previously determined eligible for the NRHP: the built environment component of CA-SCL-697/H, the remains of the former Bloomfield Ranch, owned by California cattle baron Henry Miller up until his death in 1916. Additional research revealed that the resource merited an updated statement of eligibility, which is provided in that report and restated in § 5.1 of this HPSR. All other buildings and structures were found to be ineligible for the NRHP, nor do they constitute historical resources for the purposes of CEQA.

The *Historic Resource Evaluation Report, Roads Within the Hollister to Gilroy Four Lane Project* (Appendix I, Wee and Rogers 2003a) documents and evaluates the NRHP eligibility of Hollister-Gilroy Road (Bolsa Road) and Monterey Road (US Route 101). Neither road was found to be eligible for the NRHP, nor do they constitute historical resources for the purposes of CEQA.

The *Historic Resource Evaluation Report, Railroads within the Hollister to Gilroy Four Lane Project* (Appendix J, Wee and Rogers 2003b) documents and evaluates the NRHP eligibility of the Tres Pinos Branch Line of the Southern Pcific Railroad and the Watsonville Branch of the Southern Pacific Railroad. Neither railroad was found to be eligible for the NRHP, nor do they constitute historical resources for the purposes of CEQA.

The *Bridge Evaluation* (Appendix K, Wee and Rogers 2003c) documents and evaluates the NRHP eligibility of the US 101 bridge over Carnadero Creek, the Bloomfield Road bridge over Carnadero Creek, and the State Route 25 bridge over Carnadero Creek. None of the bridges was found to be eligible for the NRHP, nor do they constitute historical resources for the purposes of CEQA.

The *Historical Resources Evaluation Report* (Appendix L, Carr 2005) documents and evaluates the NRHP eligibility of 13 buildings. None of the buildings are eligible for the NRHP, nor do they constitute historical resources for the purposes of CEQA.

3.7. Areas of Denied Access

Five landowners within the APE for the proposed State Route 25/US Route 101 Hollister-to-Gilroy Widening project did not grant Caltrans permission to access their land for the purpose of environmental and engineering analyses. Caltrans completed survey of 1782.5 hectares (4456.6 acres). Areas of denied access amount to 17.5 hectares (43.4 acres), which is approximately one percent of the total area of the APE. The following discussion describes Caltrans' approach to compensate for limitations posed by the denied access.

Built Environment Resources

Examination of high-resolution aerial photographs indicated that all built-environment resources within the five inaccessible parcels were close enough to the parcel boundary to permit a 100% inventory of built-environment resources, as well as an evaluation of their significance and integrity. As such, there are no gaps in the inventory and evaluation of built-environment resources for the project.

Archival research conducted at numerous repositories (see § 3.2) did not reveal anything of historical significance within these parcels.

Archaeological Resources

Owners of the five inaccessible parcels refused to sign a Caltrans Permit to Enter (PTE) authorization form. Because of this, Caltrans project personnel submitted the names of these landowners to Caltrans legal counsel with a request to obtain court orders permitting access. Due to the large amount of work required to process this request and the lack of a guarantee that the courts would grant the requested court orders Caltrans legal counsel has ceased pursuit of the rights to enter. Therefore, Caltrans personnel developed an alternate strategy to inventory archaeological resources within these parcels. That strategy included:

- reviewing previous survey results on portions of the inaccessible parcels
- reviewing previous and current survey results on lands surrounding the inaccessible parcels

- creating a prehistoric archaeological site sensitivity model and testing it during an Extended Phase 1 study (Hildebrandt et al 2004a, Appendix B)
- assessing disturbances deriving from construction of the built environment and land use on the inaccessible parcels
- performing remote sensing analyses of the inaccessible parcels using high-resolution aerial photography to search for anthropogenic soil discoloration
- conducting archival research

APN 808-023-004 (Figure 3g)

The unsurveyed portion of this parcel runs along the southern edge, measuring approximately 50 to 75 meters (165 to 245 feet) wide (north-south) and 550 meters (1800 feet) long, amounting to 1.5 hectares (3.8 acres)(approximately 0.00018% of the APE). With regard to prehistoric archaeological sites:

- The prehistoric archaeological site sensitivity model states that the potential for surface sites on these parcels is low on the eastern half (late Holocene alluvial fan and floodplain deposits) and very low on the western half (late Holocene alluvial basin deposits)(Rosenthal et al. 2003:45);
- The easternmost 300-meter-wide (985 feet) portion of this parcel and the westernmost 100-meter-wide (328 feet) portion were surveyed in 1992 (Gmoser 1992) (see Figure 5); no archaeological remains were found;
- Archaeological survey of the land surrounding this parcel by Psota et al. (2002) (see Appendix A, Map 3.7) did not identify any archaeological resources;
- The vast majority of this parcel is currently used to cultivate row crops; if any surface or near surface archaeological deposits had existed in these areas, their integrity would have been compromised by repeated plowing, planting, and harvesting;
- In a high-resolution aerial photograph of the inaccessible parcel, this field appears recently plowed and there is 100% visibility of bare mineral soil; the photo reveals that the field contains no anomalous soil discolorations that might suggest the presence of a surface midden deposit;
- The prehistoric archaeological site sensitivity model states that the potential for subsurface sites on these parcels is high on the eastern half and low on the western half. During buried sites testing fieldwork, one backhoe trench was excavated 400 meters (1312 feet) north of this parcel along the bank of Carnadero Creek at Backhoe Sampling Location #1 (see Appendix B, page 30).

The probability of encountering buried archaeological remains in this trench was rated very high. A single stratigraphic unit was revealed throughout the trench profile---normally graded sand and gravel laid down by the adjacent creek. No buried prehistoric archaeological remains were encountered and no buried Holocene surfaces were observed;

- None of the maps examined have any notations suggesting Native Americans inhabited the area near these parcels during the early historic period.

APN-841-037-012 (Figure 3e)

The APE captures the entire parcel. Gmoser surveyed the northwestern-most 50 meters of this parcel in 1993. 0.5 hectares (1.2 acres) (approximately 0.00028% of the APE) remain unsurveyed. The southern edge of the parcel was examined from a dirt road running along the property boundary; the northeastern edge was examined from the railroad right-of-way. With regard to prehistoric archaeological sites:

- The prehistoric archaeological site sensitivity model states that the potential for surface sites on these parcels is low. Soils are classified as late Holocene alluvial fan and floodplain deposits (Rosenthal et al. 2003:45);
- Archaeological survey of a 50 by 100 meter (165 by 330 foot) portion of APN 841-037-012 by Gmoser (1992) (see Figure 5) did not observe any archaeological remains;
- Archaeological survey of the land surrounding this parcel by Hildebrandt et al. (2004a) (see Appendix B, Figure 5a) did not identify any archaeological resources;
- The parcel is currently used to cultivate row crops. If any surface or near surface archaeological deposits exist, their integrity would have been compromised by repeated plowing, planting, and harvesting;
- The prehistoric archaeological site sensitivity model states that the potential for subsurface sites on this parcel is high. During buried sites testing fieldwork, a total of 26 backhoe trenches were excavated within 900 meters (2950 feet) of this parcel at Backhoe Sampling Locations Nos. 2-8 (see Appendix B, pages 30-38). Located near Carnadero Creek, the probability of encountering buried archaeological remains in these trenches was rated between moderate and very high. Many of these trenches found that surface and near-surface soils were redeposited or disturbed by grading and plowing. A few trenches revealed recent overbank deposits, most others revealed alluvium and fluvium. Two moderately developed and two weakly developed Holocene surfaces were encountered.

Radiocarbon dates from the moderately developed soils were 1080 calibrated years before present from 185 to 230 centimeters (6 to 7.5 feet) below surface, and 2320 calibrated years before present from 350-400 centimeters (11.5 to 13 feet) below surface. This suggests a very active cycle of deposition and erosion during the Holocene. The only artifact found from these 26 trenches was a pestle, but that artifact was not associated with a buried Holocene surface.

- None of the maps examined have any notations suggesting Native Americans inhabited the area near these parcels during the early historic period.

APN 018-020-016 (formerly APN 018-020-009)(Figure 3a and 3b)

Approximately two-thirds of this parcel falls within the archaeological APE. A corridor ranging between 90 to 215 meters (300 to 700 feet) wide, centered on the existing SR 156, was previously surveyed (Waldron 1990). 8.8 hectares (21.8 acres) (approximately 0.0049% of the APE) remain unsurveyed. With regard to prehistoric archaeological sites:

- The prehistoric archaeological site sensitivity model states that the potential for surface sites on this parcel is low. Soils are classified as late Holocene alluvial fan and floodplain deposits (Rosenthal et al. 2003:45);
- Archaeological survey of a 100 by 1000 meter (330 by 3300 foot) portion of APN 018-020-009 by Waldron (1990) (see Figure 5) did not observe any archaeological remains;
- Archaeological survey of land adjacent to this parcel by Psota et al. (2002) (see Appendix A, Map 3.2) did not identify any archaeological resources;
- Archaeological survey of land adjacent to this parcel by Hildebrandt et al. (2004a) (see Appendix B, Figure 5d) did not identify any archaeological resources;
- Archaeological survey of land adjacent to this parcel by Ryan and Hildebrandt (2005) (see Appendix C, Figure 3b) did not identify any archaeological resources;
- This entire parcel is currently used to cultivate row crops. In 1921 the land was undeveloped. In 1940 and 1955 the parcel was an orchard. If any surface or near surface archaeological deposits had existed in these areas, their integrity would have been compromised by repeated plowing, planting, harvesting, and removal of orchard trees;
- In a high-resolution aerial photograph of the inaccessible parcel, most of this field appears recently plowed, and there is 100% visibility of bare mineral soil

within plowed areas. The photo reveals that the field contains no anomalous soil discolorations that might suggest the presence of a surface midden deposit;

- The prehistoric archaeological site sensitivity model states that the potential for subsurface sites on this parcel is high. However, during buried sites testing fieldwork, three 4.5-meter (15.75-foot) deep backhoe trenches were excavated immediately adjacent to the northeast corner of this parcel at Backhoe Sampling Location #12 (see Appendix B, page 46). No buried prehistoric archaeological remains were encountered and no buried Holocene surfaces were observed in any of the trench sidewalls;
- None of the maps examined have any notations suggesting Native Americans inhabited the area near these parcels during the early historic period.

APN 019-020-015 (Figure 3a)

This parcel has never been surveyed, and approximately two-thirds of this parcel falls within the archaeological APE. 4.0 hectares (9.9 acres) (approximately 0.0022% of the APE) remain unsurveyed. With regard to prehistoric archaeological sites:

- The prehistoric archaeological site sensitivity model states the potential for surface sites is low on the eastern two-thirds of the parcel. On the western third the potential is rated as high, possibly due to its proximity to an uplifted Tertiary sedimentary rock formation to the northwest. However, soils on the parcel are late Holocene alluvial fan and floodplain deposits (Rosenthal et al. 2003:45). This apparent discrepancy may derive from imprecision caused by the large scale of both of these maps. Because the topography of the parcel is relatively flat, it is likely that late Holocene alluvial fan and floodplain deposits cover the entire parcel, and thus the rating for the entire parcel should be regarded as low;
- Archaeological survey of land adjacent to this parcel by Waldron (1990) (see Figure 5) did not observe any archaeological remains;
- Archaeological survey of land adjacent to this parcel by Psota et al. (2002) (see Appendix A, Map 3.2) did not identify any archaeological resources;
- Archaeological survey of land adjacent to this parcel by Hildebrandt et al. (2004a) (see Appendix B, Figure 5d) did not identify any archaeological resources;
- Archaeological survey of land adjacent to this parcel by Ryan and Hildebrandt (2005) (see Appendix C, Figure 3b) did not identify any archaeological resources;

- Portions of this parcel host built-environment features, and maps indicate there were other buildings on the parcel that were torn down. Any surface or near surface deposits within the footprint of former and existing buildings would likely have been obliterated;
- A high-resolution aerial photograph of the inaccessible parcel shows that most of the parcel is an orchard, planted sometime before 1940. In the photo, many of the trees appear to be immature, suggesting that older trees have been torn out and replaced. The integrity of any surface or near surface archaeological deposits within the orchard would likely be impaired by plowing and the extraction of root masses;
- The prehistoric archaeological site sensitivity model states that the potential for subsurface sites on this parcel is high. However, during buried sites testing fieldwork, three 4.5-meter-deep backhoe trenches were excavated 1000 meters (3300 feet) northwest of this parcel at Backhoe Sampling Location #12, and three 4.4-meter-deep backhoe trenches were excavated 800 meters (2625 feet) southeast of this parcel at Backhoe Sampling Location #13 (see Appendix B, page 46). At both locations, parent material was encountered in the bottom of the trenches. No buried prehistoric archaeological remains were encountered and no buried Holocene surfaces were observed in any of the trench sidewalls at either location;
- None of the maps examined have any notations suggesting Native Americans inhabited the area near these parcels during the early historic period.

APN 019-130-010 (Figure 3a)

This parcel is used to cultivate row crops, and approximately one-half of the parcel is within the APE. 2.7 hectares (6.7 acres) (approximately 0.0015% of the APE) remain unsurveyed. With regard to prehistoric archaeological sites:

- The prehistoric archaeological site sensitivity model states that the potential for surface sites on this parcel is low. Soils are classified as late Holocene alluvial fan and floodplain deposits (Rosenthal et al. 2003:45);
- Archaeological survey of land adjacent to this parcel by Ryan and Hildebrandt (2005) (see Appendix C, Figure 3b) did not identify any archaeological resources;
- The parcel hosted an orchard at one time, and is currently used to cultivate row crops. If any surface or near surface archaeological deposits exist on this parcel,

the integrity of those deposits would likely be impaired by past and current agricultural activities;

- In a high-resolution aerial photograph of the inaccessible parcel, this field appears recently plowed and there is 100% visibility of bare mineral soil. The photo reveals that the field contains no anomalous soil discolorations that might suggest the presence of a surface midden deposit;
- The prehistoric archaeological site sensitivity model states that the potential for subsurface sites on this parcel is high. However, during buried sites testing fieldwork, three 4.4-meter (14.4-foot) deep backhoe trenches were excavated 500 meters (1640 feet) north of this parcel at Backhoe Sampling Location #13 (see Appendix B, page 46). Parent material was encountered at 3.86 meters below surface. No buried prehistoric archaeological remains were encountered, and no buried Holocene surfaces were observed in any of the trench sidewalls;
- None of the maps examined have any notations suggesting Native Americans inhabited the area near this parcel during the early historic period.

The unsurveyed portion of the APE measures 17.5 hectares (43.4 acres) and amounts to approximately one percent of the total area of the APE, which measures 1800 hectares (4500 acres). The alternative strategy employed to identify archaeological sites within this one percent of the APE constitutes a reasonable and good faith identification effort. The results of the alternative strategy strongly suggest that there is zero probability for the existence of archaeological sites within the unsurveyed portion of the APE. That strategy included:

- reviewing previous survey results on portions of the inaccessible parcels
- reviewing previous and current survey results on lands surrounding the inaccessible parcels
- creating a prehistoric archaeological site sensitivity model and testing it during an Extended Phase 1 study (Hildebrandt et al 2004a, Appendix B)
- assessing disturbances deriving from construction of the built environment and land use on the inaccessible parcels
- performing remote sensing analyses of the inaccessible parcels using high-resolution aerial photography to search for anthropogenic soil discoloration
- conducting archival research

No additional identification efforts for these five parcels are warranted.

Chapter 4. Public Participation

4.1. Local Government

The Council of San Benito County Governments and the Santa Clara Valley Transportation Authority are part of the Project Development Team and are active participants in the planning, development, and funding of the Project.

4.2. Native American Heritage Commission

Consultation with the NAHC consisted of a letter of inquiry requesting a search of the sacred lands file, as well as contact information for Native American representatives who may have concerns or knowledge about resources in the vicinity of the project area (Appendix M). Ms. Debbie Pilas-Treadway responded that "A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area". Additionally, the response included a list of 14 Native American individuals who might have concerns about the proposed project or special knowledge of cultural resources in the project vicinity. The NAHC also provided information regarding the appropriate Most Likely Descendant during the Extended Phase-I investigation. A complete list of communications with the NAHC and copies of all correspondence are included in Appendix M.

4.3. Native American Groups

Consultation with interested Native American representatives included exchanging letters and telephone calls, sending progress reports and copies of cultural resources reports, holding several meetings, and ensuring that Native American monitors were present during ground-disturbing field studies. The list of interested Native American representatives included the individuals named by the NAHC and other individuals wishing to be kept informed about the project. Correspondence between Caltrans and Native American representatives is included in Appendix M.

Caltrans initiated consultation in December 2003 by letter. In April 2004 Caltrans sent a progress report and copies of the *Archaeological Survey Report* (Appendix A, Psota et al. 2002).

In May 2004 Caltrans sent copies of the proposal to conduct Extended Phase-I and Phase-II studies at two sites (Far Western 2004). During Extended Phase-1 studies at CA-SBN-243 in June 2004, fragments of human skeletal remains were encountered. Much correspondence was exchanged and several meetings were convened in June and July to discuss and resolve the discovery, treatment, and disposition of those remains. Attendees included representatives from the Native American community, Far Western, San Benito County government, the Native American Heritage Commission, the California Office of Historic Preservation, Caltrans, and the FHWA, as well as private landowners.

In November 2004 Caltrans sent a second progress report accompanied by two additional reports (Appendix B, Hildebrandt et al. 2004a; Appendix F, Hildebrandt et al. 2004b). A third progress report was sent out in November 2005, accompanied by a supplemental archaeological survey report (Appendix C, Ryan and Hildebrandt 2005).

4.4. Local Historical Societies

On behalf of Caltrans, JRP Historical Consulting Services, Inc., of Davis, California, consulted three historical societies to find out if those organizations possessed any special concerns or local knowledge about the cultural resources within the project area. Consultation correspondence with these organizations is included in Appendix N. The three historical societies were the Gilroy Historical Society in Gilroy, the San Benito County Historical Heritage Advisory Commission in Hollister, and the Santa Clara County Historical Heritage Commission in San Jose. Ms. Dana Peak, Historical Heritage Coordinator for the Santa Clara County Historical Heritage Commission, responded that two resources that are listed in the Santa Clara County Heritage Resources Inventory fall within the project study area: the Bloomfield Farm/Miller-Lux Headquarters and the Calhoun Ranch or Castro Valley Ranch. These are both addressed within the HASR (Appendix H, Map Reference No. F19A and No. F21, respectively).

4.5. Public Information Meetings

One public information meeting was held to present project alternatives and other information to interested citizens. The meeting was held at the R.O. Hardin School in Hollister on September 3rd, 2003. No cultural resources concerns were raised during the meeting.

Chapter 5. Resources Identified

The APE for the proposed SR 25/US 101 Hollister-to-Gilroy Widening project contains 76 cultural resources that were either previously evaluated or required evaluation by the current investigation, plus one prehistoric site that remains unevaluated and is assumed eligible for the purposes of this project only (CA-SBN-243). All other cultural resources contained within the APE meet the criteria for Attachment 4 of the Programmatic Agreement, *Properties Exempt from Evaluation*. Exempt resources include 11 isolated prehistoric artifacts and 23 built-environment resources (refer to Table 1-4); these are not depicted on the APE map.

The APE map shows one archaeological site that is adjacent to the Archaeological APE and four archaeological sites that are outside the Archaeological APE yet within the Architectural APE. Table 5.1 lists each site that was avoided, where it can be found within Figure 6, and which technical appendix it is reported in. Though shown on the APE map, the archaeological components of these sites are not discussed within this HPSR because the Caltrans Project Design Team revised the project design to deliberately avoid these sites. A brief discussion of these sites does appear in the Summary chapter of this HPSR.

Table 5-1: Archaeological Sites Avoided Through Project Design Revision

Resource	Map Location	Technical Appendix
CA-SCL-203	Figure 6e	A, B
CA-SCL-495	Figure 6e	B, E
CA-SCL-577/H	Figure 6f	C
CA-SCL-697/H	Figure 6f and 6g	B, D
CA-SCL-308/H	Figure 6g	A, B, D

Of the 77 cultural resources within the APE, one prehistoric archaeological site remains unevaluated (but is assumed eligible for the purposes of this project only); two prehistoric archaeological sites, one historical archaeological site, and 19 built-environment resources were previously evaluated; and one historical archaeological site and 53 built-environment resources were evaluated for this project. Table 5.2 lists the eligibility status of the various resource types within the APE. In sum, this report requests SHPO concurrence with 54 new eligibility determinations, plus concurrence with re-evaluation that CA-SCL-697/H, the Bloomfield Ranch Headquarters, is still eligible for listing on the NRHP and the CRHR.

Table 5-2: Number of Evaluated Resources by Type and Eligibility

Resource Type	Eligible		Ineligible		Total
	Determined Previously	Determined Herein	Determined Previously	Determined Herein	
Prehistoric Archaeological	1	---	1	---	2
Historical Archaeological	---	---	1	1	2
Built Environment	1	---	18	53	72
Subtotal	2	---	20	54	76
Total	2		74		

5.1. Resources Previously Determined Eligible

One built-environment resource and one prehistoric archaeological site within the undertaking's APE were determined eligible for the NRHP prior to the current study (Table 5-3).

Table 5-3: Resources Previously Determined Eligible for the NRHP

Name	Location	Figure	Map Reference
CA-SCL-697/H[1]	---	6f	SCL-697/H and F19a/F19b
CA-SCL-698	---	6f	SCL-698

[1] Built-environment component

CA-SCL-697/H (Figure 6f, Map Ref. # SCL-697/H, F19a, F19b)

CA-SCL-697/H is a site that consists of a prehistoric archaeological deposit, a historical archaeological deposit, and multiple built-environment resources. The prehistoric archaeological deposit and the historical archaeological deposit are outside the archaeological APE. As such, these components of CA-SCL-697/H were not evaluated.

The multiple built-environment resources are known collectively as the Bloomfield Ranch Headquarters, which falls within the architectural APE. In 1859, Henry Miller acquired the large tract within the Rancho Las Animas known as the Bloomfield Farm, which eventually became the headquarters from which he developed a ranching empire. At the height of its operation, the ranch was a self-sufficient community that included at least 24 buildings and more than 13,000 acres of land. The Headquarters area included a 22-room mansion, offices, bunkhouses, a general store, a blacksmith shop, a machine shop, warehouses, a tannery, hay barns, a granary, a mill, livery stables, cattle and hog sheds, a poultry house, and a dairy and milking barn. It had a

pressurized water supply from its own reservoir and supplied its own power from an engine room. It also had its own railroad station with direct access to the mainline, as well as its own spur line running into the core area of the Headquarters. A cemetery was located 1200 meters northwest of the core area of the Headquarters. The immediate setting included orchards, ornamental trees, a pond, a ditch, a masonry bridge over the ditch, fences, and a network of roads. The current remnants of the Bloomfield Ranch Headquarters consist of:

- Miller's First Office (c. 1865)
- Miller's Railroad Station (c. 1872/1888)
- The Reservoir (1889)
- The Masonry Bridge/Culvert (c. 1880s or 1890s)
- The Second/Engineering Office (1914)
- The Cemetery (established 1859).

Caltrans historians B. Terhorst and E. Krase (1991) evaluated the Bloomfield Ranch Headquarters as part of the proposed State Route 152 Corridor Relocation Project. They documented several changes to the setting: the majority of the ranch buildings had been removed; Monterey Road had been widened into US 101; the Bolsa Road cutoff and the US 101/SR 25 interchange had been constructed; and numerous small businesses had been constructed along Monterey Road on former Bloomfield Ranch property. Despite these impacts to the setting, Terhorst and Krase found that Miller's first office, Miller's station, and three silos were significant at the local and State level under Criterion B for their association with Henry Miller, and that these buildings retained sufficient integrity to convey their historical significance. However, the SHPO found these built-environment resources eligible under Criteria A, B, and C at the local level on January 28, 1994 (OHP file reference FHWA931021A, see Appendix N), but did not elaborate on the differences between his finding and the FHWA's.

Because research completed for this investigation resulted in a more comprehensive and detailed understanding of the resource and the features that comprise it (see pages 107-113 and DPR form for F19 in Appendix H, Wee et al. 2003), this HPSR clarifies and re-states the significance of the Bloomfield Ranch Headquarters. The following built-environment features contribute to the significance of the Bloomfield Ranch Headquarters:

Miller's First Office (c. 1865)

This building was constructed circa 1865 and was utilized as Miller's headquarters office. In 1889, Miller moved his office into the newly completed 22-room mansion. By 1913 the former office was in use as the ranch manager's residence. The architectural style of this building is Italianate. This 1 1/2-story building is square in plan, has a cross gable roof with narrow closed

eaves, and a plain frieze. This feature of the headquarters is significant under Criterion B at the state level for its association with Henry Miller and under Criterion C at the local level because it embodies the distinctive characteristics of Italianate architecture typical to this period. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association sufficient to convey its historical significance.

Miller's Railroad Station (c. 1872/1888)

This building was constructed circa 1872, approximately one year after the "Watsonville Branch" of the Southern Pacific Railroad was completed, and then expanded in 1888. The building is a rectangular, wood frame building with a gable roof with projecting eaves and wood braces. Originally constructed on mudsills, it now sits on continuous concrete sleepers. The building has six bays that open on both the east and west sides, and there are also openings on the north and south sides. Dilapidated wood frame loading docks and ramps run along the east side of the building. This feature of the Headquarters is significant under Criterion B at the state level for its association with Henry Miller and under Criterion C at the local level because it embodies the distinctive characteristics of a ranch railroad station. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association sufficient to convey its historical significance.

The Reservoir (1889)

This structure was constructed in 1889, as indicated by an inscription on the south-facing side: “Made by H Miller 1889”. It measures 100 feet in diameter and 20 feet in depth, and holds 1.2 million gallons. Water was obtained from a spring just west of the reservoir, which was ultimately delivered to the Headquarters through a 6-inch-diameter cast-iron pipe with enough pressure to service every building on the ranch. This feature of the Headquarters is significant under Criterion B at the state level for its association with Henry Miller. The structure retains integrity of location, design, setting, materials, workmanship, feeling, and association sufficient to convey its historical significance.

The Masonry Bridge/Culvert (c. 1880s or 1890s)

This structure was probably constructed around the same time as the Miller mansion, which was completed in 1889. Rough, uncut, local stone was bound and finished with rubble concrete and mortar to create a nearly flush appearance. The bridge is supported by a key-arched barrel vault culvert that spans a ditch. The entire structure is 100 feet long and a maximum of 11.5 feet tall. The vault is approximately 20 feet long, 9.5 feet wide, and 7.5 feet tall. The earthen bridge deck is 17 feet wide and 91 feet long. Railings held in place by concrete bases are gone, replaced by poured concrete curbing along each side of the deck. This feature of the Headquarters is significant under Criterion B at the state level for its association with Henry Miller. The

structure retains integrity of location, design, setting, materials, workmanship, feeling, and association sufficient to convey its historical significance.

The Second/Engineering Office (1914)

This building was constructed in 1914 as an engineering office. It is a one-story Small Foursquare style building topped by a pyramidal roof with hip dormer vents on each side. This feature of the Headquarters is significant under Criterion B at the state level for its association with Henry Miller and under Criterion C at the local level because it embodies the distinctive characteristics of Small Foursquare architecture typical to this period. The structure retains integrity of location, design, setting, materials, workmanship, feeling, and association sufficient to convey its historical significance.

The following built-environment features do not contribute to the significance of the Bloomfield Ranch Headquarters:

Three Concrete Silos (c. early 1920s)

Research conducted in 1991 suggested that the three concrete silos had been constructed in 1911, and thus contributed to the eligibility of the Headquarters. However, research during the current investigation examined maps and photographs from circa 1916 (the year of Miller's death) and no silos exist. Because the three silos were not constructed during Miller's lifetime, they do not contribute to the significance of the Headquarters.

The Mount Madonna Home (1901, moved c. late 1920s)

The Mount Madonna home was moved to the Headquarters area in the late 1920s from Miller's Mount Madonna summer retreat approximately 11 miles to the northwest in the Santa Cruz Mountains. Additionally, the existing structure is only a small portion of the original building, which was partially destroyed by fire. Because Miller's Mount Madonna vacation home was not associated with the Miller and Lux operations represented by the Bloomfield Ranch Headquarters, and because the building was moved onto the Bloomfield parcel after Miller's death, it does not contribute to the significance of the historic property.

The Miller Cemetery (established 1859)

The Miller Cemetery was established in 1859 after Miller's first wife died during childbirth. The cemetery was fenced with a 120-foot-square mortared stone wall topped by a concrete sill and ornate iron posts and grillwork. Graves were identified with granite or marble markers, and an eight-foot-diameter stone fountain stood in the center of the enclosure. Landscaping included ornamental trees, flowerbeds, and walkways. In 1928 all of the burials and headstones were removed and placed in other local cemeteries. The water fountain and landscaping also have been removed, and the cemetery has been converted into a cattle pen. The remaining mortared

stone wall and iron fencing were first recorded in 1974 and assigned the trinomial CA-SCL-308/H (see DPR forms for CA-SCL-308/H in Appendix A, Psota et al. 2002). Evaluated by Terhorst and Krase (1991), the cemetery was found ineligible for the NRHP because of a loss of integrity (OHP file reference FHWA931021A). The Miller Cemetery was re-examined in 2003; no new information was presented by this effort and observations were consistent with previous documentation and evaluation (Appendix H, page 112). As such, the Miller Cemetery does not contribute to the significance of the Bloomfield Ranch Headquarters for the same reasons that it is not individually eligible for the NRHP: a loss of integrity.

Thus, the Bloomfield Ranch Headquarters consists of five significant built-environment features: (1) Miller's 1865 office, (2) Miller's Railroad Station (c. 1872/1888), (3) Miller's reservoir (1889), (4) a masonry bridge/culvert (late 1880s or early 1890s), and (5) the 1914 engineering office. All of these features retain integrity of location, design, setting, materials, workmanship, feeling, and association sufficient to convey their historical significance. The boundaries of the historic property are SR 25 on the north, US 101 on the west, the railroad tracks on the east, and the old rancho boundary line of Rancho Las Animas on the south (Figure 6f). Additionally, on the west side of US 101, the reservoir and a 30-foot-wide area surrounding it form a discontiguous portion of the historic property. These boundaries delineate the setting for the historic property.

Having conducted additional research to update and clarify the statement of significance for the Bloomfield Ranch Headquarters, this HPSR requests concurrence that the built-environment component of CA-SCL-697/H is eligible for the NRHP:

- under Criterion A at the State level for its association with the Miller & Lux Company, the dominant cattle ranching empire that extended over several western states, and for its key role within that empire as the business center from which Henry Miller guided day-to-day cattle operations;
- under Criterion B at the State level for its association with Henry Miller and his accomplishments; and
- under Criterion C at the local level because the 1872 railroad station embodies the distinctive characteristics of a ranch railroad station, and because the 1865 office embodies the distinctive characteristics of Italianate architecture and the 1914 office embodies the distinctive characteristics of Small Foursquare architecture typical to their respective periods.

Also, the Bloomfield Ranch Headquarters constitutes a historical resource for the purposes of the California Environmental Quality Act (CEQA).

CA-SCL-698 (Figure 6f, Map Ref. # SCL-698)

CA-SCL-698 is a prehistoric archaeological site found eligible for the NRHP by consensus determination between the FHWA and SHPO on January 28, 1994 (FHWA931021A).

5.2. Resources Previously Determined Ineligible

Twenty resources within the undertaking's APE were found ineligible for the NRHP prior to this historic property survey (Table 5-4.). These resources also do not constitute historic resources for the purposes of CEQA.

Table 5-4: Resources Previously Determined Ineligible for the NRHP

Name	Location	Figure	Map Reference
CA-SCL-308/H[1]	APN 810-034-007	6g	SCL-308/H
CA-SCL-699/H[2]	US 101/Carnadero Creek	6g	SCL-699/H
CA-SCL-699/H[3]	US 101/Carnadero Creek	6g	SCL-699/H
600, 640 Briggs Road	APN 053-360-011	6a	A05
1105 Bolsa Road	APN 841-051-003	6e	E02
1405 Bolsa Road	APN 841-037-014	6e	E03
5590 Monterey Road	APN 841-014-028	6g	F02
4790 Monterey Road	APN 841-032-003	6g	F11
4310 Monterey Road	APN 841-032-013	6g	F17
4310 Monterey Road	APN 841-032-014	6g	F18
4355 Monterey Road	APN 810-035-008	6g	F21
3201 Monterey Road	APN 810-035-007	6f	F20
4775 Monterey Road	APN 808-023-005	6g	F23
4395 Monterey Road	APN 808-023-004	6g	F24
4965 Monterey Road	APN 808-023-003	6g	F26
5365 Monterey Road	APN 808-022-007	6g	F28
1080 Bolsa Road	APN 841-051-004	6e	S12
Bridge 37-0468	SR 25/US 101	6g	Br 37-0468
Bridge 37-0475F	US 101/SR 25	6g	Br 37-0475F
Bridge 43-0001	SR 25/Pajaro River	6e	Br 43-0001

[1] Built-environment component
[2] Prehistoric archaeological component
[3] Historical archaeological component

CA-SCL-308/H (Figure 6g, Map Ref. # SCL-308/H)

The built-environment component of CA-SCL-308/H, the former Miller Family Cemetery, was evaluated (Terhorst and Krase 1991) and found ineligible by consensus determination between the FHWA and the SHPO on January 28, 1994 (FHWA931021A) (Appendix N).

CA-SCL-699/H (Figure 6g, Map Ref. # SCL-699/H)

CA-SCL-699/H, both the prehistoric archaeological component and the historical archaeological component, were found ineligible on January 28, 1994 (FHWA931021A) (Appendix N).

Architectural Resources

All 14 architectural resources listed in Table 5.4 were found ineligible for the NRHP on January 28, 1994 (FHWA931021A) (Appendix N).

Bridges

All three bridges listed in Table 5.4 were evaluated as Category 5 bridges in the Caltrans Inventory of Historical Significance of State Bridges (Caltrans 2001a), and have not become 50 years old or more since that evaluation, and thus are ineligible for the NRHP.

5.3. Resources Determined Ineligible

One historical archaeological site within the project's APE was determined ineligible for the NRHP by this historic property survey (Table 5-5).

Table 5-5: Archaeological Resources Determined Ineligible for the NRHP

Name	Location	Figure	Map Reference
CA-SCL-841H	APN 841-037-010	6e	SCL-841H

This HPSR requests concurrence that the following historical archaeological site does not meet any of the NRHP criteria of significance and thus is ineligible for the NRHP, nor does it constitute a historic resource for the purposes of CEQA:

CA-SCL-841H (Figure 6e, Map Ref. # SCL-841H)

CA-SCL-841H is a low-density artifact scatter with a mixture of early twentieth-century Asian ceramics, other domestic artifacts, privy remains, and recent agricultural debris. Additional excavations at the site are unlikely to provide substantive data. For details of the investigation, please refer to Appendix G (Costello et al. 2004).

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53 built-environment resources within the project's APE were determined ineligible for the NRHP and CRHR as a result of this historic property survey: two roads, two railroads, three bridges, and 46 other structures or buildings (Table 5-6).

Table 5-6: Built Environment Resources Determined Ineligible

Name	Location	Figure	Map Reference
720 Briggs Road	APN 019-090-031	6a	A06
432 Briggs Road	APN 019-090-018	6a	A08
312 Briggs Road	APN 019-090-021	6a	A09
231-233 Briggs Road	APN 019-090-010	6a	A10
772 San Felipe Road	APN 019-130-002	6a	A11
132 Briggs Road	APN 019-090-013	6a	A16
160 Briggs Road	APN 019-090-014	6a	A17
1444 Bolsa Road	APN 019-090-022	6a	A18
1448 Bolsa Road	APN 019-090-001	6a	A19
1940 Bolsa Road	APN 019-020-012	6a	A21
2130 Bolsa Road	APN 019-010-007	6a	A23
4211 Bolsa Road	APN 014-040-003	6b	B01
4153 Bolsa Road	APN 014-040-002	6b	B02
Bolsa Road	APN 014-070-003	6b	B03
2731 Bolsa Road	APN 014-080-005	6b	B04
2730 Bolsa Road	APN 018-020-001	6b	B05
3616 Bolsa Road	APN 014-080-001	6b	B06
4020 Bolsa Road	APN 014-060-008	6b	B07
4362-4364 Bolsa Road	APN 014-020-003	6b	B08
5100 Bolsa Road	APN 014-020-006	6c	C01
Bolsa Road	APN 013-080-008	6d	D01
1505 Bolsa Road	APN 841-37-010	6e	E04
1100 Bolsa Road	APN 841-51-006	6e	E06
Bridge Pilings	---	6e	E07
Bloomfield Road	APN 841-35-003	6e	E08
5530 Monterey Road	APN 841-14-029	6g	F03
5350 Bolsa Road	APN 841-31-019	6g	F08
4860 Monterey Road	APN 841-32-002	6g	F10
4590-4680 Monterey Road	APN 841-32-004, -005	6g	F12
4450 Monterey Road	APN 841-32-006	6g	F13
4360 Monterey Road	APN 841-32-009	6g	F14
4260 Monterey Road	APN 841-32-011	6g	F16
Castro Valley Road	APN 810-34-005	6g	F22
5055 Santa Teresa Blvd	APN 810-34-001, -002	6g	F25
950 San Felipe Road	APN 053-350-004	6a	S01
431 Briggs Rd	APN 019-090-040	6a	S02
460 Briggs Rd	APN 019-020-008	6a	S03
2017 Bolsa Rd	APN 019-020-015	6a	S04
2735 Bolsa Rd	APN 014-090-056	6b	S05
573 McConnell Rd	APN 018-020-005, 018-210-006	6b	S06
593 McConnell Rd	APN 018-210-005	6b	S07
Bolsa Rd	APN 013-060-021	6c	S08
Bolsa Rd	APN 841-37-011	6e	S09
1250 Bolsa Rd	APN 841-37-016	6e	S10
1185 Bolsa Rd	APN 841-51-005	6e	S11
5815 Monterey Rd	APN 808-22-001	6g	S13

Table 5-6, continued: Built Environment Resources Determined Ineligible

Name	Location	Figure	Map Reference
Monterey Road	---	6f	Monterey
Hollister-Gilroy Road	---	6g	Hollister-Gilroy
Tres Pinos Branch, SPRR	---	6a-f	Tres Pinos
Watsonville Branch, SPRR	---	6g, 6f	Watsonville
Bridge 37-0008 (L and R)	US 101/Carnadero Creek	6g	Br 37-0008
Bridge 37C-0103	Bolsa Road/Carnadero Creek	6g	Br 37C-0103
Bridge 37-0156	SR 25/Carnadero Creek	6g	Br 37-0156

This HPSR requests concurrence that the following 53 built-environment resources do not meet any of the NRHP criteria of eligibility, nor do they constitute a historical resource for the purposes of CEQA:

720 Briggs Road (Figure 6a, Map Ref. # A06)

Buildings on this parcel include a dairy barn, an outhouse, a blacksmith shop, a tank house, a residence, and a garage/shop. The buildings at this location are common types found throughout the region that have been either recently constructed or moved onto this parcel from an unknown location. For details of the investigation, please refer to Appendix H, HASR, pages 36 and 86. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A06.

432 Briggs Road (Figure 6a, Map Ref. # A08)

This residence, constructed circa 1950, is a modest example of the Minimal Traditional style, and is commonly found throughout the Gilroy area. Additionally, the residence has been moved to this parcel from an unknown location. For details of the investigation, please refer to Appendix H, HASR, pages 37 and 86. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A08.

312 Briggs Road (Figure 6a, Map Ref. # A09)

This residence and tank house were built between 1920 and 1926. In 1955 the wood pier foundation was replaced with concrete. In 1964, a 236.5 square foot addition was placed on the north façade of the house, connecting it with the adjacent 144 square foot tank house. The residence and tank house appear to have been first owned by the White family, who established a plum orchard, a common orchard crop after the development of mechanical fruit dehydration in the early 1920s. Within the context of the prune industry in San Benito County, the White farm is not an early example and the outbuildings associated with prune processing no longer exist. The prunes were removed at an unknown date; apricots were planted in 1971. For details of the investigation, please refer to Appendix H, HASR, pages 37 and 86. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A09.

231-233 Briggs Road (Figure 6a, Map Ref. # A10)

This farm complex includes two residences, a dairy barn, an outhouse, a tank house, an implement shed, a garage, and a shed. All buildings were constructed circa 1917 except for one residence that was built in 1974. The original home is an example of modified Small Foursquare. Two early additions give it its current rectangular plan. The tank house is a 144-square-foot, wood-frame, tapered tower on a concrete slab foundation, constructed in the same material as the original home. The original tank was removed before 1974.

Bob Corda, who had emigrated from Switzerland in 1904, purchased this parcel in 1917. Corda built all of the farm buildings that exist today, except for the barn, which he had commissioned. The Cordas operated a small dairy, selling the milk to local creameries for the production of cheese and butter. With the passage of laws requiring pasteurization in the early 1940s, the Corda dairy, like many small dairies in the San Benito area, was unable to meet the expense of the new equipment and thus converted their pastureland into row crops, growing tomatoes, onions, lettuce, and sugar beets that they sold to the Spreckels Sugar Factory near Salinas. By the latter part of the 20th century the Corda's leased their land to others who grew row crops. For details of the investigation, please refer to Appendix H, HASR, pages 37 and 87. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A10.

772 San Felipe Road (Figure 6a, Map Ref. # A11)

This parcel contains a single-family residence, a barn, a shed, a wash house that was converted to living quarters, and the remnants of a tank house. The 712-square-foot residence, barn, and wash house were built circa 1900. This parcel was originally owned by James Hudner. Arriving in 1868, Hudner established a cattle ranch near the Southern Pacific Railroad. At the time of his death in 1907, Hudner owned the 165-acre parcel that included this 16.8-acre parcel. Circa 1900, Hudner built an overseer's house and hay barn. By 1912, the 16.8-acre parcel was planted in apricots, and a sulfur house and various storerooms were constructed. In 1967, row crops were grown on this parcel, and it was subdivided in 1981.

This resource was not an important part of the Hudner family's ranching operations, and none of them ever resided in these buildings, which are of a common design in this region. For details of the investigation, please refer to Appendix H, HASR, pages 38 and 88. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A11.

132 Briggs Road (Figure 6a, Map Ref. # A16)

This complex includes eight buildings: a main residence (c. 1894), a barn (c. 1895) that was converted into a garage, a second barn (c. 1900), a warehouse (1968), a wash house (1947), a garage (1974), a cottage (c. 1976), and a small shed (1970s). This parcel also includes a

commercial complex at 100 Briggs Road, consisting of a small office building and large warehouse, both constructed in 1969. Additional buildings include a war surplus home erected at its current location in 1947, two mobile homes, and a house that was moved onto the parcel.

This parcel was originally part of a larger 160-acre farm owned by Philip Henry. Born in Germany, Henry immigrated to Texas with his family in the early 1840s, eventually settling in San Benito County around 1869 after purchasing a 160-acre tract from the Southern Pacific Railroad. On the northern half of his land he built a farm and cultivated hay and grain. In the early 1890s the Henrys gave 40 acres to their daughter Harriet and her husband, William Johnson. By 1894 Johnson had constructed a small complex of farm buildings that included the home, horse barn, a helper's cabin, and a shop. The farm cultivated prunes, apricots, pink beans, and lettuce. Around 1910, Johnson's complex was significantly enlarged by the addition of a barn, helper's house, two water towers, and fruit drying buildings that included two sulfur houses, two cutting sheds, a dipper platform, and a prune dipper. When Philip Henry died in 1917, he left the remainder of his land to his daughter and son-in-law.

William Johnson survived until 1944, at which time it appears his son Carroll (b. 1895) and daughter Lillian (b. 1906) took over operation of the family farm. By 1950, when Highway 25 cut across the northeastern corner of the original boundary of the Henry farm, the land had already been subdivided into three separate parcels. The northern two parcels were sold off, while the Johnson farm and the southern portion of the Henry farm remained intact as one property. Under Carroll's and Lillian's ownership, circa 1950, two windmills, a storage shed, and a washroom were constructed, and a World War II surplus house (540 Wright Road) was moved onto the property as employee quarters. Carroll Johnson died in 1960 and shortly thereafter his sister sold her share of the family farm. Also in 1960, the 0.33-acre parcel at 160 Briggs Road (which included a home and a storage building) was subdivided from the ranch. Over the course of the next forty years the parcel was further divided down to its current size of 65 acres. The subsequent owners constructed a shop and office as well as an implement shed and a garage on this site in the late 1960s, and in 1967, the house at 730 Wright was moved onto the property. Nearly all of the buildings constructed for fruit drying as well as the helper's house, windmills, and water towers were demolished before 1976. Today, the property serves as both a residential and commercial property. For details of the investigation, please refer to Appendix H, HASR, pages 39 and 88. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A16.

160 Briggs Road (Figure 6a, Map Ref. # A17)

This property includes a Craftsmen bungalow residence that was moved to the site in the 1960s from an unknown location. The design of this residence is common in the Hollister area,

however, numerous alterations have compromised the original design and fabric of the house. A detached garage was built when the bungalow was moved onto the property. For details of the investigation, please refer to Appendix H, HASR, pages 41 and 90. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A17.

1444 Bolsa Road (Figure 6a, Map Ref. # A18)

This parcel includes a modern Ranch style residence, constructed circa 1970, and an old blacksmith shop that was moved to this site from an adjacent property sometime around 1960. For details of the investigation, please refer to Appendix H, HASR, pages 42 and 91. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A18.

1448 Bolsa Road (Figure 6a, Map Ref. # A19)

This agricultural property contains seven buildings: a Ranch style residence (1969), a rectangular warehouse (c. 1950s), a small secondary residence (1964), an L-shaped two-story residence (1980s), a barracks-like multiple-family residence (c. late 1950s), and two doublewide mobile homes. For details of the investigation, please refer to Appendix H, HASR, pages 42 and 91. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A19.

1940 Bolsa Road (Figure 6a, Map Ref. # A21)

This parcel includes a Bungalow style residence (c. 1920), a modern residence (1981), a California-style barn (c. 1940s), and two sheds. The Bungalow and modern residence have been modified for use as school buildings, known as Kipper's Cottage. The Bungalow has additions on its south and west sides, giving it an irregular plan.

This property once functioned as a fruit drying operation containing a sulfur house, several small outbuildings, and equipment storage sheds that have since been removed. Both the Bungalow style residence and the California style barn are common architectural types in this region and of the period when they were constructed. For details of the investigation, please refer to Appendix H, HASR, pages 43 and 91. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A21.

2130 Bolsa Road (Figure 6a, Map Ref. # A23)

This parcel is owned by the Rohnert family, pioneers in the seed farming industry in San Benito County. It contains two small residences and two sheds. Both residences were moved to the site from Fort Ord, and were probably used to house farm workers. The buildings are a common 1940s military housing design that lack historical and architectural significance. For details of the investigation, please refer to Appendix H, HASR, pages 44 and 92. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # A23.

4211 Bolsa Road (Figure 6b, Map Ref. # B01)

This parcel includes a one-story Minimal Traditional residence with a two-car garage attached to the house by a breezeway (c. 1957), and two sheds. The Minimal Traditional style home, a popular style between the late 1930s and the 1950s, is frequently found in the area and this is a relatively ordinary example. For details of the investigation, please refer to Appendix H, HASR, pages 44 and 92. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B01.

4153 Bolsa Road (Figure 6b, Map Ref. # B02)

This parcel includes ten buildings: four residences, one detached garage, two large warehouses, a large garage, and two small outbuildings. One of the residences is a Minimal Traditional home built circa 1939, the other residence was built circa 1920s. A small rectangular residence measuring 690 square feet was built circa 1940 and moved to this site from Campbell Avenue for use as housing for summer laborers. For details of the investigation, please refer to Appendix H, HASR, pages 44 and 92. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B02.

Bolsa Road (Figure 6b, Map Ref. # B03)

This farm complex includes residences and outbuildings of varying age and condition. The main house is an L-shaped Hall-and-Parlor house (c. 1880). The second residence was likely constructed around the turn of the century. The third residence was built around 1935. Two dilapidated frame buildings that exist on this parcel were probably constructed circa 1935. For details of the investigation, please refer to Appendix H, HASR, pages 46 and 93. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B03.

2731 Bolsa Road (Figure 6b, Map Ref. # B04)

The 2855-square-foot former Fairhaven School house on this parcel is currently used as a residence. Two additions are located at the rear of the building: a 250-square-foot, flat-roof, enclosed porch with aluminum sliding windows; and a 45-square-foot hip roof storage shed. All other buildings are less than 50 years old and do not possess overriding significance. In 1973 the school building was used as an antique store. The current owner converted the school into a residence in 1976. For details of the investigation, please refer to Appendix H, HASR, pages 46 and 93. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B04.

2730 Bolsa Road (Figure 6b, Map Ref. # B05)

This ranch complex includes nine structures ranging in age from the 1890s to the 1960s. The primary residence is a single-story, rectangular plan house built circa 1914. A smaller building, probably constructed as a washhouse circa 1910, is located nearby, and was likely moved from

its original location. There is one barn, constructed in 1904, and four sheds on the property. For details of the investigation, please refer to Appendix H, HASR, pages 47 and 94. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B05.

3616 Bolsa Road (Figure 6b, Map Ref. # B06)

This farm complex includes the main residence, barn, and a shed. The main residence is a square 1½-story Craftsman style house constructed in 1920. A barn, built around 1918, has a corrugated metal side gable roof, vertical plank walls, mud sills and concrete floor. For details of the investigation, please refer to Appendix H, HASR, pages 48 and 95. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B06.

4020 Bolsa Road (Figure 6b, Map Ref. # B07)

This parcel includes a Craftsman style residence with attached carport, two detached sheds, an above-ground water tank, and a pump house. The rectangular implement shed was constructed in 1958. A smaller implement shed was built in 1954. A fire in 1982 destroyed the large implement shed, tank house, tank, windmill, and carport. The shed and carport were later rebuilt. The residence suffered minor damage but was repaired. For details of the investigation, please refer to Appendix H, HASR, pages 49 and 95. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B07.

4362-4364 Bolsa Road (Figure 6b, Map Ref. # B08)

This parcel includes seven buildings: a single-family residence, a garage, two equipment sheds, a prefabricated warehouse, a wood plank shed, and an open feed shed. The residence was built in 1995. The original garage was built circa 1909. Two sheds are located directly west of the residence, an implement shed constructed in 1942, and an equipment shed constructed in 1974. The feed shed was constructed in 1954. For details of the investigation, please refer to Appendix H, HASR, pages 49 and 95. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # B07.

5100 Bolsa Road (Figure 6c, Map Ref. # C01)

This parcel includes three water tanks. The 5,000-gallon water tank was built circa 1947 and is composed of vertical interlocking redwood boards clasped with metal stave bands forming the water tank that sits on a 10-foot high wood tower. The other two water tanks are modern. For details of the investigation, please refer to Appendix H, HASR, pages 50 and 96. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # C01.

Bolsa Road (Figure 6d, Map Ref. # D01)

This parcel includes a large concrete well constructed sometime in the 1930s or 1940s and an animal corral composed of wood rails and posts with metal gates and a livestock loading chute. For details of the investigation, please refer to Appendix H, HASR, pages 51 and 97. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # D01.

1505 Bolsa Road (Figure 6e, Map Ref. # E04)

This farm complex includes a single-story, Ranch-style residence and two large sheds. The house was constructed in 1950 and moved to its current location in 1981. The sheds appear to have been constructed circa 1950. For details of the investigation, please refer to Appendix H, HASR, pages 53 and 98. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # E04.

1100 Bolsa Road (Figure 6e, Map Ref. # E06)

This parcel includes a modified single-family residence built circa 1920s, a doublewide mobile home, and a fruit stand. For details of the investigation, please refer to Appendix H, HASR, pages 53 and 99. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # E06.

Bridge Pilings (Figure 6e, Map Ref. # E07)

The remains of three wooden bridge pilings exist beneath Bridge # 37-156 (constructed in 1957), which carries traffic along Highway 25. Located in the bed of Carnadero Creek, these pilings measure approximately twelve inches in diameter and extend approximately one foot above ground. The pilings are set to support a bridge approximately ten to twelve feet in width.

The wooden bridge pilings were likely support structures for a private bridge constructed before 1917 on an unimproved dirt road running through the Rea Ranch and Bloomfield Ranch, connecting these properties to Bolsa Road and Monterey Road. By 1957, Bolsa Road (now State Route 25) was realigned, and a new bridge was constructed over Carnadero Creek. For details of the investigation, please refer to Appendix H, HASR, pages 53 and 99. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # E06.

Bloomfield Road (Figure 6e, Map Ref. # E08)

This parcel includes an equipment shed (c. 1940s). The shed is a simple, open-sided, rectangular utilitarian structure constructed with large wood posts and partially sided with wide vertical wood planking and a steeply pitched roof of corrugated metal. Adjacent to Carnadero Creek, the parcel was originally thickly vegetated with willows. After obtaining this property in the 1860s, Henry Miller reclaimed much of the willow "swampland" that existed on Rancho Las Animas. This property is not associated with any events significant to the history of the area, and there is

no evidence that Henry Miller ever resided within this parcel. For details of the investigation, please refer to Appendix H, HASR, pages 54 and 99. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # E08.

5530 Monterey Road (Figure 6g, Map Ref. # F03)

This parcel includes a motel, a single-family residence, and a pump house. The one-story, Ranch style motel was constructed in 1961. The small single-family residence has been heavily modified through the addition of stucco coating and through the addition of the porch element. A circular, stucco pump house located in the front yard of the residence was probably constructed around the time as the house. For details of the investigation, please refer to Appendix H, HASR, pages 55 and 101. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F03.

5350 Bolsa Road (Figure 6g, Map Ref. # F08)

This parcel includes seven buildings. The oldest buildings are two residences constructed as laborer quarters in the 1940s. A warehouse was constructed circa 1955, and a shed and mobile home were constructed after 1955. A warehouse and a water tower are modern. A single-wide mobile home sits under a modern metal-frame shed canopy. A modern wood frame warehouse was constructed in the 1990s. A large L-shaped wood frame machine shed built on a concrete foundation was constructed circa 1955. The water tower appears constructed within the last 20 years utilizing recycled materials. For details of the investigation, please refer to Appendix H, HASR, pages 55 and 101. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F08.

4860-4800 Monterey Road (Figure 6g, Map Ref. # F10)

This parcel includes a Bungalow home (1922), a modern shed with an attached dog kennel, multiple greenhouses built beginning in the 1970s, a circa 1980 mobile home, two large prefabricated metal warehouses constructed in the 1980s, and a commercial building built around 1986 to house Garlic World.

This land was once part of Henry Miller's Bloomfield Ranch, which was purchased by a San Jose real estate group in 1926. While it appears the 1922 home was constructed while the property was still under the ownership of the Miller heirs, this building has no association with Miller, who died in 1916. For details of the investigation, please refer to Appendix H, HASR, pages 56 and 101. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F10.

4590-4680 Monterey Road (Figure 6g, Map Ref. # F12)

This parcel includes a fruit stand, mobile home, and six associated sheds constructed between about 1950 and 1990. Three buildings were built circa 1950: a storage facility, a warehouse, and

an equipment canopy. All other buildings are less than 50 years old and do not possess overriding significance. For details of the investigation, please refer to Appendix H, HASR, pages 58 and 103. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F12.

4450 Monterey Road (Figure 6g, Map Ref. # F13)

This parcel includes two agriculture-related businesses: El Camino Packing and Signature Irrigation, which comprise eighteen buildings and structures built between 1940 and 2001. Most of the buildings are large, modern, raised-seam metal utility buildings, some with attached shed roof canopies covering outdoor work areas, arranged in street-like rows on broad expanses of concrete pavement. Three residences, a metal utility building, and a pair of fruit dehydrators date to the early years of orchard production, 1940s-1950s.

This parcel was originally part of the vast Rancho Las Animas, owned by Henry Miller. Following Miller's death in 1916, the rancho was sold and subdivided. This parcel was developed as fruit orchards beginning in the 1920s and 1930s. By 1939, 30 acres had been planted to prunes, which were processed on site. A residence was already constructed on this property when the Santos family obtained ownership of this parcel in about 1940. For details of the investigation, please refer to Appendix H, HASR, pages 59 and 104. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F13.

4360 Monterey Road (Figure 6g, Map Ref. # F14)

This parcel includes a single-family residence and a one-story commercial building. The residence is a small rectangular building built in 1945. A breezeway connects the residence to the garage. The modern commercial building is a produce stand with three bays and a shed addition on the rear of the building. For details of the investigation, please refer to Appendix H, HASR, pages 61 and 104. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F14.

4260 Monterey Road (Figure 6g, Map Ref. # F16)

This ranch complex includes a large prune-processing shed (1940s), workers' cabins, and a converted tank house. The 1920s tank house has been converted to a small residence. It is now part of a roughly U-shaped assemblage of workers' cabins, probably built during the 1930s, that shows signs of multiple additions over time. For details of the investigation, please refer to Appendix H, HASR, pages 62 and 105. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F16.

Castro Valley Road (Figure 6g, Map Ref. # F22)

This parcel includes four structures: a fruit stand, an advertising sign, a water tank, and a pump house. For details of the investigation, please refer to Appendix H, HASR, pages 62 and 105. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F16.

5055 Santa Teresa Boulevard (Figure 6g, Map Ref. # F25)

Gavilan College is a community college established at its present 150-acre site in 1966. The majority of the campus buildings were built in 1967 or later. Temporary buildings also exist on campus. Two buildings date to the late 19th century: the San Felipe Community Church and the Mayock House. The San Felipe Community Church, built in 1893 and moved to its present location in 1972, is a late Victorian Carpenter Gothic style church. After being moved, the church was renovated and remodeled by students in the construction technology program between 1972 and 1975. The Mayock House is a two-story, wood-frame, Italianate style house moved in 1982 to campus from its original 15-acre site at 544 East Sixth Street in Gilroy. The former residence is a modest Italianate-style building with minimal ornamentation built in 1886 by Irish immigrant Michael Mayock (1817-1894) and his four sons using a floor plan selected from a mail order catalog.

In 1982 the Mayock house was moved to its present location on the Gavilan College campus, the second story being disassembled to accomplish the task. According to the commemorative plaque placed on the building, the former residence was remodeled as a joint restoration project by the Gilroy Historical Society, the Gavilan College District, and the Gavilan College Faculty Association. Gavilan College construction technology students, faculty members and other volunteers performed the renovation work. For details of the investigation, please refer to Appendix H, HASR, pages 71 and 117. See also the HASR's Appendix C, Inventory Forms, Identifier: Map Reference # F25.

950 San Felipe Road (Figure 6a, Map Ref. # S01)

The intersection of Wright Road and San Felipe Road, known as Cottage Corners, was once a crossroads in the region but has been superceded by newer road alignments. This parcel includes a barn that was constructed in 1919, the only building that survives from a former farmstead. A large tilt-up concrete warehouse constructed in 1977 and a small, recently constructed utility building were built for modern commercial-industrial use. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 11, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S01.

431 Briggs Road (Figure 6a, Map Ref. # S02)

This parcel includes a modest farmhouse and associated sheds constructed in 1930 that have been altered, thus affecting the integrity of this resource. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 11, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S02.

460 Briggs Road (Figure 6a, Map Ref. # S03)

This parcel includes a 1910s-1920s farming complex with a residence, tank house, barn, and sheds. The residence was constructed in the minimal Craftsman style. Though the buildings retain integrity, they have no significant associations or architectural features. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 11, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S03.

2017 Bolsa Road (Figure 6a, Map Ref. # S04)

This parcel includes a minimal Craftsman style bungalow, a 1960s residence, a garage, a barn, a creamery building, and several sheds that relate to the former dairy and the current orchard. Although the general integrity of the resources appears to be good, the buildings have no significant associations and are common in the Hollister region. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 11, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S04.

2735 Bolsa Road (Figure 6b, Map Ref. # S05)

This parcel includes a ranching/farming complex and a quarry complex. The ranching/farming built environment resources all are in deteriorated or altered condition. Early use of the parcel for quarrying dates to a brief episode during World War II. Recently, there has been sustained quarrying since 1980, but all of the quarry-related built-environment resources derive from this later period of use. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 11, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S05.

573 McConnell Road (Figure 6b, Map Ref. # S06)

Two parcels comprise this large farmstead. A barn, cutting sheds, sulfur house, dehydrator, sheds, and labor housing are among the resources associated with its use as an orchard property. A large hay barn, a garage, and assorted sheds are also present. Modest residences, brought onsite from Fort Ord, serve as labor housing. The surrounding agricultural land is currently used for row crops. Many of the resources present show substantial deterioration. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 11, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S06.

593 McConnell Road (Figure 6b, Map Ref. # S07)

This parcel includes a partially collapsed early twentieth century milking barn, a milk-bottling building, a Craftsman-style residence, and garage. The current tenant raises poultry. Small sheds and pens have been built recently, and some of the older buildings have also been adapted for use as sheds. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 12, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S07.

Bolsa Road (Figure 6c, Map Ref. # S08)

This parcel includes a small 1940s farm complex consisting of a modest residence, shed, water tank, and mobile home. Surrounding fields are used for row crops. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 12, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S08.

Bolsa Road (Figure 6e, Map Ref. # S09)

This parcel includes a former dairy farmstead that is currently used as an orchard and for row-crops. Key elements of the dairy farm complex have been altered or removed, and the buildings associated with orchard operations have affected the integrity of the dairy-related resources. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 12, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S09.

1250 Bolsa Road (Figure 6e, Map Ref. # S10)

This parcel includes a small farm house and shed that were associated with a former apple orchard. The house has been expanded on at least two occasions, and the orchard has been pulled out. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 12, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S10.

1185 Bolsa Road (Figure 6e, Map Ref. # S11)

This small parcel includes a 1950s ranch-style residence, a warehouse, and sheds that are associated with larger agricultural parcels in the Bolsa Road vicinity. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 12, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S11.

5815 Monterey Road (Figure 6g, Map Ref. # S13)

This parcel includes two single-family residences (built circa 1920 and 1961), a mobile home, sheds, and a single hoop house. Originally an orchard parcel, it was known as Frank's Peach Farm from 1955 through 1963. The orchard was pulled out in 1970 and the land was leased to tenants who used the parcel to grow commercial flowers. Both of the residences have been

modified, and the loss of the orchard has impacted the original setting and association. For details of the investigation, please refer to Appendix L, Supplemental HRER, page 12, and the Supplemental HRER's Attachment 2, DPR 523 Forms, Identifier: Map Reference # S13.

Monterey Road (Figure 6g, 6f, Map Ref. Monterey Road)

Monterey Road, as it runs through the project APE, closely parallels the Mission Period route between Mission San Juan Bautista and El Pueblo de San José Guadalupe. In the 1850s it became a stage route between San José and Monterey. In 1915 it opened as a 4.6-meter (15-foot) wide two-lane conventional highway paved with 10 centimeters (4 inches) of Portland cement concrete. Over the years it was widened and improved many times, and designated State Route 2. Within the project vicinity, some improvements abandoned the original alignment of Monterey Road in favor of new, straighter alignments, while in other areas original segments of the road were obliterated and reconstructed, and redesignated U.S. Route 101. In the 1950s the two-lane highway was converted into a four-lane divided highway. For details of the investigation, please refer to Appendix I, HRER Roads, and that report's Appendix B, DPR 523 Forms, Identifier: Monterey Road.

Hollister-Gilroy Road (Figure 6g, Map Ref. Hollister-Gilroy Road)

Hollister-Gilroy Road was the original county road connecting Hollister to Gilroy. First surveyed in 1857, the original dirt wagon road ran through areas prone to flooding by Carnadero Creek and the Pajaro River. It was re-aligned through areas less problematic in the 1870s and covered with gravel in 1883. In 1891 it was dedicated as a public highway, and in 1929 it was paved with crushed rock asphalt. In 1933 it became part of the State highway system, and designated State Route 119, and in 1964 it was renumbered to State Route 25. For details of the investigation, please refer to Appendix I, HRER Roads, and that report's Appendix B, DPR 523 Forms, Identifier: Bolsa Road.

Tres Pinos Branch, SPRR (Figure 6a-f, Map Ref. Tres Pinos Branch)

A 400-meter (1320-foot) segment of the Tres Piños Branch of the Southern Pacific Railroad runs through the APE. After reaching Gilroy in 1869, the Southern Pacific Railroad Company completed an extension south to Hollister in 1871 and on to Tres Pinos in 1873. Originally, the route was planned to continue through the San Joaquin Valley and ultimately to the Colorado River to intersect a southern transcontinental route. However, the line never made it beyond Tres Piños. Although limited freight service to Hollister continues, the Hollister-Tres Piños segment was abandoned in 1927. For details of the investigation, please refer to Appendix J, HRER Railroads, and that report's Appendix B, DPR 523 Forms, Identifier: SPRR Tres Piños Branch.

Watsonville Branch, SPRR (Figure 6f, 6g, Map Ref. Watsonville Branch)

The Watsonville Branch of the Southern Pacific Railroad began construction in 1871. Splitting off from the Tres Pinos Branch at Carnadero Station, this line continued south, running across Henry Miller's Bloomfield Ranch, and continuing on to Watsonville, Salinas, and arriving in Soledad in 1872. In 1886, the line was extended to Templeton, and in 1900 continuous track for the Coast Line was completed. Double track was completed in the project vicinity in 1929. The SPRR operated the lines until 1982. Union Pacific RR now owns and operates the line. For details of the investigation, please refer to Appendix J, HRER Railroads, and that report's Appendix B, DPR 523 Forms, Identifier: SPRR Watsonville Branch (Coast Line).

Bridge 37-0008 (Figure 6g, Map Ref. # Br 37-0008)

Bridge 37-0008 (both the right span and the left span) was evaluated as a Category 5 bridge in the Caltrans Inventory of Historical Significance of State Bridges (Caltrans 2001a). Since that evaluation, the bridge became 50 years old or more, and thus was re-examined during this study. This bridge has not obtained significance since its initial evaluation, and thus remains ineligible for the NRHP and CRHR.

Bridge 37C-0103 (Figure 6g, Map Ref. # Br 37C-0103)

Bridge 37C-0103 was evaluated as a Category 5 bridge in the Caltrans Inventory of Historical Significance of Local Agency Bridges (Caltrans 2001b). Since that evaluation, the bridge became 50 years old or more, and thus was re-examined during this study. This bridge has not obtained significance since its initial evaluation, and thus remains ineligible for the NRHP and CRHR.

Bridge 37-0156 (Figure 6g, Map Ref. # Br 37-0156)

Bridge 37-0156 was evaluated as a Category 5 bridge in the Caltrans Inventory of Historical Significance of State Bridges (Caltrans 2001a). Since that evaluation, the bridge became 50 years old or more, and thus was re-examined during this study. This bridge has not obtained significance since its initial evaluation, and thus remains ineligible for the NRHP and CRHR.

Chapter 6. Findings

This HPSR is intended to fulfill three of the FHWA's Section 106 responsibilities under the Programmatic Agreement: to delineate the Project's APE; to summarize the results of the effort to inventory cultural resources within the APE; and to evaluate those resources for their eligibility for inclusion on the NRHP. Regarding the first two Section 106 responsibilities, pursuant to Stipulation VI.B of the Programmatic Agreement, Caltrans has documented the Project's APE and conducted a reasonable and good faith effort to identify historic properties within that APE. Caltrans is not requesting concurrence on the adequacy of the APE and the adequacy of the historic property identification efforts from the SHPO.

Regarding the third Section 106 responsibility, this report presents Caltrans' determinations of eligibility on behalf of the FHWA and requests concurrence from the SHPO that:

1. The built-environment component of CA-SCL-697/H, also known as the Bloomfield Ranch Headquarters, is eligible for the NRHP under Criterion A at the State level, under Criterion B at the State level, and under Criterion C at the local level for the reasons described in §5.1, and that it constitutes a historic resource for the purposes of CEQA;

Table 6-1: Built-Environment Resource Eligible for the NRHP and CRHR

Name	Location	Figure	Map Reference
CA-SCL-697/H	APN 841-034-002	6g	SCL-697/H, F19a, F19b

2. And, the following historical archaeological resource is ineligible for the NRHP, and it does not constitute a historic resource for the purposes of CEQA;

Table 6-2: Archaeological Resource Determined Ineligible for the NRHP and CRHR

Name	Location	Figure	Map Reference
CA-SCL-841H	---	6e	SCL-841H

3. And, the following 53 built-environment resources within the undertaking's APE are ineligible for the NRHP, and they do not constitute historic resources for the purposes of CEQA:

Table 6-3: **Built Environment Resources Determined Ineligible for the NRHP and CRHR**

Name	Location	Figure	Map Reference
720 Briggs Road	APN 019-090-031	6a	A06
432 Briggs Road	APN 019-090-018	6a	A08
312 Briggs Road	APN 019-090-021	6a	A09
231-233 Briggs Road	APN 019-090-010	6a	A10
772 San Felipe Road	APN 019-130-002	6a	A11
132 Briggs Road	APN 019-090-013	6a	A16
160 Briggs Road	APN 019-090-014	6a	A17
1444 Bolsa Road	APN 019-090-022	6a	A18
1448 Bolsa Road	APN 019-090-001	6a	A19
1940 Bolsa Road	APN 019-020-012	6a	A21
2130 Bolsa Road	APN 019-010-007	6a	A23
4211 Bolsa Road	APN 014-040-003	6b	B01
4153 Bolsa Road	APN 014-040-002	6b	B02
Bolsa Road	APN 014-070-003	6b	B03
2731 Bolsa Road	APN 014-080-005	6b	B04
2730 Bolsa Road	APN 018-020-001	6b	B05
3616 Bolsa Road	APN 014-080-001	6b	B06
4020 Bolsa Road	APN 014-060-008	6b	B07
4362-4364 Bolsa Road	APN 014-020-003	6b	B08
5100 Bolsa Road	APN 014-020-006	6c	C01
Bolsa Road	APN 013-080-008	6d	D01
1505 Bolsa Road	APN 841-37-010	6e	E04
1100 Bolsa Road	APN 841-51-006	6e	E06
Bridge Pilings	---	6e	E07
Bloomfield Road	APN 841-35-003	6e	E08
5530 Monterey Road	APN 841-14-029	6g	F03
5350 Bolsa Road	APN 841-31-019	6g	F08
4860-4800 Monterey Road	APN 841-32-002	6g	F10
4590-4680 Monterey Road	APN 841-32-004, -005	6g	F12
4450 Monterey Road	APN 841-32-006	6g	F13
4360 Monterey Road	APN 841-32-009	6g	F14
4260 Monterey Road	APN 841-32-011	6g	F16
Castro Valley Road	APN 810-34-005	6g	F22
5055 Santa Teresa Blvd	APN 810-34-001, -002	6g	F25
950 San Felipe Road	APN 053-350-004	6a	S01
431 Briggs Rd	APN 019-090-040	6a	S02
460 Briggs Rd	APN 019-020-008	6a	S03
2017 Bolsa Rd	APN 019-020-015	6a	S04
2735 Bolsa Rd	APN 014-090-056	6b	S05
573 McConnell Rd	APN 018-020-005, 018-210-006	6b	S06
593 McConnell Rd	APN 018-210-005	6b	S07
Bolsa Rd	APN 013-060-021	6c	S08

Table 6-3, continued: Built Environment Resources Determined Ineligible

Name	Location	Figure	Map Reference
Bolsa Rd	APN 841-37-011	6e	S09
1250 Bolsa Rd	APN 841-37-016	6e	S10
1185 Bolsa Rd	APN 841-51-005	6e	S11
5815 Monterey Rd	APN 808-22-001	6g	S13
Monterey Road	---	6f	Monterey
Hollister-Gilroy Road	---	6g	Hollister-Gilroy
Tres Pinos Branch, SPRR	---	6a-f	Tres Pinos
Watsonville Branch, SPRR	---	6g, 6f	Watsonville
Bridge 37-0008 (L and R)	US 101/Carnadero Creek	6g	Br 37-0008
Bridge 37C-0103	Bolsa Road/Carnadero Creek	6g	Br 37C-0103
Bridge 37-0156	SR 25/Carnadero Creek	6g	Br 37-0156

4. And, the following prehistoric archaeological site, which was not fully evaluated due to encountering sensitive archaeological deposits during an Extended Phase-I investigation (details in Appendix F), can be avoided during construction through the establishment and enforcement of an environmentally sensitive area (ESA). In accordance with Native American interests and Stipulation VIII.C.3 of the Programmatic Agreement, Caltrans is assuming that CA-SBN-243 is eligible for the NRHP for the purposes of the proposed undertaking only (Table 6-4). CA-SBN-243 shall be designated an ESA during construction and protected with exclusionary fencing pursuant to Stipulation X.B.2.a (ii) and Attachment 5 of the Programmatic Agreement as described in the ESA Action Plan below;

Table 6-4: Resource Assumed Eligible for Purposes of this Project Only

Name	Location	Community	Map Reference
CA-SBN-243	Hollister	Hollister	SBN-243

ESA Action Plan for CA-SBN-243

This ESA Action Plan is prepared in accordance with Stipulation VIII.C.3, Stipulation X.B.2.a (ii), and Attachment 5 of the Programmatic Agreement. This ESA Action Plan will be implemented to protect CA-SBN-243 from construction impacts associated with improvements to SR 156 during construction of the proposed undertaking. The ESA fence will extend along SR 156 between KP 18.8 and 19.0 (PM 11.7 and 11.8) in San Benito County. The ESA Action Plan defined here will be incorporated in the Final Construction Drawings, Contract Special Provisions, and the Pending File of the Resident Engineer (RE) assigned to the construction project. The

entire site boundary shall be depicted on construction plans and will be designated an ESA with no access allowed during construction. Additionally, the District 5 Environmental Construction Liaison will have a copy of the plan on file and maintain contact with the RE, Contactor, and District 5 Archaeologist on ESA compliance.

Determination of ESA Boundaries

Placement of the ESA boundaries within the project APE was determined in consultation with the Project Engineer, based on information gathered during archaeological excavations and surface surveys. A physical barrier — orange plastic mesh construction fence — will be used to prohibit construction vehicles, equipment, and personnel from entering the ESA. The ESA will be established to protect the entirety of CA-SBN-243 from impacts during construction. The ESA boundary is shown as an orange dashed line on Figure 6b, and is labeled.

Protection Measures

Prior to any ground disturbing activities with the project APE, the RE, Contractor, a Native American representative, and a Caltrans District 5 Archaeologist will meet on site to discuss the Archaeological Monitoring Area (AMA), ESA limits, and monitoring during construction.

The limits of the AMA, which are defined on Figure 6b by the blue dashed line and labeled, shall be indicated on the project plans by station numbers. Where designated, no construction or related activities that involve ground disturbance, are permitted without the presence of a designated Department archaeological and Native American monitor. Ground disturbance includes, but is not limited to, excavation, clearing and grubbing, grading, and electrical work or relocation.

Should human skeletal material or other archaeological finds be uncovered, the Contractor's construction activities, within an appropriate distance from the find, shall be halted immediately and shall not be resumed until permitted, in writing, by the Engineer. The distance in which work shall halt from human remains shall be determined by the Caltrans archaeologist in consultation with the designated Most Likely Descendent (MLD) or their designee. All provisions of the Health and Safety Code 7054 and 7050.5 and the Public Resources Code 5097.9 through 5097.99 shall be followed. The California Public Resources Code Sections 5097.98 and 5097.99 require protection of Native American remains and outlines procedures for handling any burials found.

ESA Fencing

In consultation with the Caltrans Archaeologist and Native American representative, the contractor shall install exclusionary fencing along the northwest ROW fence for SR 156 between KP 18.8 and 19.0 (PM 11.7 and 11.8) (see Figure 6b). The fence will be installed with driven steel posts at approximately 10-foot centers and shall at all times support the fence in a vertical, upright position. Signs identifying the ESA as "off-limits" will be posted on the ESA boundary fencing to alert project construction personnel to avoid the area. Within the ESA all ground disturbances are prohibited associated with construction activities, including equipment staging.

During project construction, the Contractor will be responsible for maintaining the fence. A Caltrans District 5 Archaeologist will regularly monitor the fencing to confirm that it remains in place. The ESA fencing will remain in place until the conclusion of the project construction, at which time the Contractor will remove it.

ESA Action Plan Contacts

- Ed Ketchum, Amah Mutsun Band of Ohlone/Costanoan Indians
- Valerie Levulett, Caltrans District 5 Heritage Resources Coordinator
- Richard Rosales, Caltrans District 5 Project Manager
- George W. Sistek, Caltrans District 5 Environmental Construction Liaison

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Chapter 8. Figures

Figure 1: Project Location

Figure 2: Project Vicinity

Figure 3: Alternative 1

Figure 4: Alternative 2

Figure 5: Survey Coverage

Figure 6: Area of Potential Effects

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Figure 1 Project Location

Figure 2 Project Vicinity

Figure 3 Alternative 1

Figure 4 Alternative 2

Figure 5 Survey Coverage

Figure 6 Area of Potential Effects

Appendix A Archaeological Survey Report (Psota et al. 2002)

Appendix B Supplemental Archaeological Survey and XP1 Buried Sites Testing (Hildebrandt et al. 2004a)

Appendix C Second Supplemental Archaeological Survey Report (Ryan and Hildebrandt 2005)

Appendix D Geophysical Investigation Survey: Las Animas Geophysical Study (Hildebrand et al. 2003)

Appendix E Geoarchaeological Study and Sensitivity Model (Rosenthal et al. 2003)

Appendix F Extended Phase I Studies at CA-SBN-243 and CA-SCL-495 (Hildebrandt et al. 2004b)

Appendix G Phase II Archaeological Evaluation Report, Asian Ceramic Site (Costello et al. 2004)

Appendix H Historic Architectural Survey Report (Wee et al. 2003)

Appendix I Historical Resources Evaluation Report, Roads (Wee and Rogers 2003a)

Appendix J Historical Resources Evaluation Report, Railroads (Wee and Rogers 2003b)

Appendix K Bridge Evaluation (Wee and Rogers 2003c)

Appendix L Supplemental Historical Resources Evaluation Report (Carr 2005)

Appendix M Native American Consultation

Native American Heritage Commission (NAHC) Correspondence

- December 4, 2003: Caltrans to NAHC
- December 15, 2003: Caltrans to NAHC
- December 24, 2003: NAHC to Caltrans
- April 29, 2004: Caltrans to NAHC
- June 16, 2004: Record of Communications with the NAHC

Native American Representatives Correspondence

- October 3, 2002: Wheeler to Ketchum
- December 4, 2003: Wheeler to Native American Representatives
- April 9, 2004: Wheeler to Native American Representatives
- April 20, 2004: Ketchum to Wheeler
- April 22, 2004: Wheeler to Native American Representatives
- May 20, 2004: Wheeler to Ketchum
- May 23, 2004: Wheeler to Lopez
- June 3, 2004: Kehl to Albright
- June 7, 2004: Kehl to Albright
- June 14, 2004: Joslin to Kehl
- June 20, 2004: Zwielein to Caltrans
- June 21, 2004: Joslin to Native American Representatives
- June 22, 2004: Joslin to Kehl
- July 1, 2004: Joslin to Ketchum
- July 6, 2004: Joslin to Native American Representatives
- July 13, 2004: Joslin to Kehl
- July 16, 2004: Joslin to Ketchum
- July 29, 2004: Joslin to Kehl
- August 19, 2004: Bowen to Kehl
- November 15, 2004: Joslin to Native American Representatives
- November 14, 2005: Joslin to Native American Representatives

Appendix N Other Correspondence

Historical Society Correspondence

- April 23, 2002: JRP to San Benito Historical Heritage Advisory Commission
- April 23, 2002: JRP to Santa Clara Historical Heritage Advisory Commission
- April 23, 2002: JRP to Gilroy Historical Society
- May 22, 2002: JRP to City of Gilroy Planning Department
- May 14, 2002: Santa Clara Historical Heritage Coordinator to JRP

Office of Historic Preservation (OHP) Correspondence

- June 29, 1990: Caltrans to FHWA
- July 24, 1990: FHWA to OHP
- August 22, 1990: OHP to FHWA, File Reference FHWA900726A
- August 24, 1990: FHWA to Caltrans
- August 5, 1991: Caltrans to FHWA
- August 19, 1991: FHWA to OHP, File Reference FHWA900726A
- September 18, 1991: OHP to FHWA, File Reference FHWA900726A
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- June 14, 1994: OHP to FHWA, File Reference FHWA931021A
- August 4, 1994: OHP to FHWA, File Reference FHWA931021A

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